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Missouri Department of Health and Senior Services



Missouri Tobacco Quitline Report, 2010

(July 1, 2005 – June 30, 2009)

With weekly call volume (May 30, 2005 – November 8, 2009)

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November 8, 2009)

Prepared by the Office of Epidemiology,
Section of Epidemiology for Public Health
Practice



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Description: The Missouri Department of Health and Senior Services contracts with Free & Clear, Inc., to operate The Missouri Tobacco Quitline. With 25 years of experience in tobacco treatment, Free & Clear, Inc., currently provides tobacco cessation quitline services to 28 states across the nation. This report provides information about the Missouri Tobacco Quitline call volume, the services provided, demographics of callers, and the sources that have been reported as informing Missourians about MOQL.

Audience: This report is intended for use by the general public as well as state and local policy makers.

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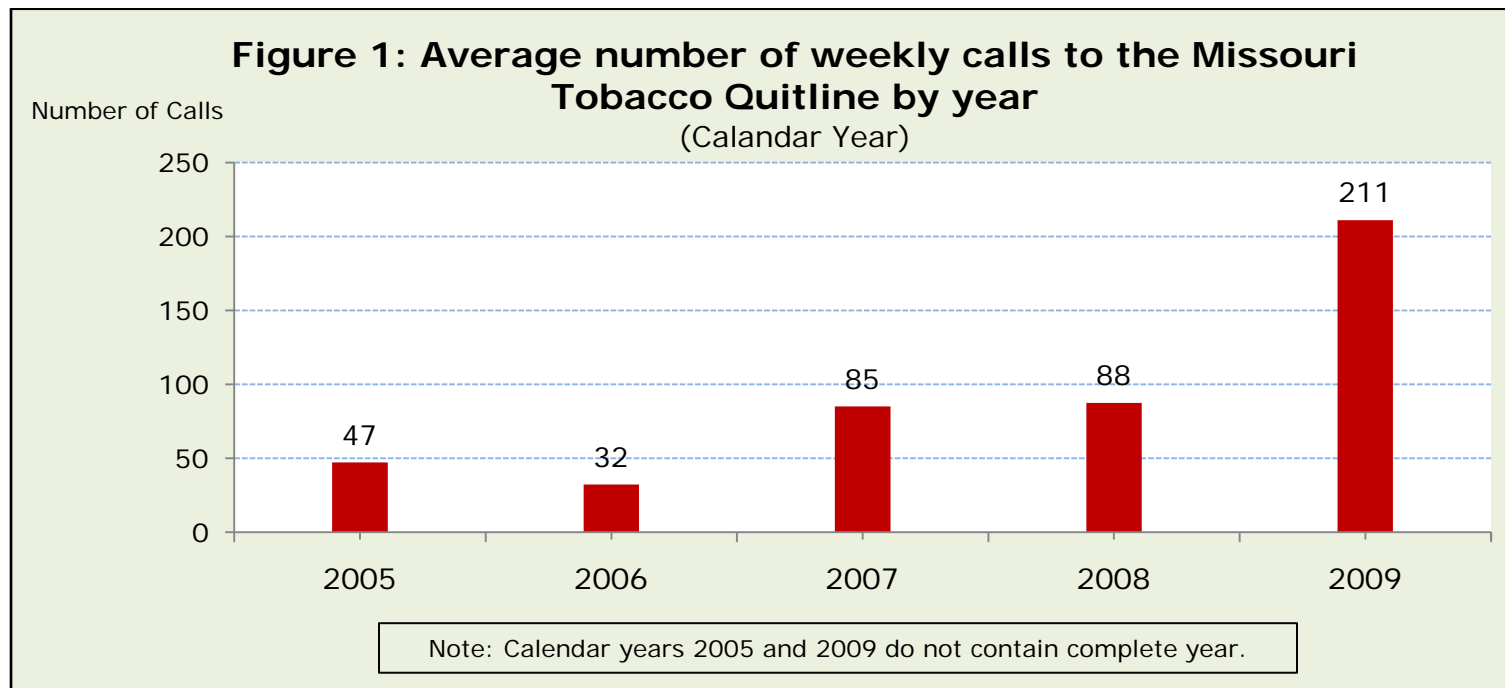
Executive Summary

The Missouri Tobacco Quitline (MOQL) is funded through a cooperative agreement with the Centers for Disease Control and Prevention (CDC) and a three-year grant from the Missouri Foundation for Health. The Missouri Department of Health and Senior Services (DHSS) has contracted with Free & Clear, Inc., to operate MOQL. Free & Clear, Inc., provides DHSS with weekly, monthly and yearly MOQL summary reports. To create this report, the desired information was extracted from the summary reports as access to record-level data was not available. Summary data does not permit testing of significance between variables such as the number of calls per year or the percentage of calls by gender, race, ethnicity, age, and health plan, etc. In addition, summary data does not provide information on unduplicated callers.

This report provides an overview of MOQL utilization through graphs and Geographical Information System (GIS) map. Data for the period July 1, 2005, through June 30, 2009, are presented in this report with the exception of Figure 4, *Weekly Call Volume to the Missouri Tobacco Quitline* that includes data for the period May 30, 2005 through November 8, 2009.

Missouri Tobacco Quitline, Trend in Call Volume

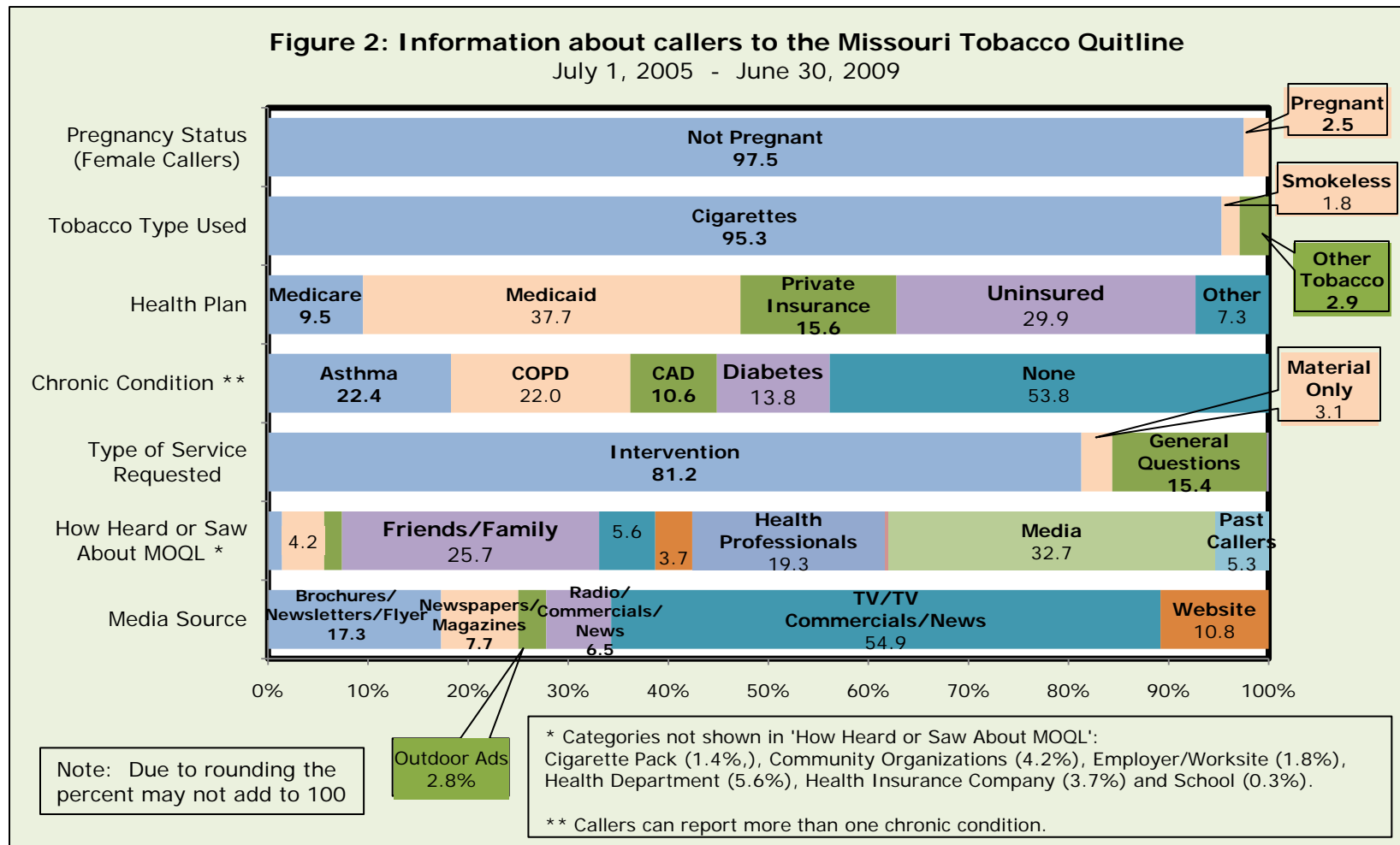
During the time period July 1, 2005, through June 30, 2009, MOQL received a total of 17,994 calls with 15,872 of these calls from tobacco users. The average number of weekly calls increased from 47 in 2005 to 211 in 2009 (using calendar year) (Figure 1) with 88.2 percent of the calls from smokers or tobacco users in 2009.



Examining Missouri's weekly call volume indicates that evidence-based tobacco control strategies do have an impact on cessation, as increased call volume to MOQL coincided with several strategies. Providing nicotine replacement therapy (NRT), the federal tobacco tax increase, and promotion of the Quitline all increased MOQL utilization. When one-time funding allowed NRT to be provided to eligible callers, call volume spiked, and later long-term funding for NRT led to a steadily increasing volume. Spikes in call volume were also seen during times when media promoted the MOQL, media promoted free NRT, and the federal cigarette excise tax increased.

How Callers Heard about the Quitline

Figure 2 shows how the callers heard about MOQL. One-third learned about the Quitline from one of the media sources (32.7%). However, the role of the media as the source of learning about the Quitline has been declining in recent years from 63 percent in FY 05 to 15 percent in FY09 while referrals from friends/family has been increasing, from 9 percent in FY 05 to 37 percent in FY09. 'Health Professional' has always been the second most cited source.



Information about Callers and their Comparison to Missouri Smokers

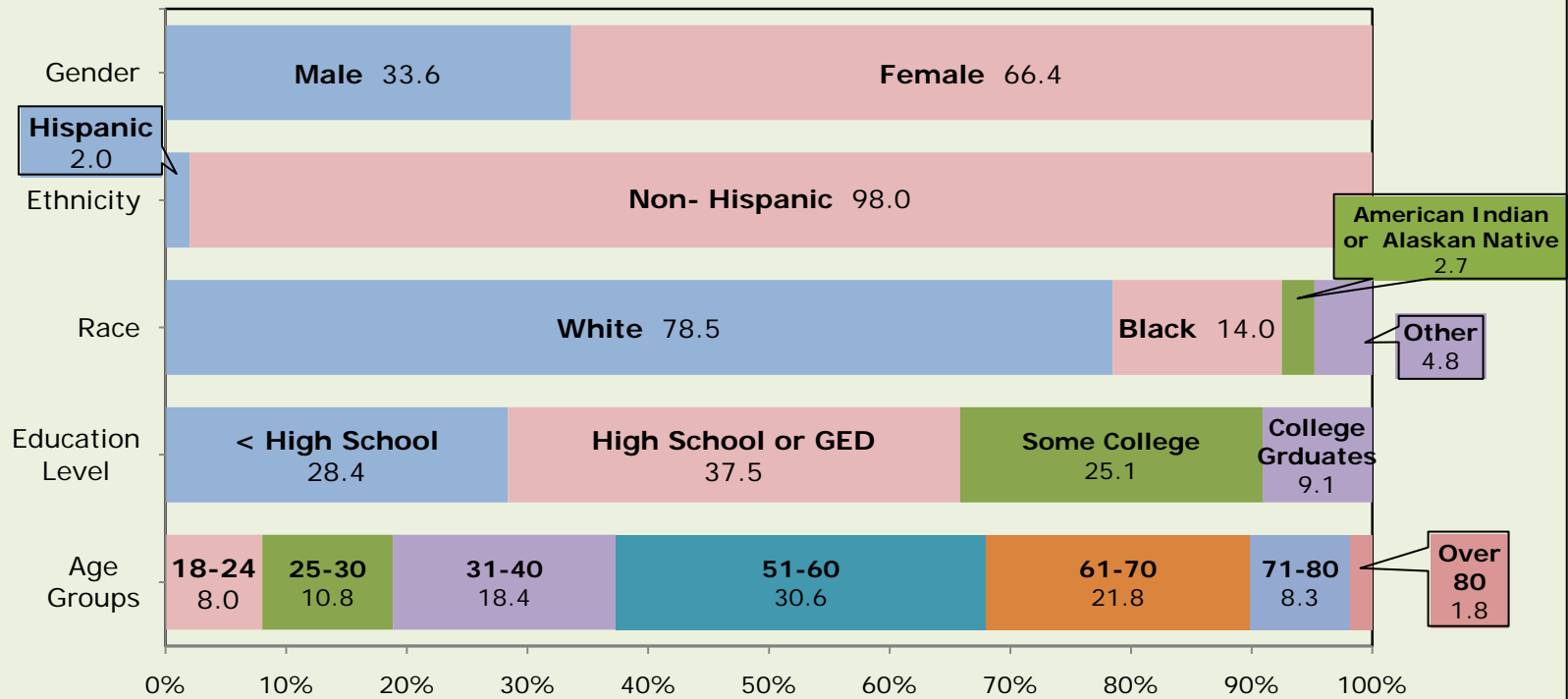
Figure 2 shows that only 2.5% of female tobacco user callers were pregnant. Almost all callers (95%) were cigarette smokers and more than three-fourth requested an intervention. The majority of callers had MO HealthNet (Missouri Medicaid) as their health care plan (38%) or did not have any health insurance coverage (30%). In the early years of MOQL, uninsured smokers were the highest proportion of callers, but over time smokers on Medicaid have become the highest proportion. About one half of the callers to MOQL (46.2 percent) had one or more of these chronic diseases: asthma, chronic obstructive pulmonary disease (COPD), diabetes mellitus or coronary artery disease (CAD).

As shown in Figure 3 the callers to the Missouri Tobacco Quitline were predominantly white (78.5%) and black (14.0%). Two-thirds (66.4%) of the callers were women. Two-thirds (65.9%) of callers had high school or less education and more than 30 percent (30.6%) were 51-60 years of age.

The priority populations for MOQL have always been pregnant women, MO HealthNet recipients and the uninsured. In comparing MOQL callers to Missouri smokers, analysis revealed that adult males comprise 48.4 percent of smokers in Missouri but made only 33.6 percent of the calls to MOQL. Whites make up 83.6 percent of smokers in Missouri, but accounted for only 78.5 percent of calls received by MOQL. Hispanic adults were proportionally represented in calling. More smokers with MO HealthNet coverage and the uninsured called MOQL while a substantially lower proportion of smokers with private health insurance called. Smokers with less than high school education were more likely to call MOQL. Younger age groups and smokeless and other tobacco users were less likely to call MOQL.

Figure 3: Demographics of callers to the Missouri Tobacco Quitline

July 1, 2005 - June 30, 2009

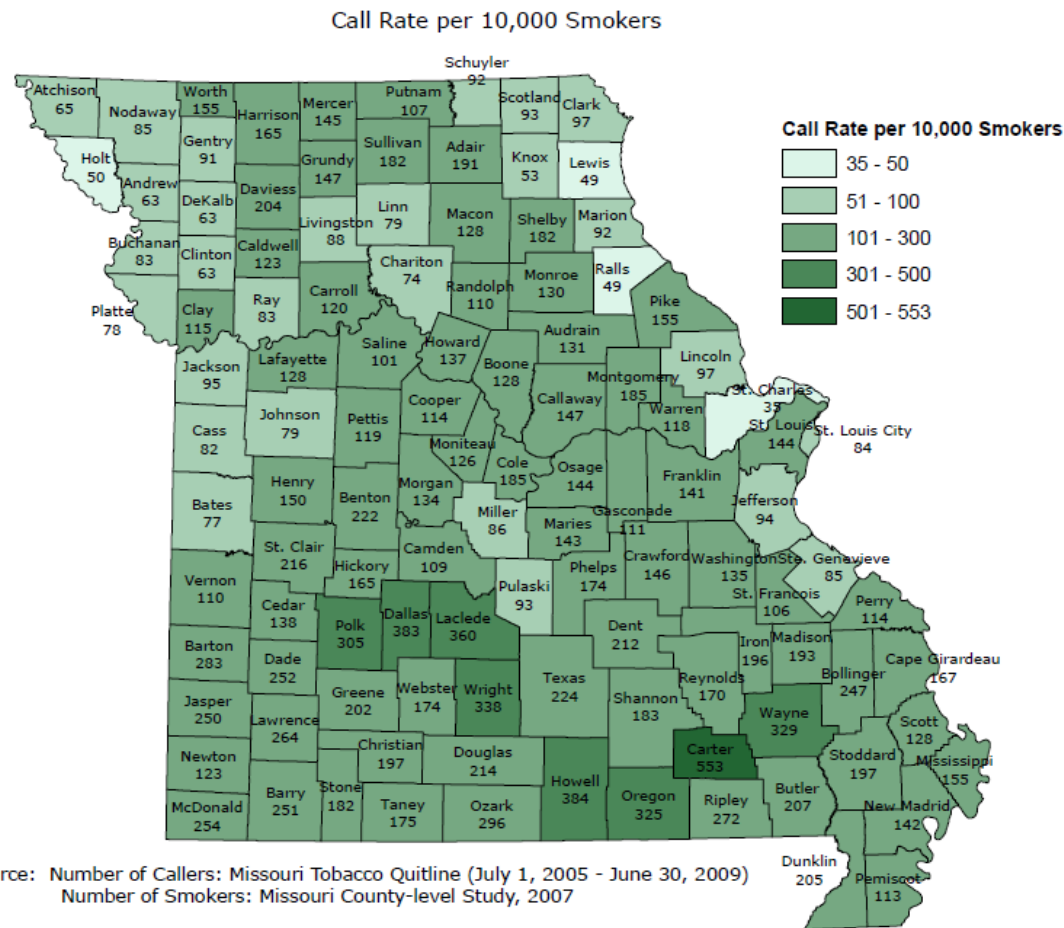


Note: Due to rounding the percent may not add to 100.

Calls Received by MOQL from Missouri Counties

County-level data from MOQL reports and the 2007 Missouri County Level Study was used to produce GIS maps. The map in Figure 4 shows each county's call rate per 10,000 smokers from July 1, 2005 to June 30, 2009. The highest call rate was from Carter County followed by Howell, Dallas, Laclede, Oregon, Wright, Wayne and Polk counties.

Figure 4: Calls received by the Missouri Tobacco Quitline from Missouri counties, July 1, 2005, through June 30, 2009



Evaluation of MOQL

Between 2008 and 2010 a three-year evaluation of the MOQL was conducted to determine customer satisfaction and quit rates. At least 80 percent of tobacco user callers were satisfied with the services received in the first evaluation, climbing to a least 93 percent in the third year. The three years of the evaluation covered individuals who started Quitline services in 2007 through early 2010. NRT was available to the widest range of individuals in 2009, which was year two of the evaluation. Quit rates at six months after enrolling in MOQL were 15.3 percent in year one, 25.9 percent in year two, and 21.3 percent in year three.

The Takeaway Message

The Missouri Tobacco Quitline is playing a vital role in helping persons addicted to smoking, with the best quit rates seen when NRT was available to the widest range of callers. MOQL is reaching two of its three priority populations: individuals receiving MO HealthNet benefits and the uninsured. The third priority population, pregnant women, are a very small portion of callers to MOQL. Over the first four years of the MOQL, several things appear to have motivated Missouri smokers to consider quitting: 1) the increased cost of tobacco products resulting from the 2009 federal tax increase; 2) Free NRT; 3) A network of friends and family; and 4) health care providers. MOQL should continue to focus efforts on referral sources that assist in motivating smokers to think seriously about quitting, and as funding allows, in providing services and resources that are helpful in the quitting process.

Introduction

History

Cigarette smoking is a leading preventable cause of disease, financial burden and death in the United States. Each year smoking causes about 440,000 premature deaths and costs the nation \$75 billion in direct health care expenses. The good news is that about three out of every four U.S. smokers report that they want to quit. Cessation success rates increase dramatically when smokers use evidence-based treatments such as physician advice, Food and Drug Administration (FDA)-approved medications, or telephone counseling. On February 3, 2004, the U.S. Department of Health and Human Services (HHS) announced plans for a national network of smoking cessation quitlines to provide services to 46 million adults.¹ This decision acknowledged the health, human, and financial burden of smoking and the scientific evidence that quitlines are an effective tool to help smokers quit. A telephone number was established to provide smokers in every state access to quitline services to assist them to quit smoking. The number, 1-800-Quit-Now, is single-access and toll-free.

The HHS plan had three main components:

1. States with existing quitlines received increased funding to enhance services. States used these funds to expand their hours of operation, hire bilingual counselors, build referral linkages with local health care systems, or increase promotion of the quitline.
2. States that did not have a quitline received grants to establish one.
3. The National Cancer Institutes' (NCI) Cancer Information Service telephone counselors provided assistance to individuals in states without a quitline.

In 2005, the Centers for Disease Control and Prevention (CDC) awarded Missouri \$350,000 to initiate a tobacco quitline. The Missouri Department of Health and Senior Services (DHSS) contracted with Free & Clear, Inc., located in Seattle, Washington, to operate the Missouri Tobacco Quitline (MOQL). The priority populations for MOQL were and continue to be pregnant women, individuals receiving MO HealthNet (Missouri Medicaid) benefits, and the uninsured.

Eligibility

During the time covered by this report (July 1, 2005 through June 30, 2009), the available services have varied based on funding. Currently, one coaching/counseling call is available to all Missouri residents. An additional three to four coaching calls are offered to the priority populations. The priority populations may also receive one month of NRT as funding permits. DHSS covers the cost of the counseling if the callers are uninsured, have MO HealthNet, or are pregnant. If the smoker has insurance that also contracts with Free & Clear, Inc., the insurance company is billed. If the caller's insurance does not contract with Free & Clear, Inc., they are referred to the service offered by their insurance. If the caller's benefits are not known, the caller is eligible to receive one coaching call but is also reminded to check with their insurance plan regarding benefits.

When someone first calls the quitline, the caller talks to a Registration Intake Specialist who collects basic demographic information in an electronic file and assesses the caller's needs, desire for services and type of service preferred. If desired by the caller, the registration specialist transfers the caller "live" to a quit coach. If the caller is not ready for the coaching call, a quit coach calls back at a time convenient for the caller.

Once the caller is in contact with a quit coach, the caller's information is accessed in the electronic file and reviewed by the quit coach. During this first call with the quit coach, they discuss if and when the person plans to quit. Together they make a plan for the caller to accomplish the desired goal. They also discuss the importance of support, triggers and coping strategies.

The quit coaches receive comprehensive training on tobacco cessation and pharmacotherapy as a part of their initial training. They also get regular in-service training to stay current with evidence-based cessation and pharmacotherapy.

Funding Sources

Initial and ongoing funding is provided by CDC. After the start-up award of \$350,000, subsequent awards were \$250,000 each year until 2009, when CDC decreased tobacco control funding to states by nine percent which led to a decrease in CDC funds for MOQL.

In 2007, the Maternal and Child Health (MCH) Program at DHSS purchased Web Coach, an online supplemental service offered at no charge to quitline registrants. This one-time funding was provided due to a desire to enhance MOQL services for callers that were considering pregnancy, were pregnant and/or had young children in the home.

In December 2007, the Missouri Foundation for Health awarded DHSS a three-year, \$3 million grant to enhance MOQL services that included providing free nicotine replacement therapy (NRT) to priority populations.

Methodology and Organization

Free & Clear, Inc. provides DHSS with weekly, monthly and yearly MOQL summary reports (see Appendix 1). To create this report, information was extracted from these summary reports.

This report compares Missouri smokers to callers to MOQL. The characteristics of callers were examined using the information/data from MOQL for state fiscal years 2006, 2007, 2008, and 2009.² The information/data about the characteristics of smokers was obtained from the 2007 Missouri County-level study.³

This report is organized as follows:

- **Part one** presents a graph showing the average number of weekly calls received by MOQL. In this case only the data for May 30, 2005 through November 8, 2009 was used. The possible explanations for the spikes in calls are also provided on the graph.
- **Part two** describes how callers heard about MOQL and the services that were provided.
- **Part three** describes the characteristics of callers to MOQL in state fiscal years 2006, 2007, 2008 and 2009. When possible, the demographics of all smokers in Missouri is compared to the demographics of callers to MOQL. By comparing the characteristics of callers to MOQL and the characteristics of Missouri smokers, groups that are underrepresented in callers to MOQL can be identified.
- **Part four** presents Geographical Information System (GIS) maps. The county-level maps are used to show the number of calls per 10,000 smokers received by MOQL (All and by different information sources).
- **Part five** presents the findings from the three-year evaluation of Missouri Tobacco Quitline.
- **Part five** contains the take away message.

PART ONE:

Missouri Tobacco Quitline, Trend in Call Volume

Missouri Tobacco Quitline (MOQL) Call Volume Over Time

Data for the period May 30, 2005, through November 8, 2009, were used to show the trend in weekly call volume to MOQL. In this instance only is the calendar year used with 2005 and 2009 being incomplete calendar years since the quitline started on May 30, 2005, and at the time this report was prepared, data were available only through November 8, 2009. During this time, MOQL received a total of 25,890 calls. The average number of weekly calls increased from 47 in 2005 to 211 in 2009. The summary statistics presented in Table 1 show the average, minimum and maximum number of weekly calls received by MOQL.

Table 1: Weekly calls to the Missouri Tobacco Quitline by year			
Year	Minimum	Maximum	Average
2005	4	241	47
2006	16	107	32
2007	5	1,526	85
2008	26	161	88
2009	109	400	211

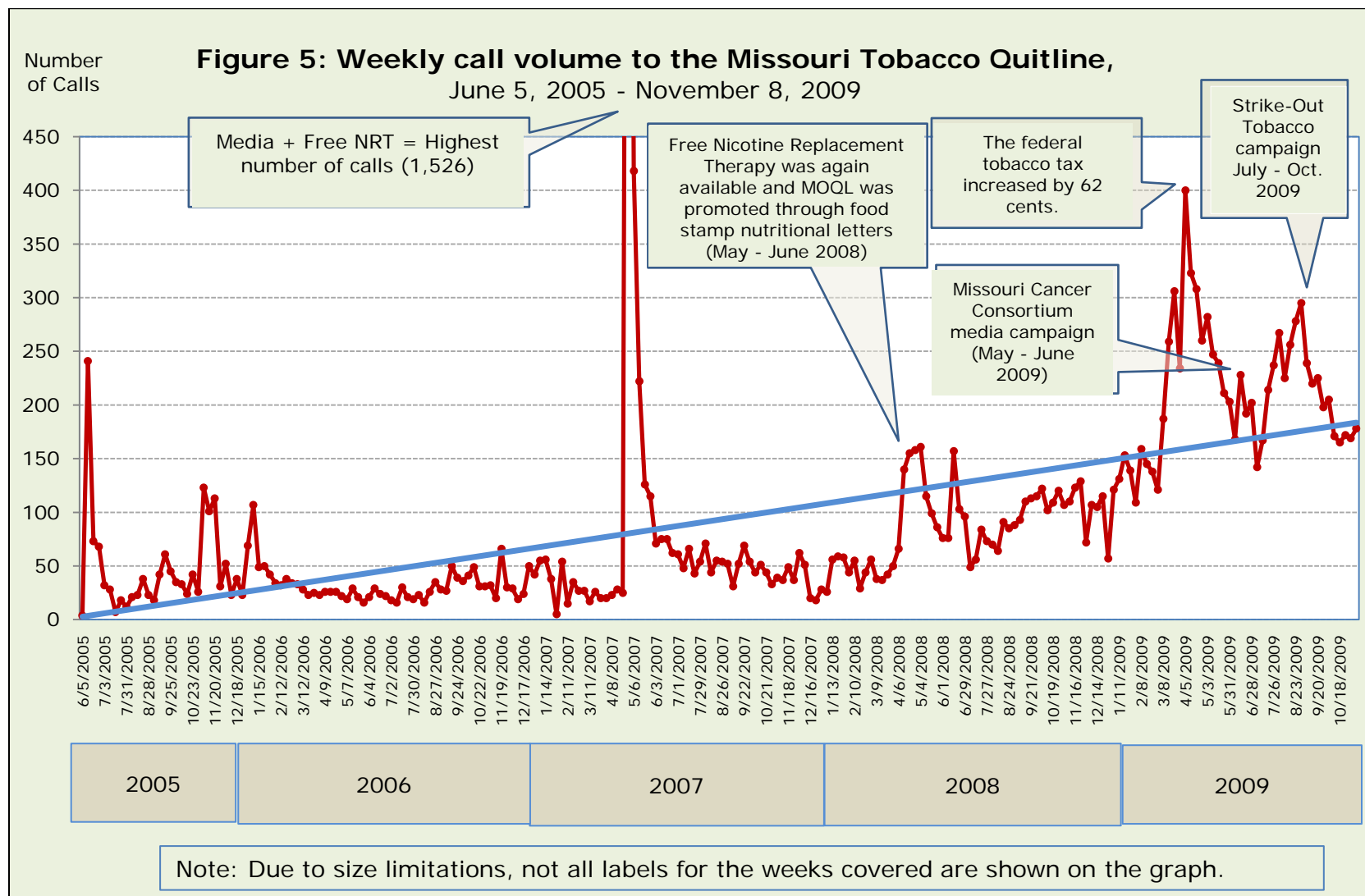
Note: Calendar years 2005 and 2009 do not contain a complete year.

Examining Missouri's weekly call volume in Figure 5, indicates that evidence-based tobacco control strategies do have an impact on cessation, as increased call volume to MOQL coincided with several strategies. Provision of nicotine replacement therapy (NRT), the federal tobacco tax increase and promotion of the Quitline all increased MOQL utilization.

In April 2007, due to \$250,000 in available funding, the Missouri governor announced free NRT through MOQL. During this time, there was a record high call volume (highest number of calls in the nation: 1,526 calls during one week).

Unfortunately, these funds were expended in a matter of days and this service had to be discontinued. A spike next happened in May and June 2008, when health care providers understood that NRT was again available. In addition, at this time, there was a direct promotion to food stamp participants with their June 2008 nutrition education and an article targeted to physicians was in the spring 2008 issue of the Missouri Family Physician magazine. Covering the time period on the graph, NRT was provided to callers from the priority populations from January 2008 through November 2009.

The April 2009 federal tax increase of 62 cents on a package of cigarettes led to higher volumes of calls from Missourians, with a spike in March 2009 climbing even higher in April. Another spike occurred during May and June of 2009 when the Missouri Cancer Consortium launched a cancer prevention media campaign. The 'Strike-out Tobacco' media campaign during July-September 2009 that ran during Missouri's major and minor league baseball games on TV, radio and in the stadiums also led to a spike in call volume. Due to the space limitations not all weeks are displayed on graph.



PART TWO:

How Callers Heard about MOQL and the Services Provided

How Callers Heard about the Missouri Tobacco Quitline

During the first four years of MOQL, the largest percent of callers learned about it through one of the media sources (32.7%). Other prominent sources were 'Family/Friend' (25.7%) and 'Health Professional' (19.3%) (Figure 6). Early in the implementation of MOQL, media was the major source reported for learning about MOQL; however, in more recent years 'Family/Friend' and 'Health Professional' are increasingly reported sources. In FY09, 'Family/Friend' became the most reported referral source followed by 'Health Professional' (Figure 7). Note that one limitation to the data is that the MOQL only captures one source of 'how heard about' – so the caller is limited in what they can report.

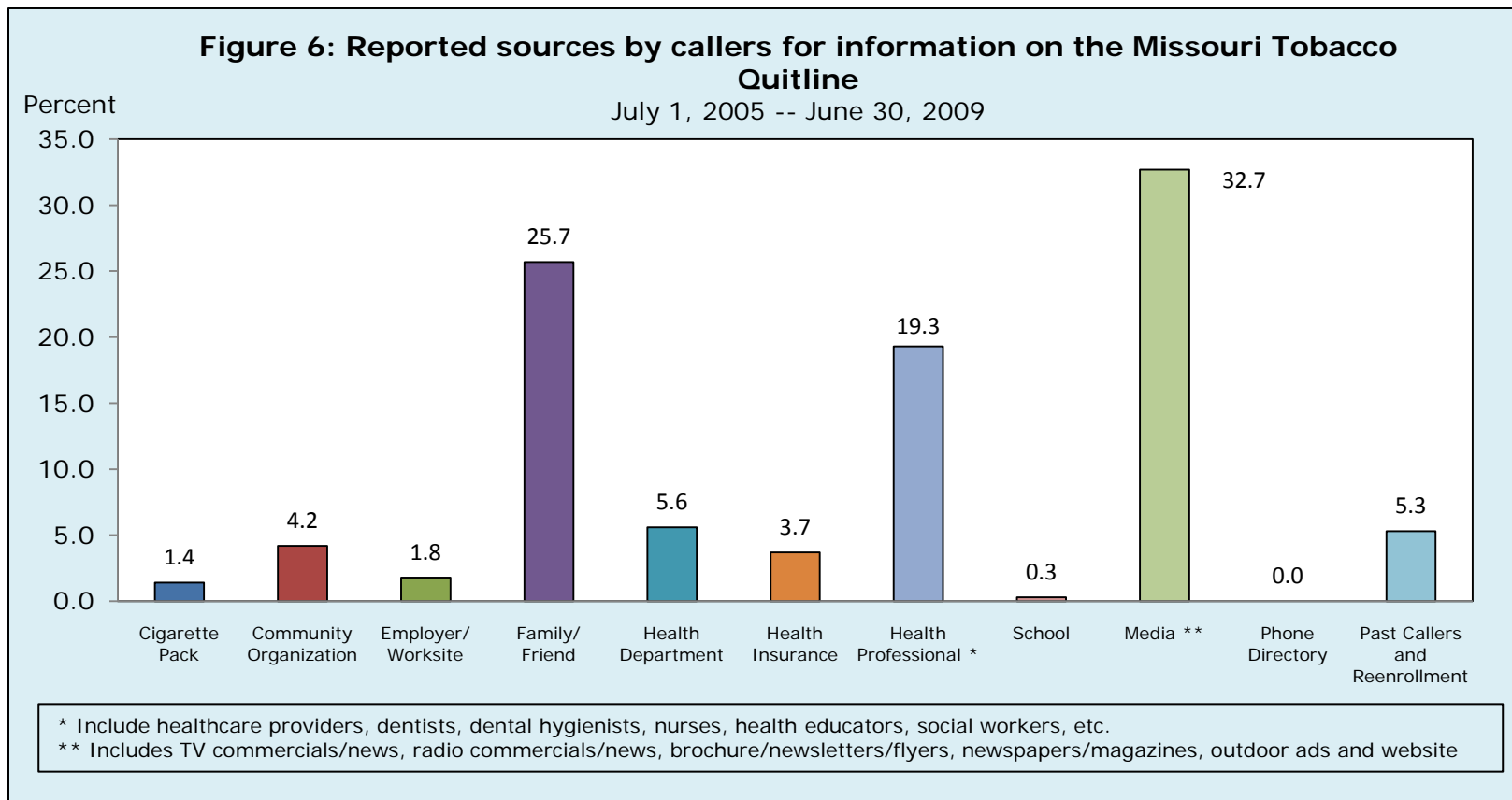
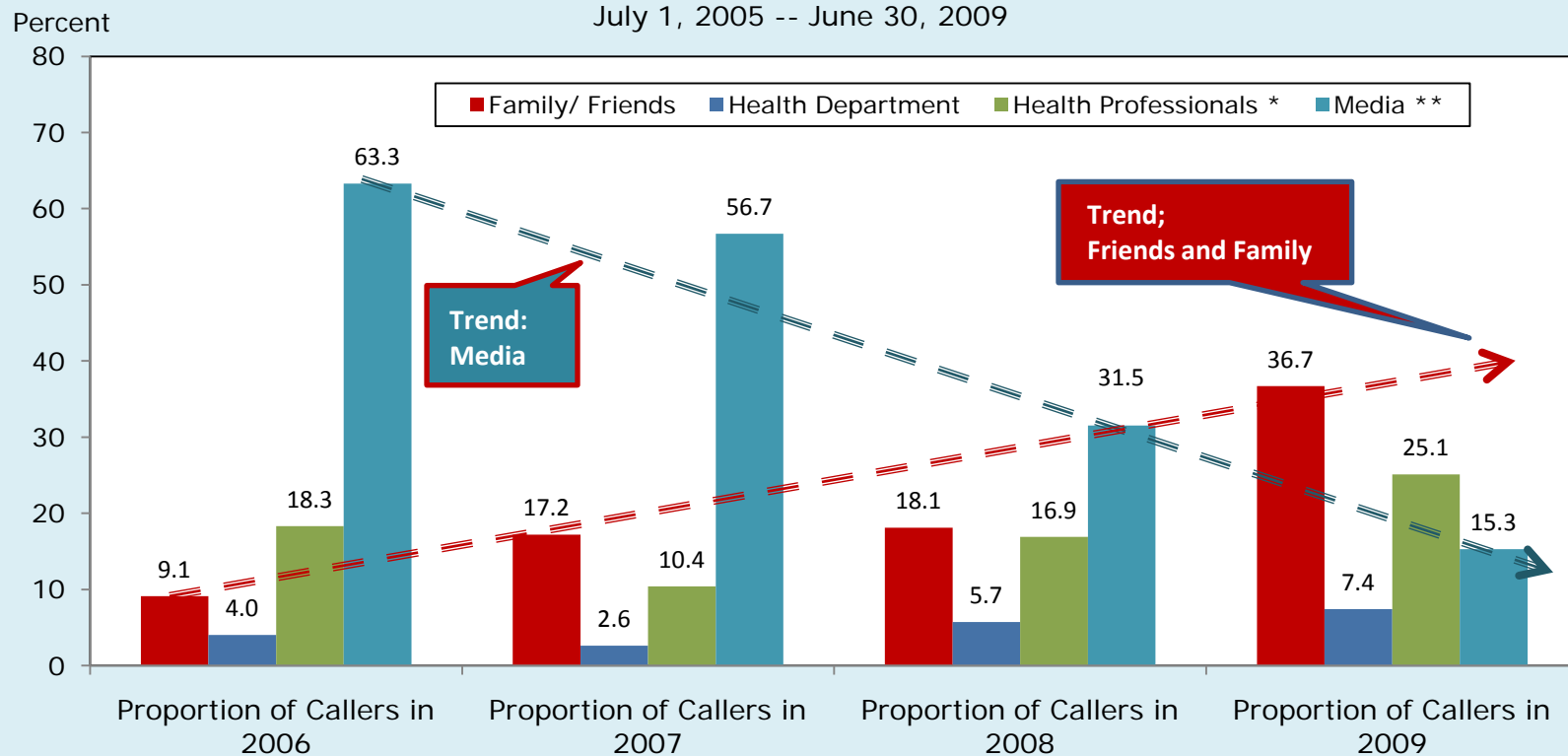


Figure 7: Reported sources by callers for information on the Missouri Tobacco Quitline by state fiscal year

July 1, 2005 -- June 30, 2009



* Include healthcare providers, dentists, dental hygienists, nurses, health educators, social workers, etc.

** Includes TV commercials/news, radio commercials/news, brochure/newsletters/flyers, newspapers/magazines, outdoor ads and website

Media Source Cited in Promoting Calls to the Missouri Tobacco Quitline

During the first four years of MOQL, the media sources most frequently reported by callers were 'TV/Commercials/News' (54.9%), followed by 'Brochures/Newsletters/Flyers' (17.3%), 'Website' (10.8%), 'Newspapers/Magazines' (7.7%), 'Radio/Commercials/News' (6.5%), and 'Outdoor Ads' (2.8%) (Figure 8). Early in the implementation of MOQL, 'TV/Commercials/News' was a major media source where people heard about MOQL; however, in FY 2009 'Brochures/Newsletters/Flyers' became the most reported media source followed by, 'TV/Commercials/News', 'Website' and 'Radio/Commercials/News' (Figure 9).

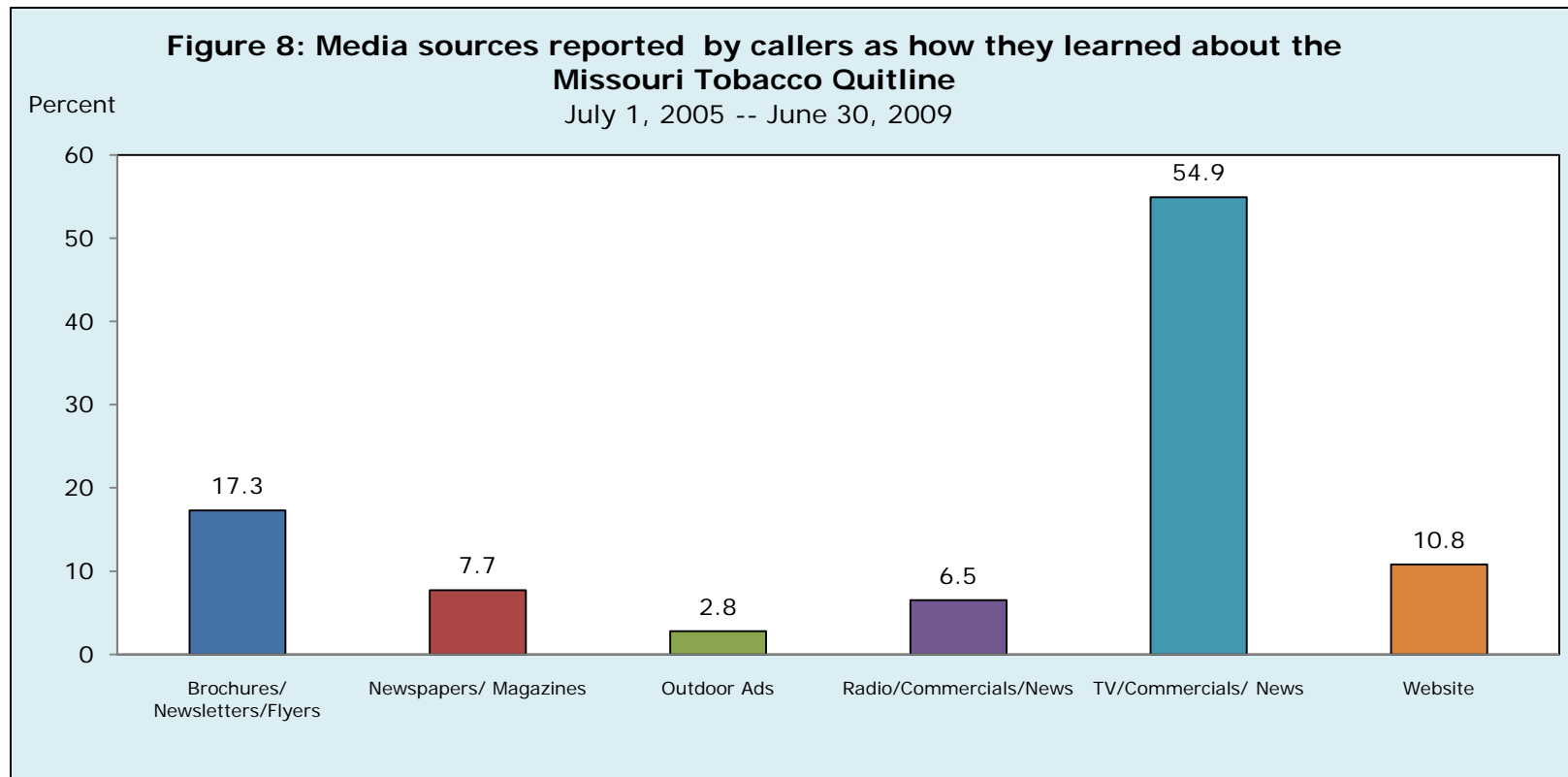
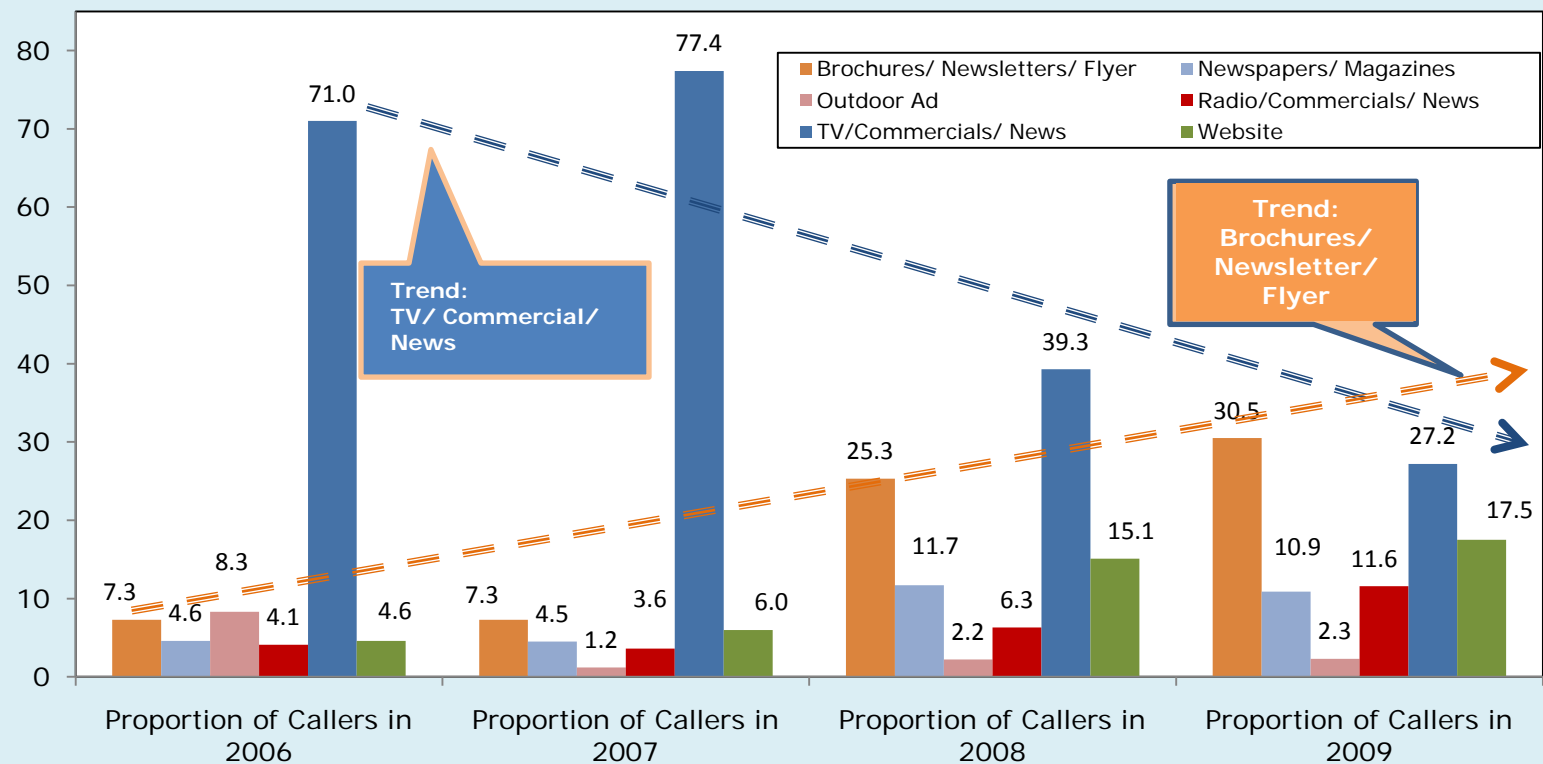


Figure 9: Media sources reported by callers as how they learned about the Missouri Tobacco Quitline by state fiscal year

July 1, 2005 -- June 30, 2009

Percent



Types of Callers to the Missouri Tobacco Quitline

During the period July 1, 2005 through June 30, 2009, there were 17,994 total calls received by the Missouri Tobacco Quitline; this number includes non-tobacco users. About ninety-one percent (90.9%) of callers were tobacco users, 1.9 percent were from proxy callers*, 2.4 percent were from health care providers** and 4.7 percent were from the general public***.

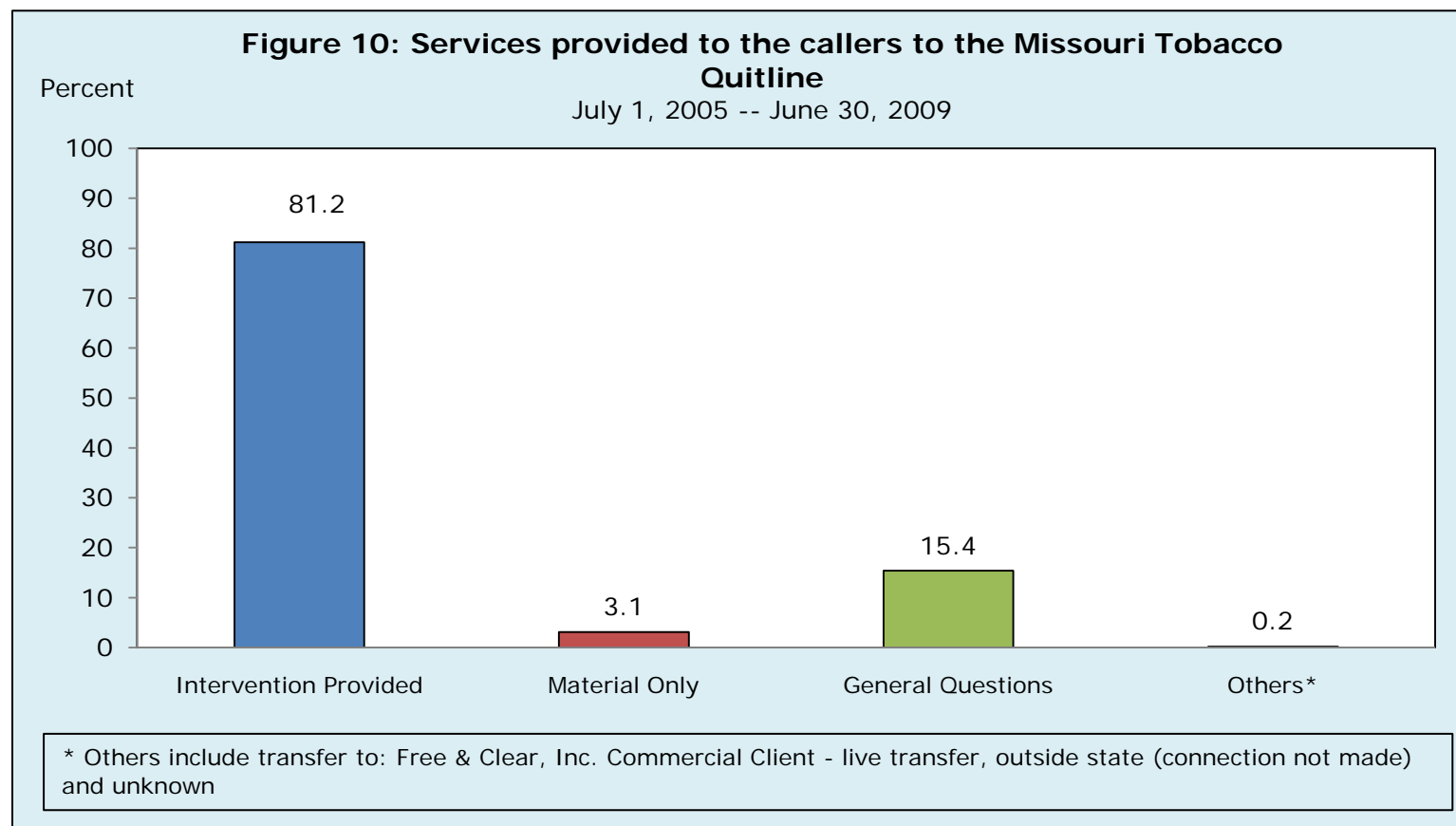
*Proxy callers are those calling for a tobacco user they know – to get information that might help the tobacco user consider quitting, begin the quitting process, etc. They often want materials sent to them.

**Providers are health care providers – calling to learn about the services, to learn more about cessation so they can support their patients better, or for a specific patient to help him/her begin the quitting process. They often want materials sent to them.

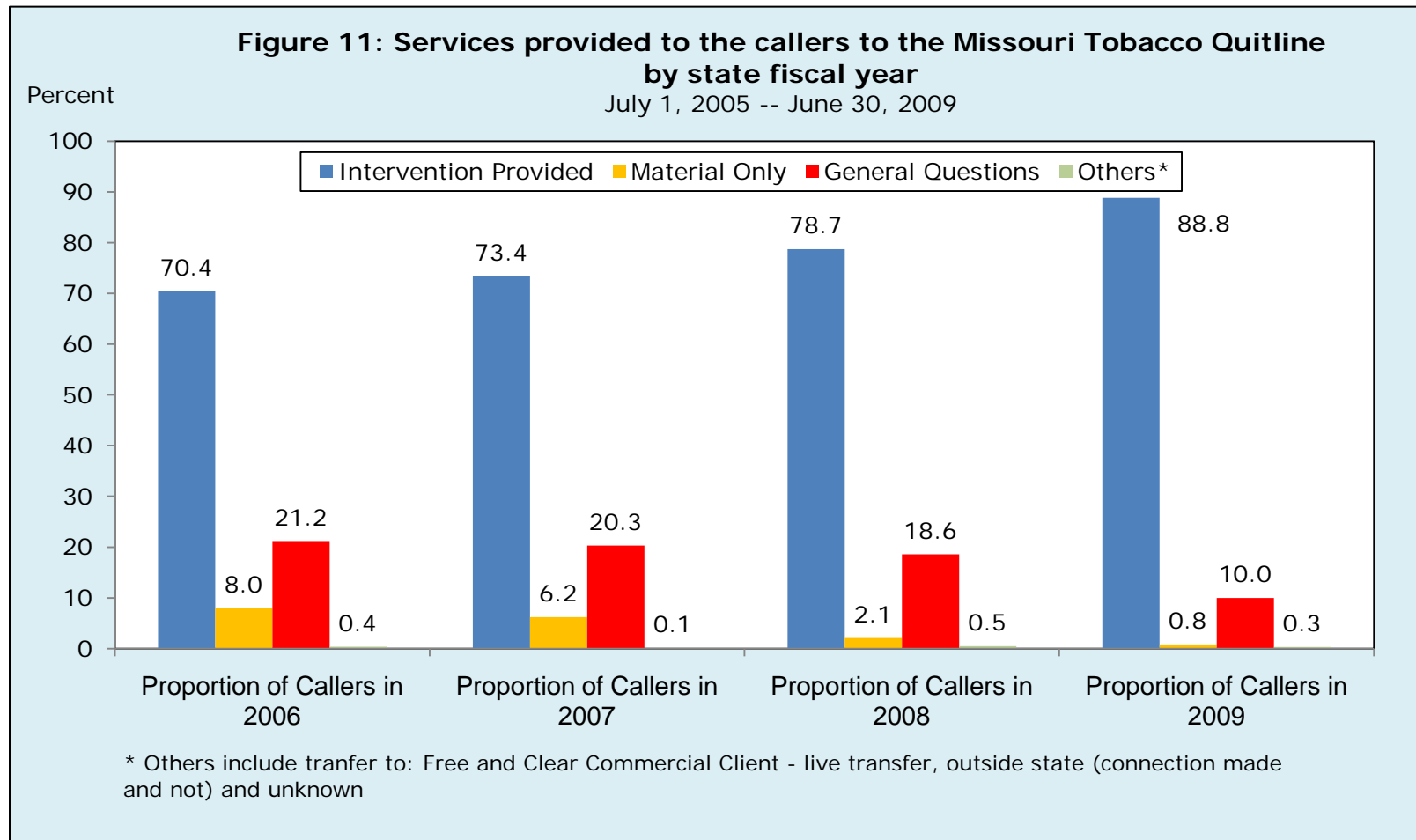
***The general public are people wanting to learn more about MOQL – usually general questions and do not want to register for services or get materials sent to them.

Types of Services Requested by Callers to the Missouri Tobacco Quitline

During the period July 1, 2005, through June 30, 2009, 81.2 percent of the registered callers requested an intervention from MOQL, 15.4 percent had general questions and 3.1 percent requested material only (Figure 10). Others (0.2%) include transfer to: Free & Clear, Inc. Commercial Client - live transfer, outside state (connection not made) and unknown.



There has been a steady increase in Missourians interested in receiving an intervention when they call MOQL, with the proportion receiving an intervention increasing 26.1 percent from 70.4 percent in FY06 to 88.8 percent in FY09 (Figure 11).

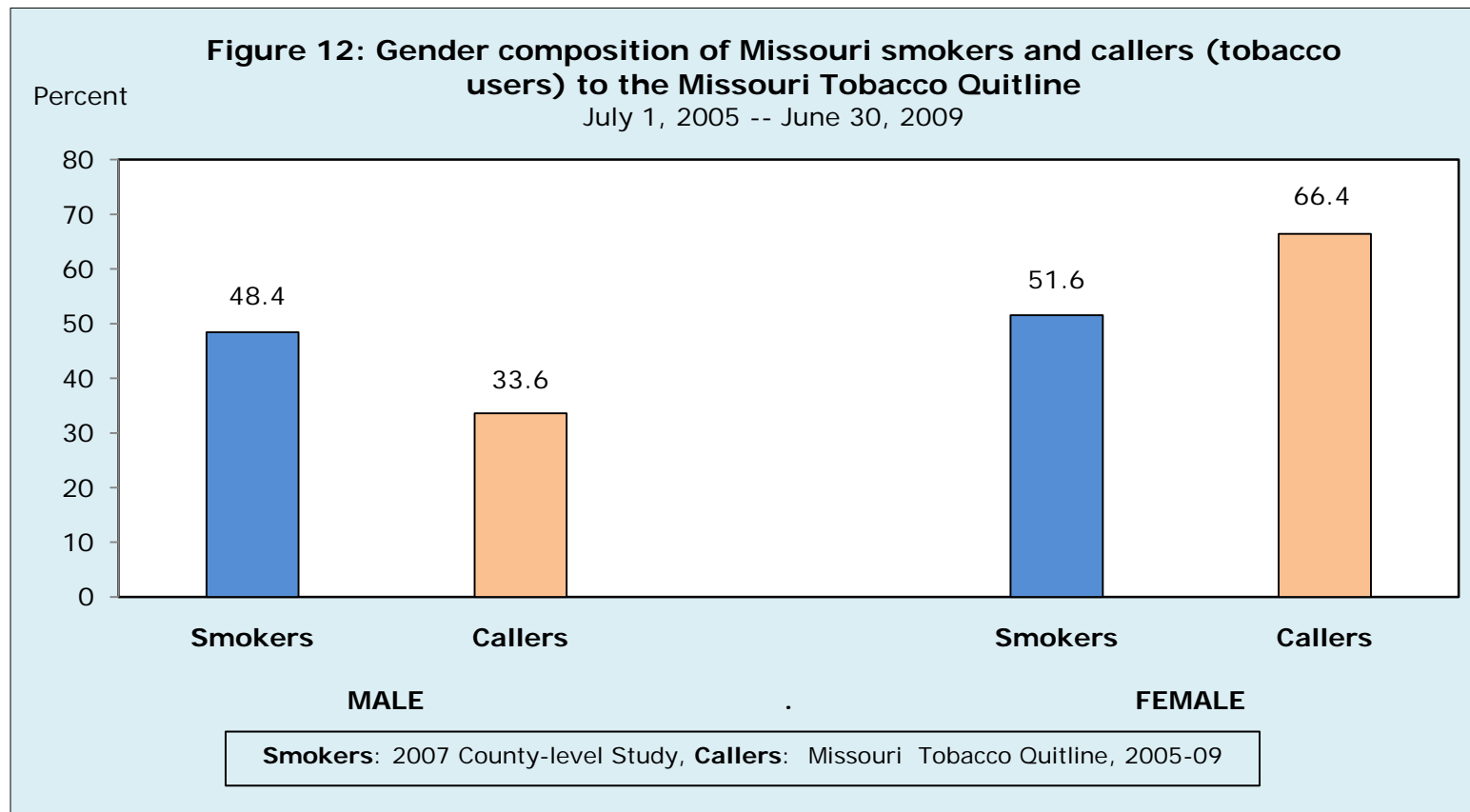


PART THREE:

Information about Callers and their Comparison to Missouri Smokers

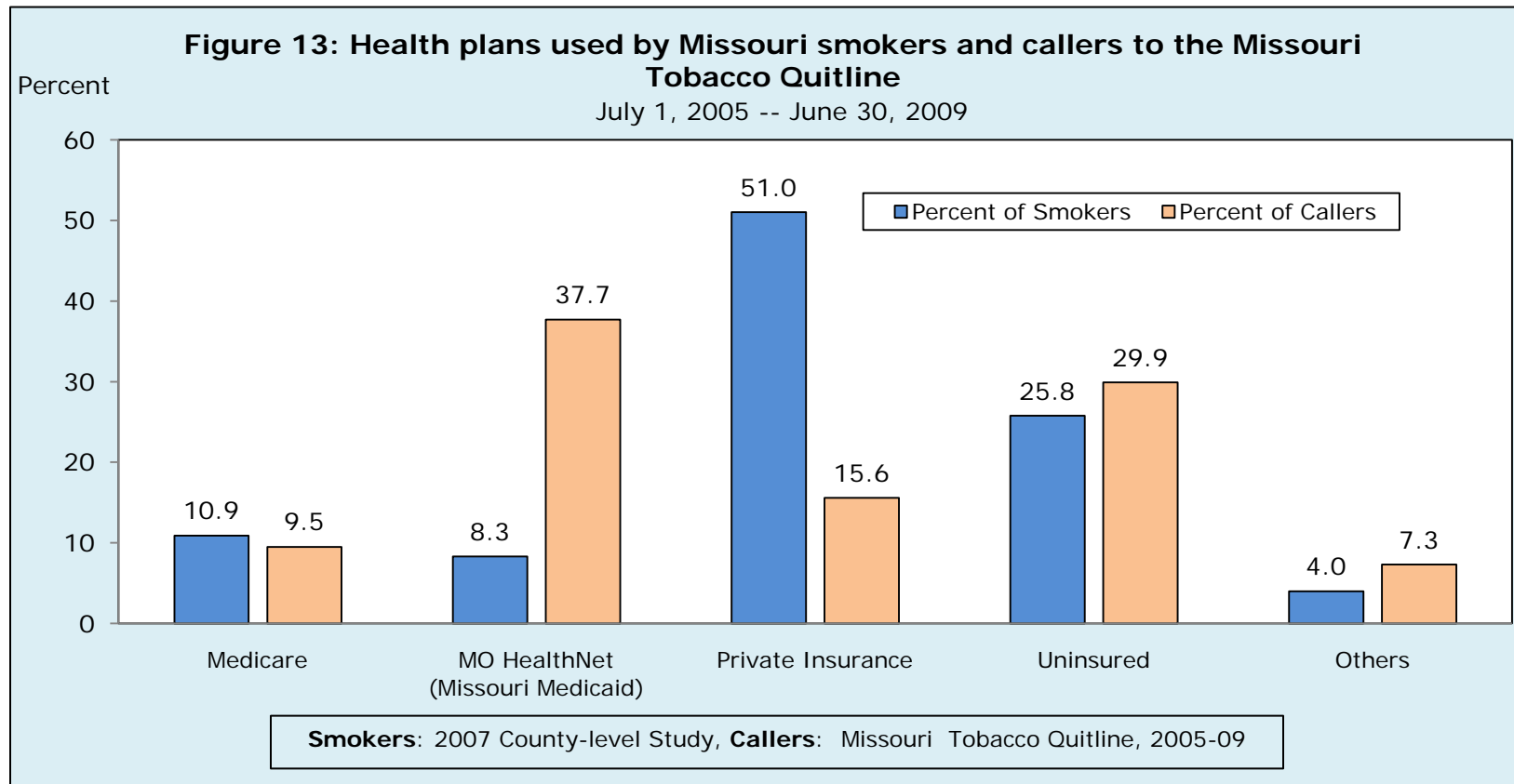
Gender Composition of the Callers to the Missouri Tobacco Quitline

Adult males comprise 48.4 percent of smokers in Missouri but they made only 33.6 percent of the calls to MOQL during July 1, 2005, through June 30, 2009 (Figure 12). Adult females make up 51.6 percent of smokers in Missouri but made 66.4 percent of calls to MOQL during this period. The proportion of female smokers calling MOQL increased slightly from 63.0 percent in FY06 to 67.0 percent in FY09.



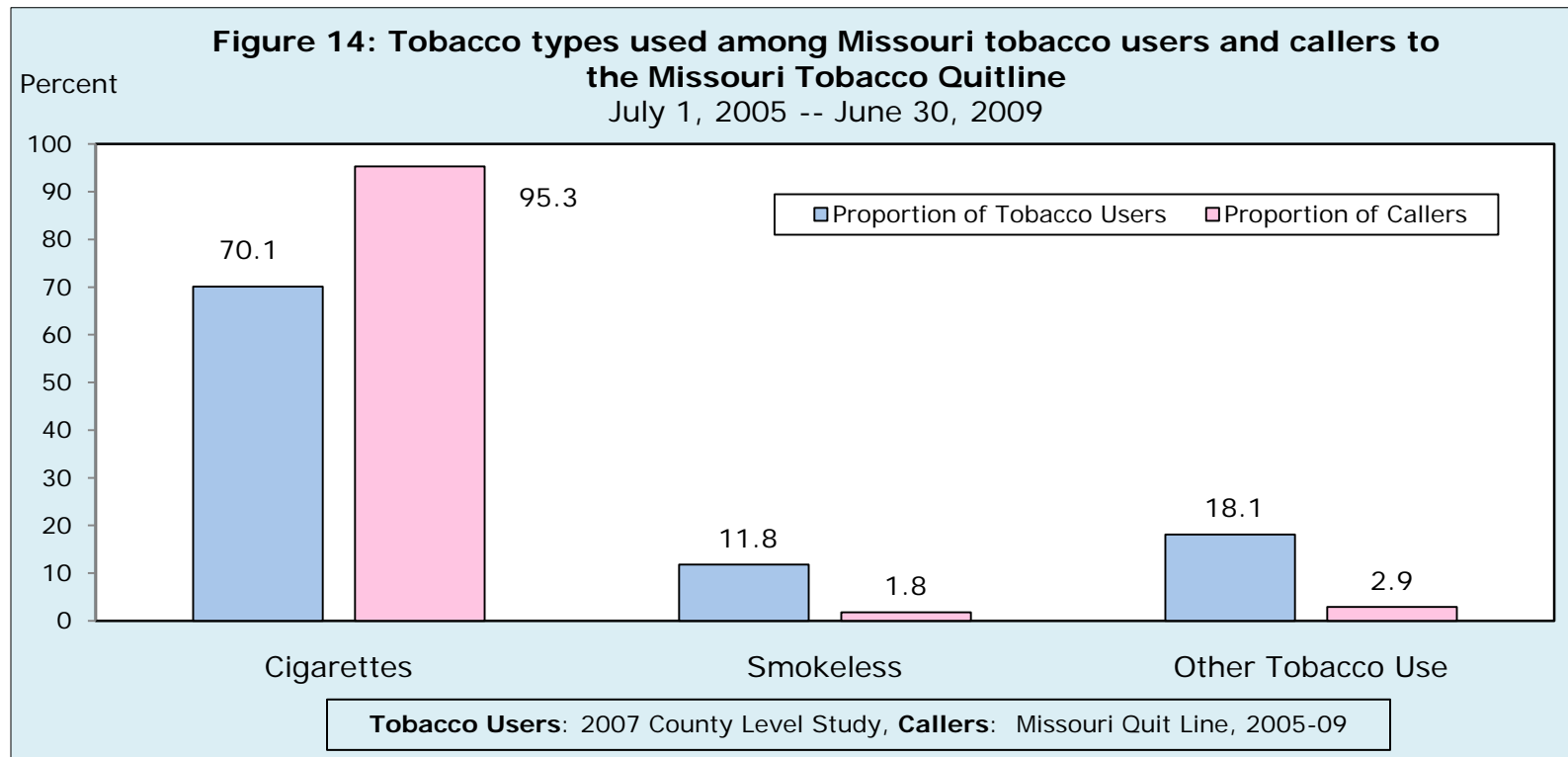
Callers to the Missouri Tobacco Quitline by Health Insurance Status

An examination of callers to MOQL by health care plan revealed that the largest group had MO HealthNet as their healthcare plan (37.7%). More calls were received from Missourians with MO HealthNet and the uninsured than callers with Medicare, private insurance or other types of coverage. More than 50 percent of Missouri smokers had private insurance but only 15.6 percent of MOQL callers had private insurance over this time period (Figure 13).



Callers to the Missouri Tobacco Quitline by Type of Tobacco Used

The tobacco users calling MOQL were predominantly cigarette smokers (95.3%), although cigarette smokers were 70.1 percent of tobacco users in Missouri. Cigar, pipe and other tobacco users were about 18.1 percent of all Missouri tobacco users but only made up 2.9 percent of MOQL callers. Smokeless tobacco users were 11.8 percent of all Missouri tobacco users but their proportion among callers to MOQL was only 1.8 percent (Figure 14).

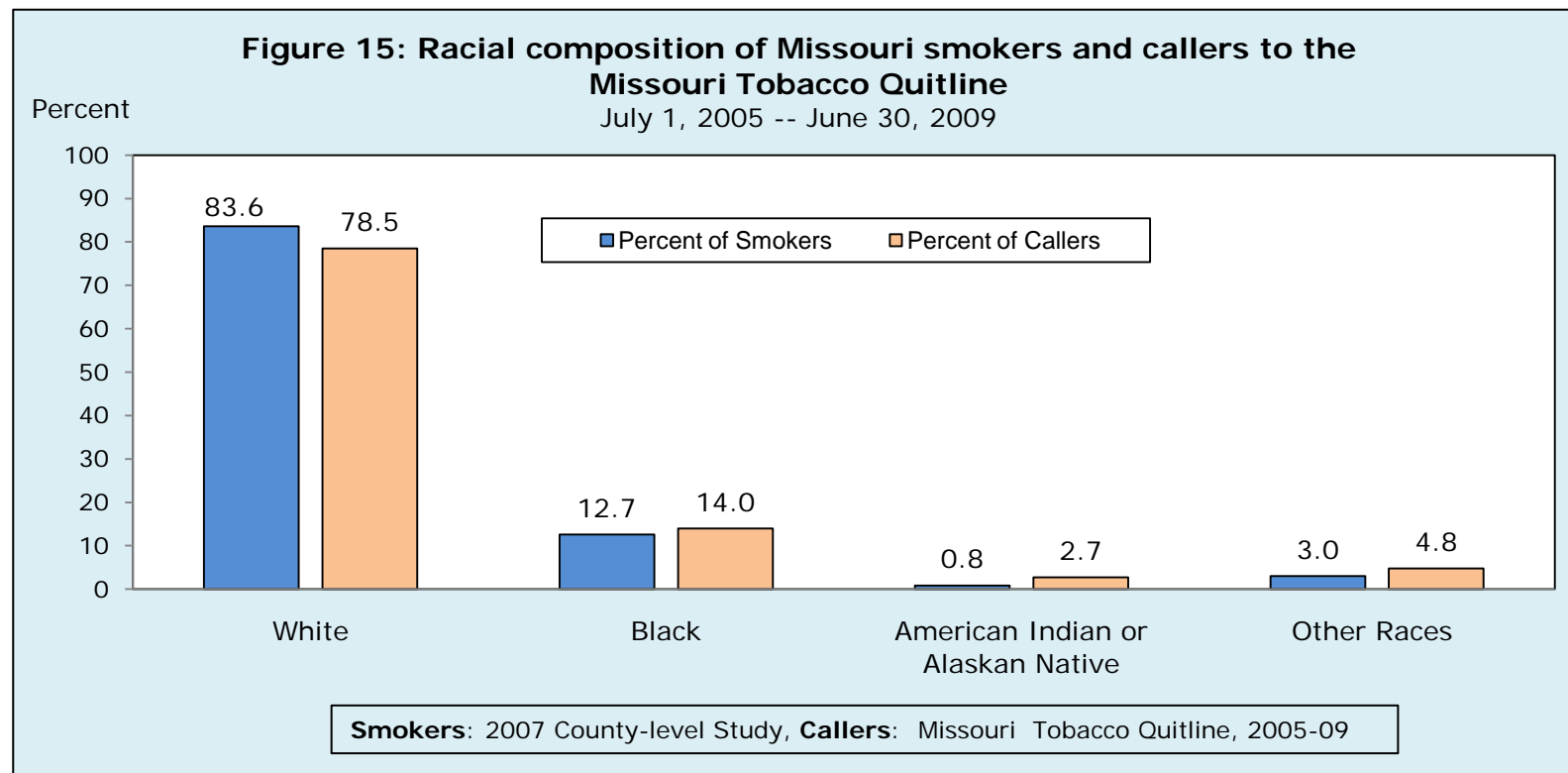


Callers to the Missouri Tobacco Quitline by Ethnicity

Ninety-eight percent of the callers to MOQL were Non-Hispanic. Hispanic smokers comprised about 2.2 percent of all smokers in Missouri and the number of Hispanic callers to MOQL was similar at 2.0 percent.

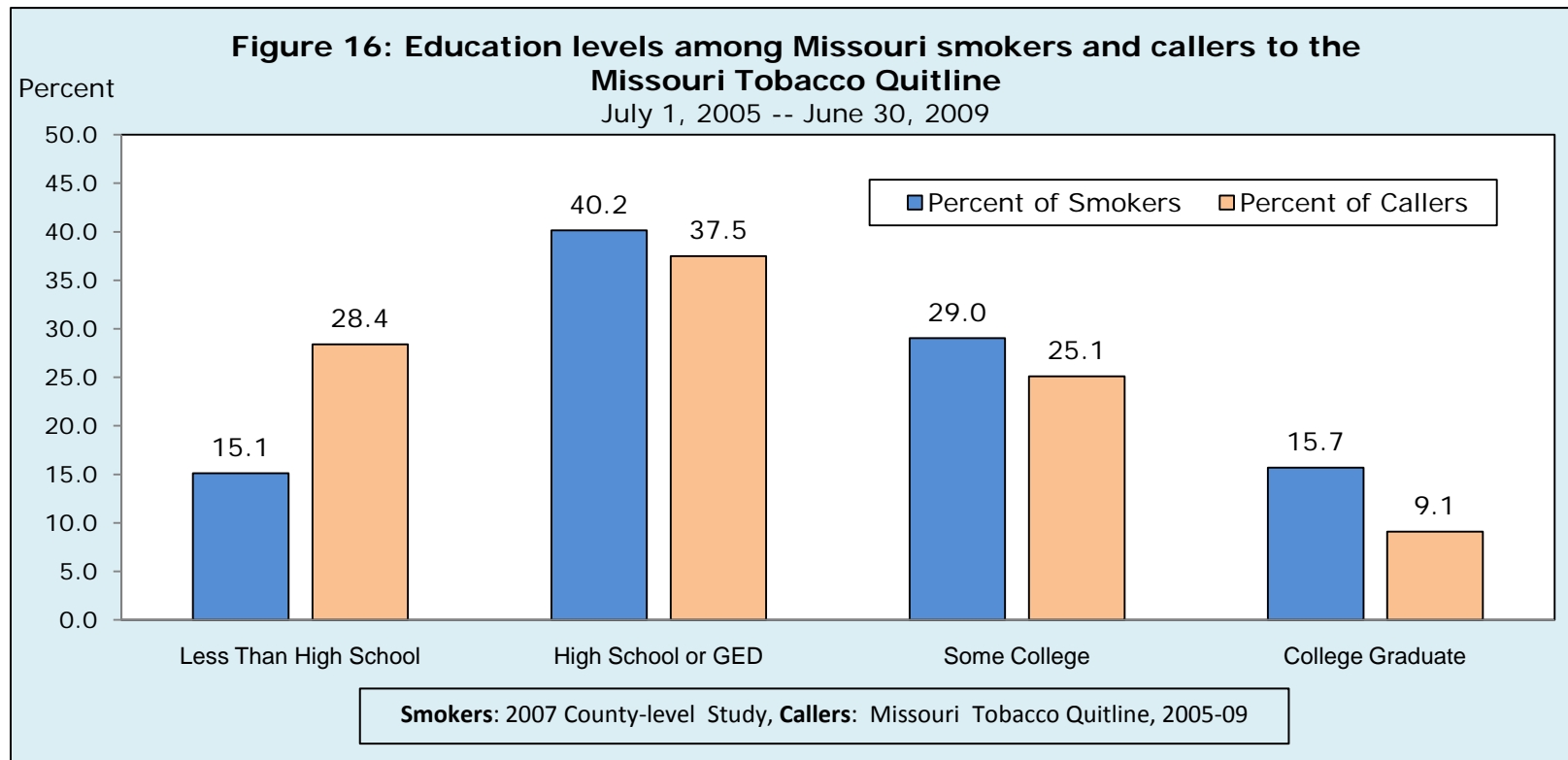
Callers to the Missouri Tobacco Quitline by Race

Approximately, four out of five callers to MOQL were white (78.5%), 14.0 percent were Black, 2.7 percent were American Indian or Alaskan Native and 4.8 percent were other races. Proportionally fewer white smokers and more Black smokers called MOQL than their representation in the smoking population. White smokers comprised about 83.6 percent and Black smokers were about 12.7 percent of the total smokers in Missouri (Figure 15).



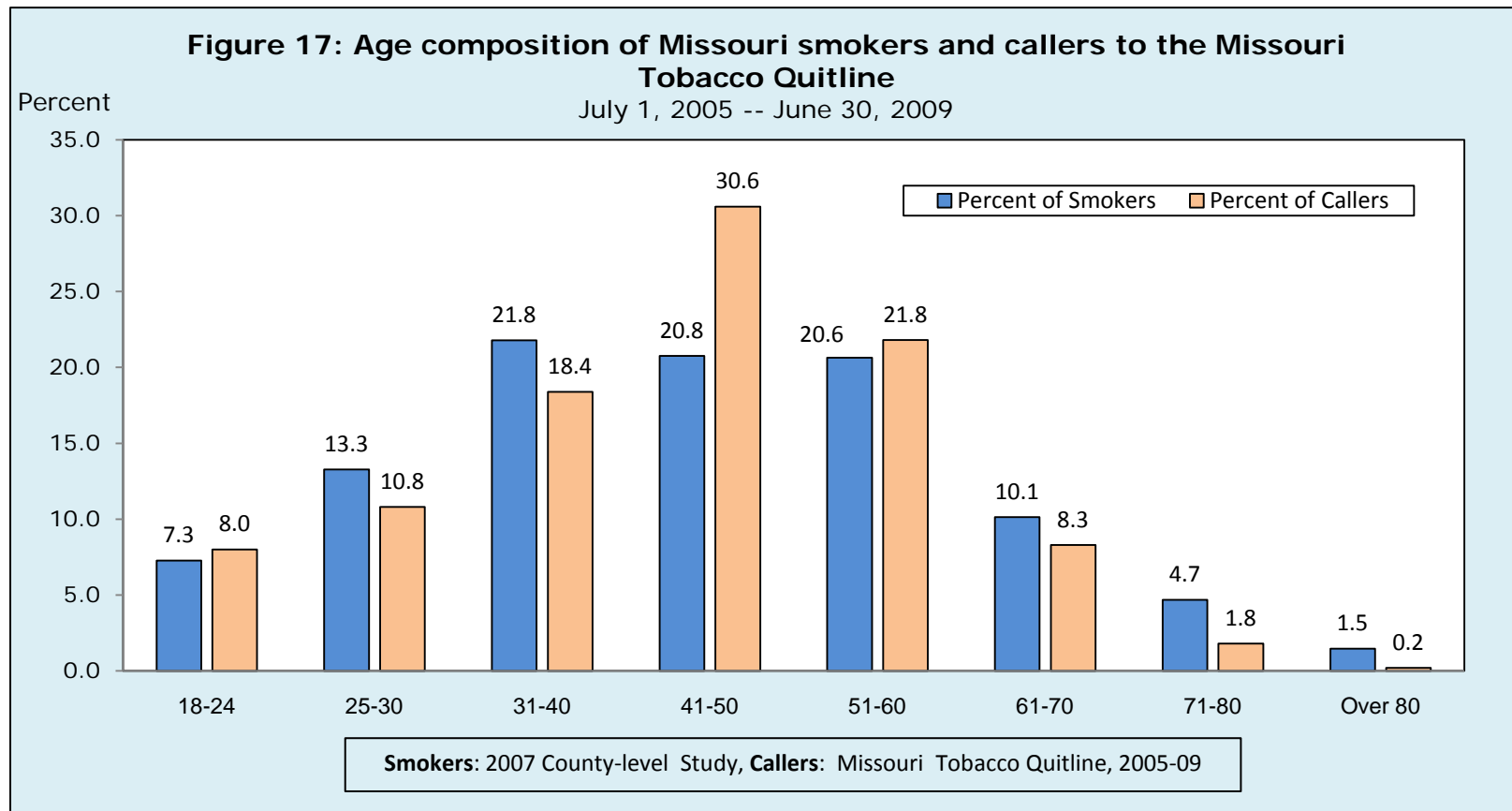
Callers to the Missouri Tobacco Quitline by Education Level

The largest proportion of the callers to MOQL had a high school diploma or GED (37.5%), followed by callers with less than a high school education (28.4%), some college education (25.1%), and college graduates (9.1%). The proportion of callers with less than a high school education was almost twice their representation in the smoking population (Figure 16).



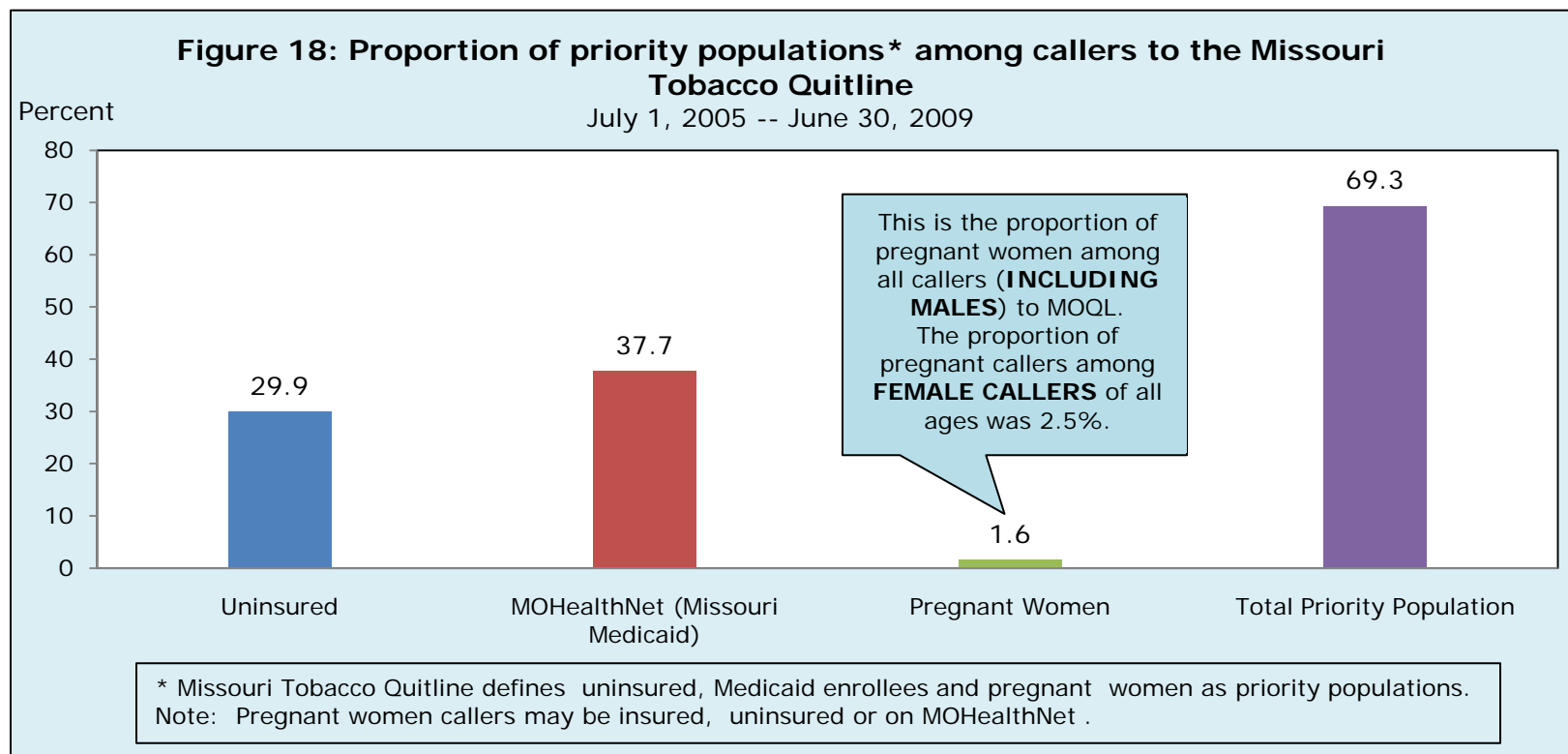
Callers to the Missouri Tobacco Quitline by Age Groups

The largest percent of calls to MOQL were from adults in the age group 41-50 years (30.6%), followed by the 51-60 year olds (21.8%) and the age group 31-40 (18.4%). From age 25-40, and older than age 60, fewer smokers called MOQL when compared to their percent of Missouri smokers (Figure 17).

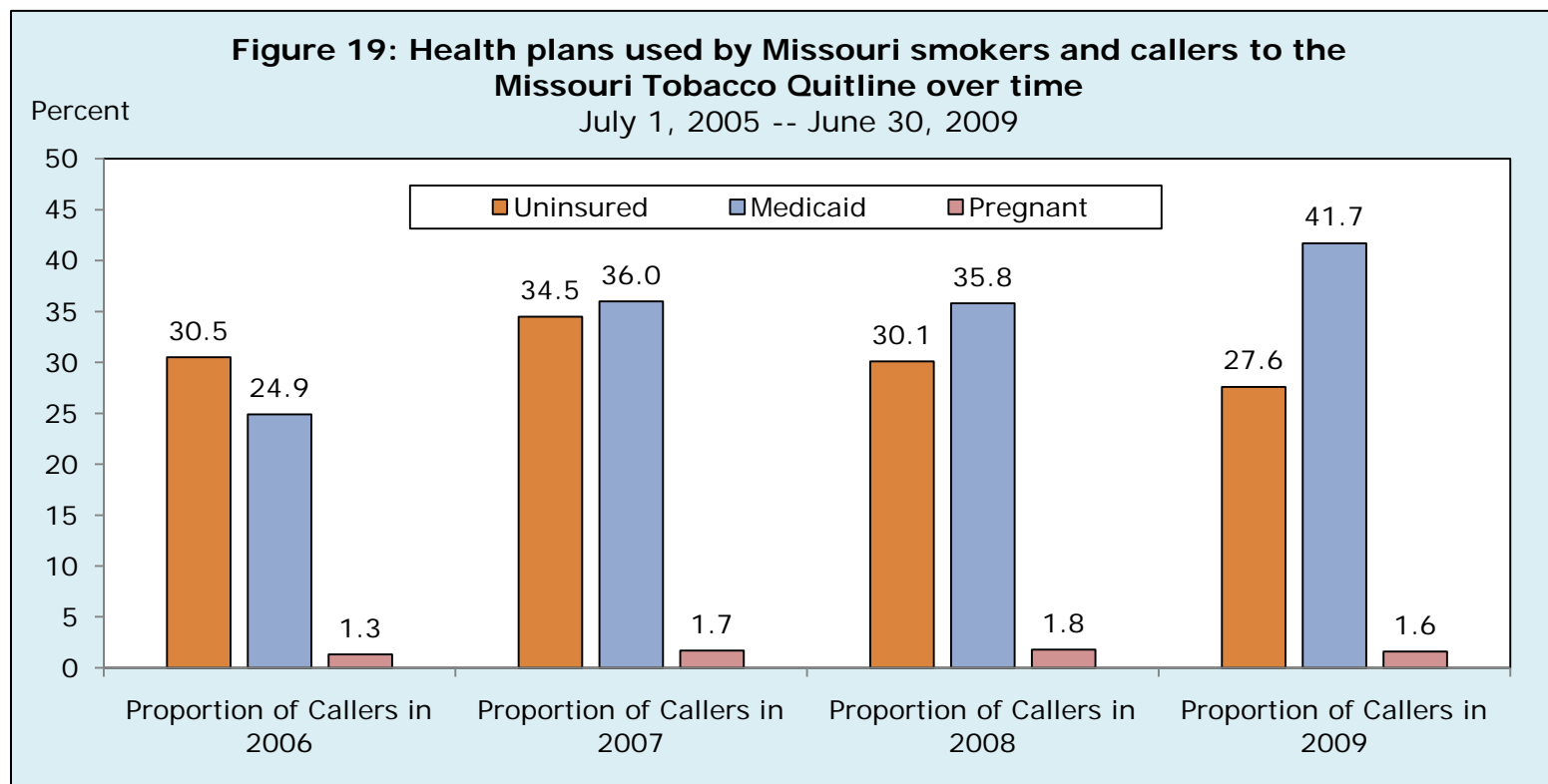


Priority Populations Calling the Missouri Tobacco Quitline

The Missouri Tobacco Quitline identifies the uninsured, MO HealthNet enrollees, and pregnant women as priority populations. These groups combined were 69.3 percent of all callers. More than one-third of callers to MOQL were covered by MO HealthNet and almost one-third had no insurance (Figure 18). Pregnant callers may be insured, uninsured or covered by MO HealthNet; summary data does not allow for pregnant callers to be excluded from the insurance status categories.

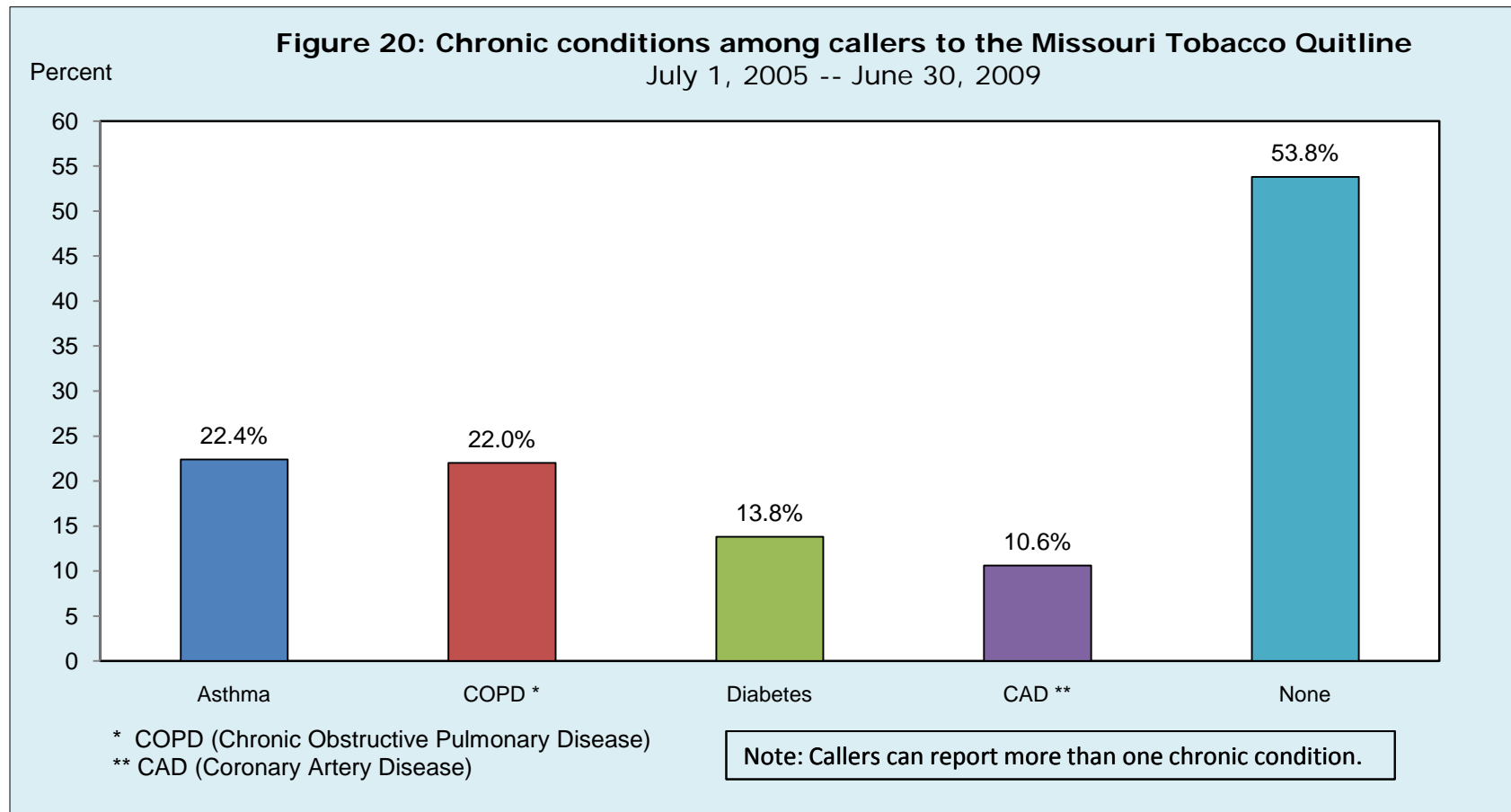


Early in the implementation of MOQL, uninsured smokers were the highest proportion of callers followed by callers on Missouri Medicaid. Recently, callers on Medicaid surpassed and became the highest proportion of the priority population (Figure 19). Between FY06 and FY09, the proportion of uninsured callers decreased by 9.5 percent and the proportion of callers on Medicaid increased by 67.5 percent. However, during the same period, the numbers of calls by the priority population increase by 601.0 percent, with highest increase in the callers on Medicaid: Uninsured increased by 407.4 percent; Medicaid increased by 838.9 percent; pregnant increased by 588.9 percent.



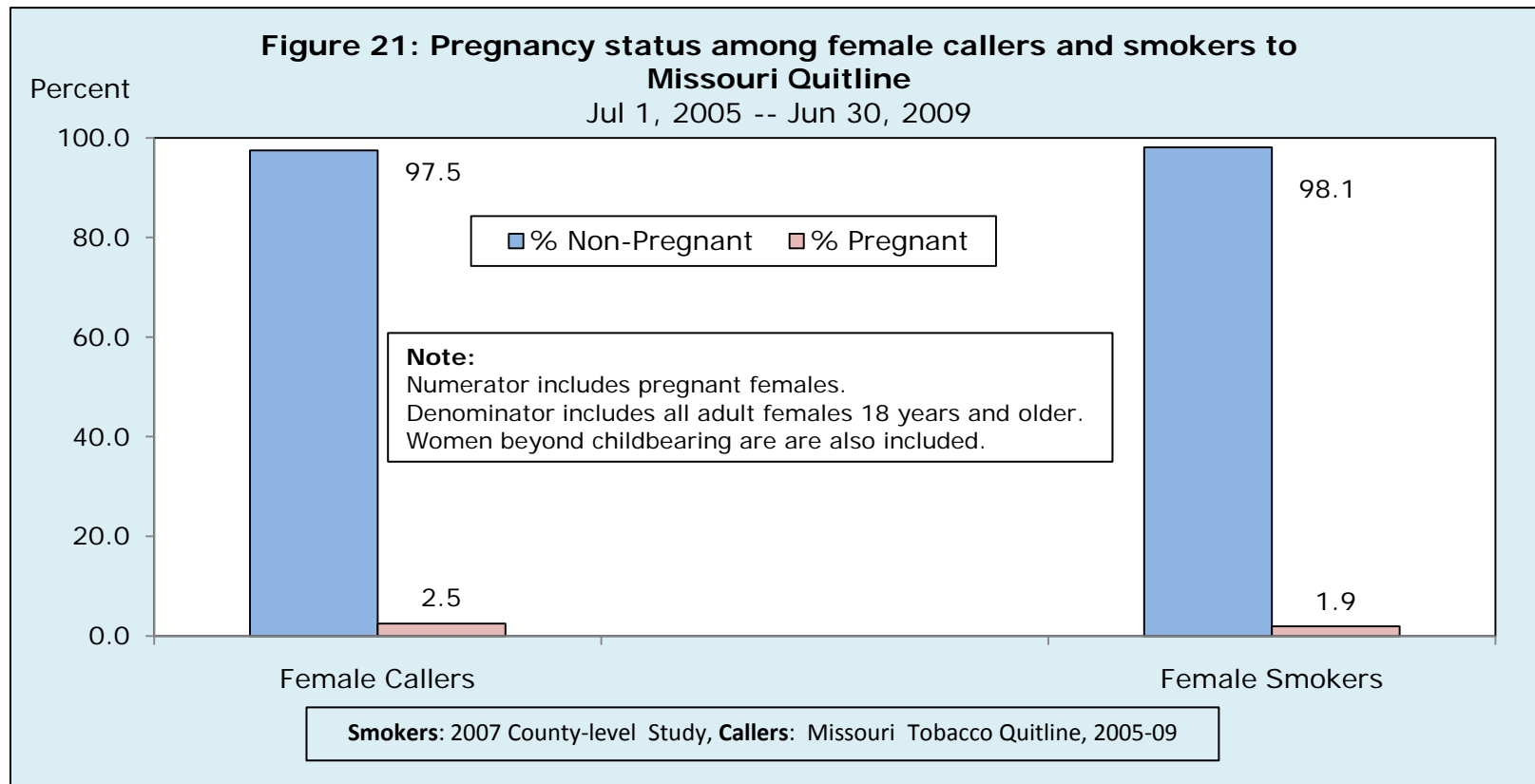
Tobacco User Callers to the Missouri Tobacco Quitline with Chronic Disease

About one half of the tobacco user callers to MOQL (46.2 percent) had one or more of these chronic diseases: asthma, chronic obstructive pulmonary disease (COPD), diabetes mellitus or coronary artery disease (CAD). About 22.4 percent of the callers reported asthma, 22.0 percent reported COPD, 13.8 percent reported diabetes and 10.6 percent reported CAD (Figure 20).



Callers to the Missouri Tobacco Quitline by Pregnancy Status

The female pregnant callers to MOQL were 2.5 percent. Pregnant smokers comprised about 1.9 percent of all female smokers in Missouri (Figure 21).



PART FOUR:

Callers to MOQL from Missouri Counties

County-Level Information Regarding Calls to the Missouri Tobacco Quitline

The county-level information from the weekly/monthly reports, 'Missouri Tobacco Quitline - How Heard about by County', were used to produce several GIS maps. The information displayed through the GIS maps shows the methods recalled most as informing Missourians about the Quitline.

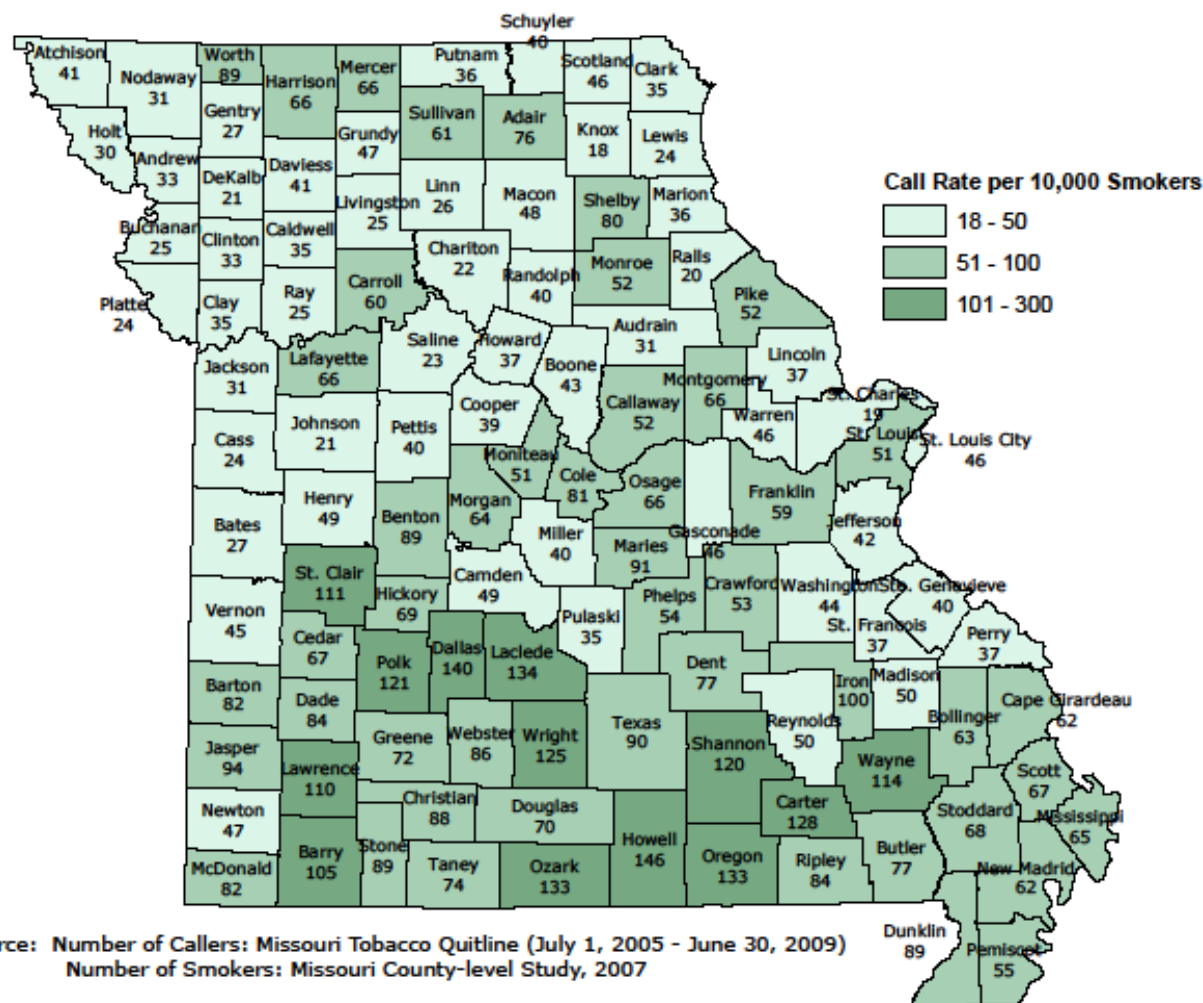
Figure 22, shows calls received by the Missouri Tobacco Quitline from Missouri counties with media as the source of information, July 1, 2005, through June 30, 2009. The highest call rate was from Howell County followed by Dallas, Laclede, Ozark, Oregon, Carter, Wright, Polk, Shannon, Wayne, St. Clair, Lawrence and Barry counties.

Figure 23, shows calls received by the Missouri Tobacco Quitline from Missouri counties with friends and family as the source of information, July 1, 2005, through June 30, 2009. The highest call rate was from Carter County followed by Laclede, Barton, Ripley, Dallas, Howell and Wright counties.

Figure 24, shows calls received by the Missouri Tobacco Quitline from Missouri counties with health professional as the source of information, July 1, 2005, through June 30, 2009. The highest call rate was from Carter County followed by Wayne, Bollinger, Oregon, Howell, Polk, Barton, Wright, Dade and Cape Girardeau counties.

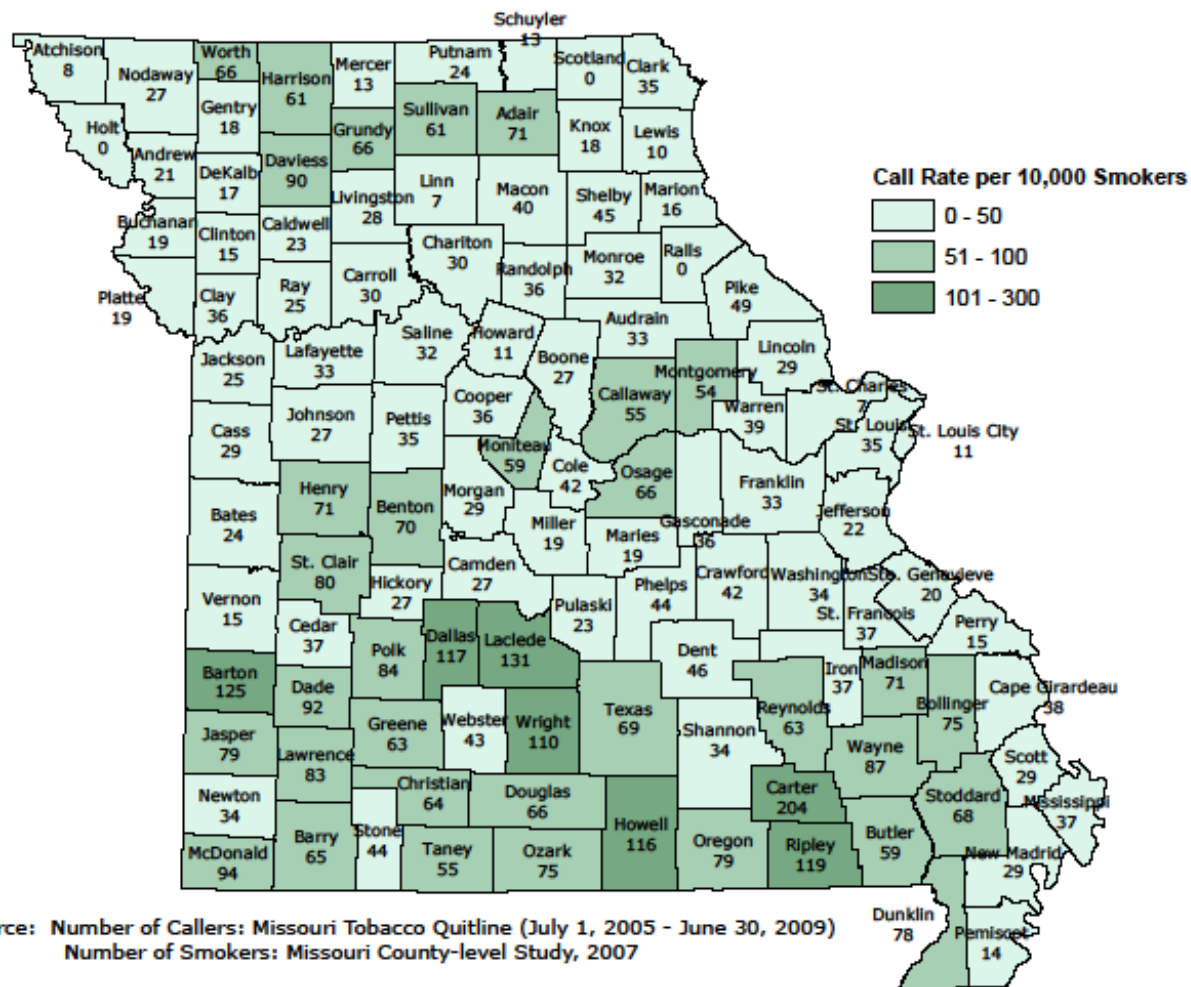
Figure 22: Calls received by the Missouri Tobacco Quitline from Missouri counties with media as the source of information, July 1, 2005, through June 30, 2009

Call Rate per 10,000 Smokers



Source: Number of Callers: Missouri Tobacco Quitline (July 1, 2005 - June 30, 2009)
Number of Smokers: Missouri County-level Study, 2007

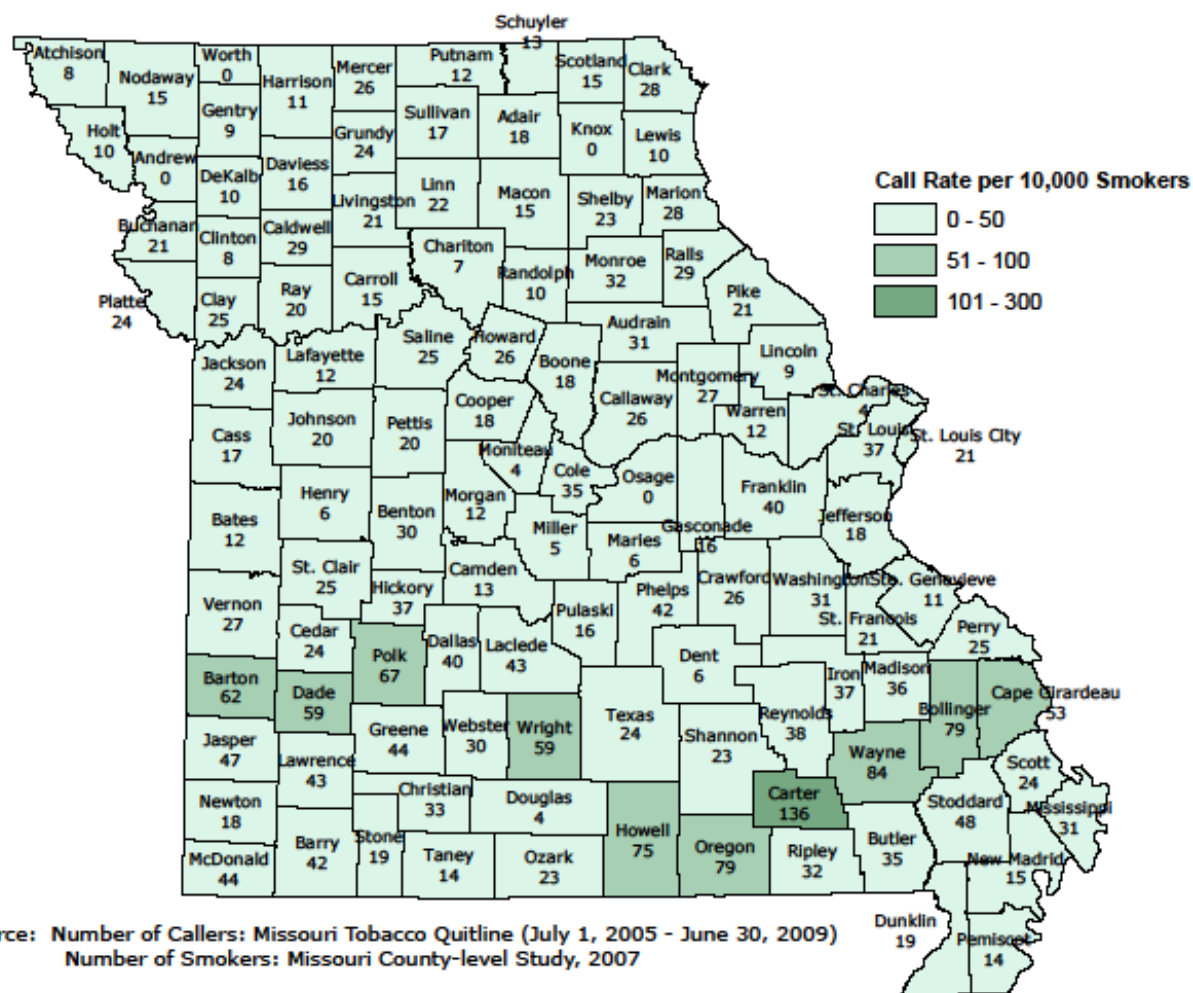
Figure 23: Calls received by the Missouri Tobacco Quitline from Missouri counties with friends and family as the source of information, July 1, 2005, through June 30, 2009
 Call Rate per 10,000 Smokers



Source: Number of Callers: Missouri Tobacco Quitline (July 1, 2005 - June 30, 2009)
 Number of Smokers: Missouri County-level Study, 2007

Figure 24: Calls received by the Missouri Tobacco Quitline from Missouri counties with health professional as the source of information, July 1, 2005, through June 30, 2009

Call Rate per 10,000 Smokers



Source: Number of Callers: Missouri Tobacco Quitline (July 1, 2005 - June 30, 2009)
Number of Smokers: Missouri County-level Study, 2007

Calls from Counties Over Time

The maps in Figures 25-28 show each county's total call rate per 10,000 smokers for each fiscal year. The map in Figure 25 shows that the highest call rate per 10,000 smokers was from St. Clair County (136) followed by Ozark, Laclede, Howell and Polk counties during the fiscal year July 1, 2005, through June 30, 2006.

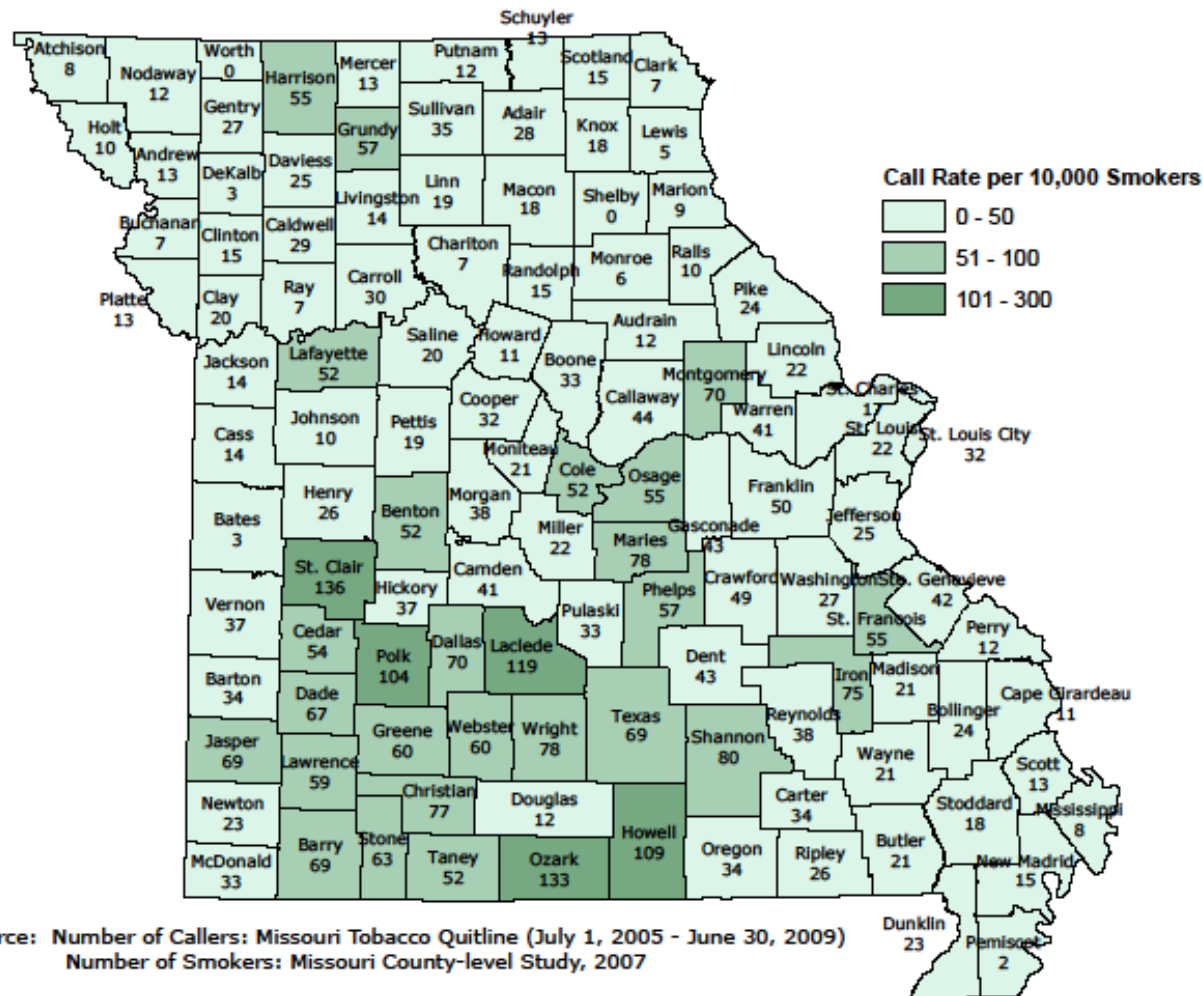
During the fiscal year July 1, 2006, through June 30, 2007, the county with the highest call rate per 10,000 smokers was Barton County at 77 followed by Carter County at 51. From the rest of the counties the call rate was less than 50 per 10,000 smokers (Figure 26).

The highest call rate per 10,000 smokers during the fiscal year July 1, 2007, through June 30, 2008 was 102 from Carter County followed by Wayne, Howell, Scotland, Bollinger, Ozark, Laclede, Mercer, and Dunklin counties. From the rest of the counties the call rate was less than 50 per 10,000 smokers (Figure 27).

During the fiscal year July 1, 2008, through June 30, 2009, the county with the highest call rate per 10,000 smokers was Carter County at 366 followed by Dallas, Oregon, Wayne, Ripley, Howell, McDonald, Laclede, Douglas and Barton counties. From the rest of the counties the call rate was less than 150 per 10,000 smokers (Figure 28).

**Figure 25: Calls received by the Missouri Tobacco Quitline from Missouri counties,
July 1, 2005, through June 30, 2006**

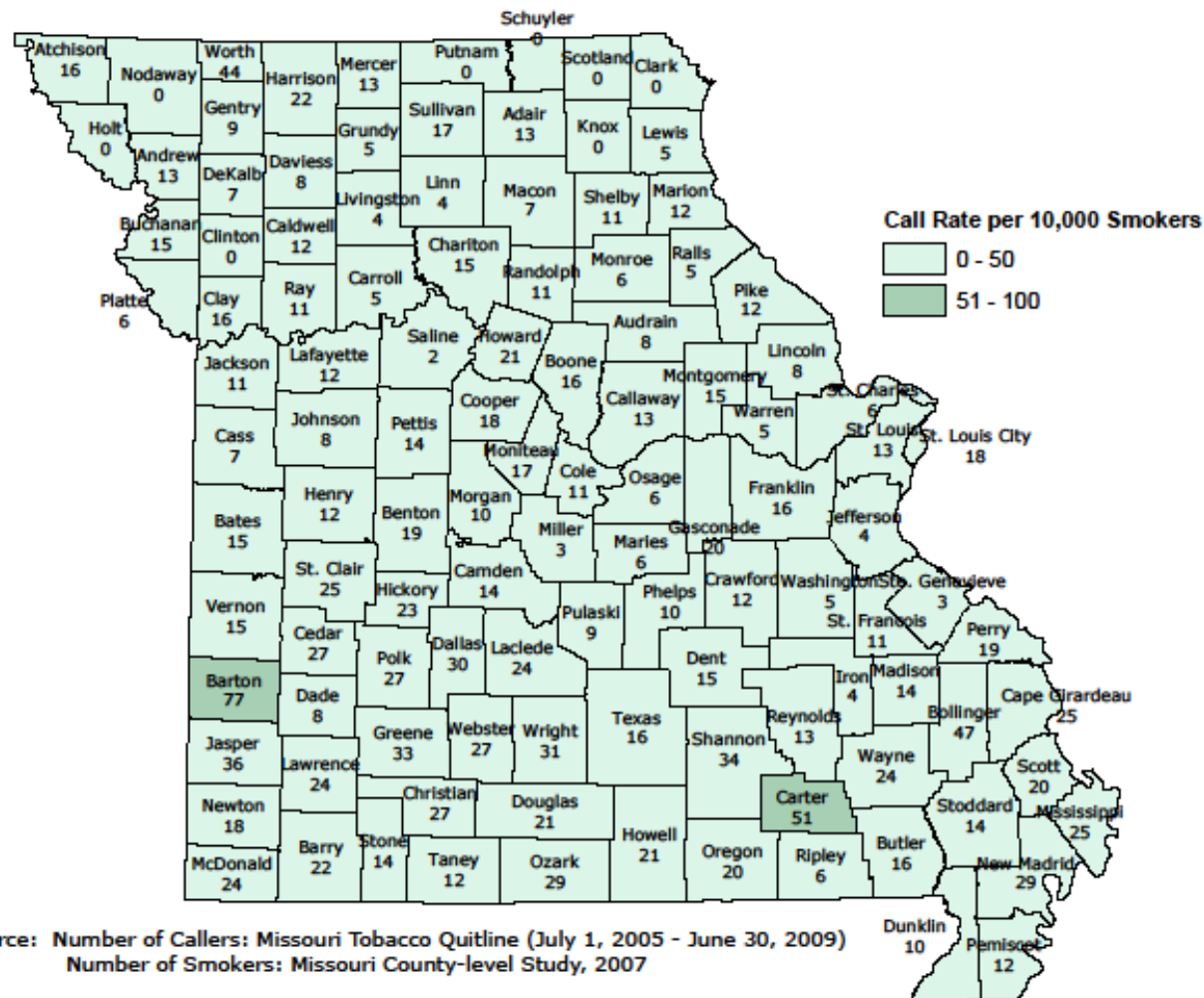
Call Rate per 10,000 Smokers



Source: Number of Callers: Missouri Tobacco Quitline (July 1, 2005 - June 30, 2009)
Number of Smokers: Missouri County-level Study, 2007

**Figure 26: Calls received by the Missouri Tobacco Quitline from Missouri counties,
July 1, 2006, through June 30, 2007**

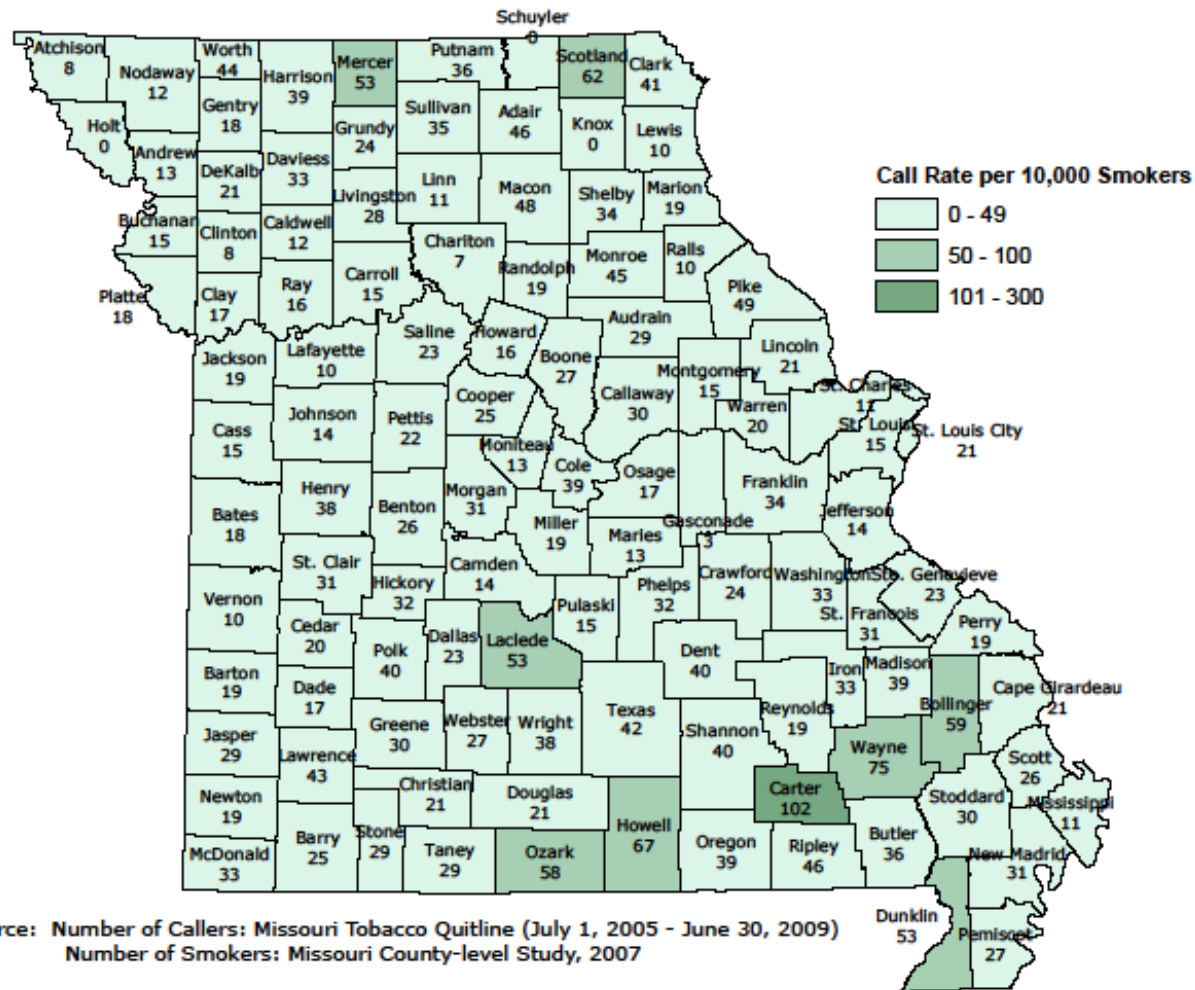
Call Rate per 10,000 Smokers



Source: Number of Callers: Missouri Tobacco Quitline (July 1, 2005 - June 30, 2009)
Number of Smokers: Missouri County-level Study, 2007

**Figure 27: Calls received by the Missouri Tobacco Quitline from Missouri counties,
July 1, 2007, through June 30, 2008**

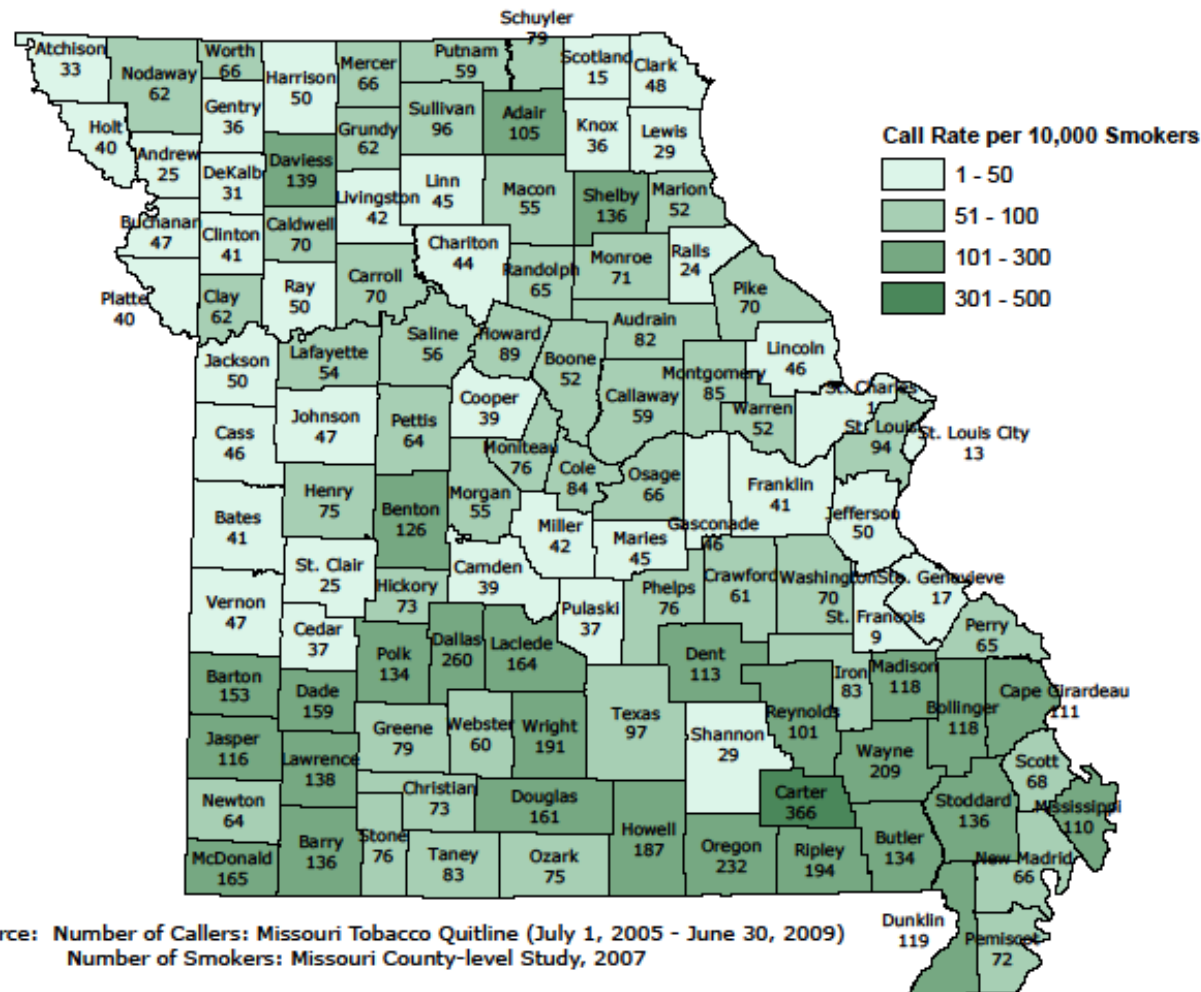
Call Rate per 10,000 Smokers



Source: Number of Callers: Missouri Tobacco Quitline (July 1, 2005 - June 30, 2009)
Number of Smokers: Missouri County-level Study, 2007

**Figure 28: Calls received by the Missouri Tobacco Quitline from Missouri counties,
July 1, 2008, through June 30, 2009**

Call Rate per 10,000 Smokers



Source: Number of Callers: Missouri Tobacco Quitline (July 1, 2005 - June 30, 2009)
Number of Smokers: Missouri County-level Study, 2007

PART FIVE:
Evaluation of Missouri Tobacco Quitline

Evaluation of Quitline Services

Measuring Quit Rate – Recommendations by North American Quitline Consortium (NAQC)

In its issue brief, NAQC discussed the calculation of the tobacco quit rate by examining several relevant studies. Based on the review, NAQC recommends including in the denominator all the tobacco users who registered for services, consent to follow-up, received some evidence-based treatment and were not quit at intake or registration for more than 30 consecutive days.

NAQC recommended conducting follow-up calls seven months following Quitline services and using the 30-day point prevalence abstinence to determine the quit rate. The point prevalence quit rate is defined as abstinence for a shorter period of time like 24 hours, seven days or 30 days as opposed to continuous and prolonged abstinence (e.g., last 6 months).

NAQC recommends using the optimistic quit rate called “Responder Rate”:

$$\text{Number quit} / \text{Number of follow-up survey respondents}$$

as the primary measure for reporting Quitline outcomes.

Evaluation of MOQL Services

Between 2008 and 2010 a three-year evaluation of the MOQL was done to determine customer satisfaction and the quit status of tobacco users who enrolled in MOQL services. The Clinical and Behavioral Sciences Department of Free & Clear, Inc. conducted the evaluation through a follow-up survey of enrolled tobacco users who had consented to follow-up. (Note: This branch of Free and Clear is not involved in providing any MOQL services.) The cross-sectional follow-up survey was conducted with consenting individuals randomly selected after 3 months, 6 months, and 12 months of enrolling in services.

The survey response rate was low, less than 50 percent, as shown in table 2. The major reasons for the lower response rate were “caller did not like to be called back” followed by unable to connect, wrong number and refusal to participate in

the survey. The response rate was under 50 percent all three years and was lower the more time that had elapsed since the caller enrolled.

Table 2: Response rates - different follow-up surveys for the 3 years of evaluation			
	Cross section follow-up time point		
	3 months	6 months	12 months
Year-1	40.7	26.3	35.5
Year-2	48.3	38.3	36.7
Year-3	45.7	45.1	28.9

These reports presented the demographic characteristics and satisfaction with the MOQL services and the smoking status. The status is defined as 'already quit' or 'still planning to quit' or 'not quit'.

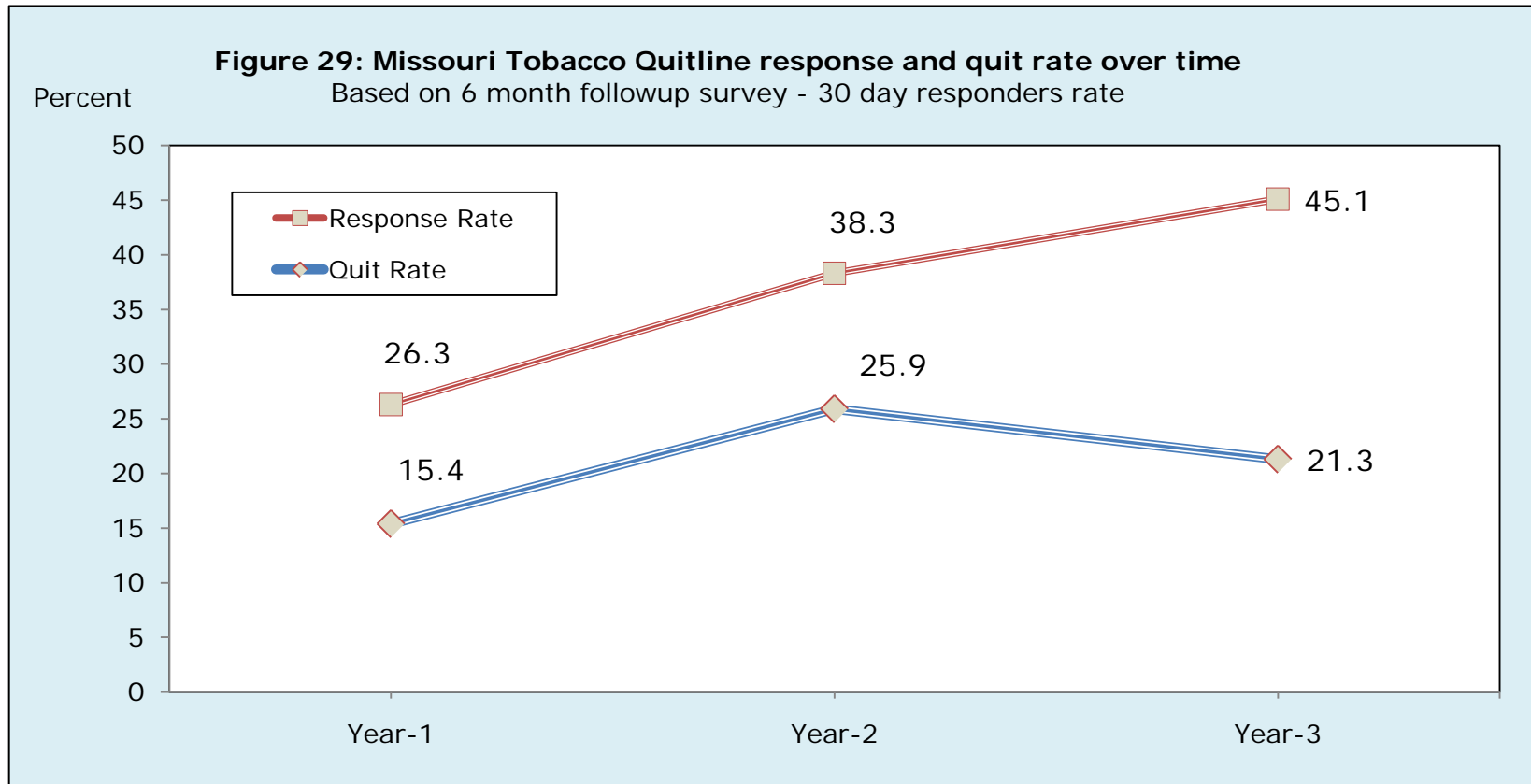
In the reports, the evaluator discussed the characteristics of callers selected in the sample to be surveyed, and those who responded to the follow-up survey, separately. The demographic characteristics discussed were gender, age, ethnicity, race and education.

The intent of the evaluation was to determine customer satisfaction with MOQL and the quit status of tobacco users who called MOQL. At least 80 percent of the callers were satisfied with the services received in the first evaluation, climbing to at least 93 percent in the third year. The details on the satisfaction rate are provided in table 3.

Table 3: Satisfaction with the Quitline services provided						
	3 months		6 months		12 months	
	Number	%	Number	%	Number	%
Year-1	66	97.1%	21	80.8%	37	90.2%
Year-2	149	88.6%	134	97.8%	164	90.8%
Year-3	169	97.0%	212	93.9%	146	93.2%

The three years of evaluation covered individuals who started Quitline services in 2007 through early 2010. NRT was available to the widest range of individuals in 2009, which was year two of the evaluation. Following NAQC guidelines for calculating and reporting quit rates, the quit rate in Missouri for 6 month follow-up was 15.4 percent in years 1, 25.9 percent in year 2 and 21.3 percent in year 3 of evaluation, respectively.

Figure 29 shows the quit and response rates over time. The quit rates presented here are the 6-month rates, the close approximation of the 7-month follow-up rate as recommended by NAQC. While the response rates have been improving over time, they are not yet up to the NAQC recommended of 50%.



The Takeaway Message

The Missouri Tobacco Quitline is playing a vital role in helping persons addicted to smoking, with the best quit rates seen when NRT was available to the widest range of callers. MOQL is reaching two of its three priority populations: individuals receiving MO HealthNet benefits and the uninsured. The third priority population, pregnant women is a very small portion of callers to MOQL. Over the first four years of the MOQL, several things appear to have motivated Missouri smokers to consider quitting: 1) increased cost of tobacco products resulting from the 2009 federal tax increases; 2) Free NRT; 3) A network of friends and family; and 4) Healthcare providers. MOQL should continue to focus effort on referral sources that assist in motivating smokers to think seriously about quitting, and as funding allows, in providing services and resources that are helpful in the quitting process.

References

1. U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004.
2. Free and Clear, Inc., Seattle, Washington. *Missouri Tobacco Quitline Summary Reports*, Jefferson City, MO: Missouri Department of Health and Senior Services, 2005 – 2009.
3. Missouri Department of Health and Senior Services, Missouri County-level Study, 2007. Jefferson City, MO: Division of Community and Public Health, Office of Epidemiology.

Appendix 1: List of Data Presented from Specific Missouri Tobacco Quitline Reports

1. Total callers registered for services – Monthly Services Report/Total of Summary of Services
2. Tobacco Users – Monthly Services Report/Tobacco User/Intervention requested – non-pregnant, pregnant and materials only
3. Provider – Monthly Services Report/Provider/Total
4. Family/Friend (Proxy) – Monthly Services Report/Proxy/Total
5. Total registered for self-help materials only – Monthly Services Report/Summary of Services/Materials only
6. Total registered for 1-call program – Monthly Services Report/Tobacco User/Registered current month
7. Total registered for 4-call program – Monthly Services Report/Tobacco User/Registered Current Month
8. Total ad hoc calls – Monthly Services Report/Calls Completed in the Multiple Call Program/Ad Hoc calls
9. General public information only calls – Monthly Services Report/General Public/General Questions
10. Fax referrals by health care providers– Monthly Demographic Report/Method of Entry/Fax referral
11. Total Medicaid beneficiaries registered – Monthly Tobacco Users by Health Plan Report/Medicaid/MOM Medicaid
12. Total Uninsured registered – Monthly Tobacco Users by Health Plan Report/Quitline/MOQL Uninsured
13. Total Pregnant women registered – Monthly Services Report/Tobacco User/Intervention requested – Pregnant
14. Total priority population registered/Monthly Tobacco Users by Health Plan Report/MOM Medicaid plus MOQL Uninsured
15. High school education or less – Monthly Demographic Report/Tobacco Users by Education/Less than grade 9 through High School Degree plus GED
16. Male/Female – Monthly Demographic Report/Tobacco Users by Gender/Male & Female
17. Has Medicare Coverage – Monthly Tobacco Users by Health Plan Report/Quitline/MOQL Medicare
18. Has Private insurance – Monthly Tobacco Users by Health Plan Report/Commercial/Totals
19. Asthma – Monthly Demographic Report/Tobacco Users by Chronic Conditions
20. Coronary Heart Disease (CAD) – Monthly Demographic Report/Tobacco Users by Chronic Conditions
21. COPD – Monthly Demographic Report/Tobacco Users by Chronic Conditions
22. Diabetes – Monthly Demographic Report/Tobacco Users by Chronic Conditions
23. How callers heard about the quitline – Monthly Demographic Report/How Heard About