

**TOBACCO PREVENTION AND CONTROL PROGRAM**  
**2020 TEXAS TOBACCO QUITLINE**  
**(TTQL) DATA REPORT**



**TEXAS**  
Health and Human  
Services

Texas Department of State  
Health Services

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## 1. Introduction

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Tobacco use is the leading cause of preventable death and disease in Texas and in the U.S. In 2019, 24,895<sup>1</sup> deaths in Texas were caused by diseases that are commonly attributed to smoking (See Appendix A.)<sup>1</sup> According to the 2020 Texas Behavioral Risk Factor Surveillance System (BRFSS), 13.2% of Texas adults reported current use of cigarettes and 3.3% reported current smokeless tobacco use. Among current smokers, 55.3% reported making a quit attempt in the past 12 months.<sup>2</sup>

The Tobacco Prevention and Control Branch (TPCB) within the Health Promotion and Chronic Disease Prevention Section (HPCDPS) at the Texas Department of State Health Services (DSHS) has partnered with Optum to provide tobacco cessation services to Texans through the Texas Tobacco Quitline (TTQL).

### What is the Texas Tobacco Quitline (TTQL)?

The TTQL offers free and confidential tobacco cessation counseling services and support to Texas residents ages 13 years and older. The TTQL also provides cessation educational materials and information to healthcare providers, proxies, and the general public.<sup>3</sup>

Tobacco users have the option of enrolling in counseling services via phone or web. Callers enrolled via phone services receive tailored multiple call counseling sessions with an assigned Quit Coach. These callers are eligible for two weeks of free nicotine replacement therapy (NRT) if they are uninsured, pregnant (NRT given with physician permission), referred to TTQL by a healthcare provider, reside in a DSHS-funded Tobacco Prevention and Control Coalition (TPCC) county (currently Angelina, Brazoria, Cameron, Polk, San Augustine, or Willacy county), a Texas Health and Human Services (HHS) employee, and/or report a mental health or tobacco-related chronic condition. They also gain access to self-help resources and information about support programs in

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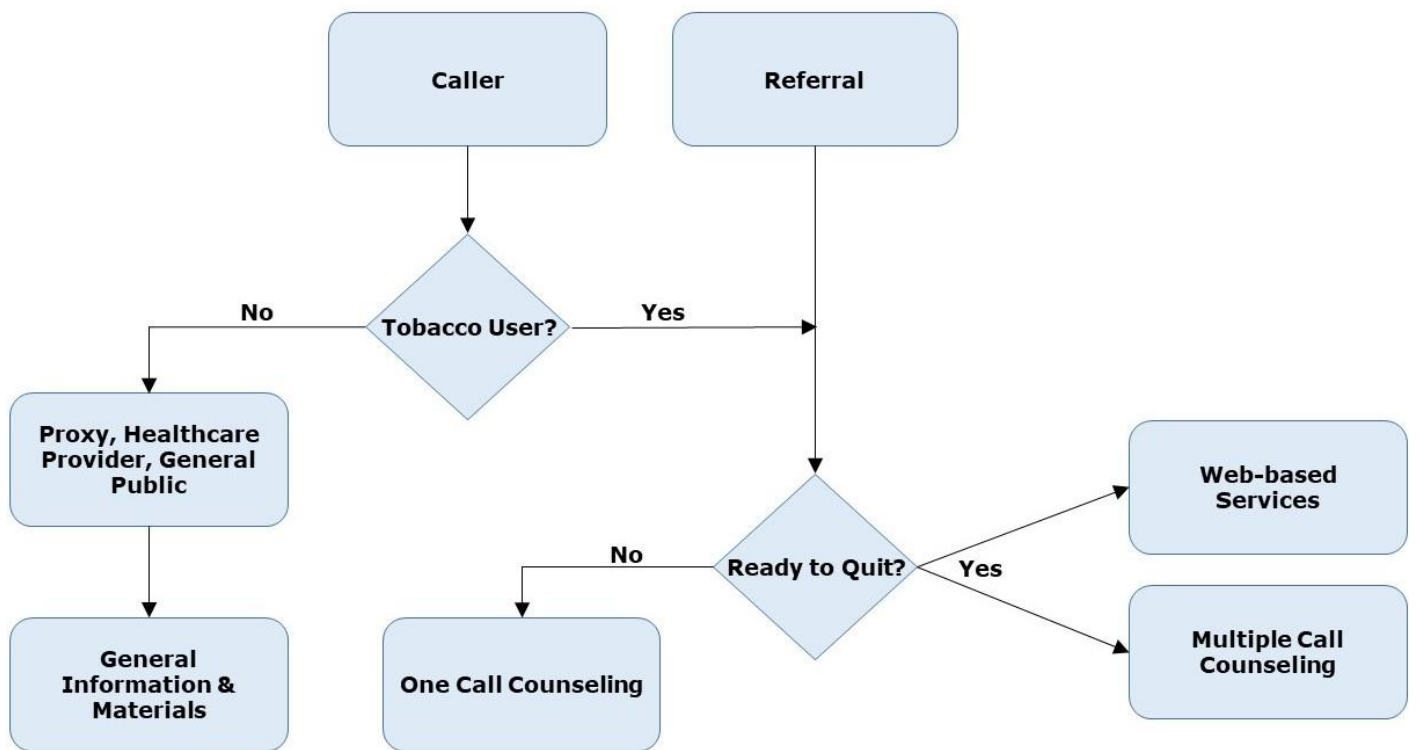
<sup>1</sup>See appendix for ICD-10 codes / cancer sites used as the underlying cause of death.

their community. Callers enrolled in web-based services gain access to a Web Coach, self-help resources, and an online community of other tobacco users enrolled in the program.<sup>3</sup> Those enrolled in any type of Quitline services can also request texting-based support in addition to the phone or web-program.

### How are callers registered or enrolled in TTQL services?

Individuals become **registered callers** by calling a toll-free Quitline phone number or being referred by a healthcare provider. Healthcare providers, proxies, and members of the general public who contact the TTQL for general information and materials are also considered registered callers.

Registered callers who report tobacco use and enroll in multiple call cessation counseling are considered **enrolled callers**.



**Figure 1. Flowchart explaining the flow of callers through the TTQL services**

## 2. Definition of Terms

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The following terms will be used throughout the report:

- **Pre-registration** – period when participants who are referred by healthcare providers are contacted to determine if they will accept or decline TTQL services.
- **Registered Caller** – every unique individual who has incoming and/or outgoing phone contact with the TTQL service provider, Optum. This includes tobacco users, proxies, healthcare providers, and members of the general public.
- **Enrolled Caller** – every unique caller who reports tobacco use and enrolls in multiple call tobacco cessation counseling. Proxies, healthcare providers, and the general public are not enrolled in counseling services, but are provided with tobacco cessation information and materials.
- **Call** – any incoming and/or outgoing phone contact between the TTQL service provider, Optum, and registered callers. Each unique call is identified by the call date, call number, and call type (ie. registration, assesment, etc.). Unique callers may have multiple entries in the Quitline Experience Extract (QEE) and Quitline Experience Addendum (QEE Addendum) dataset based on the number of times they have contacted or been contacted by the TTQL. See methodology section below for more details.
- **Entry Method** – the method callers use to enter and receive TTQL services. Callers can enter TTQL through incoming/outgoing phone calls, web registration and healthcare provider referrals.
- **Referral Method** – the method used by healthcare providers to refer tobacco users to the TTQL.

### 3. Methodology

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This report includes de-identified, aggregate data on incoming and outgoing calls to the TTQL. The data is collected by the TPCB contractor, Optum. Optum provides the TPCB with the following datasets on a monthly basis:

- **QuitLine Experience Extract (QEE)<sup>4</sup>** – this dataset includes data from each incoming and outgoing call for all registered callers. Callers are able to make as many calls to the TTQL as needed. Each individual call is captured as a separate observation.
- **QuitLine Experience Extract (QEE) Addendum<sup>5</sup>** – this dataset is in addition to the QEE. It includes data on chronic, mental health, and substance abuse conditions for each caller identified in the QEE.
- **Referral Experience Extract (REE)<sup>6</sup>** – this dataset includes data on participants who were referred to the TTQL by a healthcare provider. It includes data on all referrals during the pre-registration period.

Monthly QEE, QEE Addendum, and REE datasets, from January 2020 through December 2020, were cleaned and combined to create annual datasets. The annual QEE Addendum was merged with the annual QEE dataset based on participant ID and call number. All data cleaning and analysis were performed using SAS 9.4.



## 4. Key Findings

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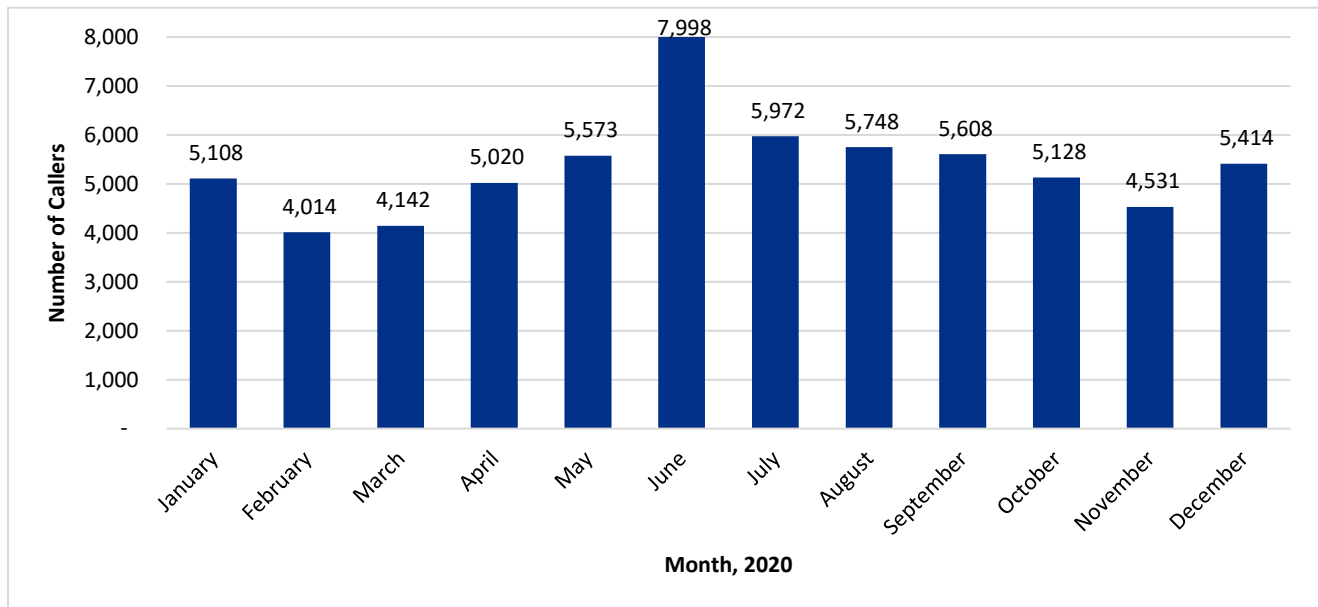
In 2020:

- The TTQL reached its highest number of calls in June (7,998);
- 97% of registered callers were tobacco users;
- The number of callers enrolled in multiple call counseling peaked in the month of June (1,323);
- 91.3% of registered tobacco users enrolled in multiple call cessation counseling;
- Roughly half (48.7%) of enrolled callers reported having a mental health/substance abuse condition;
- 82.8% of enrolled callers entered TTQL through phone calls;
- Almost half of enrolled callers heard about TTQL services from television commercials (48.0%);
- 62.7% of enrolled callers receiving a recommendation for nicotine replacement therapy (NRT) were provided patch NRT to aid in tobacco cessation:
  - Of these, 95.8% received at least one shipment of NRT;
  - A total of 3,928 shipments of patch NRT were sent to enrolled callers, with each shipment containing a two week supply;
- Healthcare professionals made 9,029 referrals to TTQL. TTQL was able to reach 3,138 of these referrals. Among those reached, 1,609 (51.3%) accepted services while 1,529 (48.7%) declined services.
- The number of tobacco users who were referred by healthcare providers (12,777 in 2019 vs. 9,029 in 2020) and participants for the TTQL follow-up survey evaluation (1,551 in 2019 vs. 410 in 2020) decreased significantly. It may be influenced by COVID-19 with the shutdown of clinics and failure of follow-up. Further research is needed to investigate the impact of COVID-19 on the decrease of TTQL follow-up.

## 5. QuitLine Experience Extract (QEE)

There were 64,256 TTQL calls in 2020, excluding those identified as hang-up, prank, or wrong number.

**Figure 2. Number of calls, by month, 2020**



**Figure 2 Interpretation:** Calls to TTQL rose gradually from 4,014 in February, to a high of 7,998 in June. With the exception of February, March and November, there were over 5,000 calls each month.

**Table 1. Number and percentage of registered callers, by caller type, 2020**

Caller Type	Number (N)	% of Callers
Total	10,077	100.0
Tobacco User	9,759	97.1
Proxy	62	0.6
Provider	46	0.5
General Public	179	1.8

Table 1 Interpretation: Of 10,077 registered callers to the TTQL in 2020, 97 out of 100 were tobacco users, and almost two out of 100 were the general public. Less than one out of 100 callers were proxies or healthcare providers.

**Table 2. Number and percentage of registered callers, by month, 2020**

Month	Number (N)	% of Callers
Total	10,077	100.0
January	637	6.3
February	518	5.1
March	670	6.6
April	873	8.6
May	973	9.6

<b>June</b>	1,323	13.0
<b>July</b>	1,009	9.9
<b>August</b>	1,088	11.6
<b>September</b>	1,156	11.4
<b>October</b>	668	6.6
<b>November</b>	617	6.1
<b>December</b>	545	5.3

Table 2 Interpretation: The number of registered callers differed by month in 2020. Registration peaked in June, with 1,323 callers. The number of registered callers was also elevated for August and September (1,088 and 1,156 callers, respectively).

**Figure 3. Number of registered callers who report tobacco use, by enrollment status, 2020**

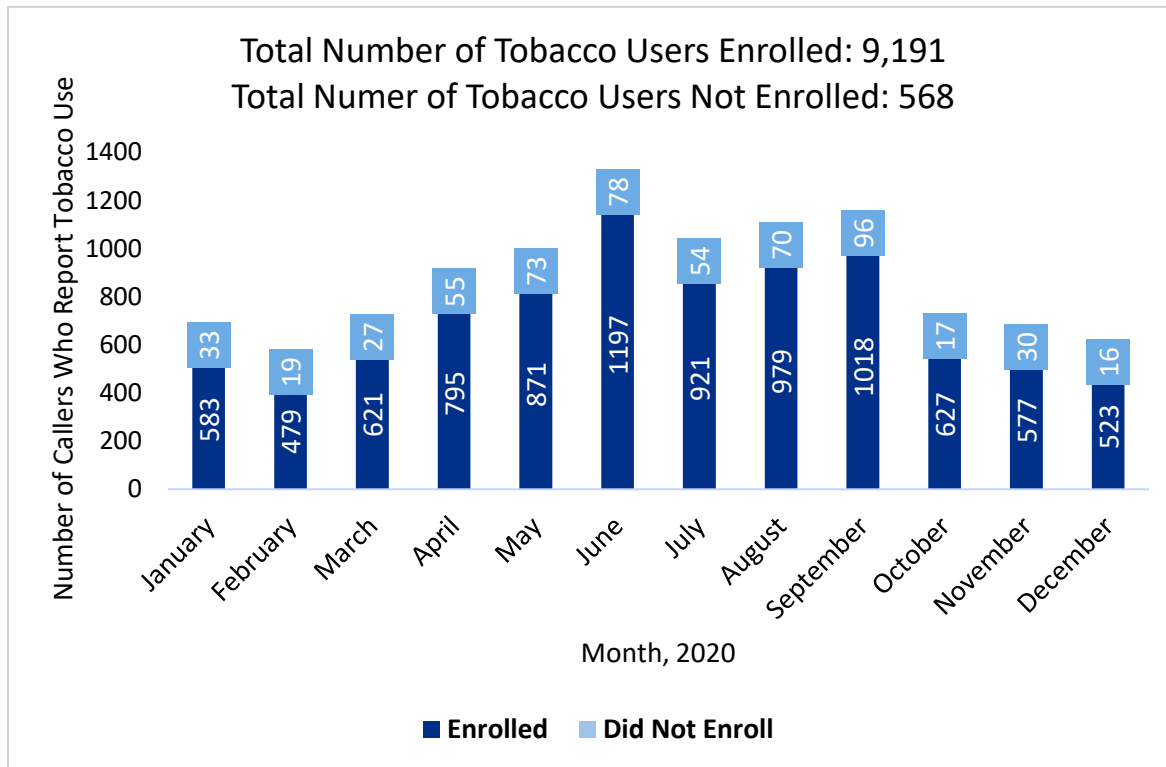


Figure 3 Interpretation: Of the 9,759 registered callers who reported tobacco use, 9,191 enrolled in multiple call counseling. The number of tobacco users who enrolled in counseling greatly exceeded the number of those who did not enroll. This pattern was seen every month.

**Table 3. Number and percentage of registered tobacco users, by demographic characteristics and enrollment status, 2020**

Demographic Characteristics	Enrolled	
	Number	Percentage <sup>+</sup>
<b>Total*</b>	9,191	94.2

<b>Gender</b>		
<b>Male</b>	5,527	60.1
<b>Female</b>	3,659	39.8
<b>Age Group (years)</b>		
<b>Less than 29</b>	627	6.8
<b>30 to 44</b>	2,308	25.1
<b>45 to 64</b>	4,823	52.5
<b>65 and older</b>	1,433	15.6
<b>Race</b>		
<b>White</b>	5,338	58.1
<b>Black</b>	2,003	21.8
<b>Other</b>	1,272	13.8
<b>Ethnicity</b>		
<b>Hispanic</b>	1,914	20.8
<b>Not Hispanic</b>	6,763	73.6
<b>Education</b>		
<b>Less than Grade 9</b>	517	5.6
<b>Some High School</b>	1,200	13.1
<b>GED</b>	722	7.9

<b>High School Graduate</b>	2,147	23.4
<b>Some College</b>	2,085	22.7
<b>College Graduate</b>	1,584	17.2
<b>Some Technical/Trade School</b>	91	1.0
<b>Technical/Trade School Graduate</b>	359	3.9
<b>Insurance</b>		
<b>Commercial Insurance</b>	1,577	17.2
<b>Medicaid</b>	1,317	14.3
<b>Medicare</b>	2,040	22.2
<b>Uninsured</b>	3,955	43.0
<b>Veteran's Administration</b>	73	0.8
<b>Language</b>		
<b>English</b>	8,519	92.7
<b>Spanish</b>	664	7.2
<b>Other</b>	8	0.09
<b>Pregnancy Status<sup>^</sup></b>		
<b>Pregnant</b>	47	2.1
<b>Planning to Become Pregnant</b>	48	2.2
<b>Currently Breastfeeding</b>	12	0.6

<b>Not Pregnant</b>	2,091	95.0
<b>Chronic Condition</b>		
<b>Yes</b>	3,956	43.0
<b>No</b>	5,235	57.0
<b>Mental Health/Substance Use Condition</b>		
<b>Yes</b>	4,466	48.6
<b>No</b>	4,725	51.4
<b>Sexual Orientation/Gender Identity Minority</b>		
<b>Yes</b>	475	5.2
<b>No</b>	7,516	81.8
<p>+Missing values were excluded for calculating percentages.</p> <p>*Demographic data for those not enrolled was not collected and thus not shown. Total includes participants who may have some demographic data missing. Each category may not add up to the total for that group.</p> <p>^Data collected for female callers under age 50 years.</p>		

**Table 3 Interpretations:** In 2020, more than nine in 10 registered callers who reported tobacco use enrolled in multiple call tobacco cessation counseling. The majority of callers were male, between 30-64 years of age, and identified as white race. Forty-three percent of registered callers were uninsured. Additionally, 43 percent of all registered callers reported having a chronic condition. Almost half of all registered callers reported having a mental health/substance abuse condition.



**Table 4. Number and percentage of enrolled callers, by entry method, 2020**

Entry Method	Number	Percentage
Total	9,191	100.0
Phone	7,311	82.7
Fax Referral	730	8.3
Electronic Referral	420	4.8
Web Enrollment	280	3.2
Other	95	1.0

Table 4 Interpretations: Of the 9,191 callers enrolling in TTQL services in 2020, 7,311 enrolled via phone. Eight in 100 were referred by a healthcare provider using a fax referral system, almost five in 100 were electronically referred, and three in 100 enrolled in services online.

**Table 5. Number and percentage of enrolled callers, by means of hearing about TTQL, 2020**

Means of Hearing About TTQL	Number	Percentage
Total	9,191	100.0
TV/Commercial	4,396	47.8
Health Professional	1,856	20.2
Family/Friend	860	9.4

<b>Website</b>	671	7.3
<b>Brochure/Newsletter/Flyer</b>	114	1.2
<b>Community Organization</b>	95	1.0
<b>Radio</b>	87	1.0
<b>Health Insurance</b>	72	0.8
<b>Health Department</b>	52	0.6
<b>Employer/Worksite</b>	48	0.5
<b>Outdoor Ad</b>	36	0.4
<b>QUITNOW Mobile App</b>	8	0.1
<b>CVS/Pharmacy</b>	6	0.1
<b>Cigarette Pack</b>	2	0.0
<b>Newspaper/Magazine</b>	4	0.0
<b>Other</b>	435	4.7
<b>Does Not Know</b>	88	1.0
<b>Not Collected</b>	360	3.9
<b>Refused</b>	2	0.0

Table 5 Interpretations: Almost half of enrolled callers (47.8%) heard about the program from television ads and commercials. About two in 10 enrolled callers (20.2%) were introduced to the program by a health professional, while one in 10 (9.4%) heard about the program through a family member or friend. The remaining 22.6% heard about the program via other approaches or did not remember/answer.

**Table 6. Number and percentage of enrolled callers who received a Nicotine Replacement Therapy (NRT) recommendation, by type of NRT recommended, 2020**

NRT Type	Number	Percentage
<b>Total</b>	5,815	100.0
<b>Patch</b>	4,077	70.1
<b>Gum</b>	830	14.3
<b>Lozenge</b>	908	15.6

*Note:* Participants enrolled in multiple call counseling are asked a series of questions during their assessment call. Based on their responses to these questions, participants are recommended a type of NRT to be used. Enrolled callers who are not eligible for receiving NRT by the TTQL are not given a recommendation.

*Denominator:* Total number of callers enrolled in multiple call counseling who received an NRT recommendation during a completed intervention/assessment call (n=5,815).

Table 6 Interpretations: Out of the total 9,191 enrolled callers in 2020 (see Table 3), 5,815 callers received an NRT recommendation during their assessment call. About seven in 10 (70.1%) were recommended nicotine patches to aid in tobacco cessation, 14 in 100 were recommended gum, and almost 16 in 100 were recommended lozenges. No callers were recommended combination therapy (use of two or more types of NRT) in this reporting year.

**Table 7. Number and percentage of enrolled callers receiving NRT, by NRT type, 2020**

NRT Type	Number of Callers (N)	Percentage
Total	5,571	100.0
Patch	3,921	70.4
Gum	792	14.2
Lozenge	858	15.4

*Denominator:* Total number of enrolled callers who were sent NRT (n=5,571). The number of people recommended to receive NRT may be higher than the number of shipments as callers may decline to receive NRT.

Table 7 Interpretations: Of the 5,815 enrolled callers who received an NRT recommendation in 2020 (see Table 6), 5,571 received a shipment of NRT from the TTQL (95.8%). NRT sent was in the form of nicotine patches to 70 in 100 callers (70.4%), while either 14 in 100 were sent gum and 15 in 100 were sent lozenges.

**Table 8. Number and percentage of NRT shipments to enrolled callers, by NRT type, 2020**

NRT Type	Number of Shipments (N)	Percentage
Total	5,581	100.0
Patch	3,928	70.4
Gum	794	14.2
Lozenge	859	15.4

Note: Data presented in this table does not count the unique number of enrolled callers who received NRT. Some enrolled callers may have received more than one shipment. The number of people recommended to receive NRT may be higher than the number of shipments as callers may decline to receive NRT.

*Note:* This table displays the number of shipments made to enrolled callers. Some participants may have received more than one shipment.

*Denominator:* Total number of NRT shipments made to enrolled callers (5,581).

Table 8 Interpretations: There were 5,581 shipments of NRT made to enrolled callers in 2020. Of the NRT types, 70 in 100 were nicotine patches, while 14 in 100 were gum and 15 in 100 were lozenges.

## **QEE Dataset Limitations**

- The QEE dataset provides a snapshot in time. Some information for callers may be collected in future calls, after data is extracted from the database managed by Optum and sent to the TPCB.
- QEE data tables are not to be compared to REE data tables displayed in the next section. REE data contains referral information during pre-registration. QEE data contains information on callers who are registered. There may be a time-lag in the period where pre-registered referrals become registered callers.
- There is no limit to the number of incoming and outgoing calls made to/from registered callers. Each individual call is captured as a separate observation. De-duplicated registration calls were used to conduct aggregate analysis.
- Callers who enrolled in web-based services only are not included in the analysis.

## 6. Referral Experience Extract (REE)

Over 9,000 tobacco users were referred to the TTQL by healthcare providers.

**Table 9. Number and percentage of TTQL referrals, by referral method and enrollment status, 2020**

Referral Method	Total Number Reached	Total Referred		Accepted Services		Declined Services	
		N	%	N	%	N	%
<b>Total</b>	3,138	9,029	34.8	1,609	51.3	1,529	48.7
<b>Electronic</b>	919	3,837	24.0	402	43.7	517	56.3
<b>Fax</b>	1,773	4,500	39.4	781	44.0	992	56.0
<b>Secure Email</b>	0	0	0.0	0	0	0	0.0
<b>Web</b>	446	692	64.5	426	95.5	20	4.5

**Note: Table excludes referrals to participants who have not yet been reached (i.e., enrollment status: active, needs call back, unreachable).**

*Denominator:* Total number of electronic, fax, and web referrals who accepted or declined services (3,138)

Table 9 Interpretations: Table 10 shows the 2020 referrals made to callers who had been reached and either accepted or declined services (n=3,138). Among the total 3,837 electronic referrals, almost one quarter (24.0%) were reached. Among the total 4,500 fax referrals, almost four in 10 (39.4%) were reached. More than six in 10 of web referrals were reached (64.5%). Over half of referrals accepted TTQL services 51.3%.

Acceptance rates were similar for fax and electronic referrals (43.7% and 44.0%, respectively), but acceptance of web referrals was 95.5%

**Figure 4. TTQL registered smoking callers and smoking prevalence estimates, by Public Health Region (PHR), Texas, 2020**

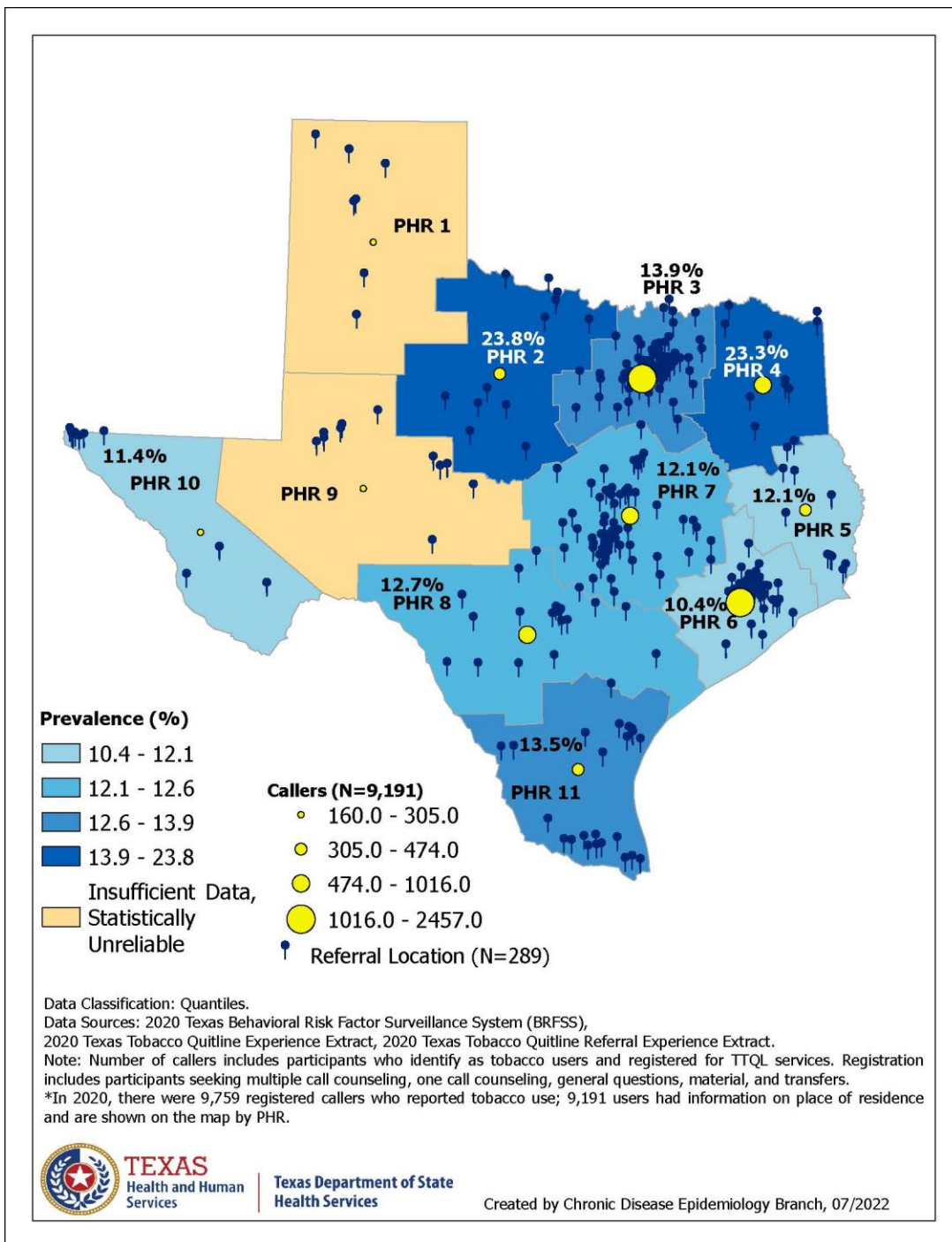


Figure 4 Interpretation: There were 9,759 registered callers who reported tobacco use. There were 9,029 referrals made by healthcare facilities or providers in Texas.

## **REE Dataset Limitations**

- Frequencies presented in Tables 9 and 10 represent the number of TTQL referrals, not the number of patients referred. There is no limit to the number of times a patient can be referred to the TTQL, therefore data included in the tables are not de-duplicated.
- Data accuracy and completeness relies on information provided by healthcare providers at the time of referral.
- Clinic location information was not provided for many referrals. Referral clinic locations in Figure 4 are under-estimated.
- Clinic referral locations in Figure 4 are geocoded using zip codes. Several referring clinics could be present in the same zip code.
- Referred patients who accept services may not have actively used TTQL services.
- REE data tables are not to be compared to QEE data tables. REE data contains referral information during pre-registration. QEE data contains information about callers who are registered. There may be a time-lag in the period where pre-registered referrals become registered callers.



## 7. TTQL Follow-up Survey Evaluation

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The TPCB contracts Optum to conduct a seven-month follow-up survey of the enrolled callers. Data from this survey is used to evaluate participants' progress in tobacco cessation. A report with findings from fiscal year 2020 survey is forthcoming.

### Evaluation Design

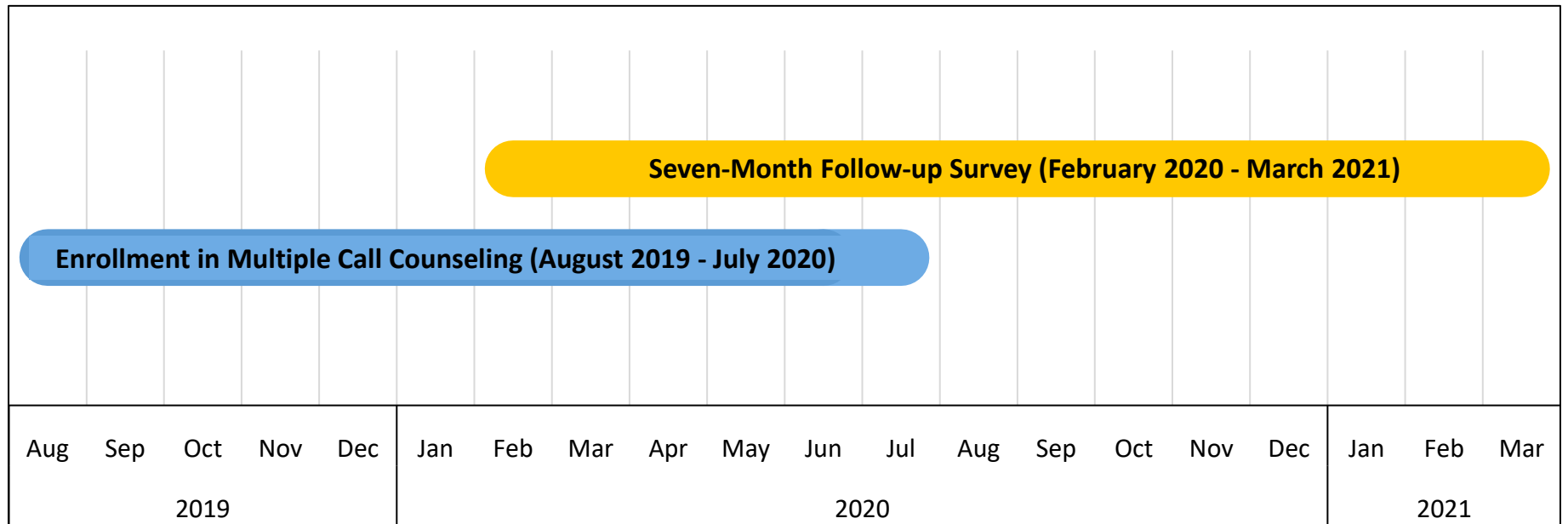
Between August 1, 2019 and July 31, 2020, Optum attempted to contact a total of 410 multiple-call counseling participants for an evaluation survey measuring TTQL outcomes seven months after each participant's registration date. These participants provided consent at the time of their TTQL registration to complete a web-based survey. If a participant did not respond to the web-based survey, Optum tried to contact them by phone. Optum made multiple attempts to reach participants over an approximate four-week period.

*Inclusion Criteria:* Participants recruited to participate in the seven-month follow-up survey met the following criteria:

- Tobacco user at intake;
- Completed at least one intervention call with Quit Coach staff;
- 18 years of age or older;
- Provided a valid method of contact (phone/email);
- Spoke English or Spanish;
- Consented to evaluation follow-up.

The analysis did not include proxies, healthcare providers or members of the general public.

Figure 5. TTQL Evaluation Timeline, 2019 – 2021



## Methodology

This section includes aggregate seven-month follow-up survey data. For the purposes of this report, we defined a successful “quit” as participants who reported not using tobacco (excluding e-cigarettes) for the last 30 days or more at the time of their seven-month survey. Unlike previous years’ evaluations reports, data were not weighted in this analysis. All analyses were conducted using SAS 9.4.

### Survey Sample

A total of 157 participants completed the seven-month follow-up survey.

**Table 10. Number and Percent of Seven-month Follow-up Survey Participants by Demographic Characteristics**

Demographic Characteristics	# of Participants	%	95% Confidence Interval	
			Lower Limit	Upper Limit
<b>Total</b>	157*	100.0		
<b>Gender</b>				
<b>Female</b>	89	56.7	48.9	64.5
<b>Male</b>	68	43.3	35.5	51.1

<b>Age (years)</b>				
<b>18-40</b>	28	17.8	11.3	23.1
<b>41-60</b>	69	43.9	36.2	51.7
<b>&gt;60</b>	60	38.2	30.6	45.8
<b>Race/Ethnicity</b>				
<b>Black, non-Hispanic</b>	37	26.2	18.9	33.5
<b>Hispanic</b>	4	2.8	0.1	5.6
<b>Other</b>	13	9.2	4.4	14.0
<b>White, non-Hispanic</b>	87	61.7	53.6	69.7
<b>Education</b>				
<b>Less than high school</b>	19	12.8	7.4	18.1
<b>GED</b>	9	6.0	2.2	9.9
<b>High school diploma</b>	43	28.9	21.6	36.2
<b>More than high school</b>	78	52.3	44.3	60.4
<b>Insurance</b>				
<b>Commercial</b>	31	20.1	13.8	26.5
<b>Medicaid</b>	19	12.3	7.1	17.6
<b>Medicare</b>	40	26.0	19.0	32.9
<b>Uninsured</b>	64	41.6	33.7	49.4

<b>Sexual/Gender Minority Status</b>				
<b>Heterosexual</b>	127	92.7	88.3	97.1
<b>Bisexual, Homosexual, Transgender, Does Not Know, Other</b>	10	7.3	2.9	11.7
<b>Chronic Condition</b>				
<b>Yes</b>	80	51.0	43.1	58.8
<b>No</b>	77	49.0	41.2	56.9
<b>Mental Health/Substance Abuse Condition</b>				
<b>Yes</b>	72	45.9	38.0	53.7
<b>No</b>	85	54.1	46.3	62.0
*Total includes participants who may have some demographic data missing. Each category may not add up to the total for that group. Missing values were excluded for calculating percentages.				

**Table 10 Interpretations:** More females (56.7%) completed the survey than males (43.3%). Most survey participants were between the ages of 41 and 60 years (43.9%), self-reported white race (61.7%), educated beyond high school (52.3%), heterosexual (92.7%), and reported having a chronic condition (51.0%) but without a mental health or substance abuse condition (54.1%). Over two in five were uninsured (41.6%).

## Outcomes Among Participants Who Completed the Seven-month Follow-up Survey

The following table (Tables 11) and figure (Figure 6) display the motivation and confidence of participants who completed the follow-up survey at registration by quit status and TTQL utilization.

**Table 11. Number and Percent of Participants by Motivation Level Reported at Registration**

Motivation Level	Number of Participants	Percent
<b>Total</b>	116*	100.0
<b>1 (Not motivated)</b>	0	0
<b>2-5</b>	12	10.3
<b>6-9</b>	53	45.7
<b>10 (Highly Motivated)</b>	51	44.0

\*Total includes participants who may have some data missing. Each category may not add up to the total for that group. Missing values were excluded for calculating percentages.

Table 11 Interpretations: Participants ranked their motivation to no longer use tobacco on a scale of one to 10, with one being not motivated and 10 being highly motivated, at registration. No participants ranked their motivation at zero or none. The majority of the participants (89.7%) reported higher levels of motivations to quit (ranked six and above) with over one in four participants ranking their motivation at 10.

**Figure 6. Number of Participants by Motivation Level Reported at Registration and Quit Status at Seven-Month Follow-up**

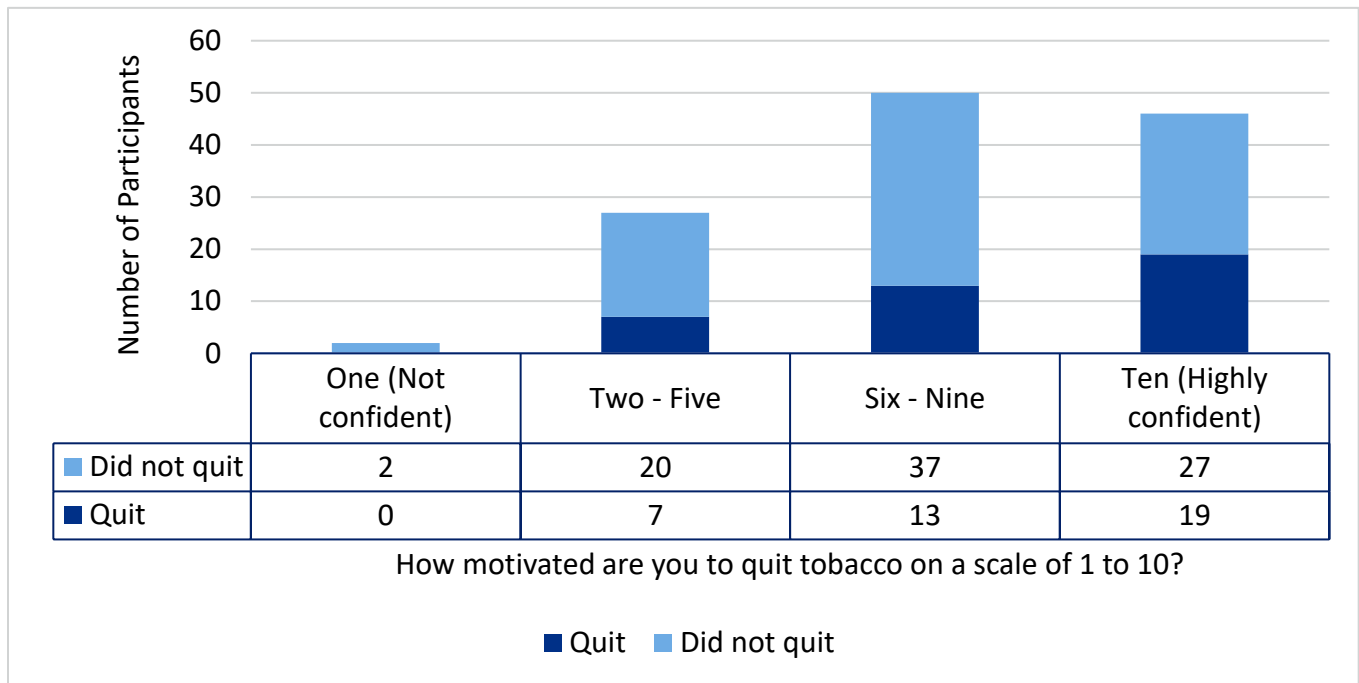


Figure 6 Interpretations: Out of 51 participants who reported being very motivated (10 on a scale of one-10), one third met the definition of successfully quitting (17 participants; 33.3%) at their seven-month follow-up. Less than one in five (16.7%) participants who ranked their motivation at five or lower met the definition of successfully quitting at follow-up.

**Table 12. Number and Percent of Participants by Confidence Level Reported at Registration**

Confidence Level	Number of Participants	Percent
<b>Total</b>	125	100.0
<b>1 (Not confident)</b>	2	1.6
<b>2-5</b>	27	21.6
<b>6-9</b>	50	40.0
<b>10 (Highly confident)</b>	46	36.8
*Total includes participants who may have some data missing. Each category may not add up to the total for that group. Missing values were excluded for calculating percentages.		

Table 12 Interpretations: Participants ranked their confidence in quitting tobacco on a scale of one to 10, with one being not confident and 10 being highly confident, at registration. More than one third (36.8%) of the participants ranked their confidence to quit as a 10.



**Figure 7. Number of Participants by Confidence Level Reported at Registration and Quit Status at Seven-month Follow-up**

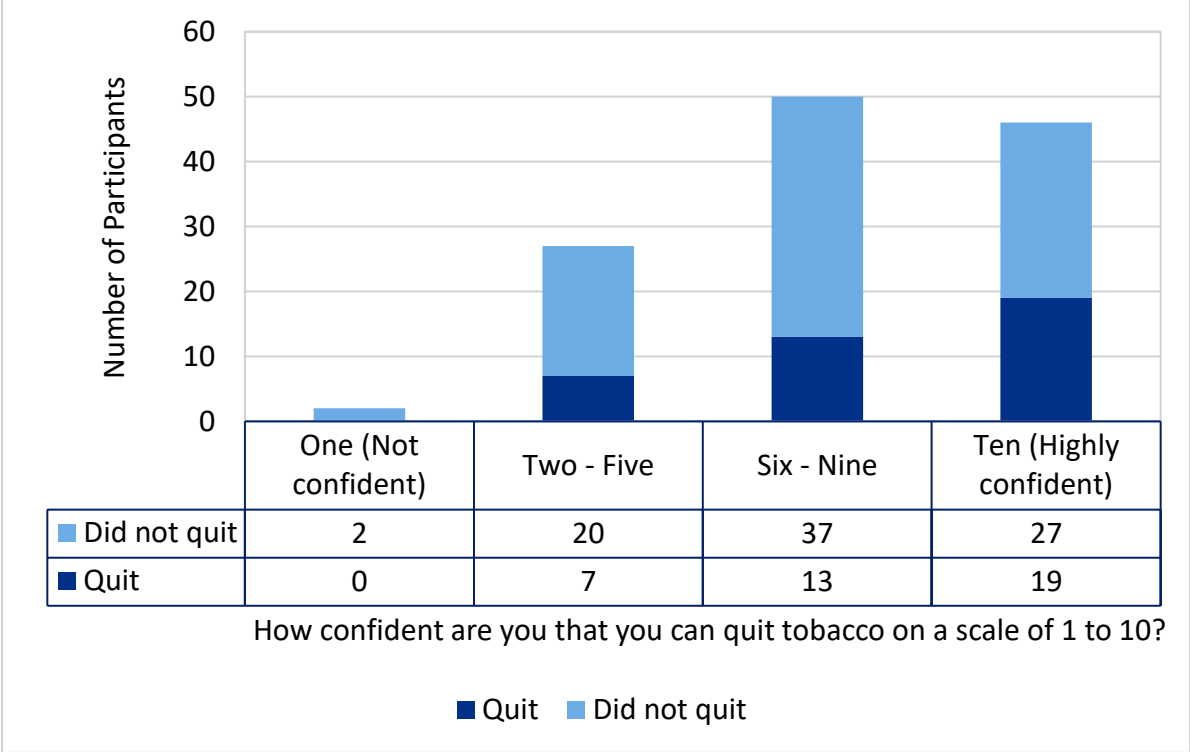


Figure 7 Interpretations: Out of 46 participants who reported being very confident (10 on a scale of one-10), roughly four in 10 met the definition of successfully quitting (19 participants; 41.3%) at their seven-month follow-up. Nearly a quarter of (seven participants, 24.1%) participants who ranked their confidence at five or lower met the definition of successfully quitting at follow-up.

**Table 13. Number and Percent of Callers by Quit Status and Demographic Characteristics**

Demographics	Quit				Did Not Quit			
	Number of Participants	%	95% CI		Number of Participants	%	95% CI	
			Lower Limit	Upper Limit			Lower Limit	Upper Limit
<b>Total*</b>	47	29.9	2.7	37.1	110	70.1	62.9	77.3
<b>Gender</b>								
<b>Female</b>	30	33.7	23.8	43.6	59	66.3	56.4	76.2
<b>Male</b>	17	25.0	14.7	35.3	51	75.0	64.7	85.3
<b>Age (years)</b>								
<b>18-40</b>	7	25.0	9.3	42.5	21	75.0	57.5	90.7
<b>41-60</b>	23	33.3	22.2	44.5	46	66.7	55.5	77.8

<b>&gt;60</b>	17	28.3	16.9	39.8	43	71.7	60.2	83.1
<b>Race/Ethnicity</b>								
<b>Black, non-Hispanic</b>	13	35.1	19.7	50.6	24	64.9	49.4	80.3
<b>Hispanic</b>	0	0	0	0	4	100.0	100.0	100.0
<b>Other</b>	4	30.8	5.6	56.0	9	69.2	44.0	94.4
<b>White, non-Hispanic</b>	26	29.9	20.2	39.5	61	70.1	60.5	79.8
<b>Education</b>								
<b>Less than high school</b>	4	21.1	2.6	39.5	15	78.9	60.5	97.4
<b>GED</b>	5	55.6	22.9	88.2	4	44.4	11.8	77.1
<b>High school diploma</b>	11	25.6	12.5	38.7	32	74.4	61.3	87.5
<b>More than high school</b>	25	32.1	21.6	42.5	53	67.9	57.5	78.4
<b>Insurance</b>								
<b>Commercial</b>	13	41.9	24.5	59.4	18	58.1	40.6	75.5
<b>Medicaid</b>	6	31.6	10.6	52.6	13	68.4	47.4	89.4

<b>Medicare</b>	8	20.0	7.6	32.4	32	80.0	67.6	92.4
<b>Uninsured</b>	20	31.3	19.8	42.7	44	68.8	57.3	80.2
<b>Sexual/Gender Minority Status</b>								
<b>Heterosexual</b>	40	31.5	23.4	39.6	87	68.5	60.4	76.6
<b>Bisexual/Homosexual/Transgender/Does Not Know/Other</b>	4	40.0	9.5	70.5	6	60.0	29.5	90.5
<b>Chronic Condition</b>								
<b>Yes</b>	26	32.5	22.2	42.8	54	67.5	57.2	77.8
<b>No</b>	21	27.3	17.3	37.3	56	72.7	62.7	82.7
<b>Mental Health/Substance Abuse Condition</b>								
<b>Yes</b>	18	25.0	15.0	35.0	54	75.0	65.0	85.0
<b>No</b>	29	34.1	24.0	44.2	56	65.9	55.8	76.0

\*Total includes participants who may have some demographic data missing. Each category may not add up to the total for that group. Missing values were excluded for calculating percentages.

Table 13 Interpretations: Almost three in 10 (29.9%) participants who completed the seven-month follow-up survey reported no tobacco use in the past 30 days. There were no significant differences in the percentage of participants who reported no tobacco use by gender, age, sexual/gender minority status, education level, insurance, reporting a chronic condition or reporting a mental health/substance abuse condition. Almost one-third of uninsured participants (31.6%) reported no tobacco use at follow-up. One-third of participants (32.5%) with a chronic condition reported no tobacco use at follow-up compared to one-fourth (25%) of participants with a mental health/substance abuse condition who reported no tobacco use.

**Table 14. Number and Percent of Participants, by NRT Recipient Status and Insurance Type**

NRT Status	Commercial		Medicaid		Medicare		Uninsured	
	# of Callers	%	# of Callers	%	# of Callers	%	# of Callers	%
<b>Total</b>	31	20.1	19	12.3	40	26.0	64	41.6
<b>NRT recipient</b>	23	74.2	2	10.5	30	75.0	56	87.5
<b>NRT non-recipient</b>	8	25.8	17	89.5	10	25.0	8	12.5

Table 14 Interpretations: Over four in 10 (41.6%) participants did not have insurance. Roughly 88% of uninsured participants received NRT through the TTQL. Medicaid provides NRT to their beneficiaries, hence these participants did not qualify for NRT provided by TTQL. However, two participants may have received the NRT from TTQL due to qualifying under different eligibility criteria.

**Table 15. Number and Percent of Participants, by NRT Type and Insurance Type**

NRT Type	Commercial		Medicaid		Medicare		Uninsured	
	# of Callers	%	# of Callers	%	# of Callers	%	# of Callers	%
<b>Total</b>	31	20.1	19	12.3	40	26.0	64	41.6
<b>Non</b>	8	25.8	17	89.5	10	25.0	8	12.5
<b>Patches</b>	17	54.8	2	10.5	22	55.0	40	62.5
<b>Gum</b>	4	12.9	0	0	5	12.5	6	9.4
<b>Lozenges</b>	2	6.5	0	0	3	7.5	10	15.6

Table 15 Interpretations: Among participants with no health insurance, 62.5% received a two-week supply of nicotine patches to aid in cessation, while nearly 10% (9.4%) of uninsured participants received gum, and over 15 in 100 (15.6%) received lozenges. Nicotine patches were also the most common form of NRT sent to participants with commercial insurance and participants on Medicare and participants with commercial health insurance.

**Table 16. Number and Percent of Survey Participants by NRT Recipient Status and Quit Status**

Recipient Status	Quit		Did Not Quit	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	47	29.9	110	70.1
<b>NRT Recipient</b>	33	29.5	79	70.5
<b>NRT Non-recipient</b>	14	31.1	31	68.9

Table 16 Interpretations: Three in 10 participants (29.5%) who received NRT from the TTQL reported quitting tobacco at the seven-month follow-up. There were no significant differences in the percent of callers who quit by NRT recipient status. It is possible that participants may have used NRT on their own as well, without receiving it from the TTQL.



**Table 17. Number and Percent of Survey Participants by NRT Type and Quit Status**

NRT types Provided	Quit		Did Not Quit	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	47	29.9	110	70.1
<b>None</b>	14	31.1	31	68.9
<b>Patches</b>	24	29.2	58	70.7
<b>Gum</b>	5	33.3	10	66.7
<b>Lozenges</b>	4	26.7	11	73.3

Table 17 Interpretations: Among participants who did not receive NRT from the TTQL, 36.8% reported no tobacco use in the past 30 days. There were no significant differences in the amount of NRT provided and quit status at seven-month follow-up. However, as mentioned above, it is possible that the participants may have used NRT on their own regardless of whether they received it from the TTQL.

**Table 18. Number and Percent of Survey Participants by Number of Counseling Calls Completed and Quit Status**

Number of Completed Calls	Quit		Did Not Quit	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	47	29.9	110	70.1
<b>1 Call</b>	15	23.4	49	76.6
<b>2 Calls</b>	9	29.0	22	71.0
<b>3 Calls</b>	11	39.3	17	60.7
<b>4 Calls</b>	8	38.1	13	61.9
<b>≥5 Calls</b>	4	30.8	9	69.2

Table 18 Interpretations: Three in 10 survey participants (30.8%) who completed five or more counseling calls reported no longer using tobacco in the past 30 days at seven-month follow-up. In general, the percentage of participants quitting tobacco increased with an increase in the number of counseling calls they completed, though these differences did not reach statistical significance.

**Table 19. Number and Percent of Survey Participants by Entry Method and Quit Status**

Entry Method	Quit		Did Not Quit	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	47	29.9	110	70.1
<b>Phone</b>	40	29.4	96	70.6
<b>Fax Referral</b>	1	14.3	6	85.7
<b>Electronic Referral</b>	2	33.3	4	66.7
<b>Other</b>	4	50.0	4	50.0

Table 19 Interpretations: A majority of the participants entered the TTQL by phone. Almost 30 percent (29.4%) of the seven-month survey participants who entered into TTQL services via phone reported no longer using tobacco for the past 30 days. Additionally, 14 in 100 (14.3%) survey participants referred by a healthcare provider using a fax referral system reported tobacco cessation for the past 30 days. Successful cessation did not statistically differ between phone, fax, or electronic referrals.

**Table 20. Number and Percent of Participants by How They Heard About TTQL Services and Quit Status**

How Heard About	Quit		Did Not Quit	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	47	29.9	110	70.1
<b>TV/Commercial</b>	34	30.1	79	69.9
<b>Health Care Provider</b>	7	38.9	11	61.1
<b>Family/Friend</b>	3	37.5	5	62.5
<b>Website</b>	1	16.7	5	83.3
<b>Brochure/Newsletter/Flyer</b>	1	100.0	0	0
<b>Health Department</b>	1	100.0	0	0
<b>Community Organization</b>	0	0	0	0
<b>Health Insurance</b>	0	0	0	0

<b>Radio</b>	2	100.0	0	0
<b>Outdoor Ad</b>	0	0	0	0
<b>Other</b>	3	75.0	1	25.0
<b>Does Not Remember</b>	2	100.0	0	0

\*Categories are not mutually exclusive. Individual categories may sum to more than the total.

Table 20 Interpretations: Participants heard about the TTQL services mostly via TV commercials, healthcare professionals, and family or friends. Three in 10 of participants who heard about the program from these methods reported 30-day tobacco cessation at follow-up. Quit rates did not statistically differ by hearing about the program from television commercials, healthcare providers, or through a family or friend.

**Table 21. Number and Percent of Participants by NRT Use Status from TTQL Since Their First Counseling Call and Quit Status**

NRT Use Status	Quit		Did Not Quit	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	47	29.9	110	70.1
<b>Used NRT</b>	33	29.5	79	70.5
<b>Did Not Use NRT</b>	14	31.1	31	68.9

Table 21 Interpretations: A total of 45 participants did not receive NRT from TTQL and answered the question about NRT use. Participants may use NRT on their own regardless of TTQL providing it. Almost three in 10 (31.1%) of those 45 participants reported tobacco cessation at seven-month follow-up. While slightly fewer participants who used an NRT reported quitting (29.5%) than those who did not use an NRT (31.1%), this difference did not reach statistical significance.

**Table 22. Number and Percent of Participants Who Did Not Receive NRT from TTQL by Type of NRT Used Since Their First Counseling Call and Quit Status**

NRT Type	Quit		Did Not Quit	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	14	31.1	31	68.9
<b>Nicotine Patches</b>	5	31.3	11	68.8
<b>Nicotine Gum</b>	3	27.3	8	72.7
<b>Nicotine Lozenges</b>	1	20.0	4	80.0
<b>Nicotine Inhaler</b>	0	0	0	0
<b>Nicotine Nasal Spray</b>	0	0	0	0
<b>Zyban/Bupropion/ Wellbutrin</b>	1	20.0	4	80.0
<b>Chantix/Varenicline</b>	1	25.0	3	75.0
<b>Other</b>	0	0	0	0
<b>None</b>	8	38.1	13	61.9
<p>Note: Each category may not add up to the total for that group, as individuals may have reported using more than one type of NRT.</p>				

Table 22 Interpretations: Among those who did not receive NRT from TTQL, three in 10 were able to quit. More than one in four (27.3%) of those reporting using nicotine patches, gum, or lozenges were able to quit. Roughly seven in 10 (68.9%) of the TTQL callers who did not use NRT since their first counseling call were unable to stop using tobacco.



**Table 23. Number and Percent of Participants by E-Cigarette Use and Quit Status**

Cigarette Use at Follow-up	Quit		Did Not Quit	
	Number of Callers	Percent	Number of Callers	Percent
<b>Total</b>	47	29.9	110	70.1
<b>E-Cigarette Use Status</b>				
<b>Current</b>	2	13.3	13	86.7
<b>Former</b>	10	25.0	30	75.0
<b>Never</b>	34	35.8	61	64.2
<b>Ever Use</b>				
<b>Yes</b>	12	21.8	43	78.2
<b>No</b>	34	35.8	61	64.2

Table  
23

Interpretations: Overall, 15 in 100 (10%) participants reported current e-cigarette use, and almost one-fourth (26.7%) reported former e-cigarette use at follow-up. There were no statistically significant differences between e-cigarette use and tobacco cessation.

**Table 24. Number and Percent of Participants, Who Report Tobacco Cessation, by NRT Type Provided and Calls Completed**

Type of NRT Provided	< 3 Completed Calls		≥ 3 Completed Calls	
	Number of Participants	Percent	Number of Participants	Percent
<b>Total</b>	24	51.1	23	48.9
<b>None</b>	17	56.7	13	43.3
<b>Patches</b>	15	62.5	9	37.5
<b>Gum</b>	0	0	5	100.0
<b>Lozenges</b>	1	25.0	3	75.0

Table 24 Interpretations: Among participants who reported tobacco cessation, about half (51.1%) completed less than three counseling calls and over four in 10 (48.9%) completed more than three counseling calls. There were no statistically significant differences between NRT type and completing three or more counseling calls.

## Successes Among Participants Who Did Not Quit

Almost three-fifths of participants who completed the seven-month follow-up survey did not successfully quit smoking (157 participants: 70.1%).

**Table 25. Number and Percent of Participants Who Did Not Quit by Select Cigarette Use Behaviors**

<b>Cigarette Use Behaviors</b>	<b>Number of Participants</b>	<b>Percent</b>
<b>Total</b>	157	100.0
<b>Cigarettes per Day</b>		
<b>Fewer than baseline</b>		
<b>Yes</b>	57	73.1
<b>No</b>	21	26.9
<b>≥ 25% reduction from baseline</b>		
<b>Yes</b>	53	67.9
<b>No</b>	25	32.1
<b>≥ 50% reduction from baseline</b>		
<b>Yes</b>	37	47.4
<b>No</b>	41	52.6

Table 25 Interpretations: More than 70 percent of participants reported smoking fewer cigarettes per day at follow-up. Almost 67.9% of the participants reduced the number of cigarettes used per day by at least 25%. About 47.4% of participants reduced the number of cigarettes used per day by at least 50%. These data show that many participants successfully reduced their cigarette smoking, even if they did not quit entirely.

### **Annual Evaluation Dataset Limitations**

- All outcomes explored rely on self-reported data.
- Data presented here do not include participants who did not respond to the seven-month follow-up survey. Differences in quit outcomes between respondents and non-respondents may result in an overestimation of the quit rate.

## 8. Appendix A. Supplementary Information

**Table 26. List of underlying causes of death and their corresponding ICD-10 codes, Texas 2019**

<b>Underlying Cause of Death</b>	<b>ICD-10 Codes</b>
<b>Malignant neoplasms of lip, oral cavity, and pharynx</b>	C00 – C14
<b>Malignant neoplasms of esophagus</b>	C15
<b>Malignant neoplasms of pancreas</b>	C25
<b>Malignant neoplasms of larynx</b>	C32
<b>Malignant neoplasms of trachea</b>	C33
<b>Malignant neoplasms of bronchus and lung</b>	C34
<b>Emphysema</b>	J43
<b>Chronic obstructive pulmonary disease (COPD)</b>	J44

## 9. References

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1. Texas Department of State Health Services, Center for Health Statistics.
2. (2020). *Texas Mortality Data*. Austin, Texas.
3. Texas Department of State Health Services, Center for Health Statistics. (2020). *Texas Behavioral Risk Factor Surveillance System Public Use Data File*. Austin, Texas.
4. *YesQuit*. (2017). Yesquit.org. Retrieved 15 June 2017, from <http://www.yesquit.org/>
5. Optum. (2020). *Texas QuitLine Experience Extract*. Seattle, Washington.
6. Optum. (2020). *Texas QuitLine Experience Extract Addendum*. Seattle, Washington.
7. Optum. (2020). *Texas Referral Experience Extract*. Seattle, Washington.

# General Information Page

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## Suggested Citation

*2020 Texas Tobacco Quitline (TTQL) Data Report*. Prepared by Chronic Disease Epidemiology, Health Promotion and Chronic Disease Prevention Section, Texas Department of State Health Services.

