National Jewish Health Project

Rural Quitline Evaluation

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Behavioral Health & Wellness Program
University of Colorado • Anschutz Medical Campus • School of Medicine

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Executive Summary

Reaching and engaging rural populations remains challenging for quitlines. While state tobacco quitlines have a proven, long-standing record of efficacy in helping people to quit using commercial tobacco, their impact in rural settings has been tempered by the unique challenges involved in reaching and connecting with these communities. Barriers to access complicate outreach efforts, requiring quitlines to identify and implement innovative solutions. Furthermore, in light of the disproportionate burden of tobacco use that rural populations face, extending the reach of quitlines is of critical importance from population health and equity perspectives. Quitlines and states must remain vigilant and thoughtful in considering how to refine and augment cessation services often with diminishing funding levels. Finding ways to connect more rural residents with proven quitline services, as well as identifying strategies to enhance rural perception and experience with the quitline are essential.

This report presents evaluation findings regarding how National Jewish Health (NJH) might increase reach and impact among rural populations. A review of the salient literature is complemented by an NJH survey of current quitline users, the perspectives of eleven national experts, and the findings from focus groups of individuals living in rural areas who have called the quitline, as well as those who have never used quitline services. In synthesizing the results from this multi-method evaluation, themes emerged for better reaching and engaging rural tobacco users. These emergent themes support recommendations that may further the positive impact of quitlines for some of the hardest to reach smokers, including suggestions for refining quitline services, assessing marketing campaigns, and more extensively integrating service offerings into rural communities. The following primary recommendations are detailed in the following full report:

1) Promote Awareness of and Referrals to the Quitline among Health Care Providers

Health care providers in traditional care settings remain a heavily utilized service in rural settings and a key contact point for promoting the quitline and making appropriate referrals. The quitline and state funders need to leverage this critical access point by providing health care providers with a clearer understanding of its services, benefits, and efficacy, along with distributing useful tools such as brochures, pamphlets, and referral mechanisms. State funders and quitlines might collaborate to provide onsite and offsite technical assistance to quitlines regarding how to integrate warm handoffs and referrals into existing workflows. Interdisciplinary providers should be trained regarding how to most effectively increase patients' motivation for change and to make appropriate quitline referrals. While health care providers currently refer to quitlines at insufficient rates, they continue to represent one of the best opportunities for boosting quitline recognition and utilization.

2) Increase Trust, Understanding, and Transparency Surrounding the Quitline

Both quitlines and state funders can boost rural communities understanding of and trust in quitline services. Transparency around the purpose, rationale, and funding for the quitline will help demystify these services. The quitline and state funders might align their marketing efforts

to assure there is messaging which clarifies precisely what the quitline offers. Messaging should particularly highlight any cessation medications available at no cost to callers, and secondarily, counseling. Messaging must emphasize rural quitline users' personal success stories with the quitline which will alleviate concerns that quitlines are a "social service", "gimmick", or "risky proposition". Developing trusted local champions for referrals and community-level advocacy will build knowledge of and confidence in quitlines.

3) Embed the Quitline within the Health Neighborhood Concept

The health neighborhood concept presents a construct for rethinking how to provide health care services to rural and underserved populations, and for rethinking how to promote the quitline. By engaging nontraditional health care providers in rural communities, including lay health providers and community health workers, as well as informal hubs of care where tobacco users naturally congregate, the quitline and state funders can expand its reach through trusted community opinion leaders. The tightknit nature of rural communities and rural values can be leveraged to tobacco users' benefit using this approach. Through integration into the existing community health continuum-of-care, quitlines are a proven intervention that easily fits into the health neighborhood model.

4) Integrate the Quitline into State- and Local-Level Tobacco Policy Initiatives

Historically, quitlines have operated independently of most state or local policy work. Evaluation findings suggest quitlines should collaborate with state funders to support comprehensive tobacco control plans, and breakdown the false dichotomy between population health and cessation services. Policy development and enactment provides a teachable moment whereby the quitline can provide education about how cessation resources interlink with population level strategy. Also, forging relationships with local public health departments and locally-based organizations represents a logical opportunity for mutual support of over-arching tobacco control goals.

5) Leverage Existing Technologies and Explore New Technologies

It is critical that quitlines continue to evaluate the potential of new technologies. Continuing to offer currently available technological features such as text messaging and online chat communication and implementing other existing technologies such as telemedicine and virtual reality interventions, are potential avenues for increasing reach. Quitlines should likewise explore ways in which to implement technological access points—such as kiosks or preloaded phone minutes—into nontraditional community hubs. For example, phone cards with designated minutes could be created specifically for accessing the quitline via a mobile phone. Telehealth is another increasingly relevant resource in rural communities and as suggested by the literature review, has potential to be implemented relatively seamlessly and without significant financial burden, particularly if state- and federal-level policy changes support expanded applications. Generally, quitlines should devote resources toward becoming "early majority adopters" of emerging technology solutions.

6) Tailor Quitline Services to the Individual

To maximize their efficacy, quitline services should be individually tailored to the extent possible. Paramount to this approach, quitline coaches need to be trained in a diverse set of skills—including Motivational Interviewing and other clinical skillsets—in order to more effectively build sustained rapport with rural callers and their communities. Training quitline coaches to understand and speak to common rural challenges related to tobacco is essential, but coaching should not follow a direct script or overly-formulaic approach. Providing individually tailored services and incorporating them alongside multiple technology choices may increase the personalization of services and, therefore, utilization.

7) Refine Marketing Approaches for Rural Populations

Effective marketing campaigns that reach rural populations play a pivotal role in correcting urban-rural inequities. Approaches to marketing need to focus on messages that resonate with rural communities, particularly themes of family and self-sufficiency, and need to highlight the services available, especially free medication. State funders and quitlines needs to be aware of the prevalence of rural conservatism and caution around hot-button terminology such as “state services”; transparency around the quitline, its funding, and its rationale will support this effort. Collaborating with both local communities and state-level initiatives remain key tools for devising effective marketing. Lastly, quitlines need not reinvent marketing campaigns that have already proven effective; at times reintroducing successful past messaging will provide the most return-on-investment.

Conclusions

Tobacco quitlines continue to be a critical and effective service within the tobacco control and treatment context, as well as the larger public health framework. Quitlines play a vital role in reaching rural populations where people tend to have less access to health care services and more limited resources. Moving forward, the greatest challenge facing quitlines is effectively extending their reach and serving a greater proportion of health disparity populations. With respect to engaging rural populations and addressing the inequity that exists between rural and urban settings, opportunities exist for quitlines to continuously improve. Integrating the quitline more effectively into health care provider services, the health neighborhood concept, and state- and local-level policy initiatives are necessary for population-level advancement. Meanwhile, building greater trust and understanding of the quitline, and developing impactful marketing campaigns that reach and resonate with rural communities are also necessary. Finally, individual user touch points can be enriched via individually tailored care and the thoughtful integration of evolving technology. The recommendations presented in this report are intended to assist the quitline to continue to expand its positive impact on some of the hardest to reach and most in-need individuals.

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Section I. Purpose and Introduction

Purpose

From September 2019 through March 2020, the University of Colorado, Behavioral Health & Wellness Program (BWHP) partnered with National Jewish Health (NJH) to evaluate the quitline experiences among persons who live in rural areas and use commercial tobacco products. The proposed activities were designed to assist NJH and state quitline funders to better understand the barriers and facilitators to engaging and sustaining rural tobacco users in quitline services.

Introduction

The extensive burden of harm caused by tobacco use disproportionately falls upon rural communities in the United States. Compared to their urban counterparts, people in rural settings exhibit higher tobacco use across a spectrum of subpopulations, including among people with any mental illness or substance use disorder, whites, Hispanics, adolescents, Native American populations, pregnant women, veterans, and sexual and gender minorities, among other subpopulations. Moreover, while tobacco use rates vary by geographical region, rural populations report higher tobacco use rates across the nation. Although rural populations are associated with a higher prevalence of risk factors related to tobacco use—including lower levels of education, income, and employment—the disparity between rural and urban communities remains after controlling for such sociodemographic characteristics.[2]

While rural communities uniformly exhibit higher tobacco use, the degree to which they exceed urban populations vary. Nevertheless, prevalence estimates for some rural counties range as high as 25.1% compared to a low of 16.1% in large metropolitan areas based on data from the 2013 Behavioral Risk Factor Surveillance System (BRFSS). Even after controlling for age, sex, poverty, and geographic region, research has found that rural residents have a 25% greater chance of being a current cigarette smoker as compared to urban residents. Likewise, residing in a rural area is associated with lower percentages of both successful and unsuccessful quit attempts. Rural communities face numerous tobacco-related disadvantages including, fewer tobacco cessation resources, less comprehensive tobacco control programs, and less access to supportive technology.[3]

Given challenges associated with the geographic isolation of rural communities and economic disadvantages, tobacco quitlines remain an important tool in reaching these populations and alleviating their disproportionate burden of tobacco use. The evidence-base behind the value of quitlines continues to grow, as research supports their efficacy and effectiveness in helping people to quit using tobacco and reveals that people who use quitlines more extensively are more likely to succeed. They represent an important route to support services for rural and urban populations alike and are a valuable component within the broader tobacco control framework. Nevertheless, quitlines have faced continuous challenges in reaching a larger number of tobacco users as their average utilization rate hovers around 1% in spite of their utility.[4] In order to alleviate the burden of tobacco use on rural communities, it is critically important that quitlines improve their utilization rates among this population.

This report aims to provide a detailed overview of the challenges facing rural communities and tobacco users in addressing the burden of tobacco as well as opportunities that may be maximized, with the goal of empowering National Jewish Health (NJH) to more effectively reach and engage rural tobacco users via quitline services.

Section II. Methods

BHWP collected data from several sources to guide recommendations. The focus of this evaluation was commercial tobacco products, as opposed to tobacco products used for sacred or ceremonial use. The evaluation included an extensive literature review, a detailed data analysis of responses from a National Jewish Quitline Survey sent to rural quitline users, eleven key informant interviews, and four focus groups, including two featuring engaged rural quitline users and two featuring non-engaged rural tobacco users. Methods are further described below, followed by sections detailing the findings from each of the evaluation components.

Literature Review

The existing evidence base and literature were scanned for relevant articles through MEDLINE/PubMed, Google Scholar, and other sources including grey literature and unpublished works as available. This process included a range of title/abstract search terms and combinations including “tobacco,” “quitline,” “rural,” “tobacco control,” “tobacco policy,” and “smoking.” Additionally, other professional publications were reviewed from organizations such as the Centers for Disease Control and Prevention, the U.S. Department of Health and Human Services, and the American Lung Association.

National Jewish Quitline Survey

To assess rural quitline customers’ opinions of, and experiences with the quitline, a new survey (hereafter called the ‘rural survey’) was created specifically for the current study (See Appendix A). The rural survey consisted of questions designed to assess former quitline customers’ current tobacco use, health care access, access to cessation services, reasons for accessing the quitline, satisfaction with quitline services, and thoughts about the quitline as a service for rural customers. Customers served by state quitlines operated by NJH were invited to complete the rural survey. An invitation to complete an online survey was emailed to individuals if they had concluded their participation with the quitline within the preceding year and if they lived within a Rural Urban Commuting Area (RUCA) code of 7-10, a “small rural” or “isolated area” as defined by the Federal Office of Rural Health Policy. Customers who completed the online survey received $10-$15 in compensation. The rural survey was completed or partially completed by 138 individuals in October and November of 2019. Survey respondents came from 7 states including Colorado (N = 22), Idaho (10), Michigan (22), Montana (23), Ohio (8), Pennsylvania (7), Iowa (18), Kentucky (8), and Wyoming (20). On average, survey respondents had disenrolled from the quitline 134 days prior to completing the rural survey, either because they had completed the program (51%) or because they could no longer be contacted (49%).

Data collected from the rural survey were linked to data collected by NJH during each respondent's prior quitline participation. Quitline data examined for the current study included demographics, enrollment data, medical history, and other intake data (such as tobacco use assessment information). Results presented in this report summarize data from both sources.

Key Informant Interviews

In October and November of 2019, BHWP conducted eleven key informant interviews featuring experts from across the country. Their collective expertise included focuses on tobacco prevention, cessation, policy, and quitlines, as well as rural health settings and engagement, technological and innovative health approaches, and healthcare research and education. Key informants were interviewed using a predesigned questionnaire, with conversations evolving naturally (see Appendix B). All the interviews were recorded for analysis to identify themes and to allow for the collection of quotations.

Engaged Rural Quitline Users Focus Groups

Two engaged rural quitline users focus groups were conducted in November 2019. Participants for the engaged rural quitline users focus group consisted of adults who had experience—either previously or currently—utilizing their state's National Jewish quitline and who lived in rural ZIP codes. These individuals expressed interest in participation following their completion of the NJH survey. Candidates were contacted via text message to determine if they were able and willing to participate at the designated date and time. In exchange for their participation in the focus groups, candidates were offered a $50 gift card to Amazon. The focus groups were conducted via the Zoom platform and lasted nearly 90 minutes, with participants joining via a visual or audio connection. The first focus group consisted of five individuals who lived in Mountain Standard Time zone states, representing Montana, Colorado, and Wyoming, and consisting of three women and two men. The second focus group included nine women and two men who lived primarily in Eastern and Central Standard time zones, including Pennsylvania, Ohio, Iowa, Michigan, and Kentucky, as well as one person each from Colorado and Idaho. During the focus group sessions, participants were asked about their experiences with the quitline and their thoughts about better engaging rural tobacco users using the focus groups questionnaire (see Appendix D). The focus group discussions were recorded via the Zoom platform for later analysis.

Non-Engaged Rural Tobacco Users Focus Groups

Two non-engaged rural adult tobacco users focus groups were conducted live and onsite in Pahrump and Carson City, Nevada in December 2019. Participants for the Pahrump and Carson City focus groups were identified via collaboration with NyE Communities Coalition and Carson City Health and Human Services, respectively. The Pahrump focus group included ten people—five women and five men—from the local area who had sought services at NyE Communities Coalition. The Carson City focus group was comprised of people seeking services at Carson City Health and Human Services and consisted of fourteen people in total, including nine men and five women. BHWP provided both sites with a focus group eligibility checklist, introductory

script, and referral process checklist to direct the recruitment process (see Appendix E). In exchange for their participation in the focus groups, candidates were offered a $50 gift card to Amazon. The focus groups were conducted by BHWP onsite and lasted nearly 90 minutes, with participants being asked about their past tobacco cessation experiences and their perceptions of tobacco cessation resources using the focus groups questionnaire (see Appendix D). The focus group discussions were digitally recorded for later analysis.

Section III. Literature Review

Quitlines represent a valuable, free resource for people in rural settings to access support in quitting tobacco. Importantly, the evidence-base supporting the value of quitlines is extensive and routinely reveals them to be an effective intervention for tobacco cessation. When connecting with rural populations, quitlines have the ability to overcome geographic isolation, economic disadvantages, provider access limitations, and lessen tobacco-related disparities. They likewise play a key role as a referral option and source of counseling and pharmacotherapy in broader tobacco control policy. Yet despite all of these advantages quitline usage hovers around 1%, with rural populations being even less likely to use this resource in many cases.[2,4,5] Research suggests that opportunities exist to extend the reach of quitlines and enhance their efficacy among rural communities. Lessening the disparate impact of tobacco on rural users must entail an enhancement of quitline utilization rates, careful consideration of quitline efficacy and supplemental services with respect to working with rural populations, and overcoming the barriers that prevent people in rural settings from using proven cessation services.

In designating locations as “rural,” several different definitions and measures are applicable, including those used by the U.S. Census Bureau (UCSB), U.S. Department of Agriculture (USDA), National Center for Health Statistics, and others. Thus, urban and rural are multidimensional concepts that may not uniformly reflect the reality of the conditions they seek to describe.[6] Yet, regardless of precisely how this construct is defined, the fact remains that rural areas have higher smoking rates than urban areas, most likely resulting from the demographic and psychosocial factors that are typically associated with rural areas, such as lower income and education levels and higher unemployment.[7] In fact, rural residents have higher age-adjusted death rates as compared to their urban counterparts, which, in part, is likely attributed to tobacco use.[8,9] Considering the inequality gap that exists between urban and rural populations in the United States, connecting rural communities to quitlines is imperative in order to relieve them of the disproportionate burden of harm caused by their tobacco use. The public health community and rural stakeholders have exhibited creativity and energy in addressing this ongoing problem and in identifying and implementing solutions. As an example, state quitlines can be adapted and amplified to increase their visibility, acceptability, and accessibility to people in rural settings.[2] Forming local partnerships, tailoring marketing campaigns and quitline services, and providing quitline education to health care providers and lay health providers, are examples of potential initiatives in this respect. While state quitlines have their limitations, they remain an invaluable, proven tool for helping people in rural settings to quit tobacco use and thereby reduce the negative impact of tobacco on these communities.

Barriers and Facilitators to Quitline Utilization

As already noted, quitlines continuously demonstrate an ability to help people quit smoking and efforts to promote awareness and utilization are commonly successful. Quitlines also represent an effective means of overcoming geographic and economic barriers and as a referral source for numerous types of health care providers and automated services. Yet those facts aside, with quitline utilization rates remaining around 1% they continue to be woefully underutilized, as potential users are hampered by significant barriers. Chief among these barriers in rural settings are a lack of access to a telephone or affordable telephone minutes, a lack of knowledge about the quitline and its services, and a general mistrust of the quitline and/or services related to referrals and/or its delivery. Gaps in high-speed broadband internet access exist between urban and rural settings too and may limit the implementation of tobacco services that rely on this type of technology.[2]

Numerous other aspects of rural communities and rural residents may hinder quitline utilization. In general, health services in rural areas are less accepted by their residents, facing stigmatization, contrary cultural beliefs, and conflicting values.[10] This lack of trust in treatments for tobacco dependence is reflected in rural attitudes toward taking cessation medication too. In a study performed by Christiansen et al.,[11] nearly 50% of lower income respondents indicated that cessation medication can be more dangerous than continuing to smoke. Compounding these barriers, rural residents generally value self-reliance and resiliency, while viewing help-seeking behavior through a less accepting and more negative lens than their urban counterparts.[12] Also of note, rural residents who do in fact seek support may face greater challenges in accessing tobacco prevention and control services, including lower incomes, less insurance coverage, and shortages of local health care providers. Rural residents often need to travel greater distances to secure health care services, while likewise having greater transportation access challenges.

Illuminating research further examining the barriers preventing rural people from using the quitline was carried out by Sheffer et al.[13] in the Arkansas Mississippi delta. In conducting this research, community-based participatory methods were utilized in order to develop an effective survey instrument for assessing barriers to using the quitline. Among the 799 respondents surveyed, over one-third had no access to a phone they could use to call the quitline, while simultaneously reporting low levels of knowledge about the quitline, the process of quitting tobacco, and trust in tobacco treatment services. Moreover, widespread ambivalence about quitting tobacco was observed, with people expressing reluctance to quit out of a fear of getting sick and due to faith-based beliefs around cessation.[13] In its whole, this study presents the stark reality facing certain populations of disadvantaged rural tobacco users. Even so, applying these barriers uniformly to all rural populations would be reckless. On the other hand, Talbot et al.[2] have summarized that over 90% of rural residents have cell phones and that over 75% of them use text messaging features. Moreover, texting offers the potential to overcome access barriers and has been used with success in several innovative campaigns with rural populations, including the initiatives Every Try Counts (administered by the Food and Drug Administration [FDA]) and This Is Quitting. Likewise, programs in rural Appalachia have experimented with loaner equipment—such as laptops with wireless or satellite Internet

access—to bypass access barriers. These examples illustrate the diversity of rural America and mandate a nuanced and focused approach to recognizing and accounting for differences among populations. Such contrasting examples also illuminate the need for further research, while clearly presenting a challenge to quitlines to adapt to distinct rural populations with unique barriers.

Other research has focused on the particular type of phone service available to rural smokers. Performing an observational study on rural tobacco users in rural Ohio, Nemeth et al.[14] examined the impact of the type of phone service—cell phone only versus landline—with respect to its impact on quitline utilization, quit attempts, and sustained abstinence. Their evaluation discovered that landline users completed an average of nearly one additional call, spoke 17 minutes longer, and were more likely to receive a second 4-week supply of nicotine replacement therapy (NRT), although other variables were consistent between both groups. However, in looking at the participants' abstinence from tobacco at 3, 6, and 12 months after treatment, type of phone service did not have a discernible impact.[14] Further investigation is needed into the impact of the type of phone service, as well as other technology-based options, upon rural users' quitline engagement, although this research suggests discrepancies exist. Identifying means of overcoming barriers that rural communities face in accessing the quitline, as well as increasing their recognition and trust of the service, is an indispensable step toward increasing rural quitline utilization.

Importantly, despite their heterogeneity, rural communities tend to have some common characteristics that may facilitate quitline utilization. Weaver et al.[1] articulate the strengthens many rural communities possess that may promote resiliency and support efforts to implement tobacco initiatives and services. These commonalities include: (1) strong linkages among multigenerational families and community networks, (2) shared values of self-reliance combined with a desire to support their families and community, (3) influential social institutions such as churches and schools, (4) a strong sense of community pride, and (5) the potential for rural communities and health care providers to collaborate and to encourage community-level initiatives. Talbot et al.[2] note these potential strengths as well, pointing out that rural communities often possess close-knit social networks that can promote coalition-building and health promotion around tobacco control efforts. Similarly, strong interpersonal and interorganizational ties can help support tobacco control efforts and optimize their impact. National networks that prioritize tobacco control can play a role as well in providing technical assistance, networking, and training opportunities. Finally, even barriers identified elsewhere, including the influence of faith-based beliefs noted by Sheffer et al.,[13] might also be advantageous as cessation supports and sources of strength. Identifying, adapting, and tapping into the strengths of rural communities has the potential to boost quitline utilization.

Enhancing Quitline Utilization

Given the fact that quitlines remain an effective tool in helping people quit tobacco yet suffer from a low average utilization rate, efforts to direct rural populations to quitlines are of critical importance. Large-scale media campaigns designed to highlight the dangers of tobacco use and motivate people to quit, while positioning the quitline as a potential resource, have been

shown to be successful strategies in increasing call volume. As an example, the Tips From Former Smokers (Tips) initiative has been successful in significantly increasing quitline calls in nearly all states.[15] Following each Tips campaign, an immediate, sustained, and dramatic spike in calls to the quitline and visits to the campaign website was observed.[16] If media campaigns of this nature can reach rural populations more effectively they may greatly improve recognition and utilization of quitlines.

Research investigating the value of state-level marketing campaigns has likewise demonstrated efficacy in driving people to use the quitline. Analyzing a large volume of quitline registrations in Oklahoma over more than a decade, Dilekli et al.[17] observed spatial and temporal patterns, noting that regular fluctuations in quitline registration existed based on promotions, media campaigns, and tobacco tax increases. This type of analysis proved to be applicable to American Indian populations as well, demonstrating the potential for evaluating rural subpopulations. Utilizing and evaluating geographical information thus presents a tool to more effectively assess the reach of quitline marketing campaigns and tobacco control interventions while affording the opportunity to offer targeted services and to address gaps in coverage.[17]

Another state-level publication out of Kentucky used a retrospective approach in utilizing Behavioral Risk Factor Surveillance System (BRFSS) data to evaluate the impact of smoke-free policies and quitline utilization on tobacco use rates. Fernander et al.[18] thus examined quitline utilization from a different angle in order to quantify its impact. The study found that people living in communities with smoke-free policies in addition to higher quitline utilization tend to have lower smoking rates, while both key variables were indicative of lower smoking rates independently as well. In fact, their analyses revealed that as the county-level quitline call rate increased, the likelihood of being a smoker decreased proportionately, suggesting a direct dose response. Importantly, the majority of the counties examined in the study were deemed rural, and no difference in the model was found when comparing urban and rural locales.[18] While this research may not provide insight into what factors encourage users to call the quitline, it clearly demonstrates the value of boosting rural quitline utilization.

Policy-based interventions are another tactic to enhance quitline utilization rates. Initiatives such as increasing the unit price of tobacco, raising the minimum legal sales age, enacting smoke-free air laws and regulations, and restricting access to products and advertising are all large-scale approaches with proven success.[2] Policy may be leveraged via technology too, such as in the case of the Oregon Tobacco quitline implementing an e-referral system that dramatically increased rural quitline referrals.[2] The cost of procuring help in quitting tobacco is another challenge facing rural residents that may be addressed by policy initiatives. Programs advocating for more complete insurance coverage of tobacco cessation, the provision of free services, and financial incentives for quitting tobacco have been leveraged to address such barriers.[2]

Smaller-scale, community-based policy approaches may be impactful in rural communities too. As a case study, the impoverished rural county of Ringgold, Iowa developed a comprehensive approach to addressing tobacco use, including public awareness, quitline referrals, cessation kits, and a tobacco-free park policy. A critical supplement of these efforts involved training

health care providers to address tobacco and refer patients to the state's quitline. Following the training, quitline utilization rose with 47% of all referrals coming from health care providers.[19] Another case study involving independent pharmacies in five rural West Virginia settings highlighted the role that these trusted sources may play in addressing tobacco with their clients.[20] Other research has found that, while provider education may lead to patients' increased use of cessation pharmacotherapy and counseling, that in some cases even brief provider counseling interventions can be just as effective.[21] At the same time, training providers to perform tobacco cessation interventions is not a surefire method and requires strategic thinking, assessment of current workflows, and concerted health systems change efforts. Effective strategies for training providers to address tobacco may include teaching them to match their approach to their patient's readiness to quit, to only prescribe medications when desired by patients, and to perform brief motivational interventions. Meanwhile, health systems can be assessed and enhanced to address tobacco in a more systematic manner that incorporates screening, assessment, treatment, and referrals. Also, policy initiatives that empower rural health care providers to address tobacco with clients often increase quitline utilization and are an integral part of a comprehensive policy-level approach.

Partnerships with rural subpopulations paired with materials tailored to these rural settings is an impactful engagement method. One such collaboration between the Medi-Cal Incentive to Quit Smoking (MIQS) and the California Rural Indian Health Board (CRIHB) resulted in culturally reflective postcards and posters to advertise quitline incentives and enhance awareness. Following the focused dissemination of these materials, a 22% increase in Medi-Cal patients' calls to the quitline was observed.[22] Similarly, collaboration between the North Dakota Department of Health's (ND-DOH) Tobacco Prevention and Control Program and tribal leadership proved effective. By collectively developing a culturally appropriate commercial featuring local tribal members in conjunction with tobacco cessation intervention training, the proportion of American Indian adults using the state quitline rose from 5% in 2013 to 8.2% in 2015.[23] This type of strategy may be applied more broadly as well, as in the case of the Vermont state quitline reaching out to the state's Medicaid agency in order to adjust its practices for low-income adults, many of whom live rurally. Utilizing tailored direct mailing, this initiative led to both a 117% increase in individual smoking cessation calls and increases in quitline website visits of 251% and 161% from mobile devices and tablets, respectively, among Vermont's Medicaid population.[24] The above examples demonstrated that collaboration and tailored messaging, though typically demanding of greater resources, may significantly boost quitline utilization. However, research has also suggested that mass media campaigns utilizing best practice guidelines can achieve positive results in rural settings without such subpopulation tailoring,[2] thereby suggesting caution in balancing substantial marketing costs with return-on-investment.

Employing techniques designed to encourage community buy-in can further build community-level participation. Involving local stakeholders in the development of culturally tailored messages that demonstrate consistency between program goals and core community values is one such approach. This process may produce better messaging and results. 'Geo-fencing' techniques, which deliver message content directly to the cell phones of people within a specified geographic radius over a specified period of time, may be worthwhile. The Tips

campaign effectively employed geo-fencing to disseminate its message at cultural events (such as rodeos, automobile races, and concerts) where smokers from rural or tribal areas were likely to be present.[2] The combination of stakeholder participation and technological innovation has enabled new methods for targeted content delivery.

Other case studies have demonstrated how tailored, strategic support in rural communities can promote the quitline. As a salient example, the Oklahoma Communities of Excellence in Tobacco Control (CX) program highlighted the value of county-level policy interventions paired with rural community collaboration.[25] Analyzing data over the course of a decade, Rhoades and colleagues identified positive changes in smoking-related attitudes and behaviors among counties involved in the project. Those 33 CX counties that received grant funding to implement tobacco control programs utilizing community-based best practices saw significant increases in the proportion of smokers making quit attempts, in addition to quitline awareness and home smoking bans. Importantly, the observed increases were more significant in rural counties as opposed to urban ones.[25]

Evaluating Quitline Efficacy

While quitlines have proved to be an effective, invaluable tool in helping people to quit tobacco, and enhancing their utilization is of the utmost importance, it is likewise important to continue to evaluate the efficacy of quitline services. The extant research is limited. Moreover, additional research is warranted which examines alternative or supplemental quitline services. In their review of culturally-tailored approaches, Talbot et al.[2] identified programs designed specifically for certain rural cultures and groups. Such efforts have been shown to support engagement in the targeted communities, with people being more likely to talk to their health care providers about their tobacco use and to plan a quit attempt. Two interesting studies performed in rural Kansas by the University of Kansas sought to more closely examine quitline modifications. In the earlier study, Richter et al.[26] assessed the comparative effectiveness and cost effectiveness of two models for delivering tobacco treatment remotely, a traditional quitline model, and telemedicine counseling that was integrated into primary care clinics (ITM). ITM participants were more likely to recommend the program, reported higher satisfaction despite incurring time and travel costs, and also exhibited increased NRT use. The two intervention models did not differ regarding cost-effectiveness or abstinence rates.[26] Continuing to examine this intervention, Liebmann et al.[27] found that the ITM group exhibited greater increases in perceived health care provider autonomy and ITM patients perceived an increase in their ability to quit smoking. Embedding tobacco treatment services into the clinics rendered a motivational benefit.[27] Combined, these studies suggest that optimizing an integrated care approach and streamlining it into clinics' infrastructure may be an alternative to or augmentation of standard quitline services for rural areas.

Investigating the efficacy of quitlines to serve specific subpopulations is another way to evaluate their overall worth and to uncover the potential for modifications. Considering the quitline with respect to American Indian (AI) populations in Oklahoma, Martinez et al.[28] compared the outcomes of quitline users from AI and white populations. While the white population did report a slightly higher abstinence rate, the difference was not statistically

significant, and the researchers concluded that the state quitline was equally effective for the two groups.[28] In another example, research by Vander Weg et al.[29] evaluating the efficacy of the quitline and other tobacco treatment services among rural veteran populations showed positive results. Participants were randomly assigned to one of two groups and received either an individually-tailored telephone tobacco intervention that also addressed other health-related concerns or standard state quitline services. In this instance, the tailored intervention's focus on comorbid conditions may have adversely affected quit rates, thus indicating that the standard quitline approach may be more effective.[29] The two studies above underline the complexity of tailoring services to rural subpopulations while simultaneously highlighting the value of the standard quitline model.

When considering quitline efficacy, it is important to recognize that there is not one rural America. Rural settings in the United States are extremely diverse, representing numerous different cultures, and this reality may be surprising to many people living in metropolitan areas. Rural communities need to be viewed as a great many places scattered across a wide variety of different landscapes and settings.[10] Conversely, when rural areas are perceived as homogenous and their diversity is overlooked, interventions may be less effective. Service delivery systems that match the unique qualities of the diverse communities that they target will be more successful.[30] It is essential that quitlines appreciate this reality in designing their strategies and interventions.

Extending the Quitline Experience

Significant opportunities to extend and enrich the traditional quitline experience exist, such as tailoring the phone counseling provided and/or supplementing the traditional quitline experience with technology-based interventions. Much in the same way that tailoring quitline messaging frequently leads to increased quitline utilization, tailoring the quitline experience may provide additional value in supporting rural quit attempts, but is challenging to implement in a successful and cost-effective manner. In the aforementioned study on rural veterans,[29] the researchers concluded that addressing additional health-related behaviors during quitline calls actually led to poorer smoking outcomes. Contrasting this type of tailoring, other initiatives have instead sought to modify the standard quitline experience to make it more familiar to rural subpopulations. Furthermore, as has been discussed, when rural communities are involved in such efforts, the positive impact is typically magnified. Orr et al.[31] investigated both of these techniques by offering a culturally-tailored text-messaging intervention to rural American Indian (AI) and Alaska Native (AN) quitline users across five states. Callers who were identified as AI or AN were given the option to enroll in the study and were then randomly assigned to either the culturally-tailored intervention or the traditional quitline process. While significant differences were not established between the groups,[31] the researchers nevertheless noted the value of engaging communities in designing interventions, asserting that this approach leads to long-term collaboration and the opportunity to continuously refine interventions.

Other types of technological approaches may be leveraged to supplement quitline services. The use of interactive voice recognition (IVR) messages is one such technology that has been

evaluated as a supplemental tool. Partnering with both urban and rural clinics, researchers in New York created a smoker's registry in order to systematically make calls designed to evaluate interest in tobacco cessation and route smokers to either their primary care office or the state quitline. The IVR technology added value to traditional tobacco cessation efforts and enabled these primary care offices to more efficiently reach their clients and/or route them to the quitline, without adding clinical staff time.[32] Low burden approaches of this nature might be readily integrated into existing workflows to route people to the quitline as a complementary clinical service.

The "health neighborhood" concept is another critical consideration when attempting to increase quitline reach. The health neighborhood concept represents an extension of the traditional healthcare model, in which not only established health care professionals address the health needs of a population. The health neighborhood model expands the reach of healthcare to include the non-clinical community, public health services, and other social services as resources and hubs of care. This expansion of potential points of intervention may increase the accessibility of cessation services for rural and isolated populations. As described by Talbot et al.,[2] because tobacco users in underserved rural populations often exhibit multiple psychosocial challenges and risk factors, tobacco cessation interventions may be best rendered in the context of coordinated healthcare and alternative treatment settings. Utilizing non-traditional settings (such as those identified on the right) along with non-physician providers and lay health advisors to administer tobacco cessation services, barriers to accessing services may be overcome. For example, local health departments have potential to serve as hubs for organizing local rural tobacco control initiatives, and federally qualified health centers (FQHCs) may expand their role to include capacity building and engaging rural coalitions and organizations. Pharmacies and pharmacists represent yet another strong health neighborhood resource, as they have been shown to embrace population health initiatives, and are positioned to provide tobacco cessation counseling as well as medications.

Potential Community Stakeholders in the Health Neighborhood Model:[1]

- → Health care professionals
- → Public health organizations
- → Government entities
- → Faith-based organizations
- → Non-profit organizations
- → Civic/volunteer organizations
- → Fraternal organizations
- → Local schools
- → Businesses
- → Law enforcement
- → Media members and outlets
- → Cancer survivors
- → Youth advocates
- → Community residents

From a health neighborhood perspective, lay health providers, including community health workers (CHWs) are often well equipped to support tobacco control work. CHWs are individuals who live in the communities where they work, understand those communities, share a

common communication style, and recognize the significance of local, cultural matters. Interdisciplinary teams that include CHWs potentially better engage tobacco users and help them achieve better outcomes.[1,2] Cross-sector collaboration with organizations as diverse as small businesses, law enforcement agencies, schools, and more, allows for wider reach and impact. Of particular note in rural settings, faith-based organizations have successfully played a role in galvanizing local tobacco efforts, including support of the Tips campaign.[1] In many smaller rural communities, churches play a primary role in community life and disseminating information, particularly in settings lacking in other resources and organizations.[33] Church leaders tend to view tobacco cessation efforts as consistent with their mission and appreciate that attention to this issue may even attract people to church.[34] Church-based services likewise have the potential to lessen or eliminate the feeling of stigma related to smoking and typically make services more convenient. Utilizing the health neighborhood model can create active partner participation and stimulate innovation and a community's sense of internal strength,[2] and ultimately enhance the ability of rural communities to reach those most in need.

Section IV. National Jewish Quitline Survey Results

***Demographics*.** As indicated in Table 1, rural survey respondents were predominantly women (72%) and overwhelmingly white (96%). Roughly one-third held private insurance, one-third were on Medicare, and one-third were either on Medicaid or were uninsured. Nearly one-third reported having high blood pressure and one-quarter reported having been diagnosed with emphysema, chronic bronchitis, or COPD. Almost one-quarter reported having been diagnosed with asthma. Half of the sample who provided data on the relevant items reported having a mental health condition, and of those, three-quarters reported receiving treatment in the form of medication, counseling, or both. However, very few (only 6% of those providing data on relevant items) reported a substance abuse condition.

Table 1. Demographics Among Rural Survey Respondents (N = 138)

Demographic Characteristics	% or (mean)
Male Gender	**28%**
Age	**(52)**
Race	
White	**96%**
Black or African American	**0%**
Asian	**0%**
Native Hawaiian or Pacific Islander	**0%**
American Indian or Alaska Native	**3%**
Other Race	**1%**
Hispanic or Latino/Latina Origin	**4%**
Education (N = 105)	
Less than grade 9	**1%**
Grade 9 to 11, no degree	**3%**
GED	**3%**
High school degree	**20%**
Some college or university, technical or trade school	**40%**
College, university, or graduate degree	**33%**
Insurance Status (N = 136)	
Private or Commercial	**32%**
Medicare	**33%**
Medicaid	**21%**
Uninsured	**14%**
Marital Status (N = 90)	
Married	**41%**
Divorced or Separated	**31%**
Widowed	**7%**
Single or Never married	**21%**
Chronic Disease Diagnosis	
Asthma	**23%**
Cancer	**10%**
Diabetes	**12%**
Emphysema, Chronic bronchitis, or COPD	**26%**
Heart Disease	**10%**
High Blood Pressure	**30%**
Mental Health Condition	**50%**
Receiving TX for MH Condition (N = 69) (Medication, Counseling, or Both)	**74%**
Substance Abuse Condition (N = 79) (Marijuana, Alcohol, and/or Other Drugs)	**6%**

***Tobacco Use Characteristics* (as assessed during initial quitline enrollment).** During the initial intake assessment for enrollment in the quitline program, participants in the current study reported long-term tobacco use. Regardless of the type of tobacco used, 93% of survey respondents reported having used tobacco for more than 10 years when they enrolled in the quitline program. Only 3% had used tobacco for fewer than 5 years. Most (89%) reported smoking cigarettes, 7% reported using smokeless tobacco, chew tobacco, snuff, or dip, 4% reported using cigars, cigarillos, or small cigars, and 1% reported using pipe tobacco. Additionally, 9% of the sample reported having used an e-cigarette within the past 30 days. Upon enrollment with the quitline, survey respondents overwhelmingly (96%) reported smoking or using their preferred type of tobacco every day. Over one-third of the sample (38%) reported using tobacco within 5 minutes of waking, and another 41% reported using tobacco within 30 minutes of waking. Forty percent of the survey respondents indicated they were living with a person who also used tobacco. Not surprisingly, the vast majority of people who began the quitline program (92%) stated an intention to quit tobacco within the next 30 days.

***Cessation History*.** As indicated in Table 2, nearly half of the rural survey respondents had tried electronic cigarettes as a pathway to cessation at some point in addition to the quitline. One-third of the sample reported that they had never used any other resources to try to quit using tobacco, and relatively few individuals reported ever having used other cessation resources besides the quitline. For example, only 15% had ever received one-on-one counseling, and even fewer had ever participated in a support group or program to quit.

Table 2. Cessation Resource History (as assessed by the rural survey; N = 138)

Resources EVER Used to Quit in Addition to the Quitline:	%
Electronic cigarette or nicotine device (Vape)	43%
One-on-one counseling from a health professional	15%
Texting or app on a smartphone	9%
Local class, support group, or program to quit	7%
Internet-based cessation counseling	6%
Other resource (cessation medications, hypnosis, ALA program, church, acupuncture, aversion therapy, antidepressants, flavored toothpicks)	15%
No other resource	33%

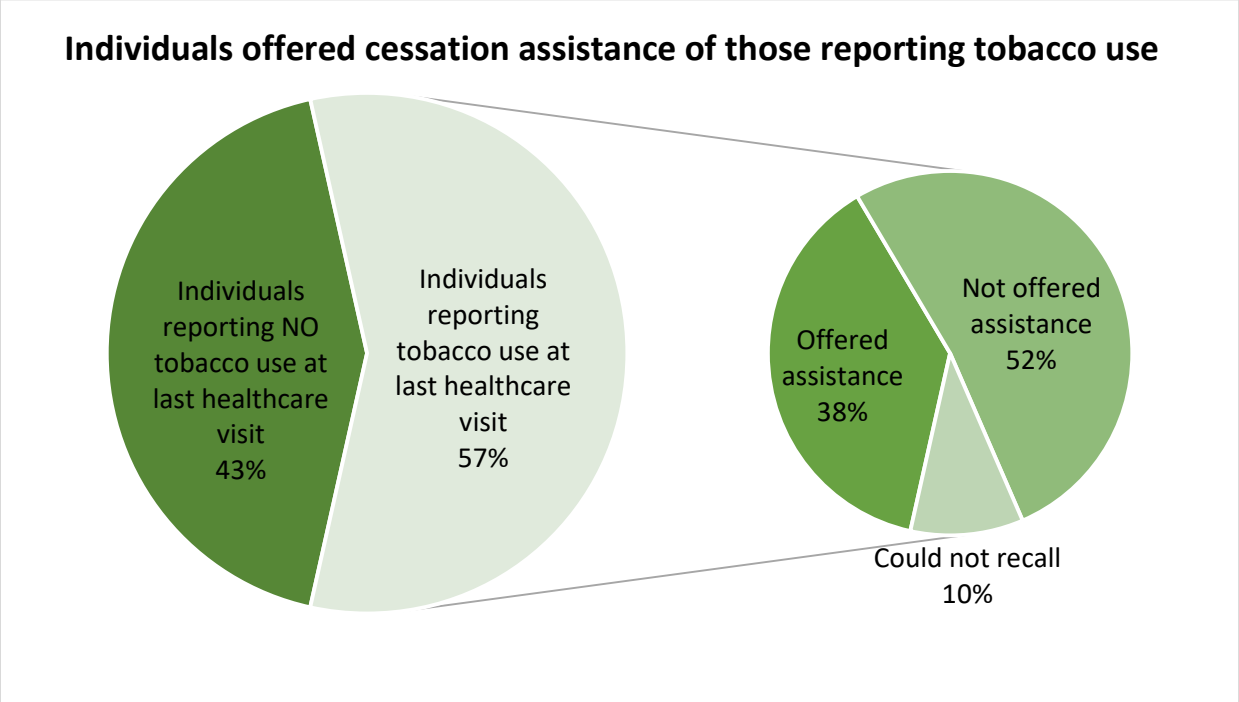
***Health Care and Cessation Services*.** As shown in Table 3, over 90% of rural survey respondents reported having had an appointment with a health care provider who could prescribe medications within the past year, and over two-thirds had an appointment within the past 3 months. The majority of individuals (72%) were asked about their tobacco use at these appointments. However, Figure 1 shows that, of those individuals who reported using tobacco at their last health care visit (57%), only 38% reported that their health care provider offered any assistance with quitting tobacco. Over half (52%) reported that they were *not* offered assistance, and 10% could not recall. Of those offered assistance, 62% were referred to the

quitline, 7% were referred to another counseling resource or support group, 7% were provided counseling, 48% were provided a prescription medication like Chantix or Zyban, and 45% received discussion about over-the-counter medication such as NRT.

Table 3. Access to Health Care and Tobacco Assessment Among Rural Survey Respondents (N = 136)

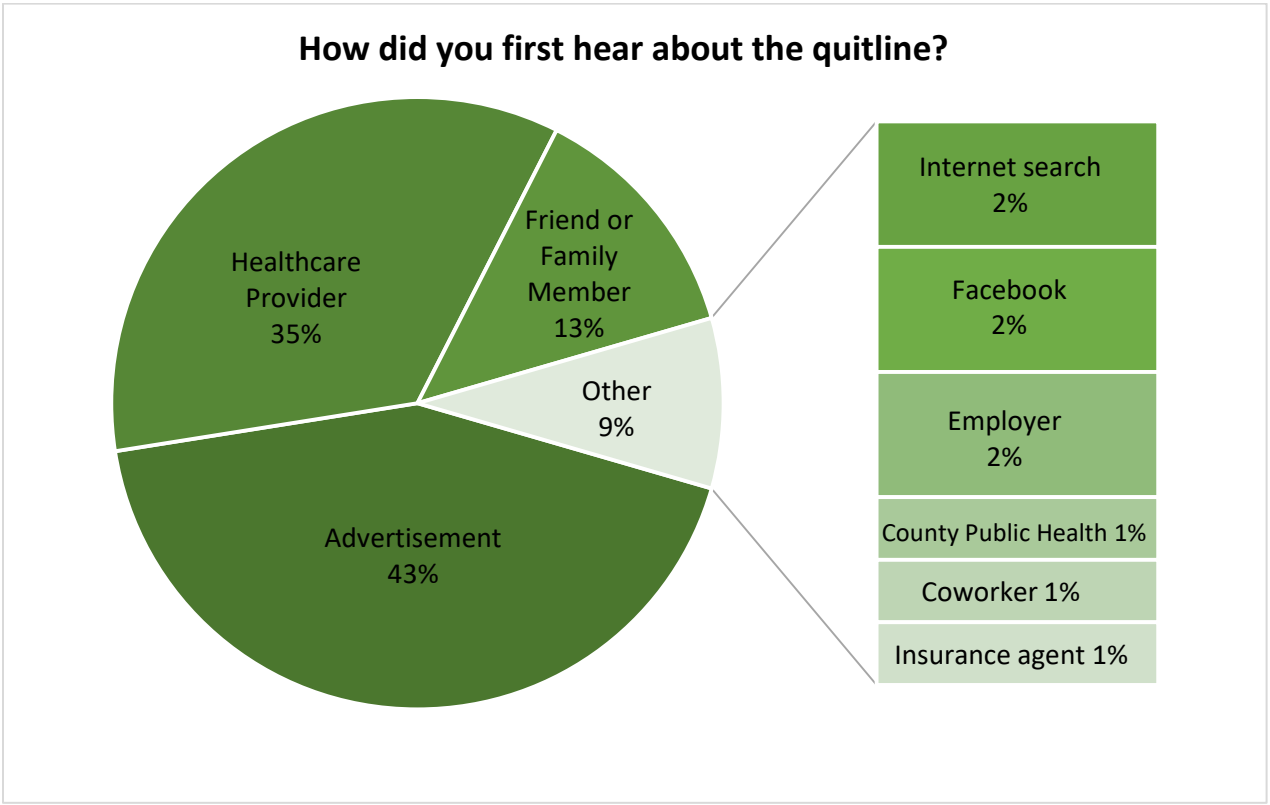
When was your last appointment with a health care provider who could prescribe medication?		Did your health care provider ask about your tobacco use during your last appointment?	
Response	**% Selecting response**	**Response**	**% Selecting response**
Within the last month	48%	Yes	72%
Within the last 3 months	20%		
Within the last 6 months	13%	No	18%
Within the last year	10%		
Within the last 3 years	4%	I don't recall	10%
More than 3 years ago	4%		

Figure 1. Cessation Assistance Offered by Health Care Providers Among Rural Survey Respondents (N = 133)



***Quitline Access in Rural Communities*.** In an effort to understand how people living in rural communities learn about the quitline and make the decision to utilize quitline services, respondents were asked to indicate how they heard about the quitline and also the reasons they used the quitline as part of their plan to quit. The majority of people first heard about the quitline via an advertisement (43%) or through their health care provider (35%). Figure 2 below illustrates additional ways respondents first heard about the quitline. Interestingly, people who did and did not complete the quitline program differed in terms of how they first heard about the quitline. People who finished the quitline program were more likely to say they first heard about the quitline via advertisement than those who did not finish the program (47% vs. 34%), and were less likely to say they first heard about the quitline from a health care provider compared to those who did not finish the program (25% vs. 45%). One possible interpretation is that some health care providers are lacking training and thus failing to make appropriate referrals to the quitline that are tied to an individual's interest in quitting. As well, people who reported using tobacco when they completed the rural survey differed from those who did not in terms of how they first heard about the quitline. Compared with people who were still using tobacco when they completed the rural survey, those who reported no tobacco use at this time reported first hearing about the quitline from friends or family members at *higher* rates (17% vs. 11%) and from health care providers at *lower* rates (32% vs. 38%).

Figure 2. Methods by which Rural Survey Respondents First Heard About the Quitline (N = 137)



Not surprisingly, most people reported using the quitline because it offers free coaching and medications, as shown in Table 4. Consistent with this, quitline customers used medications during the program at high rates, especially NRT. Only 7% of the sample reported choosing not to use any medications to quit during the program (see Table 5). Many people additionally indicated the quitline was easy to access. Close to one-third of the sample indicated they chose to use the quitline either because it was confidential or because their health care provider had referred them. Results indicate that for this sample of rural quitline customers, word of mouth was not considered a primary reason for using the quitline. Only 13% of the sample reported that they first heard about the quitline from friends or family members, and even fewer (9%) indicated that knowing someone else who used the quitline factored into their own decision to use the quitline.

Table 4. Reasons for Using the Quitline Among Rural Survey Respondents (N = 138)

Reason	%	Other Stated Reasons (non-exhaustive list)
Free coaching and medications	78%	*"I think it would help."* *"Required by insurance to get discounts."* *"For my children and my health."* *"A source of mental and psychological support."* *"House burnt down and it was cigarettes and I that caused it."* *"Living in non-smoking apartment."* *"I was desperate. I was approaching a major surgery…"* *"Just knew it was time. And couldn't do it alone."* *"Felt the quitline worked with people every day going through what I was going through and would know the advice to offer."*
Easy to access	57%	
Confidential	32%	
My health care provider referred me	28%	
It was my only option	14%	
Someone I knew used the quitline	9%	
Another reason	9%	

Table 5. Pharmacotherapy (N = 138)

Cessation Medications Used During Quitline Enrollment:	%
Nicotine Replacement Therapy (NRT)	81%
Bupropion	12%
Varenicline	9%
Did not use medication	7%

Tobacco Cessation Outcomes. We report quitline program completion rates as well as current tobacco use status among rural survey respondents as an indicator of rural respondents' overall success and engagement in the quitline program.

Program Completion. On average, rural survey respondents completed 3.4 coaching calls over a period of 69 days after enrollment. A quarter of the sample (24%) completed only one call before quitline staff lost contact with the customer. Another quarter of the sample completed 2 or more calls but did not complete the entire program. Overall, 51% of the sample completed the quitline program, as defined by completing either 4 or 5 coaching calls. An analysis of intake data as a function of program completion revealed that people who did and did not complete the quitline program differed on key intake variables. A much higher percentage of individuals who did not complete the program reported having a mental health condition during the intake assessment compared to those who did complete the program (61% vs. 39%). A higher percentage of individuals who were diagnosed with heart disease also completed the program compared to individuals who did not have this diagnosis (79% vs 48%), possibly indicating a higher motivation to quit among people with this particular diagnosis. (Although, analyses revealed no indications that people with other chronic disease diagnoses were more or less likely to complete the quitline program.)

People who did *not* complete the entire program (49%) were asked to indicate the reasons they did not do so. These reasons and the percentage of rural survey respondents who endorsed each reason are shown in Table 6.

Table 6. Reasons for Not Completing the Quitline Program Among Rural Survey Respondents (N = 67)

Reason	%	Other Stated Reasons (non-exhaustive list)
It wasn't the right time for me to quit	19%	*"I lost my aunt that I was caring...(to) cancer...I would love to start over."* *"I started a new job and had difficulty taking calls, new stressors."* *"I was experiencing some other health issues that took up my energy."* *"I quickly found out that I can't use patches to help me quit. I had skin and mental reactions to them. I'm now on the lozenges trying to quit again."*
The coaching calls didn't fit my schedule	19%	
The coaching calls took up too much of my time	19%	
I quit and didn't need more help	19%	
I felt under too much stress to call the quitline	12%	
I didn't feel like the quitline was helping me	12%	
I didn't have easy access to a phone	9%	
I didn't have enough minutes on my phone plan	8%	
I just wanted the free medications	8%	
I didn't feel like the quitline staff understood my personal situation	6%	
I used a different resource	5%	
I didn't receive any calls from the quitline	5%	
I had a hard time trusting the quitline	3%	
I had a hard time communicating with the quitline staff due to a language or accent barrier	3%	
Another reason	8%	

***Current Tobacco Use Status*.** Out of 133 rural survey respondents who provided information on their current tobacco use status, 56% reported that that they had used some form of tobacco or nicotine (including vaping) in the previous 30 days while 44% did not report any tobacco use. Of those reporting tobacco use, 84% (or 61 individuals) reported smoking cigarettes, 7% reported vaping, 7% reported using snuff, chew, or snus, and 3% reported smoking cigars. About 60% of those who smoke cigarettes reported smoking all 30 of the past 30 days, while 20% reported smoking 10 or fewer days out of the past 30. Respondents reported smoking an average of 15 cigarettes per day on the days they smoked, ranging from 1 to 40 cigarettes. Thirty percent of the sample reported using tobacco within 5 minutes of waking, and another 37% reported using tobacco within 30 minutes of waking. For rural quitline customers still using tobacco when they completed the survey, these percentages are slightly improved compared to similar assessments when these respondents initially enrolled in the quitline program. (For example, 96% of rural survey respondents reported using tobacco every day during the initial quitline intake assessment, compared with 60% who reported tobacco use 30 out of the last 30 days on the rural survey.) An analysis of intake data as a function of current tobacco use revealed that people who did and did not report tobacco use at the time of rural survey completion (an indicator of cessation success) differed on some intake variables. Similar to the program completion results reported above, a higher percentage of individuals who reported tobacco use after their quitline participation reported having a mental health condition during the intake assessment compared to those who did not report tobacco use when they completed the rural survey (61% vs. 35%). Interestingly, a higher percentage of individuals who were diagnosed with either diabetes or emphysema, chronic bronchitis, or COPD were still using tobacco after quitline participation compared to individuals who did not have these diagnoses (77% vs 50% in the case of diabetes; 67% vs 49% in the case of emphysema, chronic bronchitis, or COPD).

***Satisfaction with Quitline Services*.** Respondents were asked which of several different quitline services they had utilized during their quitline experience. For each service an individual reported using, respondents were then asked, “Please rate how **important** the service was in your quit attempt” and “Please rate how **satisfied** you are with the service.” In either case, respondents used a rating scale ranging from “Extremely” to “Not at all.” Table 7 presents the percentage of rural survey respondents who used each quitline service along with their ratings of importance and satisfaction with the service. Overall, the majority of respondents reported using telephone coaching, free medications, and text or email messaging. Relatively fewer respondents (less than a quarter of the sample in each case) had used a state quitline online program, chatted online with a coach, or made use of self-help materials. For every quitline service (even those that were used by a relatively low percentage of the sample), a majority of respondents who used the service reported being “extremely or very” satisfied with the service and that the service was “extremely” or “very” important for their quit attempt. Overall, “free medications” was the quitline service considered most important and the one respondents were most satisfied with.

Table 7. Ratings of Importance and Satisfaction with Quitline Services Among Rural Survey Respondents (N = 138)

Quitline Service	% Who Used Service	Rating Type	Ratings				
			Extremely	Very	Somewhat	A little	Not at all
Telephone coaching	91%	"Important"	47%	32%	15%	3%	3%
		"Satisfied"	60%	23%	10%	3%	4%
Free medications	75%	"Important"	83%	14%	2%	0%	1%
		"Satisfied"	82%	12%	5%	0%	1%
Text or email messages	59%	"Important"	34%	26%	24%	10%	6%
		"Satisfied"	44%	33%	10%	7%	6%
Self-help materials	24%	"Important"	40%	30%	18%	12%	0%
		"Satisfied"	41%	19%	31%	9%	0%
State quitline online program	23%	"Important"	40%	32%	8%	12%	8%
		"Satisfied"	50%	32%	4.5%	4.5%	9%
Chat online with a coach	16%	"Important"	45%	35%	20%	0%	0%
		"Satisfied"	47%	37%	11%	5%	0%

***Focus on Rural Communities*.** Survey respondents were asked if they had ever wanted to use a quit resource but been unable to access it because they could not travel the distance required or because it was not available in their area. Approximately one in five respondents (18%) said this scenario was true for them. Most of these respondents indicated a desire to attend a cessation program such as a class or group but could not find one close enough to them. Other stated challenges included lack of nearby healthcare facilities, lack of finances, lack of a vehicle, lack of Internet service, lack of prescription services for a specific prescription (i.e. Chantix). Respondents were also asked whether they had talked with a quitline coach about how living in a rural area might be a challenge to quitting. While 30% of the sample could not recall one way or the other, only 23% of the sample specifically recalled discussions around issues facing rural customers. However, respondents who reported talking with a coach about rural issues were no more likely to have completed their quitline program than those who did not (52% vs. 51%).

Respondents were asked whether they would recommend the quitline to other people who live in rural areas who they know are trying to quit. Overwhelmingly, this sample (95%) indicated that 'yes' they would. Five percent said 'no' they would not recommend the quitline to other people in rural areas. Respondents were asked whether they did, in fact, know anyone living in their community or another rural community who smokes but does not use the quitline. Respondents who answered affirmatively (73%) were then asked to indicate possible reasons why these individuals might *not* use the quitline. Responses are provided in Table 8. Of note, nearly 40% felt that one reason someone they know who smokes might not use the quitline is because that person does not know about it.

Table 8. Reasons other Rural Tobacco Users Might not use the Quitline (N = 100)

Reason	%	Other Stated Reasons (non-exhaustive list)
They aren't ready to quit	86%	*"They won't make time to quit. They just procrastinate about quitting."* *"His stroke left him with difficulty communicating…has a difficult time talking to people he don't know."* *"They don't want to go to the doctor because it's so spendy."* *"They don't believe it's free. They think there are underlying charges."*
They don't think the quitline will help them	44%	
They don't know about the quitline	39%	
They don't think the quitline staff will understand their personal situations	17%	
The coaching calls won't fit their schedules	9%	
They don't have enough time to use the quitline	8%	
They don't trust the quitline	7%	
They worry about communicating with quitline staff due to language or accent barriers	7%	
Another reason	5%	

Section V. Key Informant Interview Findings

All eleven key informant interviews were analyzed for themes and common characteristics, first individually, and then as a collective whole. While the key informants represented a variety of backgrounds and professional focuses (see Appendix C), several consistent themes and opinions were identified. Topics of conversation in the key informant interviews were classifiable into six main domains pertaining to rural settings: (1) barriers to using the quitline, (2) resources needed to drive and support quit attempts, (3) promoting and marketing the quitline, (4) better engaging rural populations, (5) leveraging the strengths of rural communities, and (6) health care lessons applicable to tobacco cessation resources. Common themes emerged within each of these six main domains and are summarized below.

1) Barriers to Using the Quitline

Accessibility. Among the foremost barriers to using the quitline for rural populations is accessibility. Practical complications limit the ability of people to reach the quitline. Barriers such as poor cellular service coverage, slow or limited Internet access, complications around reaching people who work outdoors on landlines, and the cost of using a phone and prioritizing prepaid minutes are all present in rural settings. Limited interest in text communication is a challenge as well. While these barriers may lessen over time, they remain significant, particularly for older populations.

Misperception. Widespread misperception and mistrust of the quitline among rural populations poses a significant barrier in engaging users. Rural communities tend to have a limited understanding of the quitline and its offerings, and this challenge may be difficult to overcome without local champions and word-of-mouth recommendations. Bad experiences tend to disseminate more quickly than good ones, making it very important that callers have an initial and ongoing positive experience.

Effective Messaging. Much of the marketing that reaches rural communities is not clear enough for its intended audience, providing limited details about the quitline's offerings, purpose, and structure. The cost of focused and specialized messaging is often prohibitive and limits the ability to perform community-based outreach initiatives and to engage in creative marketing approaches such as advertising at gas stations, convenience stores, and cultural events. Many people fail to perceive the quitline as a resource for quitting chewing tobacco and electronic nicotine products as well. Urban approaches that are applied in rural settings may not be effective.

Lack of Provider Education. Poor understanding of the quitline and its resources exists among many health care providers and serves as a barrier as they may be less likely to make a referral. There is also a dearth of referrals stemming from behavioral and mental healthcare settings, as well as from rural clinics. If health care providers and other health care personnel are not aware of the benefits, offerings, and efficacy of the quitline, this important and impactful source of referrals goes untapped.

Primary Theme	Exemplary Quotes
Accessibility	*"Broadband is a huge issue in our state [of South Carolina]."* *"You're using my [phone] minutes when I could be talking to my family."* *"For a lot of farmers, they start pretty dang early in the morning…they probably aren't remembering to go in and make a phone call at 3:00."*
Misperception	*"We need to educate that quitlines aren't just for cigarettes."* *"Word of mouth—everybody knows everybody. If someone has a bad experience with the helpline that is going to trickle down."* *"It is so important that people have a good experience when calling the quitline because everyone in town knows and it spreads like wildfire."*
Effective messaging	*"You've got to meet [rural residents] where they are."*
Lack of provider education	*"There is a lot of messaging we can do with practitioners first."*

2) Resources Needed to Drive and Support Quit Attempts

Amplify Existing Services. The quitline may be able to improve both the number and the success rate of quit attempts by amplifying its existing services. With NRT serving as a critical and effective lynchpin in quit attempts, making it more readily available could pay dividends. Placing NRT and prescription pads at onsite locations could further support the work of quitlines and reduce acquisition delays. Enhancing the quality of coaching is another potential support, and one means of doing so is preparing coaches to better address co-occurring substance abuse and electronic nicotine device use. Also, quitline coach education on how to individualize responses based on caller demographic and backgrounds may be a more valuable tool than creating multiple specialized protocols. Group support, involving other rural tobacco users who are looking to quit, and which could be delivered remotely, is another existing type of feature that could be embedded within the quitline structure.

Health Care Provider Support. Leveraging health care providers to drive people to the quitline and support their quit attempts is a greatly needed resource. In addition to better educating and enabling traditional providers to play this role, there is a growing opportunity to empower nontraditional providers such as pharmacists, lay providers (e.g., peer specialists, CHWs), dentists, physical therapists, psychologists, and endocrinologists, among others. Education could include a better understanding of the quitline and its services, as well as how to effectively talk to and engage tobacco users. Equipping a wide spectrum of professional health care providers and non-traditional providers with practical referral tools, flyers and pamphlets, and training (e.g., Motivational Interviewing) could extend cessation services.

Technology. Opportunity exists to better incorporate technology in support of quit attempts. Technological tools such as telehealth or even virtual reality stations could be placed in health care locations along with other types of multimedia platforms and quitline access points. Mobile applications could be strengthened and more widely distributed, and automated texts and social media platforms could be better utilized. These types of technological features might be embedded in provider settings, nontraditional settings, and via mobile phones and computers.

Primary Theme	Exemplary Quotes
Amplify existing services	*"If we really want to make a difference…on the effectiveness side, we need to increase the amount of NRT."* *"It would be awesome to have supplies [such as tobacco cessation medications] on hand at the clinic."*
Health care provider support	*"There is a significant opportunity for non-physician providers to deliver this message."* *"We have to make it easy for [providers] to use, easy for them to refer people to the quitline."*
Technology	*"We do see a lot of resistance to [providers] using technology to enhance their service delivery."*

3) Promoting and Marketing the Quitline

Community-Level Marketing. Highly effective quitline marketing can occur at the community level, with a specialized approach being profoundly important. Local organizations such as churches, schools, community centers, and large employers may be leveraged to spread the word, as well as local individual champions and word-of-mouth dissemination. Equipping local health care providers, clinics, and organizations with knowledge and pamphlets is effective. Chain establishments, such as fast food restaurants, convenience stores, and other corporations with local presences, that offer broadband Internet where people congregate could play a role in marketing the quitline, while aiding access. Similarly, pharmacies can promote the quitline as a service alongside efforts to directly treat tobacco dependence and other health conditions. Major events such as rodeos, community fairs, and trade shows are strong opportunities for quitline marketing. Though expensive and time-consuming to operate, mobile units promoting the quitline on location could further onsite marketing. There was widespread agreement that the more unique, specified, and familiar the messaging and imaging is to the community the more effective it will be, and that there is great value in quitline staff and stakeholders appearing in-person to inform people about the quitline.

Broad Marketing Techniques. Traditional marketing techniques still serve a valuable purpose in promoting the quitline in rural settings. Mediums such as television, radio, and billboards remain viable. Additionally, expanding spot advertising—such as signage at gas stations and local convenience stores—could help to reach more people, as well as signage in locations smokers frequent, such as bars and parking lots. As technology continues to advance further into rural settings, expanding the quitline's presence on social media platforms and forums will become increasingly important. As recognition of the quitline is closely tied to call volume, expanded marketing is bound to increase quitline call volume.

Policy-Based Promotion. Opportunities to promote the quitline via policy exist and remain underutilized. Engaging and leveraging employer-based and government health insurers to promote the quitline may enhance call volume and have a positive impact on the insurers' return-on-investment. Educating and encouraging state-level bureaucrats to promote and better integrate the quitline could streamline the referral process and expand awareness. Business entities, such as the aforementioned major, chain companies and pharmacies, as well as broadband outlets, could be considered as access points and/or partners in promotion. Again, educating and involving a variety of health care providers via the aforementioned health neighborhood model is a key opportunity for promotion and referrals. As described previously, this model suggests that we can best reach individuals where they naturally congregate in the community (e.g., churches, convenience stores, public health services).

Primary Theme	Exemplary Quotes
Community-level marketing	*"It's easier to make meaningful contact [in rural areas]."* *"There are always a couple of places people hang out. Using these natural meeting places would be a good way to build champions and have people educated."*
Broad marketing techniques	*"Our traditional media—TV, radio, billboards—are still really, really powerful in our rural communities…there is an important role for traditional media channels."*
Policy-based promotion	*"In any policy interventions there has to be messaging for the quitline."*

4) Better Engaging Rural Populations

Collaborate with Communities. Interviewees repeated the core message that it is extremely important to directly engage local communities about the quitline and to generate buy-in and collaboration. Incorporating key organizations and gathering places (churches, schools, large employers, etc.) as well as local champions is vital to this approach. Approaching community stakeholders with humility and asking their opinions and recommendations will build trust and lead to better dissemination of quitline messaging. Moreover, messaging is best when specific to the individual community and ideally allowances should be made to build a localized understanding and trial-and-error process to refine rural messaging. To some degree, an on-the-ground quitline presence in local communities is necessary to maximize the efficacy of these approaches.

Family Focus. Focusing on themes related to the family was repeatedly cited as important in engaging and motivating rural populations. Specifically, messaging that centers around children and youth tend to resonate—such as being focused on adults becoming healthier for their children and the dangers of secondhand smoke. Core values relevant to families in the target market need to be identified and addressed.

Specialized Messaging. Certain themes need to be addressed to engage rural populations. Positive messaging is one component of such efforts; people realize that smoking is bad for them but do it anyway, sometimes out of despair. Messaging needs to be framed in a manner that acknowledges these tendencies and aims to move people into a more positive mindset. Another important focus is overcoming the tendencies of rural populations to practice independence and self-reliance in their quit attempts. Such forms of positively-framed and empowering, innovative messaging are more likely to resonate. Notably, some interviewees pointed out that certain messages may be poorly received in a conservative community, such as the constructs of social determinants of health and equality-based approaches. From a provider engagement perspective, focusing on prevention-based messaging as opposed to only treatment-based messaging—which is typically more effective with individuals—may be more impactful. Aiming to effect and evolve social norms around tobacco use in a positive manner is a worthwhile objective.

Primary Theme	Exemplary Quotes
Collaborate with communities	*"[It's] easier to make meaningful contact [in rural areas]."* *"Make it more personable. Have local people talking about local issues."* *"We can have the best intervention since sliced bread…but if we don't engage people it doesn't matter."* *"[We need] people who are embedded in the community and bring that access with them, or somehow bring them to a central spot—church is big often times, especially in the south."*
Family focus	*"The foundation of the family is broken [which leads to more unhealthy behaviors]."* *"Hard hitting messages demonstrating the impact of smoking on children and families…were very effective at increasing awareness of the danger of secondhand smoke."* *"For a lot of behavior change…what resonates is if you can involve the whole family…target the family as a whole…and focus on the whole family's well-being."* *"Focus on the youth is what is going to get [families].*
Specialized messaging	*"A lot of it is because of despair…life is hard…it feels better to smoke."* *"Social determinants of health in a conservative community is a non-starter [and these themes need to be reframed]."*

5) Leveraging the Strengths of Rural Communities

Tightknit Community. In collaborating with local communities, capitalizing on the advantages offered by a tightknit community is a profound opportunity, which was raised by nearly every interviewee. While rural communities might take more effort to engage with and reach, when inroads are made, great potential for message dissemination exists. Members of tightknit communities tend to support one another and spread information they deem to be important quickly and enthusiastically. Again, local champions and key figures in communities have the potential to accelerate and strengthen social norm change by making it more personal and familiar. If trust is earned among local communities and champions, skepticism may be overcome. Providing local health care providers and champions with information and resources—such as pamphlets, education, and referral capabilities—further advances their potential to spread effective and enthusiastic messages. Another potential advantage is the lack of competition for messaging in rural communities, which tend to receive less outside attention.

Primary Theme	Exemplary Quotes
Tightknit community	*"When you get a small rural community on a kick, they are going to make sure everybody knows about it."* *"We can use the goldfish bowl effect for the positive. If people know your business, they can help support you."* *"Rural people rely on each other."* *"There is less competition in rural communities for health promotion messages."* *"To buy into any kind of behavior change it's got to be coming from a trusted source."*

6) Health Care Lessons Applicable to Tobacco Cessation Resources

Better Integration. The theme of better integration of tobacco cessation and quitline services into existing structures and frameworks emerged repeatedly in the key informant interviews. Finding ways to implement tobacco services to minimize burden and maximize current infrastructure offers great value. The process of making referrals to the quitline needs to be streamlined and simplistic. Tobacco work needs to be closely integrated into service allowances available through large employers and government insurers. Finding opportunities to address tobacco through a wide range of outlets via the health neighborhood model represents a strong approach in rural communities. Moreover, strategies for dispersing tobacco cessation medications within the health neighborhood can capitalize on tobacco users' frequent interest in trying these medications while also providing an opportunity for expanded quitline referrals.

Relatedly, tobacco-specific education and training need to be better integrated into provider training curricula and education protocols and programs. All different types of health care providers can be taught to talk about tobacco with their patients, to utilize Motivational Interviewing techniques, to better take advantage of existing technologies and electronic platforms, and to understand how to make appropriate quitline referrals and recommendations. Making more connections between quitlines and the public health and healthcare sectors may help facilitate this development. The opportunity to better leverage telehealth services and capitalize on this technology is extremely relevant in rural settings. All of these efforts can align to help expedite social norm change around tobacco use and evidence-based treatments. Finally, repetitive and diverse messaging around tobacco cessation is deemed important in rural communities.

Policy-Level Initiatives. Tobacco control policy work emerged as a critically important component among almost all the interviewees. In rural settings, a comprehensive tobacco control strategy is needed to decrease tobacco use rates and to increase quitline reach. Components of a comprehensive approach include excise taxes, clean air initiatives, youth- and family-based messaging, and access to tobacco cessation medications. From the quitline

perspective, well-trained coaches able to deal with complex situations are invaluable, and efforts need to be made to keep quitlines and their call staff abreast of changing nicotine use and policy trends. The quitline needs to be integrated effectively and strategically into larger tobacco control policy initiatives. Quitlines might assist in inspiring and supporting grassroots efforts around tobacco policy, as well as cessation efforts. Contacting and educating legislators and participating in relevant legislative work represents an underutilized approach to strengthening quitlines' necessity and reputation. Effective tobacco control policy work (e.g., service reimbursement rates and other financial incentives) presents a cost-effective means for encouraging health systems change in rural communities and for keeping tobacco cessation on the radar in the face of ever-changing health care priorities.

Primary Theme	Exemplary Quotes
Better integration	*"The way we support quit attempts in rural communities is integrating quitlines into broader tobacco control policy."*
Policy-level initiatives	*"I haven't seen the quitlines do much around legislation and educating the legislators on what [quitlines] do and don't do."*

Section VI. Engaged Rural Quitline Users Focus Group Findings

Results from the two engaged rural quitline users focus groups are summarized within this section, including the key topics discussed, as well as themes that emerged with quotes exemplifying these themes where available. The five topics that the conversations focused on included (1) reasons for using the quitline, (2) barriers to using the quitline, (3) supplementary features of the quitline, (4) suggestions for improving the quitline, and (5) quitline marketing. Within each of these five topics, emergent themes were largely consistent across both of the individual focus groups.

1) Reasons for Using the Quitline

Free Medication. The fact the quitline was able to provide free tobacco cessation medication, and to a lesser degree, counseling, was a primary theme. Numerous participants noted that their choice to use the quitline revolved around their ability to acquire free NRT.

Free Counseling. Several participants cited the value of the coaching calls and the measure of personal accountability that they produced, and there were strong positive opinions of the coaches, but the counseling feature generally was viewed as secondary to medication. Some people noted that they had been encouraged to try the quitline by a friend or health care provider, but many reached out of their own initiative.

Primary Theme	Exemplary Quotes
Free medication	*"The [free NRT] was the best feature [of the quitline]."* *"I figured if the option to try the quitline was there, I might as well try it as opposed to [spending money on NRT]."*
Free counseling	*"The calls made the biggest difference for me."*

2) Barriers to Using the Quitline

Service Limitations. Inversely, several participants noted that the limitations on their ability to continue to receive cessation medications and coaching calls were major barriers. There was a general consensus that callers did not receive a sufficient supply of NRT and for some people the number of coaching calls was also insufficient. Moreover, the delay in receiving NRT after a coaching call was noted as problematic.

Lack of Understanding and Mistrust. The engaged participants generally believed that a general lack of understanding about the quitline and its services prevented many of their peers from using it, and that mistrust exacerbated this barrier. Mistrust was centered around a belief that the quitline seemed to be a gimmick and doubt that the service was truly free and/or reputable; most thought that increasing understanding and transparency regarding quitline funding would be beneficial.

Access Barriers. Practical barriers to using the quitline once engaged were identified as problems with access (due to poor cell service, landlines, and/or Internet connections or not being able to afford these resources), difficulty finding time for the coaching calls and scheduling calls, and for some, the frustration associated with talking to multiple coaches.

Primary Theme	Exemplary Quotes
Service limitations	*"The limited number of calls was probably the biggest hurdle I faced."* *"The timeline and the patches…are not enough."*
Lack of understanding and mistrust	*"[The quitline seems] too good to be true."* *"I think people need to know how you get your funding and that it's a safe organization for them to use."* *"A lot of people think [the quitline] is a gimmick."*
Access barriers	*"Trying to fit that phone call in…just didn't work."*

3) Supplementary Features of the Quitline

NRT is Critical. As described above, NRT was viewed as an indispensable feature of the quitline, and not perceived as a supplementary feature. Many people stated that they used the quitline strictly to access free NRT.

Limited Value of Supplemental Features. Participants had mixed feelings about the value of the automated text messages they received from the quitline. While many people liked the text reminders and appreciated this type of communication, others found them to be triggering and/or annoying. Otherwise, there was a general lack of awareness of the supplementary features offered by the quitline. Not one participant in either focus group had been aware of the online chat feature, and when introduced, this concept did not illicit much interest.

Primary Theme	Exemplary Quotes
NRT is critical	*"The [free NRT] was the best feature [of the quitline]."* *"The timeline and the patches…are not enough."*
Limited value of supplemental features	*"I would have been more engaged in [the quitline] if we could communicate through text."*

4) Suggestions for Improving the Quitline

Online Support Groups. Several themes emerged around ideas for improving the quitline, with online support groups standing out. Perhaps prompted by the Zoom call format, both focus groups suggested that an online support group comprised of fellow quitline users would be a highly beneficial tool. Specifically, they believed that encouragement from their peers with similar circumstances and experiences could help, and that a video feature might enhance this offering further.

More Tailored Service. Many people expressed the wish to be able to have the quitline service better individualized. Examples around this suggestion included more flexible calling options, coaches who were better informed about rural settings and their complications, and generally adjusting to individual preferences. They agreed that it was important and helpful to have a customized experience, and there was general support for having a consistent coach.

Transparency. People felt that knowing more about the quitline's funding, purpose, and affiliations would build trust and encourage new users. They agreed that having more insight into the quitline's operations would help to alleviate the concern around it being a gimmick or being untrustworthy. As a positive, there was a general sense of curiosity about the quitline and its purpose.

Real-World Success Stories. Several participants thought that there was a need for real-world success stories featuring the quitline, and suggested that successful users could play a role in generating awareness and trust. The concept of a "TipLine" with resources and success stories that people could access for encouragement and ideas was presented and highly regarded.

Primary Theme	Exemplary Quotes
Online support groups	*"Having a support group of [other callers] on the quitline…I think would help me."*
More-tailored service	*"The calls made the biggest difference for me."* *"I wanted the accountability [offered by the quitline]."* *"Having a support group of [other callers] on the quitline…I think would help me."* *"Trying to fit that phone call in…just didn't work."*
Transparency	*"If people knew that [the quitline had to do with National Jewish] that would give it a lot more credibility."* *"I wanted to know why [the quitline] wanted to give free [things] to people."*
Real-world success stories	*"If they hear from the people themselves, it's easier to understand than from an actor, because you don't know if that actor really smoked or not."* *"A lack of hearing people's personal stories and their personal successes [with the quitline] prevent people from using the quitline, as they think it does not work."*

5) Quitline Marketing

Diverse Marketing. Awareness of the quitline occurred through diverse channels, with people citing billboards, television and radio ads, word-of-mouth, and provider recommendation; no primary medium of awareness emerged. Participants generally regarded these marketing mediums as appropriate, without citing a clear preference. Nevertheless, some participants thought that health care providers and local health clinics could play a larger role in referring people to the quitline. Several participants thought that the quitline could take better advantage of marketing online and via social media. The potential for improvements in rural marketing was noted, with participants suggesting that the quitline could take advantage of small-town newspapers and similar publications, local community events and prominent community organizations, as well as providing more education and pamphlets to local health care providers.

Build Trust. Enhancing confidence and trust in the quitline could lead to significantly more users. As noted previously, incorporating real-world success stories from quitline users and

encouraging word-of-mouth marketing are possible marketing approaches. Enhancing transparency around the quitline, including about its features and its framework as noted above, may also help build trust and confidence.

Primary Theme	Exemplary Quotes
Diverse marketing	*"A lot of people think [the quitline] is a gimmick."* *"If they hear from the people themselves, it's easier to understand than from an actor."*
Build trust	*"I think people need to know how you get your funding and that it's a safe organization for them to use."* *"If people knew that [the quitline had to do with National Jewish] that would give it a lot more credibility."* *"Nobody trusts the [quitline] advertising."*

Section VII. Non-Engaged Rural Tobacco Users Focus Group Findings

Findings from the two non-engaged rural tobacco users focus groups are summarized within this section, including the key topics discussed, as well as themes that emerged with quotes exemplifying these themes where available. The six topics that the conversations focused on included (1) services helpful in quitting, (2) thoughts on getting help over the phone, (3) opinions of supplementary services, (4) barriers to phone coaching and supplementary services, (5) perception of the quitline concept, and (6) other resources that could help people quit. Within each of these six topics, themes emerged based on the participant responses. There was significant thematic overlap between the two focus groups, although some concepts originated in only one of the two groups.

1) Services Helpful in Quitting

Free Medication. Asked an open-ended question about potential tobacco cessation resources, both groups identified tobacco cessation medication as a potential resource and a particularly important one. Some people noted that calling someone for help could be useful, particularly in the second focus group, and others suggested receiving positive messaging about the benefits of quitting would be motivating. Other services that were suggested included support groups, resources (tips and ideas) for overcoming cravings, smoke-free areas, tools for tracking time and money spent on smoking, and exercise programs. So, while focus group participants noted numerous potential services, tobacco cessation medication was the first to come to mind and received the most support.

Deciding to Quit. Despite identifying numerous resources that could be helpful in quitting, many people—and especially those in the first focus group—stated that their decision to quit was paramount to the process and believed external resources were secondary to that decision. In fact, some of the participants thought deciding to quit was the only thing that mattered.

Primary Theme	Exemplary Quotes
Free medication	*"Give us a variety [of things to help quit] instead of just one option."*
Deciding to quit	*"You've got to be ready to quit, you really do."* *"If I'm not going to smoke, then I'm not going to smoke."* *"[Quitting is] something you have to be willing to do."*

2) Thoughts on Getting Help Over the Phone

General Disinterest. With few exceptions, there was general disinterest in the concept of getting help quitting over the phone. Many participants were adamantly and vocally opposed to this idea, with some considering the idea preposterous. This formulation was framed around their beliefs that the quitline coach would not know them or be able to help with the realities of cravings and challenges. Several people stated that they would likely smoke while talking to the coach. Those who were open to the idea expressed that they would be willing to give it a try if it were free. Some people noted that the accountability of talking to someone over the phone could be helpful.

Highly Personalized Coaching. For those who were open to the idea of phone counseling, the ability to have a personalized coach and approach was critical. Specifically, when questioned further about how phone coaching could work, both focus groups believed that the coaching session would need to be highly personalized; there was strong opposition to receiving a generic approach or the use of a scripted intervention. Expanding upon this theme, many participants believed that their coaches would need to know them well and be able to understand what particular topics would motivate them. Some people provided examples, noting receptivity to topics such as finances, physical appearance, and salient statistics.

Straightforward and Experienced Coaches. The first focus group elaborated that coaches should be unprofessional, using coarse language and aggressive tactics as needed. Both focus groups agreed that coaches should have experience as past smokers and therefore be able to relate to their situations and challenges. Another concern that was expressed in both groups was the inability to be able to reach the same coach when cravings hit at odd hours.

Primary Theme	Exemplary Quotes
General disinterest	*"If you're not there with me in front of me to speak with me it's BS."* *"I don't see what anybody could tell me over the phone that's going to make me not want to smoke…I'd light up while I was talking to [the coach]."* *"They're not right in front of you, it's just somebody over the phone. So, there's no real accountability."*
Highly personalized coaching	*"I'm going to pick someone [for help who] I feel like I have a connection with."* *"We would want to talk to the same person every time."*
Straightforward and experienced coaches	*"I feel like the quitline shouldn't be professional…I need someone to scream…be real, be intense."* *"[The coaches have] got to be people that have smoked and quit."* *"You can't tell me how to quit smoking if you've never smoked in your life."*

3) Opinions of Supplementary Services

Some Value in Medication. Interest in supplementary services existed primarily around the potential for free tobacco cessation medication. Even so, some people remained opposed to utilizing medication, either due to misconceived concerns about its potential side effects or due to the belief that they would need to quit unaided.

Limited Value in Automated Features. There was modest and varied interest in the premise of automated text messages, with some people thinking they could be useful reminders and others believing they would be annoying, unhelpful, and/or triggering. As described below, both focus groups identified a video chat feature as a potentially effective supplemental service.

Primary Theme	Exemplary Quotes
Some value in medication	*"I really just have a fear of medications; I don't like taking medications…Also, it's a pride thing. I want to know I can do it myself; I don't want to know that I have a crutch."*
Limited value in automated features	*"If I could text really quick [when craving] that would probably be more simplified [than a call] and could be helpful."* *"I think you would have more connection with a phone call than over a text."* *"Anything automated is not going to work."*

4) Barriers to Phone Coaching and Supplementary Services

Accessibility. The participants noted that logistical problems could serve as barriers, such as limited phone options and service issues. Another cited issue was a perceived inability to get tobacco cessation medication quickly and potential side effects related to such medication. They also voiced concern over not being able to get help quickly during cravings, such as those that occur at night.

Generic Coaching. As noted above, among the foremost identified barriers to phone coaching centered on receiving a generic approach. Participants were adamantly opposed to coaches using scripts or templates in their sessions. Again, for many people their belief that they would need to quit on their own was a chief barrier that overshadowed coaching and medicine.

Primary Theme	Exemplary Quotes
Accessibility	*"If I could text really quick [when craving] that would probably be more simplified and could be helpful."*
Generic coaching	*"[The coaching] is not going to work if it's not personal."* *"We would want to talk to the same person every time."*

5) Perception of the Quitline Concept

Low Awareness. Awareness of the quitline was generally low among both focus groups, and those who had some previous knowledge of the service typically had limited or incorrect information. Some people had misconceptions about tobacco cessation medications and potential side effects, which clouded their perception of the quitline as a potential resource.

Mistrust and Misunderstanding. A mistrust of the quitline existed for some individuals, with people expressing general hesitation, or at worse, believing the quitline was funded by the tobacco industry. As in the engaged focus groups, the participants expressed an interest in knowing more about the quitline as an organization, including its sources of funding.

Primary Theme	Exemplary Quotes
Low awareness	*"Now that I know about the quitline, I might call it."*
Mistrust and misunderstanding	*"It's the tobacco companies that are paying for all this prevention…they don't want you to quit."*

6) Other Resources that Could Help People Quit

Video Chat Feature. Asked what other services might be helpful, both focus groups identified the potential of a video chat feature for support. This tool was generally envisioned as a phone- or computer-based app that could connect people to coaches and/or other people trying to quit smoking via a live video connection. There was near-unanimous belief among both focus groups that such a tool would be helpful in quitting.

Specialized Focuses. Another theme that emerged in both focus groups involved being able to receive a personalized approach, whether via informative, motivating texts, customized counseling sessions, or access to resources and tips. The participants believed that practical restrictions, such as smoke-free areas, high cigarette prices, and unpleasant products were potentially helpful and generally advocated for these policies. The idea of promoting the quitline in criminal justice settings was presented as well.

Primary Theme	Exemplary Quotes
Video chat feature	*"Being able to see a person [via a face-to-face app] would be helpful."* *"If you could see someone visually, that would be a whole different story."*
Specialized focuses	*"I'm going to pick someone [for help who] I feel like I have a connection with."* *"Give us a variety [of things to help quit] instead of just one option."*

Section VIII. Recommendations

While state tobacco quitlines are proven to be effective in helping people to quit tobacco, room remains for modification and improvement. In particular, given the disproportionate burden of tobacco faced by rural communities that tend to access quitline services at lower rates, state quitlines must better engage and support these populations. Synthesizing the evaluation findings, it is evident that significant opportunities exist to help accomplish these goals and decrease the impact of tobacco on rural populations nationwide. In summary, based on the research performed for this report, as well as our review of the existing literature, BHWP makes the following recommendations:

1) Promote Awareness of and Referrals to the Quitline among Health Care Providers

Traditional health care providers remain a profound catalyst for driving utilization of quitlines. Most people continue to access health care providers regularly for their medical needs, including in rural settings. As revealed by the National Jewish Quitline Survey, nearly half of all respondents had an encounter with a health care provider capable of prescribing medication within the past month, with over 80% having had an encounter in the previous six months. However, whether due to competing demands, minimalization, a lack of confidence and/or training, or other extenuating circumstances, too often providers fail to make the necessary recommendations around tobacco use or fail to refer to quitlines. Respondents indicated that only 38% of tobacco users were offered assistance by health care providers and only 61% of this subset was referred to the quitline. These findings indicate substantial room for both state funders and the quitline to collaborate in health systems change efforts to educate health care providers about the quitline and empower them to make appropriate referrals. NJH might create a greater on-the-ground presence in rural communities and among rural health care providers. This would entail both in-person outreach as well as provider engagement utilizing innovative technological solutions.

Health care providers continue to need a clearer understanding of the efficacy of the quitline and the potential patient benefits. Providers who speak with confidence and understanding about the quitline will be more effective messengers. Offering health care providers webinars, informative packets, and other distance-learning opportunities, accompanied by CME credits for participation, are all measures NJH could take to educate and empower providers. This recommendation aligns with the literature and key informant interviews highlighting the potential community influence rural health care providers possess. Evaluation findings also suggest that health care providers be increasingly equipped with quitline flyers, brochures, pamphlets, and other physical tools, alongside the introduction of streamlined, cost-efficient workflows for quitline referrals. This might involve state funders' support of academic detailing to tailor the 5A's Model (Ask-Advise-Assess-Assist-Arrange) to rural clinics and hospitals. Furthermore, coordinated efforts by the quitline and the state to train interdisciplinary providers in Motivational Interviewing will assist clinicians to better engage patients in behavior change and make warm handoffs to the quitline. Uninformed health care providers can present a substantial barrier to connecting rural residents with the quitline, but when provided with the proper education, training, and health systems change tools, they represent one of the greatest opportunities for increasing quitline utilization.

2) Increase Trust, Understanding, and Transparency Surrounding the Quitline

The themes of trust, understanding, and transparency emerged through this evaluation. The impact of mistrust of the quitline and its services was repeatedly revealed in the literature review, through the key informant interviews, in all of the focus groups, and to some degree in survey results. One avenue for increasing trust in the quitline is to boost transparency surrounding the service, its purpose, and its funding mechanisms. Respondents in both the quitline and the focus groups indicated that understanding quitline operations and funding sources would help to inspire more trust and confidence in its services and alleviate their

apprehension about the quitline being a gimmick. Increasing understanding of the services available through the quitline and the manner through which they are provided may boost trust as well. The quitline and state funders might align their marketing efforts to assure there is messaging which clarifies precisely what the quitline offers. Messaging should particularly highlight any cessation medications available at no cost to callers, and secondarily, counseling. Any marketing campaigns should also be transparent in how quitlines are funded and why states would choose to fund quitlines. Messaging from either states or the quitline might also emphasize the confidentiality of the quitline to motivate tobacco users who might otherwise be distrustful of perceived "government-run" services. Additionally, the power of rural quitline users sharing their experiences and success stories could be a powerful motivator for skeptics and build trust. As a complement to marketing strategies, the quitline and state funders might also work together to establish relationships with trusted community referral sources, including community opinion leaders, peer advocates, and nontraditional or lay providers.

3) Embed the Quitline Within the Health Neighborhood Concept

As described in the literature review, the health neighborhood concept is an important construct for rethinking how to increase access to effective health care services for rural and underserved populations. Both the quitline and funders might amplify states' comprehensive tobacco control plans by engaging both formal health care and informal hubs of care where tobacco users naturally congregate. In addition to local public health departments, community champions such as businesses, churches, and entertainment venues all might play a role in leveraging the tightknit nature of rural communities to navigate those most in need to health care services and quitlines. While bad news about any service travels fast, positive experiences can also go viral, particularly when community opinion leaders are sharing the message. As another example gathering national momentum, states might encourage local pharmacies to expand their quitline referral initiatives and even to expand their role in logistically facilitating connections to the quitline. Both states and quitlines might even consider financial compensation to key community members who agree to devote time to advocating for quitline services, thereby embedding an on-the-ground presence in local communities via a relatively low burden approach. Also, greater investment in creating sustained relationships with local public health departments and other primary community public service organizations will build local trust and may boost referrals. These local organizations offer valuable insight into how best to integrate the quitline into existing public service collaborations and referral networks. Generally, quitlines fit easily into the health neighborhood model and are a proven intervention that may be better marketed as supporting the community health continuum-of-care.

4) Integrate the Quitline into State- and Local-Level Tobacco Policy Initiatives

Integration into state- and local-level tobacco control and tobacco policy efforts is a significant opportunity for the quitline. While traditionally quitlines operate independently of most policy work, better integration might support states' comprehensive tobacco control strategies, while also aligning with the health neighborhood concept. Evaluation findings support the view that cessation services and policy need not be dichotomous. State and local initiatives should advocate for policy, and quitlines can likewise better promote tobacco-free policies which

impact rural communities. For example, promoting quitlines as an essential resource as tobacco-free policies in parks, businesses, and the health care sector are enacted might increase community goodwill. Policy development and enactment also provides a teachable moment whereby the quitline can provide education about how cessation resources interlink with population health strategy. Interestingly, even focus group participants that might have no interest in currently quitting reported tolerance and even enthusiasm for policy-level tobacco control initiatives such as price increases and tobacco-free areas, again indicating an opportunity for raising the profile of the quitline. On the state level and operating within lobbying restrictions, the quitline might play a heightened role in developing tobacco control legislation and embedding quitline marketing within emerging policy.

5) Leverage Existing Technologies and Explore New Technologies

As technology continues to expand and play a larger role in our daily lives, quitlines need to stay vigilant and adaptive in adopting relevant developments. First and foremost, there are numerous existing technologies that could represent relatively easy options for quitline integration and expansion. Continuing to offer text messaging services and online chat features, among other existing offerings, is an important component to retain to reach rural populations, even if not all users leverage these services. Telehealth is an increasingly relevant resource in rural communities and as suggested by the literature review, has potential to be implemented relatively seamlessly and without significant financial burden, particularly if state- and federal-level policy changes support expanded applications. In this regard state funders might encourage legislation that permits interdisciplinary providers the ability to use telehealth for tobacco cessation. As telehealth and other distance platforms expand, the quitline can increasingly collaborate with prominent rural partners, such as churches, libraries, gas stations, convenience stores, and others, to access the quitline via health care providers' warm-handoffs, public service kiosks, or other phone or video connections. Of particular note in this respect, focus group participants repeatedly expressed interest in a face-to-face remote chat feature that could connect them to a quitline coach, lay professionals, or peers. Key informants stressed the potential which evolving technology such as virtual reality platforms has for further overcoming barriers such as transportation and limited broadband connections. Also, tobacco users typically have cell phones but often avoid using their plan's limited minutes on quitline calls. At the same time landline phones are disappearing. Therefore, quitlines in coordination with state funders could consider mechanisms to provide no-cost mobile phone minutes for coaching calls similar to some national health care programs. Generally, quitlines should devote resources toward becoming "early majority adopters" of emerging technology solutions.

6) Tailor Quitline Services to the Individual

Another common theme that reoccurred throughout this evaluation was the value of individually tailored services. In light of the great heterogeneity that exists among rural populations, there are practical limitations on the quitline's ability to devise specific approaches for each distinct rural setting. Quitline coaches represent an important contact point in providing unique, tailored services. Educating quitline coaches regarding common rural challenges related to tobacco is important, but this training needs to be supplemented with

additional skillsets that can be deployed during coaching sessions or other communications. Specifically, call scripting for certain demographic groups is an important training tool and call guideline, but coaches must receive ongoing training on building rapport and sustaining engagement with diverse quitline users. To these ends, basic and advanced Motivational Interviewing training is a necessary augmentation of any specialized protocols. Focus group participants and key informants underlined this point, repeatedly indicating that coaches should personalize calls and avoid generic scripts. Similarly, technological interfaces, to the extent possible, will also need to be increasingly tailored based on quitline users' access, technological know-how, and preference.

7) Refine Marketing Approaches for Rural Populations

Effectively marketing is a critical component of increasing quitline reach. Marketing campaigns might not only address potential quitline users but also target community touch points within the health neighborhood, as well as traditional health care providers. For examples, marketing directly to churches and small business may increase quitline utilization. In terms of marketing more widely to rural communities, messaging needs to consider common values. Themes of note that resonate widely in rural communities include the strength of the family, the impact of tobacco on children, faith-based themes, and constructs of self-sufficiency, autonomy, and resiliency. In contrast, the public health sector's attention to social determinants of health may not resonate well with rural communities having conservative values. Many people in rural communities may perceive quitline services to be social services, of which they are often skeptical. Also, messaging to tobacco users exhibiting different stages of readiness to quit is worthwhile. As an example, quitlines could position themselves as the appropriate educational resource even if individuals are not presently ready to quit.

Quitlines and state funders might coordinate efforts to refine marketing campaigns with the input of local champions. Such marketing needs to continue to demystify quitline offerings and funding sources, and should continue to heavily promote the free services provided—especially medication—which continue to be a major incentive. Accordingly, effective messaging may illuminate this rationale behind quitline funding and describe how quitlines help to save money on overall healthcare costs and how they can help to empower communities. Quitlines should also avoid reinventing campaigns that have been shown effective such as rural marketing that highlights intergenerational connection. Reintroducing messaging that has proven effective in the past is one low burden marketing strategy.

Limitations

Although this report has employed a comprehensive evaluation approach, it is not without limitations. The generalizability of findings is limited by a fairly small number of respondents (n=138) who opted to take the survey and had the technological knowledge and capability to do so. Similarly, the engaged focus groups were comprised of survey respondents who again opted to participate in the group interview and who were available at the predetermined date and time. Meanwhile the non-engaged focus groups were both conducted in the state of Nevada due to time and budgetary restraints, and both groups consisted of individuals that NyE

Communities Coalition and Carson City Human and Health Services were able to contact, and therefore may not represent a broader rural sample. Key informant interview participants were those who responded and agreed to participate, again introducing the possibility of some bias.

Conclusions

Tobacco quitlines continue to be a critical and effective service within the tobacco control and treatment context, as well as within the larger public health framework. Quitlines play a vital role in reaching rural populations where people tend to have less access to health care services and more limited resources. Moving forward, the greatest challenge facing quitlines is effectively extending their reach and serving a greater proportion of health disparity populations. With respect to engaging rural populations and addressing the inequity that exists between rural and urban settings, several opportunities exist for the quitline to improve. Integrating the quitline more effectively into health care provider services, the health neighborhood concept, and state- and local-level policy initiatives is necessary for macro-level advancement. Meanwhile, building greater trust and understanding of the quitline, and developing impactful marketing campaigns that reach and resonate with rural communities, is equally necessary. Finally, individual user touch points can be enriched via individually tailored care and the thoughtful integration of evolving technologies. The recommendations presented in this report are intended to assist quitlines to continue to expand their positive, necessary impact on rural communities.

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Appendix A: National Jewish Quitline Survey

Rural Tobacco Survey

At the quitline, we try to address your unique needs while helping you to quit. We are evaluating how well our service helps people who live in more rural areas of their state and ask that you complete this brief survey about your experience. If you complete the survey, we will send you an Amazon gift card.

Please answer the following questions about the last time you enrolled in the quitline program.

Which of the following quitline program services did you use?

- ☐ Telephone coaching
- ☐ Text or email messages
- ☐ State quitline online program
- ☐ Chat online with a coach
- ☐ Self-help materials
- ☐ Free medications

(Select all that apply)

For each quitline service you used, please rate how important the service was in your quit attempt.

	Not at all important	A little important	Somewhat important	Very important	Extremely important	Did not use service
Telephone coaching	◯	◯	◯	◯	◯	◯
Text or email messages	◯	◯	◯	◯	◯	◯
Online program	◯	◯	◯	◯	◯	◯
Chat online with a coach	◯	◯	◯	◯	◯	◯
Self-help materials	◯	◯	◯	◯	◯	◯
Free medications	◯	◯	◯	◯	◯	◯

For each quitline service you used, please rate how satisfied you are with the service.

	Not at all satisfied	A little satisfied	Somewhat satisfied	Very satisfied	Extremely satisfied	Did not use service
Telephone coaching	◯	◯	◯	◯	◯	◯
Text or email messages	◯	◯	◯	◯	◯	◯
Online program	◯	◯	◯	◯	◯	◯
Chat online with a coach	◯	◯	◯	◯	◯	◯
Self-help materials	◯	◯	◯	◯	◯	◯
Free medications	◯	◯	◯	◯	◯	◯

When you spoke with a coach, did you talk about how living in a rural area might be a challenge to quitting (such as distance to resources)?

- ◯ Yes
- ◯ No
- ◯ I don't recall

Comments:

Which of the following medications did you use to help you quit when you called the quitline?	☐ Nicotine replacement (patch, gum, lozenge) ☐ Wellbutrin, Bupropion (a prescription drug) ☐ Varenicline (a prescription drug) ☐ I did not use medication to quit (Select all that apply)
Would you recommend the quitline to other people who live in rural areas who you know are trying to quit?	◯ Yes ◯ No

Please describe why or why not:

Do you know anyone living in your community (or another rural community) who smokes but does not use the quitline?	◯ Yes ◯ No
Please select the reasons you think people you know in rural communities do not use the quitline. (Select all that apply)	☐ They aren't ready to quit ☐ They don't know about the quitline ☐ They can't access the quitline (no phone or not enough minutes) ☐ They don't have enough time to use the quitline ☐ The coaching calls won't fit their schedules ☐ They don't think the quitline will help them ☐ They don't trust the quitline ☐ They don't think the quitline staff will understand their personal situations ☐ They worry about communicating with quitline staff due to language or accent barriers ☐ Other (please describe):
Other:	_____
How did you first hear about the quitline?	◯ Advertisement ◯ Healthcare provider ◯ Friend or family member ◯ Other source (please describe:)
Other:	_____
In addition to the quitline, which of the following resources have you ever used to quit? (Select all that apply)	☐ A local class, support group, or program to quit ☐ One-on-one counseling from a health professional ☐ Internet-based cessation counseling ☐ Texting or app on a smartphone ☐ An electronic cigarette or nicotine device ('vape') ☐ None ☐ Other resources you used to quit (please describe):
Other:	_____
Have you ever wanted to use, but been unable to access a quit resource because you could not travel the distance or it was not available in your area?	◯ Yes ◯ No
Please briefly describe the resource and why you could not access it:	_____

What were the reasons you used the quitline as part of your plan to quit using tobacco?	☐ Free coaching and medications ☐ Easy to access ☐ Confidential ☐ My healthcare provider referred me ☐ Someone I knew used the quitline ☐ It was my only option ☐ Another reason (please describe): (Select all that apply)
Other:	_____
If you did not complete the quitline program (all 5 coaching calls), please select the reason(s) that you did not complete the program.	☐ It wasn't the right time for me to quit ☐ I didn't receive any calls from the quitline ☐ I didn't have easy access to a phone ☐ I didn't have enough minutes on my phone plan ☐ The coaching calls didn't fit my schedule ☐ The coaching calls took too much of my time ☐ I quit and didn't need more help ☐ I used a different resource ☐ I just wanted the free medications ☐ I didn't feel like the quitline staff understood my personal situation ☐ I had a hard time communicating with the quitline staff due to language or accent barriers ☐ I had a hard time trusting the quitline ☐ I didn't feel like the quitline was helping me ☐ I felt under too much stress to call the quitline ☐ Another reason (Select all that apply)
Other:	_____

When was the last time you saw a healthcare provider, such as a doctor, physician assistant, nurse practitioner, or someone who could prescribe you medication?	◯ Within the last month ◯ Within the last 3 months ◯ Within the last 6 months ◯ Within the last year ◯ It's been more than a year ◯ It's been more than three years
When you last saw a healthcare provider, did they ask about your tobacco use?	◯ Yes ◯ No ◯ I don't recall
Comments:	_____
When you last saw a healthcare provider, were you using tobacco?	◯ Yes ◯ No ◯ I don't recall
Comments:	_____
When you last saw a healthcare provider, did they offer you help with quitting tobacco?	◯ Yes ◯ No ◯ I don't recall
Comments:	_____
What kind of help did your provider offer or provide to you?	☐ Referral to the quitline ☐ Referral to another counseling resource or support group ☐ Provided counseling on how to quit ☐ Provided a prescription for medication to help quit (like Chantix or Zyban [bupropion]) ☐ Talked about medication available without a prescription (like nicotine patch, gum or lozenges) ☐ Another resource (Select all that apply)
Comments:	_____

The last few questions ask about your current tobacco use.

In the past 30 days, on how many days did you smoke cigarettes?

_____
(If none, enter "0")

In the past 30 days, how many cigarettes per day did you typically smoke on the days that you smoke?

_____

On the days that you smoke, how soon after you wake up do you smoke your first cigarette?

- ◯ Within 5 minutes
- ◯ 6 - 30 minutes
- ◯ 31 - 60 minutes
- ◯ After 60 minutes

In the past 30 days, have you used any of these other forms of tobacco?

	Every day	Some days	None at all
Electronic cigarette or 'vape' with nicotine	◯	◯	◯
Smokeless tobacco (snuff, snus, chew)	◯	◯	◯
Hookah	◯	◯	◯
Cigars or pipes	◯	◯	◯

What is the best way to help a person who lives in a rural area to quit?

_____

What else would you like the quitline program or staff to know about your experience as a person who lives in a rural area using the quitline?

_____

We are partnering with evaluators at the University of Colorado to collect additional information about the program. If you are willing to participate in a focus group or interview, please complete the information below. If you complete a focus group or interview, you will receive up to $50 for your participation. The evaluators may not reach out to everyone who expresses interest.

First name:

_____

Last name:

_____

Phone:

_____

Can we send you a text message?

- ◯ Yes
- ◯ No

What is the best time to contact you?

_____

Appendix B: Key Informant Interviews Questionnaire

Key Informant Questions

- What resources are needed to support quit attempts in rural communities?
- What role do quitlines have with respect to other tobacco cessation services in rural areas?
    - Should quitlines have a different role(s) in rural versus more urban areas?
- What barriers prevent people living in rural communities from utilizing telephonic or online services?
- How can quitlines better engage rural tobacco users?
    - How do these strategies differ from those used in more urban settings?
- What are the best means of promoting and marketing quitline services in rural communities?
    - How do these strategies differ from those used in more urban settings?
- What unique strengths or characteristics do rural communities possess that may be better utilized to promote tobacco cessation?
- What lessons learned from healthcare generally might be better applied to tobacco cessation resources?
- Is there anything else we should know?

Appendix C: List of Key Informants

Key Informant	Position	Location	Date
Laura Beebe, PhD	Professor, University of Oklahoma Health Sciences Center	Oklahoma City, OK	10-29-2019
Jason Burrow-Sanchez, PhD	Director, SAMHSA Mountain Plans Prevention Technology Transfer Center Network (University of Utah)	Salt Lake City, UT	11-18-2019
Stacy Campbell, MEd	Bureau Chief, Chronic Disease Prevention and Health Promotion	Helena, MT	11-14-2019
Shannon Chambers, CPC, CRCA	Director of Provider Solutions, South Carolina Office of Rural Health	Lexington, SC	11-22-2019
Greg Holzman, MD, MPH	State Medical Officer, Montana Department of Public Health and Human Services	Helena, MT	11-5-2019
Don Kelso, MBA	Chief Executive Officer, Indiana Rural Health Association	Linton, IN	11-5-2019
Paola Klein, MHR, CTTS, NCTTP	Oklahoma Tobacco Helpline Coordinator, Oklahoma Tobacco Research Center	Oklahoma City, OK	10-29-2019
Mimi McFaul, PsyD	Deputy Director, National Mental Health Innovation Center	Aurora, CO	10-28-2019
Tamanna Patel, MPH	Senior Research Associate, Georgia Health Policy Center	Atlanta, GA	10-31-2019
Nancy A. Roget, MS	Executive Director, Center for the Application of Substance Abuse Technologies (University of Nevada)	Reno, NV	11-14-2019
Andrew Romero, MEd	Director, Geographic Health Equity Alliance	Alexandria, VA	10-29-2019

Appendix D: Focus Groups Questionnaire

National Jewish Rural Project – Focus Group Questions

Focus Group Themes

- Opinions about the quitline
- Barriers and facilitators to using telephonic coaching
- Community resources used or desired for quitting tobacco
- Effectiveness of services provided by the quitline

Engaged Questions

- Why did you choose the quitline to help you to quit smoking or quit using other forms of tobacco like chew?
    - What was most helpful? What was least helpful?
- Did you use any of the quitline's supplemental services (such as nicotine replacement therapy, automated text messages, chat features).
    - What was most helpful? What was least helpful?
- How did you learn about the quitline?
- What gets in the way of people using the quitline in your community?
- What would encourage more people in your community to use the quitline?
- Anything else we should know?

Non-Engaged Questions

- What services or resources would be most useful in helping you to quit smoking or stop using other kinds of tobacco like chew?
    - What services or resources do you use currently to try to quit?
    - What services or resources have you used in the past to try to quit?
- What do you think about getting coaching to quit over the phone?
    - What would help make coaching over the phone best fit your needs?
    - What are your thoughts on using other resources such as tobacco cessation medications, automated text messaging, and online chat sites?
- What things might get in the way of using coaching over the phone?
- What things might get in the way of using other resources such as tobacco cessation medications, automated text messaging, and online chat sites?
- Have you previously heard of the state quitline?
    - If so, what are your perceptions of the quitline?
    - Are there other resources or services that you think might be more useful than the state quitline?
- Anything else we should know?

Appendix E: Non-Engaged Tobacco Users Script

Non-Engaged Users Script – Nevada

Focus Group Eligibility Checklist

_____ Person is a current daily smoker.

_____ Person has not previously used the Nevada Tobacco quitline.

_____ Person has not previously used any other type of telephonic coaching service to try to quit smoking.

_____ Person lives in a rural area or small town.

Focus Group Introductory Script

Hello, _____. Our partners at the University of Colorado are doing a project to learn about how people living in rural communities view the tobacco cessation services available to them. The researchers are conducting focus groups, and people who participate will receive a gift card worth $50. We think you would have valuable perspectives to share and would qualify to participate. You do not need to have tried to quit before, or be ready to quit now, in order to participate. Would you be interested in sharing your views on smoking cessation?

(If the person doesn't say 'NO', continue below.)

The focus group would occur one time, last about 90 minutes, and be completed through a web-based video conferencing program called Zoom. So, you would need a good connection to the internet in a private location to participate, such as your house or office. About 8 other people will be participating in the focus group with you. We will ask you to share your thoughts on about 5 different questions about what services might best help individuals in rural areas and small towns quit smoking. We will be summarizing general responses and your answers will be kept anonymous.

(If the person indicates that they would like to participate, continue below.)

Great, thank you in advance for your participation. You will be contacted by the University of Colorado with further information about the focus group. We will continue to contact those interested until the focus groups are filled, so please let us know if you are interested as soon as possible.

Focus Group Referral Process Checklist

_____ Record the person's name and age.

_____ Record the person's email address and home and/or cell numbers and let them know they will be contacted by Derek Noland of the University of Colorado's Behavioral Health & Wellness Program.

_____ Confirm their consent to be contacted by the University of Colorado.