

June 2013

**A Brief Summary of Program
Utilization and Cessation Outcomes
for Current Adult Smokers Who
Registered with the **Quit by Phone** or
Quit in Person Programs in FY 2012
by Registrant Medicaid Status**

Final Report

Prepared for

Stephen Morabito
Administrator
Vermont Tobacco Evaluation and Review Board
13 Baldwin Street
Montpelier, VT 05602

Prepared by

Nathan Mann
Doris Gammon
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709

RTI Project Number 0213510.001

RTI Project Number
0213510.001

**A Brief Summary of Program
Utilization and Cessation Outcomes
for Current Adult Smokers Who
Registered with the **Quit by Phone** or
Quit in Person Programs in FY 2012
by Registrant Medicaid Status**

Final Report

June 2013

Prepared for

Stephen Morabito
Administrator
Vermont Tobacco Evaluation and Review Board
13 Baldwin Street
Montpelier, VT 05602

Prepared by

Nathan Mann
Doris Gammon
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709

The 2011 Behavioral Risk Factor Surveillance System (BRFSS) contains measures of current smoking in Vermont as well as measures of family income that can be used to approximate Medicaid eligibility of Vermonters. We define Medicaid eligibility as having an annual family income of less than or equal to 250% of the Federal Poverty Line (FPL). According to the BRFSS, the age-adjusted prevalence of current cigarette smoking among Vermont adults was 20.2% in 2011 (Table 1).

In 2011, the Vermont Medicaid-eligible adult population smoked cigarettes at nearly three times the rate of the non-Medicaid-eligible adult population (27.1% vs. 9.4%).

- In 2011, the age-adjusted prevalence of current cigarette smoking among the Medicaid-eligible adult population in Vermont was 27.1%.
- In 2011, the age-adjusted prevalence of current cigarette smoking among the non-Medicaid-eligible adult population in Vermont was 9.4%.

Of the estimated 95,000 current adult cigarette smokers in Vermont, approximately 42,000 (44%) are Medicaid-eligible and the remaining 53,000 (56%) are not Medicaid-eligible.

Table 1. Age-Adjusted Prevalence of Current Cigarette Smoking among Vermont Adults and Estimated Current Adult Cigarette Smokers in Vermont by Medicaid-Eligibility, BRFSS 2011

Medicaid Eligibility	Current Adult Cigarette Smoking Prevalence in Vermont	Estimated Current Adult Cigarette Smokers in Vermont	
Overall	20.2%	95,000	100%
Medicaid-Eligible	27.1%	42,000	44%
Non-Medicaid-Eligible	9.4%	53,000	56%

The Vermont Tobacco Control Program (VTCP) provides tobacco use cessation assistance through a variety of programs and services. The Vermont Quit Network is VTCP's flagship tobacco use cessation program, providing free tobacco use cessation

counseling and nicotine replacement therapy (NRT) to Vermont tobacco users. The Vermont Quit Network provides telephone counseling through the **Quit by Phone** program, in-person group cessation counseling through the **Quit in Person** program, and Web-based cessation support through the **Quit Online** program. Each of the Vermont Quit Network programs also directly ships free NRT to tobacco users who register with the program and meet eligibility requirements.

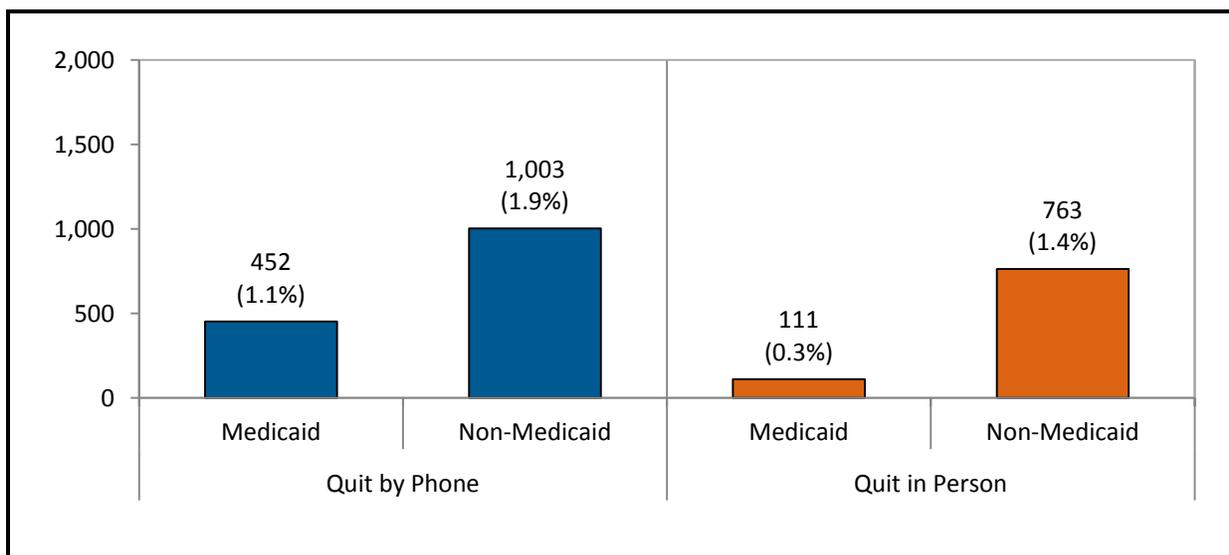
Quit Network registrants are tobacco users who provide information about themselves to the Quit Network program during the intake process and agree to receive services from the Quit Network. Both the **Quit by Phone** and **Quit in Person** programs collect information about registrants' health insurance during the registration process. We used those data to categorize registrants who were current adult cigarette smokers at registration by Medicaid status, either Medicaid or non-Medicaid. The **Quit Online** program does not collect health

insurance information from registrants. Figure 1 presents the number and percentage of current adult cigarette smokers in Vermont who registered for either the *Quit by Phone* or the *Quit in Person* program in fiscal year (FY) 2012 by Medicaid status.

In FY 2012, the percentage of Medicaid-eligible current adult cigarette smokers who registered to receive cessation services from the Quit Network was 1.1% for the *Quit by Phone* program and 0.3% for the *Quit in Person*. The percentage of non-Medicaid-eligible current adult cigarette smokers who registered for services with the Quit Network was significantly higher, at 1.9% for the *Quit by Phone* program and 1.4% for the *Quit in Person* program.

- In FY 2012, 1.1% and 0.3% of the Medicaid-eligible current adult cigarette smokers in Vermont registered to receive cessation services from the *Quit by Phone* and *Quit in Person* programs, respectively.
- In FY 2012, 1.9% and 1.4% of the non-Medicaid-eligible current adult cigarette smokers in Vermont registered to receive cessation services from the *Quit by Phone* and *Quit in Person* programs, respectively.

Figure 1. Current Adult Cigarette Smokers who Registered to Receive Services from the *Quit by Phone* or *Quit in Person* Programs by Medicaid Status, FY 2012



Notes: The percentages shown in parentheses represent the percentage of current adult cigarette smokers in Vermont who registered for, but did not necessarily receive, services from the Quit Network. Results for *Quit by Phone* and *Quit in Person* programs are among current cigarette smokers aged 18 or older at registration. Percentages for Medicaid are of the estimated 42,000 Medicaid-eligible current cigarette smokers aged 18 or older in Vermont (2011 BRFSS). Percentages for non-Medicaid are of the estimated 53,000 non-Medicaid-eligible current cigarette smokers aged 18 or older in Vermont (2011 BRFSS).

Table 2 presents the demographics of current adult cigarette smokers who registered for the **Quit by Phone** or **Quit in Person** programs in FY 2012 by Medicaid status along with demographics for Vermont's smoking population, as measured by the 2011 BRFSS.

- In FY 2012, individuals aged 18 to 44 years accounted for a higher proportion of Medicaid registrants, compared with non-Medicaid registrants, for both **Quit by Phone** and **Quit in Person**.
- In FY 2012, females accounted for a higher proportion of all **Quit by Phone** and **Quit in Person** registrants, compared with the smoking population in Vermont, as measured by the 2011 BRFSS.
- In FY 2012, individuals with less than high school education accounted for a higher proportion of Medicaid registrants, compared with non-Medicaid registrants, for both **Quit by Phone** and **Quit in Person**.

In FY 2012, the proportion of **Quit by Phone** or **Quit in Person** Medicaid registrants with less than high school education was lower than the proportion of the Medicaid-eligible current adult cigarette smokers in Vermont with less than a high school education.

Table 2. Demographics of Current Adult Cigarette Smokers Who Registered for the **Quit by Phone or **Quit in Person** Program by Medicaid Status, FY 2012**

Demographics	Quit by Phone		Quit in Person		2011 Vermont BRFSS	
	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid	Medicaid-Eligible	Non-Medicaid-Eligible
Current Smokers	452	1,003	111	763	42,000	53,000
Age						
18–24	16%	11%	14%	4%	15%	2%
25–44	48%	36%	41%	29%	46%	34%
45–64	32%	44%	44%	51%	31%	58%
65 or older	4%	9%	0%	16%	8%	6%
Race						
White	85%	86%	N/A	N/A	90%	95%
Non-white	7%	5%	N/A	N/A	9%	4%
Missing	8%	9%	N/A	N/A	1%	1%
Sex						
Female	64%	54%	59%	60%	50%	35%
Male	36%	46%	41%	40%	50%	65%
Education						
Less than high school	17%	10%	21%	13%	27%	5%
High school graduate	40%	41%	44%	41%	44%	28%
Some college	24%	21%	22%	25%	22%	25%
College graduate	11%	18%	13%	19%	7%	42%
Missing	8%	10%	1%	1%	0%	0%

Table 3 presents the current adult cigarette smokers who registered for the **Quit by Phone** or **Quit in Person** programs in FY 2012 by cigarettes smoked per day and time to first cigarette after waking.

- In FY 2012, between the **Quit by Phone** and **Quit in Person** programs, a greater proportion of **Quit in Person** registrants, both Medicaid and non-Medicaid, reported smoking one or more packs of cigarettes per day at registration.
- In FY 2012, between Medicaid and non-Medicaid registrants, a significantly greater proportion of **Quit in Person** Medicaid registrants reported smoking their first cigarette within 30 minutes of waking.

Table 3. Smoking Behaviors at Registration among Current Adult Cigarette Smokers who Registered for the **Quit by Phone or **Quit in Person** Program by Medicaid Status, FY 2012**

Cigarettes Smoked Per Day	Quit by Phone		Quit in Person	
	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid
Current Smokers	452	1,063	111	763
<1 pack	39%	40%	32%	26%
1 pack	29%	34%	39%	45%
1–2 packs	23%	23%	21%	19%
More than 2 packs	3%	2%	4%	2%
Missing	7%	0%	5%	8%
Time to First Cigarette After Waking	Quit by Phone		Quit in Person	
	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid
Current Smokers	452	1,063	111	763
30 minutes or less	78%	77%	76%	64%
31–60 minutes	7%	13%	12%	14%
More than 60 minutes	8%	9%	7%	12%
Missing	1%	1%	5%	10%

In FY 2012, a higher proportion of Medicaid registrants (25%) than non-Medicaid registrants (17%) were referred to the **Quit by Phone** program through a fax from a health care provider or community organization (**Table 4**). Comparable data are not available for the **Quit in Person** program.

In FY 2012, 25% of the **Quit by Phone** program's Medicaid registrants were referred to the program by a fax referral from a health care provider or community organization.

Table 4. Current Adult Cigarette Smokers Registered for the **Quit by Phone Program as a Result of a Fax Referral from a Health Care Provider or Community Organization, FY 2012**

Fax Referral	Medicaid		Non-Medicaid	
	Number	Percent	Number	Percent
Current Smokers	452		1,003	
Yes	113	25%	172	17%
No	339	75%	831	83%

Quit by Phone program also have the option to ask general questions, request materials, or be transferred/referred to another program instead of participating in the telephone counseling offered by the **Quit by Phone** program. All tobacco users who registered for the **Quit in Person** program in FY 2011 and FY 2012 registered for group cessation counseling classes.

In FY 2012, a lower proportion of the Medicaid registrants for the **Quit by Phone** program registered for the multi-session counseling program and instead registered for the single-session counseling program.

Among **Quit by Phone** registrants, the proportion who registered for the single-session telephone counseling program was higher for Medicaid registrants (**Table 5**).

Among smokers who registered for counseling from either the **Quit by Phone** or **Quit in Person** program in FY 2012, a lower proportion of Medicaid registrants completed two or more counseling sessions (**Table 6**).

In FY 2012, non-Medicaid registrants who participated in the multi-session counseling program with the **Quit by Phone** program or group cessation counseling classes from the **Quit in Person** program could also receive free NRT from the program. Medicaid registrants were directed to visit their doctor and utilize their NRT benefit through Medicaid.

Table 5. Current Adult Cigarette Smokers Who Registered for the **Quit by Phone Program by Service Registered For, FY 2012**

Service	Medicaid		Non-Medicaid	
	Number	Percent	Number	Percent
Current Smokers	452		1,003	
Multi-session	335	74%	787	78%
One session	78	17%	118	12%

In FY 2012, 72% of the **Quit by Phone** program Medicaid registrants who registered for telephone counseling (either single-session or multi-session) only received one counseling session from the program.

Table 6. Current Adult Cigarette Smokers who Registered for Counseling with the *Quit by Phone* or *Quit in Person* Program by Number of Counseling Sessions Completed, FY 2012

Counseling Sessions Completed	Quit by Phone ^a		Quit in Person ^b	
	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid
Current Smokers Registered for Counseling	413	905	111	763
0 sessions	2%	0%	13%	14%
1 session	72%	54%	29%	13%
2 sessions	13%	22%	17%	11%
3 sessions	8%	10%	14%	21%
4 sessions	2%	8%	19%	29%
5 or more sessions	3%	6%	9%	12%

^a Current adult cigarette smokers who registered for telephone counseling.

^b Current adult cigarette smokers who registered for group session classes.

The *Quit by Phone* and *Quit in Person* programs conduct follow-up evaluations with current adult smokers who register for services 7 months after registration. The 7-month

In FY 2012, 7-month follow-up survey response rates were lower among Medicaid registrants for both the *Quit by Phone* and *Quit in Person* programs.

follow-up surveys measure quit attempts and successful quits among registrants. In FY 2012, 7-month follow-up survey response rates were lower among Medicaid registrants for both the *Quit by Phone* and *Quit in Person* programs (Table 7 and Table 8). Quit attempts are measured by whether registrants were able to quit

smoking for 24 hours or longer at some point since registering with the program. Quit rates are a measure of whether registrants were smoke-free at the time of their evaluation. The standard measure of quit is the 7-day point prevalence, which measures whether clients have been smoke-free for the past 7 days at the time of their follow-up evaluation survey. We also examined quit attempts and quit rates among registrants using an intent-to-treat approach that adjusts for nonresponse by assuming that all individuals who were contacted for, but did not complete, follow-up surveys did not make a quit attempt lasting at least 24 hours at some point following registration or were not smoke-free for the past 7 days at the time they were contacted for follow-up evaluation. This approach yields a more conservative estimate of quit attempts and quit rates among registrants. It is also a direct function of the survey response rates in that lower response rates will also result in lower intent-to-treat rates.

Table 7. Percentage of Current Smokers Who Registered for the **Quit by Phone or **Quit in Person** Program Who Made a Quit Attempt Lasting 24 Hours or More since Registering for Service, FY 2012**

Medicaid Status	Follow-Up Surveys Attempted	Follow-Up Surveys Completed	Survey Response Rate	Made a Quit Attempt Lasting 24 Hours or More since Registering for Service		
				Among Survey Respondents ^a		Including Nonrespondents ^b
				Percentage Who Made a 24-Hour Quit Attempt	95% Confidence Interval	Percentage Who Made a 24-Hour Quit Attempt
Quit by Phone						
Medicaid	326	106	33%	77%	69%–86%	25%
Non-Medicaid	820	336	41%	84%	80%–88%	34%
Quit in Person						
Medicaid	62	21	34%	86%	69%–100%	29%
Non-Medicaid	340	172	51%	90%	86%–95%	46%

^a Limited to individuals who completed 7-month follow-up evaluations.

^b Among all individuals for whom follow-up surveys were attempted. This calculation uses an intent-to-treat approach and assumes that all individuals who were contacted for, but did not complete, 7-month follow-up evaluations did not make a 24-hour quit attempt since registering for service with the program.

Table 8. Percentage of Current Smokers Who Registered for the **Quit by Phone or **Quit in Person** Program Who Were Smoke-Free for 7 Days at Follow-Up, FY 2012**

Medicaid Status	Follow-Up Surveys Attempted	Follow-Up Surveys Completed	Survey Response Rate	Smoke-Free for 7 Days at Follow-up		
				Among Survey Respondents ^a		Including Nonrespondents ^b
				Percent who were 7-days Smoke-Free at Follow-up	95% Confidence Interval	Percent who were 7-days Smoke-Free at Follow-up
Quit by Phone						
Medicaid	326	106	33%	26%	18%–35%	9%
Non-Medicaid	820	336	41%	29%	24%–34%	12%
Quit in Person						
Medicaid	62	21	34%	24%	4%–44%	8%
Non-Medicaid	340	172	51%	34%	27%–41%	17%

^a Limited to individuals who completed 7-month follow-up evaluations.

^b Among all individuals for whom follow-up surveys were attempted. This calculation uses an intent-to-treat approach and assumes that all individuals who were contacted for, but did not complete, 7-month follow-up evaluations were not 7-days smoke-free at the time they were contacted for 7-month follow-up.

- In FY 2012, the majority of **Quit by Phone** and **Quit in Person** registrants who completed 7-month follow-up evaluation surveys, both Medicaid and non-Medicaid, reported making a quit attempt lasting at least 24 hours at some point since registering for the program (Table 7).

In FY 2012, the majority of **Quit by Phone** and **Quit in Person** registrants who completed 7-month follow-up surveys, both Medicaid and non-Medicaid, reported making a quit attempt lasting at least 24 hours at some point since registering for the program.
- In FY 2012, there were no statistically significant differences in the percentage of registrants who completed 7-month follow-up surveys that reported making a quit attempt lasting at least 24 hours at some point following registration between Medicaid and non-Medicaid registrants or across programs (see Table 7).
- In FY 2012, when accounting for nonresponse to 7-month follow-up surveys using an intent-to-treat approach, the rate of 24-hour quit attempts was lower among Medicaid registrants for the **Quit by Phone** (25% vs. 34% for non-Medicaid) and **Quit in Person** programs (29% vs. 46% for non-Medicaid) programs. The intent-to-treat rate of 24-hour quit attempts was also higher for both Medicaid and non-Medicaid smokers who registered with the **Quit in Person** program (see Table 7).
- In FY 2012, for **Quit by Phone**, 26% of Medicaid registrants and 29% of non-Medicaid registrants who completed 7-month follow-up evaluations reported being smoke-free at least 7 days at follow-up. For **Quit in Person**, 24% of Medicaid registrants and 34% of non-Medicaid registrants reported being smoke-free at least 7 days at follow-up (see Table 8).

In FY 2012, approximately one-quarter to one-third of **Quit by Phone** and **Quit in Person** registrants who completed 7-month follow-up surveys, both Medicaid and non-Medicaid, reported being smoke-free 7 days at follow-up.
- There were no statistically significant differences in the percentage of respondents who reported being smoke-free for 7 days at follow-up between Medicaid and non-Medicaid registrants or across programs (see Table 8).
- When accounting for nonresponse to 7-month follow-up surveys using an intent-to-treat approach, 7-day quit rates for Medicaid registrants were similar for both **Quit by Phone** (9%) and **Quit in Person** (8%) programs and significantly lower than 7-day quit rates among non-Medicaid registrants for the **Quit by Phone** (12%) and **Quit in Person** (17%) programs. The intent-to-treat 7-day quit rate among non-Medicaid registrants was higher for the **Quit in Person** program (see Table 8).

Conclusions

- In 2011, the Medicaid-eligible adult population in Vermont smoked cigarettes at nearly three times the rate of the non-Medicaid-eligible adult population in Vermont (27.1% vs. 9.4%).
- Smokers in Vermont, both Medicaid-eligible and non-Medicaid-eligible, are not fully utilizing the **Quit by Phone** and **Quit in Person** programs.
- Medicaid registrants account for a lower proportion of **Quit by Phone** and **Quit in Person** registrants than the proportion of current adult cigarette smokers in Vermont that are Medicaid-eligible.
- The proportion of Medicaid registrants with less than a high school education who registered for either the Quit by Phone and Quit in Person programs in FY 2012 was substantially lower than the proportion of the Medicaid-eligible current adult cigarette smoking population in Vermont with less than a high school education.
- A lower proportion of Medicaid registrants, compared with non-Medicaid registrants, registered for the multi-session counseling program, and instead registered for the single-session counseling program, offered by the **Quit by Phone** program.
- A lower proportion of Medicaid registrants, compared with non-Medicaid registrants, for the **Quit by Phone** and **Quit in Person** programs received two or more counseling sessions from the program.
- Follow-up survey data show that the percentage of respondents making quit attempts lasting 24-hours or longer following registration and reporting being smoke-free 7 days at follow-up is not significantly different between Medicaid and non-Medicaid registrants or across programs.
- When accounting for nonresponse to follow-up surveys using a conservative, intent-to-treat, approach, Medicaid registrants have both lower follow-up response rates and significantly worse cessation outcomes in terms of 24-hour quit attempts and 7-day quit rates.

The current cigarette smoking rate is substantially higher among the adult Medicaid-eligible population in Vermont than among the adult non-Medicaid-eligible population. The proportion of **Quit by Phone** and **Quit in Person** registrants who are Medicaid-insured is lower than the proportion of the smoking population in Vermont that is Medicaid-eligible. In FY 2012, Medicaid-insured current adult cigarette smokers who registered for the **Quit by Phone** or **Quit in Person** program received fewer counseling sessions than non-Medicaid-insured registrants. Additionally, data suggest that the Medicaid-eligible smoking population in Vermont may have a harder time making quit attempts and successfully remaining smoke-free. These findings suggest that VTCP should focus efforts on the Medicaid-eligible smoking population in Vermont. There is room for improvement in terms of getting Medicaid-eligible smokers to use Quit Network programs and to provide quality interventions to Medicaid-eligible smokers that are effective at helping them quit smoking and remain smoke-free.