

**Evaluation of the Florida Quitline
Smoking Cessation Radio Ad Campaigns:
Spanish Language
African American
Prenatal Smoking Cessation**

May and June 2007

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Submitted by:

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Evaluation of the Florida Quitline Smoking Cessation Radio Ad Campaigns: Spanish Language, African American and Prenatal Smoking Cessation, May and June 2007

Executive Summary

Introduction to the Smoking Cessation Media Campaigns

The Florida Department of Health, Division of Health Access and Tobacco, Tobacco Prevention Program conducted a smoking cessation media campaign targeting Spanish-speaking and African American smokers in May and June 2007. The goal of the media campaign was to motivate Hispanic and African American smokers to seek smoking cessation counseling from the Florida Quitline.

The Spanish language campaign targeted Spanish speaking Floridians (operationally identified with the Hispanic ethnic group) in four cities in Florida, Miami, Fort Myers, Tampa and Orlando. The footprints of these Spanish radio stations cover the 27 counties surrounding these cities, in what are known as Designated Market Areas (DMAs). During May and June, 2007, 536 Hispanic callers contacted the Florida Quitline, compared with 309 Hispanics who called the Quitline during the rest of the year.

The African American language campaign targeted Black Floridians in five cities in Florida, Jacksonville, Miami, Fort Myers, Tampa and Orlando. The campaign used Adult-oriented advertising over Black radio stations. The footprints of these Black radio stations cover 32 counties included in these Black radio Designated Market Areas. During May and June, 2007, 254 African American callers contacted the Florida Quitline, compared with 223 African Americans who called the Quitline during the rest of the year.

I. Target Audience of the Spanish Language Smoking Cessation Media Campaign

The Spanish language campaign targeted Spanish-speaking smokers in Miami, Fort Myers, Orlando and Tampa using Spanish language advertising over Spanish radio stations. The broadcast "footprints" of the radio stations are termed Designated Market Areas (DMA) and cover 27 counties surrounding these cities. The Spanish-language radio stations played 1,698 advertising spots between May 1 and June 29, 2007, for a total cost of \$143,700.. During these two months in 2007, 536 Hispanic callers contacted the Florida Quitline, compared with 309 who called during the other eleven months of the analysis period. There were 9.6 times the average number of calls per month during the media campaign (n=268 per month) than during the rest of the year (n=28 per month).

- The campaign was targeted to Spanish-speaking (Hispanic) smokers in four Designated Market Areas: Miami (three counties), Fort Myers (six counties), Orlando (eight counties) and Tampa.(ten counties).
- There are an estimated 481,684 Hispanic smokers in the 27 counties of the Designated Market Areas.

- The campaign aired 1,698 ad spots on Spanish radio stations in Miami-Fort Lauderdale, three stations in Fort Myers, two stations in Orlando and four radio stations in the Tampa-St. Petersburg DMAs for a total cost of \$143,700.
- 87% of Hispanic callers (n=432) in the Designated Market Areas cited radio as their source of information about the Quitline during April, May and June, 2007.

Patterns of Calls to the Quitline During the 2007 Spanish Language Media Campaign

Calls to the Florida Quitline reached their highest annual volume in 2007, with a total of 4,554 calls, with 536 of the calls from Hispanic Floridians. A contributing factor for the 2007 call volume is the Department of Health Spanish-language smoking cessation media campaign conducted in from May and June, 2007. The two months of the media campaign period saw considerably more calls from Hispanic callers than in eleven months of the rest of the time period.

- 536 Hispanic callers contacted the Florida Quitline during the media campaign, for an increase nine and a half times more than the average monthly call rate of 28 in the rest of the time period.
- 98.4% of Hispanics called the Quitline to quit smoking.
- 60% of all Quitline calls from Hispanic smokers during the media campaign months (n=488) came from the four Designated Market Areas.
- 36.3% of Quitline calls from the target Designated Market Areas to quit smoking were made by Hispanic smokers during the media campaign, compared to 13.3% of the call volume from these DMAs during the rest of 2007.
- More Hispanic women, 65.0% (n=319), called the Quitline from the Designated Market Areas during the media campaign than women did, who accounted for 35.0% of calls (n=172) during the campaign months.
- 268 of the of Hispanic callers during the media campaign admitted living with children under 18 in the household, for an estimated total of 487 children at risk of second hand smoke.
- 67.0% of Hispanic smokers calling the Quitline from the four DMAs during the media campaign (n=333) requested smoking cessation counseling.

II. Target Audience of the African American Language Smoking Cessation Media Campaign

The African American radio campaign targeted Black smokers in five metropolitan areas: Miami, Fort Myers, Tampa, Orlando and Jacksonville, and covered similar broadcast Designated Market Area “footprints.”

The sixteen Black radio stations played 2,937 advertising spots between May 1 and June 29, 2007, for a total cost of \$218,244. During May and June, 2007, 254 African American

callers contacted the Florida Quitline, compared with 223 African Americans who called the Quitline during the rest of the year. There were six times as many callers on average per month during the media campaign (n=127 per month) than during the rest of the year (n=20.3 per month).

- The campaign was targeted toward African American smokers in five Designated Market Areas: Miami (three counties), Fort Myers (six counties), Orlando (eight counties), Tampa (ten counties) and Jacksonville (five counties).
- There are an estimated 443,945 African American smokers in the 32 counties of the Designated Market Areas.
- The campaign aired 1,698 advertising spots over three radio stations in Miami-Fort Lauderdale, three stations in Fort Myers, three stations in Orlando, three radio stations in the Tampa-St. Petersburg DMA and four stations in Jacksonville.
- Advertising reached an estimated 272,047 African Americans in the Miami-Ft. Lauderdale, Fort Myers, Orlando and Tampa-St.-Petersburg DMAs.

Patterns of Calls to the Quitline During the 2007 African American Smoking Cessation Campaign

Calls to the Florida Quitline reached their highest annual volume in 2007, with a total of 4,554 calls in a thirteen month period, with a total of 477 calls from African Americans. A contributing factor for the 2007 call volume is the African American smoking cessation media campaign conducted in from May and June, 2007. The two months of the media campaign period saw considerably more average calls per month and the calls from Black callers than in eleven months of the rest of the time period.

- 254 African American callers contacted the Florida Quitline during the media campaign, a ten-fold increase of the average monthly call rate of 20.3.
- 96.9% of African Americans called to quit smoking.
- 52.0% of all Quitline calls from African American smokers occurred during the media campaign months.
- 68.9% of African American callers were in the 18 to 44 targeted age group. 28.1% of Black callers from the target DMAs were from adults older than the target age group.
- More African American women, 54.0% called the Quitline from the Designated Market Areas during the media campaign than men, who accounted for 45.5% of calls (n=55) during the campaign months.
- 78% of the African Americans calling from the target DMAs during the media campaign cited radio as their source of information about the Quitline.

- 129 of the of African American callers from the DMAs during the media campaign admitted living with children under 18 in the household, for an estimated total of 273 children at risk of second hand smoke.
- 67.0%% of African American smokers calling the Quitline from the four DMAs during the media campaign (n=333) requested smoking cessation counseling.

III. Target Audience of the Prenatal Smoking Cessation Media Campaign

The prenatal smoking cessation media campaign chose its target populations based on the prevalence of smoking among pregnant women in many of Florida's counties. The campaign included 31 counties included in the broadcast "footprints." In May and June of 2007, 87.5% of all pregnant women calling the Quitline came from Florida counties in the targeted areas.

- There are an estimated 4,489,881 women smokers in the 31 target counties.
- There were 8,552 smoking births per year in 2001-2003, which amounted to 5.4% of the 158,298 births in the 31 target counties
- Radio stations aired 2,945 advertising spots during the media campaign.
- In May and June of 2007, 83.3% of all pregnant women who called the Quitline came from one of the Designated Market Areas.

Patterns of Calls to the Quitline during the 2005 Prenatal Media Campaign

Calls to the Florida Quitline reached their highest annual volume in 2007, more than three times as many calls in May and June, at an average of 24 per month, as the average number of calls per month in all of 2006-2007, at 7.8 calls per month. The prenatal media campaign in that month appears to be the catalyst for many of the calls.

- 40 pregnant women called the Quitline during the media campaign, six times more than the average number of pregnant women calling per month in 2005.
- 55.1% of the pregnant women called from one of the Designated Market Areas.
- 95.6% of all pregnant women calling the Quitline wanted to personally quit smoking.
- 94% of all Quitline calls from the Designated Market Areas came from the targeted 18-44 age group.
- 93/9% of pregnant women calling the Quitline from the Designated Market Areas during the media campaign cited the radio as their source of their knowledge about the Quitline.
- 72.7% of all pregnant women calling the Quitline from the Designated Market Areas requested counseling to quit smoking.

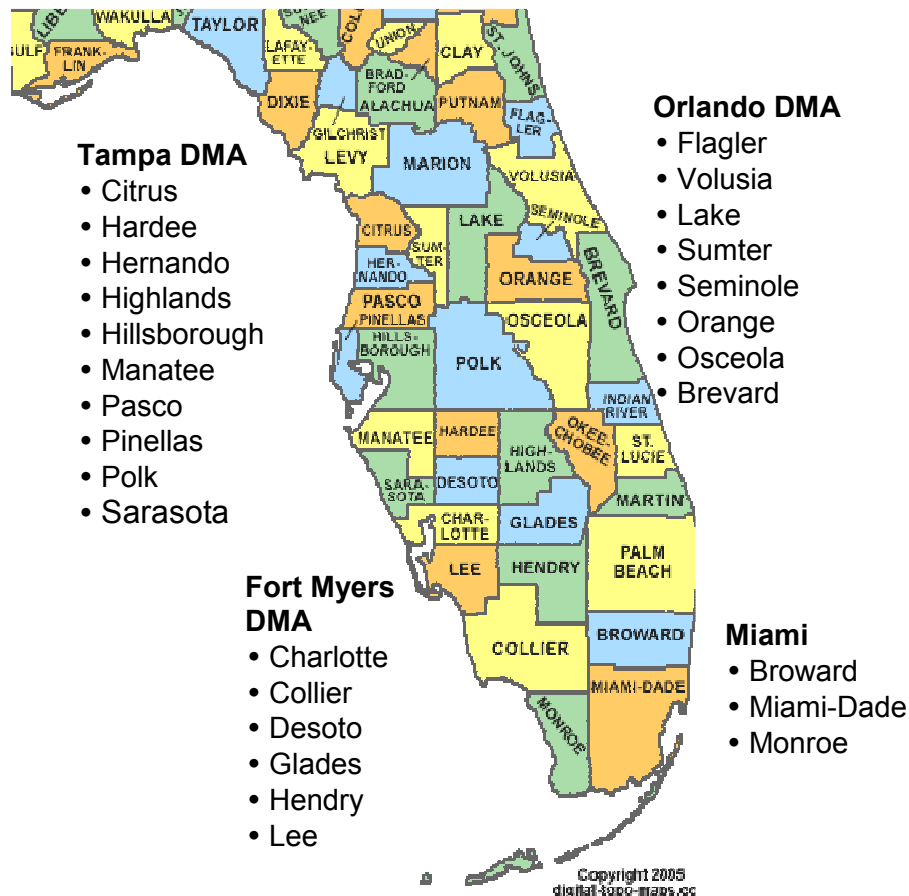
Evaluation of the Florida Quitline Smoking Cessation Radio Ad Campaigns: Spanish Language, African American and Prenatal Smoking Cessation, May and June 2007

I. Spanish Language and African American Smoking Cessation Radio Campaign

The Florida Department of Health, Division of Health Access and Tobacco, Tobacco Prevention Program conducted a smoking cessation media campaign targeting Spanish-speaking and African American smokers in May and June 2007. The goal of the media campaign was to motivate Hispanic and African American smokers to seek smoking cessation counseling from the Florida Quitline.

The Spanish language campaign targeted Spanish speaking Floridians (operationally identified with the Hispanic ethnic group) in four cities in Florida, Miami, Fort Myers, Tampa and Orlando. The campaign used Spanish language advertising over Spanish radio stations, airing smoking cessation ads over three radio stations in Miami, over three stations in Fort Myers, two radio stations in Orlando and four stations in Tampa. The footprints of these Spanish radio stations cover twenty-seven counties surrounding these cities, in what are known as Designated Market Areas (DMAs). The four Spanish-language Designated Marketing Areas are shown in Figure 1.

Figure 1. Designated Marketing Areas in Florida in the 2007 Spanish Language Radio Campaign



The analysis counts all Hispanic listeners in each DMA as potentially being among the targeted audience. Indeed, the majority of Hispanic callers in May and June 2007 called from one of the targeted counties. The 12 Spanish language radio stations played 1,698 advertising spots between May 1 and June 29, 2007, for a total cost of \$143,700. During May and June, 2007, 536 Hispanic callers contacted the Florida Quitline, compared with 309 Hispanics who called the Quitline during the rest of the year.

The African American language campaign targeted Black Floridians in Miami, Fort Myers, Tampa, Orlando and Jacksonville. The campaign used Adult-oriented advertising over Black radio stations, airing smoking cessation ads over three Black radio stations each in Miami, Fort Myers, Orlando and Tampa and four Black radio stations in Jacksonville. These stations are shown in Table 4. The footprints of these Black radio stations cover 32 surrounding counties, in their Designated Market Areas (DMAs), as shown in Figure 2.

Figure 2. Designated Marketing Areas in Florida in the 2007 Black Radio Campaign



The analysis counts all African American listeners in each DMA as being among the targeted audience. Indeed, the majority of African American callers between May and June 2007 called from one of the targeted counties. The six Black radio stations played 2,937 advertising spots between May 1 and June 29, 2007, for a total cost of 2. During May and June, 2007, 254 African American callers contacted the Florida Quitline, compared with 223 African Americans who called the Quitline during the rest of the year.

Target Audience of the 2007 Spanish Language Media Campaign

Table 3 shows the Hispanic population in each county within the four DMAs and presents data on the smoking prevalence among Hispanics. The Spanish language smoking cessation media campaign was undertaken to target the population of smokers in Florida who spoke Spanish, identified in general as Hispanic, between the ages of 18 and 34. The four populations of Spanish-speaking Floridians in Miami, Fort Myers, Tampa and Orlando do not necessarily comprise the same ethnic or national backgrounds. However, 36.5% of the people who called the Quitline between April and June 2007 identified themselves as Hispanic. Census data for target populations come from the 2000 US Census,¹ the Florida Legislature and the Office of Economic and Demographic Research, estimating conference, updated April, 2004.² Information on the smoking prevalence of ethnic groups comes from the Department of Health CHARTS database and the 2002 Behavioral Risk Factor Surveillance Survey.³ The numbers in lined cells are estimates based on averaging the values that were reported in the 2002 BRFSS.

The four Designated Market Areas selected for the advertising campaign include a large number of Hispanics, totaling 2,351,937 people in 27 counties, as shown in Figure 1. The Miami DMA, is comprised of Broward, Miami-Dade and Monroe Counties. It has the largest Hispanic population in the state, with a total of 1,575,942 Hispanics, or 39.8% of the total 3,956,386 population, according to the 2000 US Census. The smoking prevalence of Hispanics in Miami is 22.3%, with an estimated number of 304,682 Hispanic smokers as shown in Table 3. The Fort Myers DMA is made up of six counties, Charlotte, Collier, DeSoto, Glades, Hendry and Lee, with a total Hispanic population of 119,954. Smoking prevalence among Hispanics in this DMA is fairly high at 24.5%, for a total of 29,436 Hispanic smokers.

The Tampa/St. Petersburg DMA consists of ten counties: Citrus, Hardee, Hernando, Highlands, Hillsborough, Manatee, Pasco, Pinellas, Polk and Sarasota. Tampa is in Hillsborough county. The Tampa DMA population consists of 3,702,289 people, with 824,770 residents of Hispanic origin. The smoking prevalence among Hispanic smokers averages a high level at 26.5%, with an estimated 92,210 Hispanic smokers in the Tampa/St. Petersburg DMA.

The Orlando DMA includes eight counties: Flagler, Volusia, Lake, Seminole, Orange, Osceola and Brevard. Orlando is in Orange County. There are 2,223,970 people in these seven counties of whom 299,490 identify themselves as Hispanic. The estimated smoking prevalence among Hispanic smokers in the Orlando DMA is 15.5%, with an estimated 55,356 Hispanic smokers in the Orlando DMA.

¹ US Census (2000). Retrieved on June 3, 2004 from <http://www.census.gov/census2000/states/fl.html>.

² Florida Legislature, Office of Economic and Demographic Research (2004). Retrieved on July 2, 2004 from <http://www.state.fl.us/edr/>

³ Behavioral Risk Factor Surveillance Survey (2002). Retrieved on May 17, 2004 from <http://www.floridacharts.com/charts/chart.aspx>.

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Table 1. Hispanic Smoking Populations in the DMA Counties Targeted in the 2007 Florida Quitline Smoking Cessation Radio Campaign

| Target DMA County | Total Population Florida (Census 2000) | Smoking Prevalence (BRFSS 2000) | Total Estimated Smokers | Total Hispanic Population (Leg. Est. Office, 2004) | Total Hispanic Smoking Prevalence (FL Dept of Health, 2002) | Total Estimated Hispanic Smoking Population |
|-----------------------|--|---------------------------------|-------------------------|--|---|---|
| State Total | 15,982,824 | 22.3% | 7,165,385 | 2,682,715 | 19.5% | 523,129 |
| Miami DMA | | | | | | |
| Broward | 1,623,018 | 22.3% | 361,529 | 271,652 | 13.5% | 36,673 |
| Miami-Dade | 2,253,779 | 22.3% | 502,094 | 1,291,737 | 20.6% | 266,098 |
| Monroe | 79,589 | 22.5% | 17,899 | 12,553 | 23.9% | 3,000 |
| Total Miami DMA | 3,956,386 | 22.3% | 881,522 | 1,575,942 | 19.3% | 304,682 |
| Fort Myers DMA | | | | | | |
| Charlotte | 141,627 | 22.3% | 31,518 | 67 | 24.5% | 1,144 |
| Collier | 251,377 | 22.4% | 56,190 | 296 | 22.2% | 10,944 |
| Desoto | 32,209 | 22.6% | 7,285 | 19 | 29.0% | 2,326 |
| Glades | 10,576 | 22.6% | 2,386 | 94 | 9.4% | 150 |
| Hendry | 36,210 | 22.6% | 8,180 | 336 | 40.4% | 5,792 |
| Lee | 440,888 | 22.3% | 98,326 | 042 | 21.6% | 9,081 |
| Total Fort Myers DMA | 912,887 | 22.4% | 203,884 | 119,954 | 24.5% | 29,436 |
| Orlando DMA | | | | | | |
| Brevard | 476,230 | 22.3% | 106,225 | 21,970 | 15.5% | 3,413 |
| Lake | 210,527 | 22.3% | 46,907 | 11,808 | 15.5% | 1,834 |
| Orange | 896,344 | 22.3% | 200,141 | 168,361 | 22.2% | 37,376 |
| Osceola | 172,493 | 22.3% | 38,500 | 50,727 | 18.8% | 9,537 |
| Seminole | 365,199 | 22.3% | 81,458 | 40,731 | 5.6% | 2,281 |
| Sumter | 53,345 | 22.5% | 11,993 | 3,356 | 15.5% | 521 |
| Total Orlando DMA | 2,174,138 | 22.3% | 485,224 | 296,953 | 15.5% | 54,962 |

Table 1 (continued). Hispanic Smoking Populations in the DMA Counties Targeted in the 2007 Florida Quitline Smoking Cessation Radio Campaign

| Target DMA County | Total Population Florida (Census 2000) | Smoking Prevalence (BRFSS 2000) | Total Estimated Smokers | Total Hispanic Population (Leg. Est. Office, 2004) | Total Hispanic Smoking Prevalence (FL Dept of Health, 2002) | Total Estimated Hispanic Smoking Population |
|--|--|---------------------------------|-------------------------|--|---|---|
| Tampa DMA | | | | | | |
| Citrus | 118,085 | 22.3% | 26,291 | 3,141 | 26.5% | 831 |
| Hardee | 26,938 | 22.5% | 6,071 | 9,611 | 17.0% | 1,634 |
| Hernando | 130,802 | 22.2% | 29,094 | 6,587 | 26.5% | 1,742 |
| Highlands | 87,366 | 22.3% | 19,480 | 10,542 | 26.5% | 2,788 |
| Hillsborough | 998,948 | 22.3% | 222,805 | 179,692 | 21.4% | 38,454 |
| Manatee | 264,002 | 22.3% | 58,813 | 24,540 | 26.5% | 6,491 |
| Pasco | 344,768 | 22.3% | 76,756 | 19,603 | 21.8% | 4,273 |
| Pinellas | 921,495 | 22.2% | 205,017 | 42,760 | 26.5% | 11,310 |
| Polk | 483,924 | 22.3% | 107,959 | 45,933 | 45.6% | 20,945 |
| Sarasota | 325,961 | 22.2% | 72,484 | 14,142 | 26.5% | 3,741 |
| Total Tampa DMA | 3,702,289 | 22.3% | 824,770 | 356,551 | 26.5% | 92,210 |
| Total from the DMA Target Counties | 10,795,532 | 22.4% | 2,406,493 | 2,351,937 | 21.5% | 481,684 |
| Total from the Rest of Florida Counties | 5,187,292 | 22.3% | 4,758,892 | 330,778 | 22.3% | 41,445 |

Target Audience of the African American Media Campaign

Table 4 identifies the African American population in the four DMAs and presents data on smoking prevalence among this population (note that numbers in lined cells are estimates based on averaging the prevalence reported in the 2002 BRFSS). The Black radio smoking cessation media campaign was targeted at African American smokers in these communities, between the ages of 18 and 34. A total of 128 African Americans called the Quitline during May and June, 2007, or 9.3% of all callers in that period. Another 197 African Americans called during the rest of 2007. Census data for target populations come from the 2000 US Census,⁴ the Florida Legislature and the Office of Economic and Demographic Research, estimating conference, updated April, 2004.⁵ Information on the smoking prevalence of ethnic groups comes from the Department of Health CHARTS database and the 2002 Behavioral Risk Factor Surveillance Survey.⁶

⁴ US Census (2000). Retrieved on June 3, 2004 from <http://www.census.gov/census2000/states/fl.html>.

⁵ Florida Legislature, Office of Economic and Demographic Research (2004). Retrieved on July 2, 2004 from <http://www.state.fl.us/edr/>

⁶ Behavioral Risk Factor Surveillance Survey (2002). Retrieved on May 17, 2004 from <http://www.floridacharts.com/charts/chart.aspx>.

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Table 2. African American Smoking Populations in the DMA Counties Targeted in the 2007 Florida Quitline Smoking Cessation Radio Campaign

| Target DMA County | Total Population Florida (Census 2000) | Smoking Prevalence (BRFSS 2000) | Total Estimated Smokers | Total Black Population (Leg. Est. Office, 2004) | Total Black Smoking Prevalence 2002 | Total Estimated Black Smoking Population |
|-----------------------|--|---------------------------------|-------------------------|---|-------------------------------------|--|
| State Total | 15,982,824 | 22.3% | 7,165,385 | 2,626,263 | 14.90% | 391,313 |
| Miami DMA | | | | | | |
| Broward | 1,623,018 | 22.3% | 361,529 | 383,901 | 9.0% | 34,551 |
| Miami-Dade | 2,253,779 | 22.3% | 502,094 | 506,269 | 12.3% | 62,271 |
| Monroe | 79,589 | 22.5% | 17,899 | 4,144 | 10.7% | 48,411 |
| Total Miami DMA | 3,956,386 | 22.3% | 881,522 | 894,314 | 10.7% | 145,233 |
| Orlando DMA | | | | | | |
| Brevard | 476,230 | 22.3% | 106,225 | 44,741 | 9.8% | 8,823 |
| Flagler | 49,832 | 22.3% | 11,093 | 5,395 | 8.9% | 480 |
| Lake | 210,527 | 22.3% | 46,907 | 19,845 | 9.8% | 8,823 |
| Orange | 896,344 | 22.3% | 200,141 | 195,909 | 11.4% | 22,334 |
| Osceola | 172,493 | 22.3% | 38,500 | 18,013 | 9.8% | 8,823 |
| Seminole | 365,199 | 22.3% | 81,458 | 40,609 | 9.0% | 3,655 |
| Sumter | 53,345 | 22.5% | 11,993 | 44,927 | 9.8% | 8,823 |
| Total Orlando DMA | 2,223,970 | 22.3% | 496,317 | 369,439 | 9.8% | 61,761 |
| Fort Myers DMA | | | | | | |
| Charlotte | 141,627 | 22.3% | 31,518 | 7,588 | 14.2% | 2,183.8 |
| Collier | 251,377 | 22.4% | 56,190 | 15,808 | 14.2% | 2,183.8 |
| Desoto | 32,209 | 22.6% | 7,285 | 4,253 | 11.5% | 489 |
| Glades | 10,576 | 22.6% | 2,386 | 1,134 | 20.3% | 230 |
| Hendry | 36,210 | 22.6% | 8,180 | 5,364 | 15.5% | 831 |
| Lee | 440,888 | 22.3% | 98,326 | 74,841 | 9.6% | 7,185 |
| Total Fort Myers DMA | 912,887 | 22.4% | 203,884 | 108,988 | 14.2% | 13,103 |

Table 2 (continued). African American Smoking Populations in the DMA Counties Targeted in the 2007 Florida Quitline Smoking Cessation Radio Campaign

| Target DMA County | Total Population Florida (Census 2000) | Smoking Prevalence (BRFSS 2000) | Total Estimated Smokers | Total Black Population (Leg. Est. Office, 2004) | Total Black Smoking Prevalence 2002 | Total Estimated Black Smoking Population |
|---|--|---------------------------------|-------------------------|---|-------------------------------------|--|
| Tampa DMA | | | | | | |
| Citrus | 118,085 | 22.3% | 26,291 | 3,153 | 19.3% | 18,137 |
| Hardee | 26,938 | 22.5% | 6,071 | 2,543 | 19.3% | 18,137 |
| Hernando | 130,802 | 22.2% | 29,094 | 6,009 | 19.3% | 18,137 |
| Highlands | 87,366 | 22.3% | 19,480 | 8,712 | 19.3% | 18,137 |
| Hillsborough | 998,948 | 22.3% | 222,805 | 172,248 | 21.6% | 37,206 |
| Manatee | 264,002 | 22.3% | 58,813 | 24,252 | 17.5% | 4,244 |
| Pasco | 344,768 | 22.3% | 76,756 | 8,497 | 19.3% | 18,137 |
| Pinellas | 921,495 | 22.2% | 205,017 | 89,812 | 20.8% | 18,681 |
| Polk | 483,924 | 22.3% | 107,959 | 71,777 | 17.3% | 12,417 |
| Sarasota | 325,961 | 22.2% | 72,484 | 15,175 | 19.3% | 18,137 |
| Total Tampa DMA | 3,702,289 | 22.3% | 824,770 | 402,178 | 19.3% | 181,370 |
| Jacksonville DMA | | | | | | |
| Baker | 22,259 | 22.5% | 5,008 | 3,317 | 3.0% | 100 |
| Clay | 140,814 | 22.3% | 31,683 | 11,249 | 11.9% | 1,338.6 |
| Duval | 778,879 | 22.3% | 175,248 | 238,245 | 15.7% | 37,404 |
| Nassau | 57,663 | 22.3% | 12,974 | 4,627 | 11.9% | 550.6 |
| Putnam | 70,423 | 22.3% | 15,845 | 12,287 | 17.0% | 2,089 |
| Saint Johns | 123,135 | 22.3% | 27,705 | 8,373 | 11.9% | 996.4 |
| Total Jacksonville DMA | 1,193,173 | 22.3% | 268,464 | 278,098 | 11.9% | 42,478 |
| Total from the DMA Target Counties | 11,988,705 | 22.3% | 2,674,957 | 2,053,017 | 14.1% | 443,945 |
| Total from the Rest of Florida Counties | 3,994,119 | 22.3% | 4,490,428 | 573,246 | 22.3% | N/A |

The Total Estimated Black Smoking Population from the DMA counties is increased by the estimated number of Black smokers in counties without BRFSS prevalence figures, so it appears larger than the total Black smoking population in Florida. This is an artifact of the estimation process and serves as a placeholder for the correct estimate.

The five Designated Market Areas selected for the advertising campaign include a large number of African Americans in the target areas, with a total of 2,053,017 African Americans in 30 counties. The Miami DMA, comprised of Broward, Miami-Dade and Monroe Counties has the largest population in the state, with a total of 3,956,386 people, according to the 2000 US Census. There are 894,314 African Americans in these three counties. The smoking prevalence of African Americans in these three counties averages is a low 10.7%, with an estimated Black

smoking population of 145,233 in the Miami DMA, as shown in Table 4.

The Fort Myers DMA is made up of six counties, Charlotte, Collier, DeSoto, Glades, Hendry and Lee, with a total of 108,988 African Americans living in them. Smoking prevalence is still low at 14.2%, for a total of 13,103 Black smokers.

The Orlando DMA includes seven counties: Flagler, Volusia, Lake, Seminole, Orange, Osceola and Brevard. Orlando is in Orange county. There are 2,223,970 people in these seven counties of whom 369,439 are African American. The estimated smoking prevalence among African American smokers is a low 9.8%, for a total of 61,761 African American smokers in this DMA.

Tampa is in Hillsborough County. The Tampa / St. Petersburg DMA consists of ten counties: Citrus, Hardee, Hernando, Highlands, Hillsborough, Manatee, Pasco, Pinellas, Polk and Sarasota. The Tampa DMA population totals 3,702,289 people, with 402,178 African American residents. The smoking prevalence among Black smokers averages a relatively high level of 19.3%. There are an estimated 181,370 African American smokers in the Tampa/St. Petersburg DMA.

The Jacksonville DMA consists of six counties, Baker, Clay, Duval, Nassau, Putnam and St. Johns. The Jacksonville DMA population totals 1,193,173 people, with 278,098 African Americans. The smoking prevalence in the African American community is relatively low, at an estimated 14.1% of the population. Smoking prevalence ranges from 3.0% in Baker County to 17.0% in Putnam county, according to the 2002 BRFSS findings.

Spanish Language and African American Smoking Cessation Media Campaign Goals

The Spanish language media campaign undertaken in 2007 was aimed at Hispanic smokers, with advertising aired over popular Spanish language radio stations in Miami, Fort Myers, Orlando and Tampa. The African American media campaign was aired in the same period over Black radio stations in the same five cities. The two ad campaigns ran for two months in May and June 2007, targeting Spanish-speaking and African American Floridians between the ages of 18 and 34. The purpose of the advertising was to motivate Hispanic and African American smokers in Florida who smoke and want to quit smoking to call the Quitline. The Quitline is a toll-free telephone-based tobacco cessation service that is available 24 hours a day.

The goal of the media campaign was to inform and motivate the target audiences to call the Quitline. The advertising message should offer an emotional appeal that moves the viewer to action; this is the motivational appeal. The ads were then designed to provide enough information to members of the attending audience that they remembered the basic message in the ad. The final element of the ads gave the audience a behavioral step, which offered a pathway to resolution, for example a number to call. In the case of the smoking cessation campaign, the number was to the Florida Quitline.

The goals of this analysis are threefold. The first goal is to assess whether the media campaign reached its targeted audiences in each DMA by analyzing the demographic characteristics of Floridians who call the Quitline during that period of the media campaign. The second goal is to determine whether the media campaign was successful in motivating members of the target audiences to call the Florida Quitline. The third goal is to assess the effectiveness of the media campaign in supporting the overall Florida Quitline goals of increasing smoking cessation, reducing second-hand smoke and reducing tobacco use in the general population. The expected outcome of the media campaign was for Spanish-speaking and African American

smokers to call the Florida Quitline for counseling in smoking cessation. The major source of measurement for the outcome of calls is from the American Cancer Society intake surveys, delivered to every person who calls the Florida Quitline.

Media Strategy for Spanish Language and African American Smoking Cessation Media Campaigns

The media buying company for the Spanish language media campaign focused on Spanish radio advertising as the primary medium for its smoking cessation message. Table 5 displays the media statistics for each of these Spanish language radio stations. The African American smoking cessation campaign ads were aired over Black radio stations in each of the target DMAs, as displayed in Table 6.

The Miami DMA advertising spots were aired over three Spanish language radio stations, WAMR-FM, Spanish A/C format, WMGE-FM, Hispanic Urban format and WXDJ-FM, Tropical Salsa format. Between May 1 and June 29, 2007 the Miami stations aired 560 spots, at a total cost of \$67,080.

In the Orlando DMA ads were aired over two radio stations, WRUM-FM, a Clear Channel station playing Spanish Tropical format and WNUE-FM, Spanish Contemporary radio. The two stations aired 384 spots during the campaign period. The total cost for the advertising was \$35,680.

The four radio stations in the Tampa/St. Petersburg DMA were WLCC-AM, a Spanish Variety format station, WYUU, a Spanish format station, WMGG-AM, playing Spanish Oldies and WAMA-AM. The three stations aired 736 spots between May 1 and June 29, 2007. The campaign cost a total of \$27,280.

The Fort Myers DMA had three radio stations airing Spanish language ads, WTLQ-FM, a Spanish Contemporary format, WAFZ, Radio Fiesta and WWCL. The total cost of the campaign was 13,660.

The African American smoking cessation campaign ads were aired by three Miami Black radio stations, WMIB-FM playing a Urban Contemporary format, WEDR-FM, 99 Jams, and WPOW. The three stations aired 496 ads between May 1 and June 29, 2007. The campaign cost \$56,800. Three stations aired ads in Orlando, WJHM-FM, a Rhythmic CHR format station, WCFB and WPYO. A total of 486 ads were broadcast, at a cost of \$47,445.

Three radio stations aired ads in Tampa-St. Petersburg, WBTP-FM playing an Urban Contemporary format, WLLD-FM with a Rhythmic CHR format and WWRM-FM. The three stations aired a total of 480 spots. The Black radio campaign in Tampa cost \$49,560.

Three radio stations in Fort Myers aired the spots, WBTT-FM playing Rhythmic CHR, WJBX and WXKB. The campaign aired 631 spots in the Fort Myers DMA. The ad campaign cost a total of \$18,695.

Four radio stations aired spots in Jacksonville, WAPE-FM, Big Ape Today's Best Music, WFKS-FM, 97-9 Kiss FM, WJBT-FM, 92.7 The Beat Jamz - Representin Hip Hop & R&B and WSOL. The stations aired a total of 844 ads, for a total cost of \$45,744.

Table 3. Media Market Profiles for the 2007 Spanish Language Smoking Cessation Campaign

| Tampa | | | | | |
|---------------------------|-------------------|--------------------|--------------------|------------------|-------------------|
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WAMA | 128 | 128 | 256 | 0 | \$6,080 |
| WLCC | 80 | 80 | 160 | 0 | \$4,640 |
| WMGG | 80 | 80 | 160 | 0 | \$4,640 |
| WYUU | 80 | 80 | 160 | 0 | \$11,920 |
| Total Tampa | 368 | 368 | 736 | 0 | \$27,280 |
| Orlando | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WNUE | 96 | 96 | 192 | 60 | \$16,720 |
| WRUM | 96 | 96 | 192 | 30 | \$18,960 |
| Total Orlando | 192 | 192 | 384 | 90 | \$35,680 |
| Miami | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WAMR | 88 | 88 | 176 | 12 | \$37,800 |
| WMGE | 96 | 96 | 192 | 30 | \$26,080 |
| WXDJ | 96 | 96 | 192 | 0 | \$3,200 |
| Total Miami | 280 | 280 | 560 | 42 | \$67,080 |
| Fort Myers | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WAFZ | 94 | 94 | 188 | 0 | \$3,806 |
| WTLQ | 94 | 94 | 188 | 0 | \$7,630 |
| WWCL | 80 | 80 | 160 | 0 | \$2,224 |
| Total Fort Myers | 268 | 268 | 536 | 0 | \$13,660 |
| All Stations | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| Total All Stations | 1,108 | 1,108 | 1,698 | 132 | \$143,700 |

Table 4. Media Market Profiles for the 2007 African-American Smoking Cessation Campaign

| Tampa | | | | | |
|---------------------------|-------------------|--------------------|--------------------|------------------|-------------------|
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WBTP | 80 | 80 | 160 | 0 | \$17,560 |
| WLLD | 80 | 80 | 160 | 30 | \$11,400 |
| WWRM | 80 | 80 | 160 | 16 | \$20,600 |
| Total Tampa | 240 | 240 | 480 | 46 | \$49,560 |
| Orlando | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WCFB | 82 | 82 | 164 | 0 | \$20,350 |
| WJHM | 80 | 80 | 160 | 24 | \$13,520 |
| WPYO | 81 | 81 | 162 | 0 | \$13,575 |
| Total Orlando | 243 | 243 | 486 | 24 | \$47,445 |
| Miami | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WEDR | 80 | 80 | 160 | 0 | \$19,400 |
| WMIB | 80 | 80 | 160 | 0 | \$21,800 |
| WPOW | 88 | 88 | 176 | 0 | \$15,600 |
| Total Miami | 248 | 248 | 496 | 0 | \$56,800 |
| For Myers | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WBTT | 105 | 105 | 210 | 0 | \$5,890 |
| WJBX | 108 | 108 | 216 | 0 | \$4,520 |
| WXKB | 102 | 103 | 205 | 0 | \$8,285 |
| Total Fort Myers | 315 | 316 | 631 | 0 | \$18,695 |
| Jacksonville | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WAPE | 86 | 86 | 172 | 0 | \$12,680 |
| WFKS | 112 | 112 | 224 | 0 | \$9,800 |
| WJBT | 112 | 112 | 224 | 0 | \$11,632 |
| WSOL | 112 | 112 | 224 | 0 | \$11,632 |
| Total Jacksonville | 422 | 422 | 844 | 0 | \$45,744 |
| Total All Stations | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| Total All Stations | 1,468 | 1,469 | 2,937 | 70 | \$218,244 |

Methodology for Evaluating the Media Campaign

The methodology for evaluating the Spanish language and African American smoking cessation campaign in May and June 2007 is based on two datasets, an input dataset that summarizes the important elements of the advertising campaign and an output dataset based on the ACS intake survey which collects demographic data on the target audience taking calling the Quitline. The first is composed of the data provided by the media buyer concerning media play during the campaign. These data include only the total number of ads broadcast during the campaign, and the total and per capita cost of the campaign.

The second dataset provides measures for assessing the behavior of the target audiences based on the American Cancer Society Quitline intake survey that is administered to each client who calls the Quitline number prior to setting up a counseling session. Quitline intake survey data for the entire twelve months of 2007 are used to provide a comparison of the calling patterns during the media campaign versus all other months of the year. Data categories include demographic data, service data related to the Quitline, personal and social data, communication-related data, and behavioral data relevant to smoking and smoking cessation. This study uses data fields from a subset of the data categories:

- a) Demographic data: Gender, Age, Ethnicity, Florida County of Caller.
- b) Personal data: Number of Children in Household, and Children Under 18 in Household, Number of Cigarettes Smoked per Day.
- c) Service data related to the Quitline: Reason for Call, Service Requested by Client.
- d) Communication-related data: How Client Heard About the Quitline

Other sets of data from the 2000 US Census and the 2002 Florida Behavioral Risk Factor Surveillance Survey (BRFSS) are used as a background to the study.

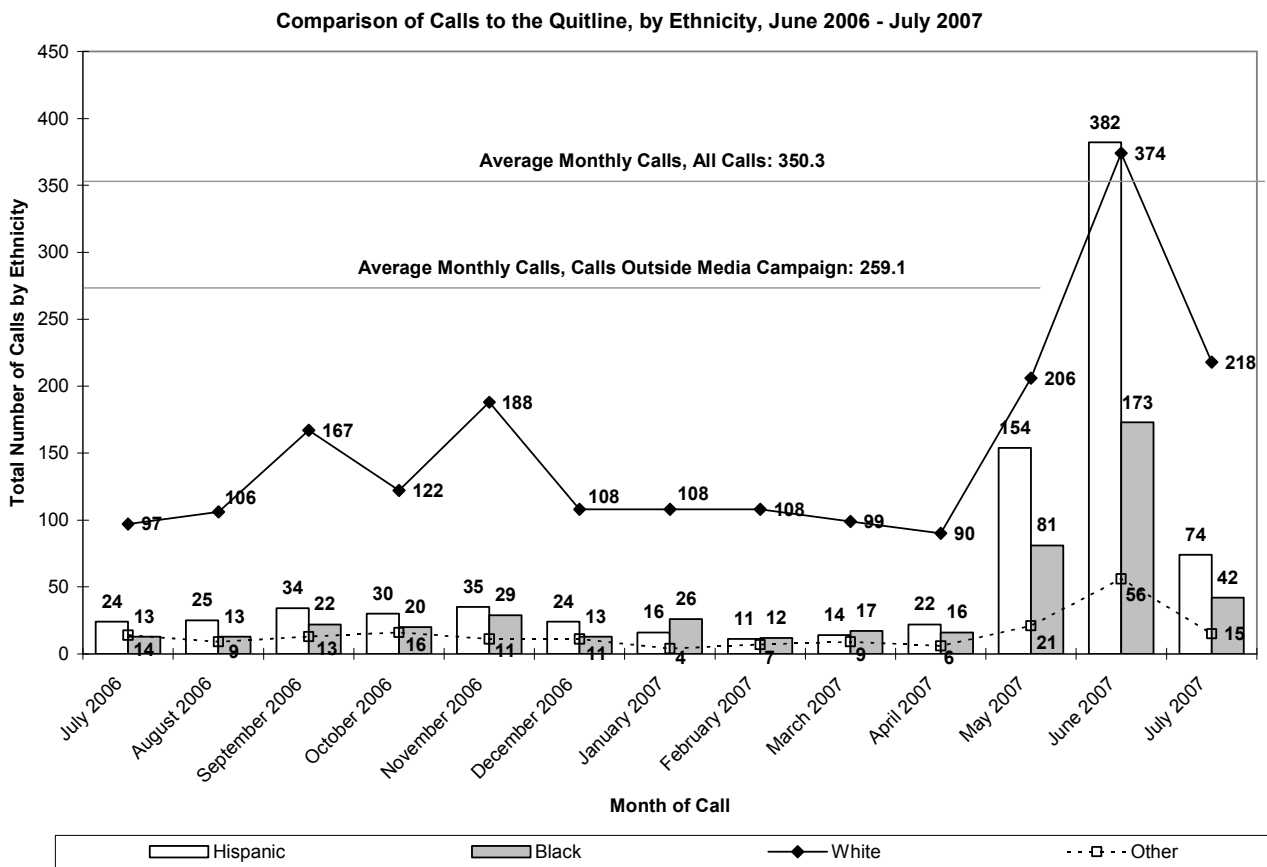
The populations used for this analysis focus on the target audiences of interest, Hispanic and African American smokers. Hispanics callers are self-identified during the ACS intake survey. African Americans are identified as Black and Caucasians are identified as White in the dataset. Other ethnic identities included with Asian, Native American, Native Hawaiian and Other. All of these ethnic groups were rolled up into one indicator of 'Other.' The number of Missing ethnic identifications amounts to 23% of all respondents. Most often, Hispanic and African American audiences are compared, and occasionally White callers are included to add to the comparison.

The methodology uses tables that allow the comparison of ethnic groups along behavioral, demographic and service-oriented indicators. Comparisons are made between ethnic groups and Quitline calls from their total population and just from smokers, by gender and by age to determine of the messages were being received by age group. Ethnic groups are also compared by how they heard about the Quitline, whether they have children under 18 in the household, how many children and how many cigarettes they smoke. Finally, the ethnic groups are compared on the services requested from the Quitline. To composite picture built up by these multiple comparisons should serve to demonstrate the success of the smoking cessation media campaigns from May and June 2007.

Patterns of Calls to the Quitline During the 2007 Spanish Language and African American Media Campaigns

Calls to the Florida Quitline reached their highest annual volume between July 2006 and July 2007, with a total of 4,554 calls to the Quitline. The average number of calls was 350.3 per month, 90 more calls per month on average than the 260 calls per month in the first five years of the Quitline, 2002-2006. One explanation for the 2007 call volume is the smoking cessation media campaigns conducted by the Department of Health May and June. It can be seen in Figure 3 that calls in May and June clearly outpaced the calls during the rest of the year. The monthly call volume between June 2007 and July 2007 is shown in Figure 3, with a comparison of the number of calls per month by the ethnicity of the caller.

Figure 3. Comparison of 2007-2007 Quitline Calls by Ethnicity



It can be seen in Figure 3 that the radio campaign months of May (560 calls) and June (1,144) brought in a significantly higher number of calls than in any other months of the year from Hispanic, African American, White and Other callers (made up of Asians, American Indians and Native Americans and Other designations). In May, the number of Hispanics calling the Quitline, at 154, was more than five times greater than the average number of 28.1 calls per month in the rest of 2006-2007. May calls were more than doubled again, with 382 calls to the Quitline from Hispanics. This is the greatest number of Hispanics calling in one month since the Quitline began operations.

African American callers also responded to the media campaign, with almost four times as many calls, 81, as the monthly average from the rest of 2006-2007, at 20.3. Again, the May total doubled again in June, as 173 African Americans called the Quitline. White and Other callers also contacted the Quitline in greater numbers during the media campaign months of May and June. In this same period, a pre-natal smoking cessation campaign was also being conducted in most of the DMAs, so this could also have had an influence on the number of calls. It is apparent that the two months of the Spanish-language and Black radio media campaigns, were successful in motivating Hispanic and African American smokers to call the Quitline. It is interesting to note that the cessation of smoking cessations ads corresponds to a falling off in the volume of calls to the Quitline.

Another way to look at the call volume from different ethnic groups through the year is to consider the proportion of calls coming from each group in any month. Table 7 compares the percentage of calls coming from Hispanic, Black and White callers for each month in 2007 (note that percentages will not total 100% because not all ethnic groups are reported).

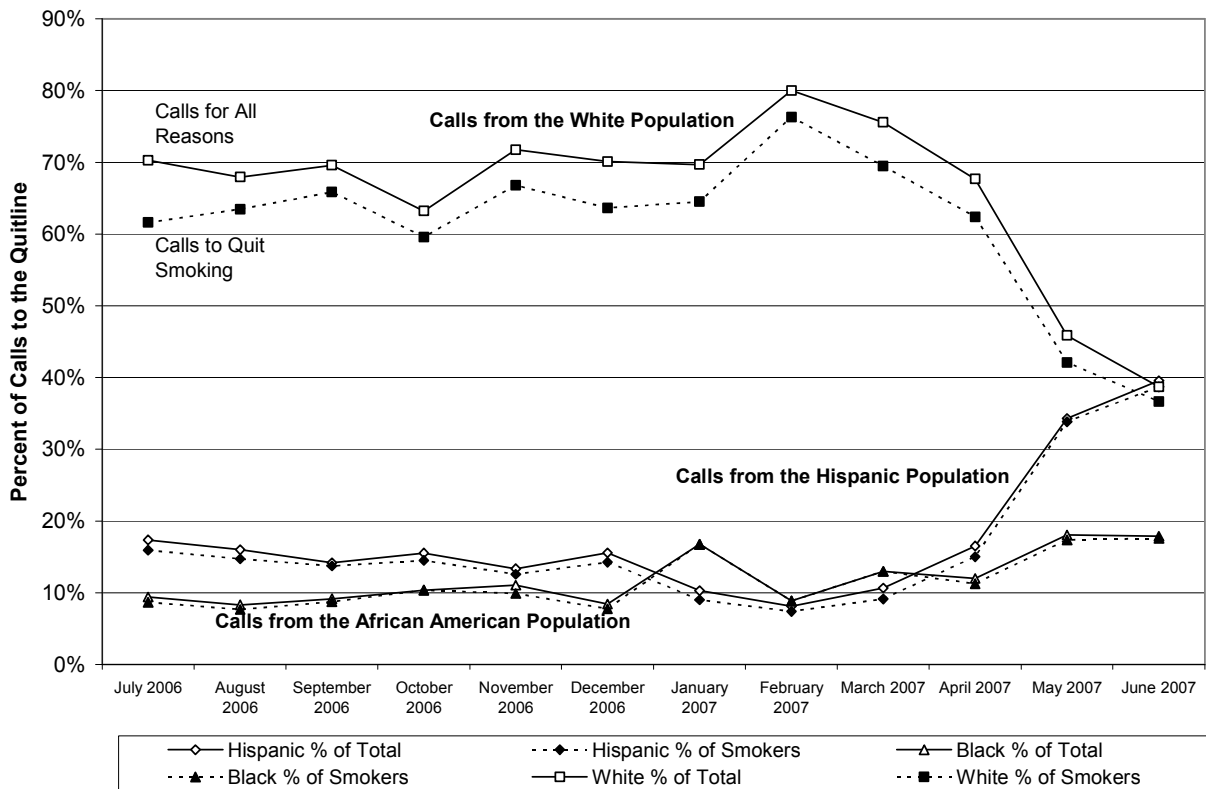
Table 5. Calls to the Quitline in 2007 from Hispanic, African American and White Floridians

| Month of Call | Hispanic | | Black | | White | | Total |
|----------------------------|----------|------------|-------|------------|-------|------------|-------|
| | n | % of Total | n | % of Total | n | % of Total | |
| July 2006 | 24 | 12.5% | 13 | 6.8% | 97 | 50.5% | 192 |
| August 2006 | 25 | 11.7% | 13 | 6.1% | 106 | 49.5% | 214 |
| September 2006 | 34 | 11.1% | 22 | 7.2% | 167 | 54.4% | 307 |
| October 2006 | 30 | 11.0% | 20 | 7.4% | 122 | 44.9% | 272 |
| November 2006 | 35 | 10.0% | 29 | 8.3% | 188 | 53.9% | 349 |
| December 2006 | 24 | 10.9% | 13 | 5.9% | 108 | 48.9% | 221 |
| January 2007 | 16 | 7.8% | 26 | 12.7% | 108 | 52.7% | 205 |
| February 2007 | 11 | 5.2% | 12 | 5.7% | 108 | 51.2% | 211 |
| March 2007 | 14 | 6.5% | 17 | 7.9% | 99 | 45.8% | 216 |
| April 2007 | 22 | 10.6% | 16 | 7.7% | 90 | 43.5% | 207 |
| May 2007 | 154 | 27.5% | 81 | 14.5% | 206 | 36.8% | 560 |
| June 2007 | 382 | 33.4% | 173 | 15.1% | 374 | 32.7% | 1,144 |
| July 2007 | 74 | 16.2% | 42 | 9.2% | 218 | 47.8% | 456 |
| Total | 845 | 18.6% | 477 | 10.5% | 1,991 | 43.7% | 4,554 |
| Average per month | 65 | | 37 | | 153 | | 350 |
| Total Media Campaign | 536 | | 254 | | 580 | | 1,704 |
| Average in Campaign | 268 | | 127 | | 290 | | 852 |
| Total in Rest of 2006-2007 | 309 | | 223 | | 1,411 | | 2,850 |
| Average, 2006-2007 | 28.1 | | 20.3 | | 128.3 | | 259.1 |

Looking at June 2007, the month with the largest call volume of the year, 382, or 33.4% of all calls were made by Hispanic callers, who typically averaged 28.1 calls per month during the non-campaign months of the year. Calls from African Americans in June totaled 173, or 15.1% of the total calls in June, compared to an average of 20.3 calls per month in the rest of the period. There were also more calls from the White population in June, at 374, accounting for 32.7% of all calls in the month. This is somewhat lower than the normal proportion of calls per month, at 47.8% of calls. It is also above the average of 128 calls per month in the rest of the year.

Across the two months of the media campaign, Hispanics called the Quitline at an average rate of 268 calls per month, which is more than nine times greater than the average of 28.1 for the rest of the year. Blacks called the Quitline with an average volume of 127 per month during the media campaign, about six times the average volume of 20.3 calls per month for the rest of 2006-2007. On average, White callers also contacted the Quitline more frequently during the media campaign, at 290 calls per month, compared to their average monthly rate of calling at 128 calls per month.

Figure 4. Percentage Comparison of the Proportion of Target Ethnic Audiences Calling the Quitline for All Reasons with Calls from Smokers in 2007-2007



Another way to compare calling populations in 2006-2007 is shown in Figure 3, which compares the ethnic proportion of all calls to the Quitline, with the ethnic proportion of calls from smokers. Operationally, the percentage of calls from Hispanics and African Americans for all reasons is compared to the percentage of calls to personally quit smoking. For both target audiences, the percentage of callers who call to quit smoking is fairly close to the total of calls, particularly during the two months of the media campaign, when almost all Hispanic and African American

calls were to quit smoking. These numbers can be compared with the White calls, in which a larger percentage of the calls are for reasons other than quitting smoking, even during the May and June 2007. This chart also shows the rise in total percentage of callers among Hispanics and African Americans, and the reduction of the White proportion of calls, even though there were more White calls in that period. The evidence points to positive effects of the media campaign on African American and Hispanic smokers.

Another comparison of calls to the Quitline can be made between the target DMA counties and the rest of the counties in Florida. Table 8 does this by displaying the number and percentage of Quitline calls by smokers from these two geographical areas, during the campaign months and the rest of 2007, among Hispanic, African American and White callers. Again, it is clear that the majority of Quitline calls from Hispanic smokers in 2006-2007, 60.0%, came during the campaign months and from within the target DMA counties. Fully 91.8% of calls from Hispanics in 2007 came from within the DMA counties.

Table 6 Number and Percentage of Calls to Quit Smoking, by Ethnicity, Location and Time of Year

| | | Hispanic | | Black | | White | | Total | |
|---------------------------------|-------------------|--------------|-------------------------------|--------------|----------------------------|--------------|----------------------------|--------------|------------------|
| | | n of Smokers | % Calls from Hispanic Smokers | n of Smokers | % Calls from Black Smokers | n of Smokers | % Calls from White Smokers | n of Smokers | % of All Callers |
| 2007 Target DMA Counties | Campaign Months | 488 | 60.0% | 229 | 49.6% | 418 | 22.5% | 1,214 | 34.9% |
| | Rest of 2007-2007 | 258 | 31.7% | 174 | 37.7% | 929 | 50.1% | 1,541 | 44.3% |
| | Subtotal | 746 | 91.8% | 403 | 87.2% | 1,347 | 72.6% | 2,755 | 79.2% |
| | | | | | | | | | 0.0% |
| Rest of Florida | Campaign Months | 38 | 4.7% | 19 | 4.1% | 124 | 6.7% | 201 | 5.8% |
| | Rest of 2007-2007 | 29 | 3.6% | 40 | 8.7% | 385 | 20.7% | 521 | 15.0% |
| | Subtotal | 67 | 8.2% | 59 | 12.8% | 509 | 27.4% | 722 | 20.8% |
| Total | | 813 | 23.4% | 462 | 13.3% | 1856 | 53.4% | 3,477 | 100.0% |

There is a similar pattern among Black callers, with the majority, 87.2%, calling from the DMA counties. However, only 49.6% of African Americans in the target counties called the Quitline during the media campaign; with another percentage, 37.7%, calling during the rest of 2007. Calls from African Americans during the rest of 2006-2007 were relatively equal, with 4.7% of them from the DMA counties, and 3.6% from the rest of Florida. Calls from White smokers followed a different pattern, with only 22.5% of calls occurring during the media campaign months and half of calls from smokers, 50.1% coming in during the rest of the year, from the DMA counties. These percentages suggest that neither of the advertising campaigns had the same impact on White smokers as it did on African American and Hispanic smokers..

When calls are compared across the DMA counties, different patterns of calling behavior occur between Hispanic and African American callers in each county. Figure 5 compares calls from Hispanic men and women in each DMA county and the rest of Florida, both during the media campaign months and the rest of the year. The greatest number of Hispanic calls were from Miami, with 391 calls, or 44.4% of all Hispanic calls between July 2006 and July 2007. This is followed by 181 calls from Orlando (21.5%) and 141 calls from Tampa (16.6%) over the whole year.

Figure 5. Comparison of Quitline Calls from Hispanic Men and Women in the DMA Target Counties and from the Rest of Florida During the Rest of 2006-2007 **DONE**

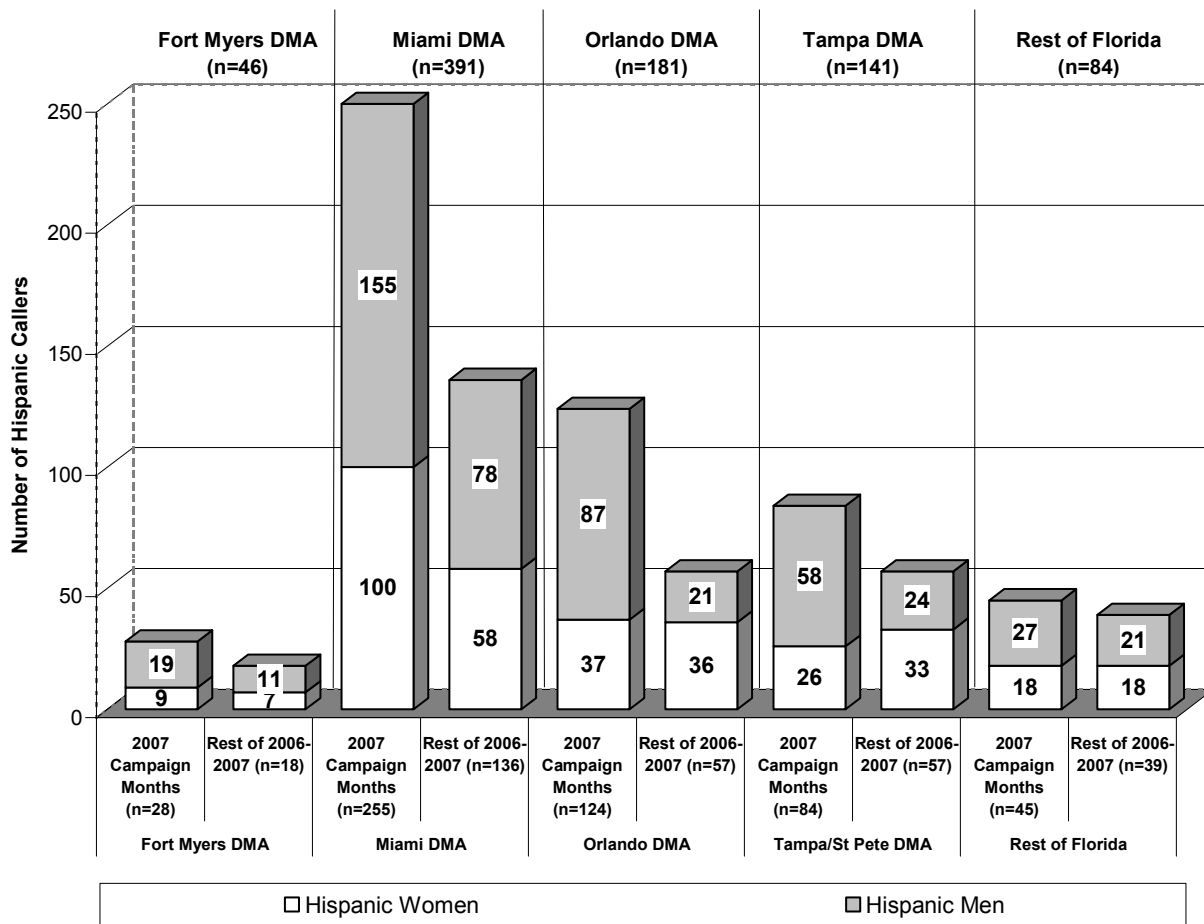
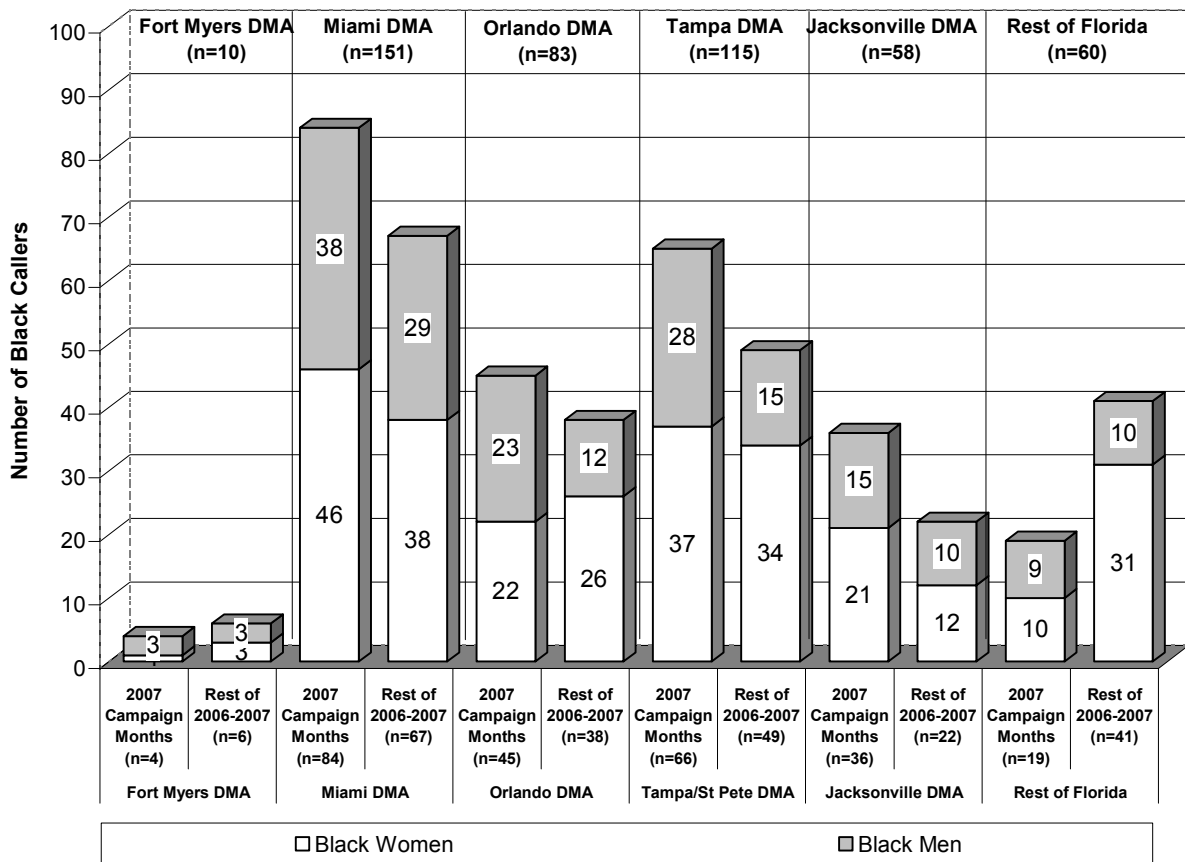


Figure 4 reverses the consistent finding that more women than men call the Quitline. Across all target counties, Hispanic men called more than women, except for Orlando and Tampa outside of the campaign months. For example in the Miami DMA, 60.8% of the callers during the campaign months were men, compared to 57.4% during the rest of the year. The same can be seen in the Orlando DMA, in which 70.2% of the calls during the media campaign were men, compared to only 36.8% of callers in the rest of the year. Tampa, too, had 69.0% of Quitline calls from men in May and June, and only 42.1% in the rest of the year. This might suggest that men are more motivated to call the Quitline due to radio advertising than are women, who perhaps tend to be more responsive to their doctor's advice.

When the same comparison is made among African American men and women in the targeted DMA counties, there are similar findings, as shown in Figure 5. More African American callers were from the Miami DMA, with 151 callers, followed by calls from Tampa/St. Petersburg DMA at 115. These two DMAs are followed by calls from Orlando, at 83 and calls from Jacksonville at 58. The Fort Myers DMA had the fewest calls, at 10. Calls during the months of the media campaign made up 49.3% of all African American calls during the year (n=235), so it would appear the ad campaign over Black radio clearly did motivate calls from the African American community. Slightly more Black women called the Quitline during the media campaign months and during the rest of the year, though in two DMAs, slightly more men call than women. For example, across all DMA counties during 2006-2007, 45.7% of the calls were from men, whereas 53.9% of calls were from women.

Figure 5. Comparison of Quitline Calls from Black Men and Women in the DMA Target Counties and from the Rest of Florida During the Rest of 2007



Another question of interest in the media campaign is whether the ads appealed to the **target** age groups of 18-34 year olds, as demonstrated by calls to the Quitline from this age group. In general, the largest number of calls to the Quitline come from middle aged smokers between 30 and 44. Table 7 displays the distribution of calls from both Hispanics and African Americans Under 18, 18-29, 30-44, 45-64 and 65 and up. From the table it is clear that the majority of calls from Hispanics come from adults between the ages of 30 and 44, with 44.6% of Hispanics in that age group. The age group with the next greatest volume is the 18-29 year olds, accounting for 28.1% of all Hispanic calls.

Table 7. Calls to the Quitline by Target Age Groups for Hispanics and African Americans within the DMA Target Counties and From the Rest of Florida, During the Media Campaign and the Rest of 2007

| Calls from Hispanic Clients, from Target DMAs with Spanish Language Radio | | | | | | | | |
|--|-------------------------------------|----------------------------------|------------------------------------|----------------------------|------------------------------------|---------------------------------|-------------------------------------|----------------------------------|
| | All Spanish Language DMAs | | % All Spanish Language DMAs | | Rest of Florida | | Total | |
| | 2007 Campaign Months (n=491) | Rest of 2007-2007 (n=270) | % 2007 Campaign Months | % Rest of 2007-2007 | 2007 Campaign Months (n=45) | Rest of 2007-2007 (n=39) | 2007 Campaign Months (n=536) | Rest of 2007-2007 (n=309) |
| Under 18 | 1 | 2 | 0.2% | 0.7% | 0 | 0 | 1 | 2 |
| 18-29 | 138 | 63 | 28.1% | 23.3% | 10 | 12 | 148 | 75 |
| 30-44 | 219 | 84 | 44.6% | 31.1% | 22 | 15 | 241 | 99 |
| 45-64 | 131 | 103 | 26.7% | 38.1% | 13 | 12 | 144 | 115 |
| 65 and Up | 1 | 13 | 0.2% | 4.8% | 0 | 0 | 1 | 13 |
| Total | 491 | 270 | 100.0% | 100.0% | 45 | 39 | 536 | 309 |

| Calls from Black Clients, from Target DMAs with Black Radio Advertising | | | | | | | | |
|--|------------------------------------|----------------------------------|------------------------------------|----------------------------|------------------------------------|----------------------------------|------------------------------------|----------------------------------|
| | All African-American DMAs | | % All African-American DMAs | | Rest of Florida | | Total | |
| | 2007 Campaign Months (n=87) | Rest of 2007-2007 (n=135) | % 2007 Campaign Months | % Rest of 2007-2007 | 2007 Campaign Months (n=87) | Rest of 2007-2007 (n=135) | 2007 Campaign Months (n=87) | Rest of 2007-2007 (n=135) |
| Under 18 | 3 | 2 | 1.3% | 1.1% | | 0 | 3 | 2 |
| 18-29 | 71 | 29 | 30.2% | 15.9% | 7 | 11 | 78 | 40 |
| 30-44 | 91 | 58 | 38.7% | 31.9% | 5 | 11 | 96 | 69 |
| 45-64 | 66 | 84 | 28.1% | 46.2% | 6 | 15 | 72 | 99 |
| 65 and Up | 3 | 9 | 1.3% | 4.9% | 1 | 3 | 4 | 12 |
| Total | 235 | 182 | 100.0% | 100.0% | 19 | 41 | 254 | 223 |

When African American calls from the target DMAs are examined, the 30-44 age group also accounts for a larger proportion of calls during the media campaign months, at 38.7% of the calls. The 18-29 age group follows with 30.2% of calls during the media campaign. From the data, it is clear that the media campaign did motivate smokers in the 18 to 44 year old age group to call in a greater proportion than during the rest of 2007.

Another critical indicator of a successful media campaign is if callers from each target audience identified Spanish-language or Black radio advertising as a prime source of information when they called the Quitline in May and June. Because the Spanish language advertising campaign was carried solely over Spanish language radio stations and the African American campaign ads were played over Black radio, there is little expectation that Hispanic callers would cite Black radio stations, or vice versa. This measure is defined by the answer given when asked “How did you hear about the Quitline?”

Table 8 How Callers Heard About the Quitline in the DMA Counties and Rest of Florida in 2007-2007, by Ethnicity **DONE**

| Campaign Months - May-June 2007 | Hispanic | | | | | | Black | | | | | | White | | | | | | Total | | | |
|------------------------------------|-------------|-------------|-----------------|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|-----------------|-------------|--------------|-------------|-----------------|---|-------------|---|-----------------|---|-------|---|
| | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Radio | 432 | 87% | 29 | 74% | 183 | 78% | 12 | 63% | 255 | 57% | 45 | 34% | 956 | 70% | | | | | | | | |
| Electronic Media | 17 | 3% | 5 | 13% | 15 | 6% | 3 | 16% | 54 | 12% | 23 | 17% | 117 | 9% | | | | | | | | |
| Interpersonal Comms | 21 | 4% | 2 | 5% | 5 | 2% | 0 | 0% | 24 | 5% | 10 | 7% | 62 | 5% | | | | | | | | |
| Medical Professional | 9 | 2% | 1 | 3% | 10 | 4% | 1 | 5% | 44 | 10% | 25 | 19% | 90 | 7% | | | | | | | | |
| Missing | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | | | | | | | | |
| Other | 13 | 3% | 1 | 3% | 15 | 6% | 1 | 5% | 50 | 11% | 19 | 14% | 99 | 7% | | | | | | | | |
| Print Media | 5 | 1% | 1 | 3% | 6 | 3% | 2 | 11% | 18 | 4% | 12 | 9% | 44 | 3% | | | | | | | | |
| Total | 497 | 100% | 39 | 100% | 235 | 100% | 19 | 100% | 445 | 100% | 134 | 100% | 1,369 | 100% | | | | | | | | |
| Rest of 2007-2007 | Hispanic | | | | | | Black | | | | | | White | | | | | | Total | | | |
| | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Target DMAs | | Rest of Florida | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Radio | 44 | 16% | 4 | 14% | 12 | 7% | 1 | 2% | 27 | 3% | 21 | 3% | 109 | 5% | | | | | | | | |
| Electronic Media | 47 | 17% | 10 | 34% | 39 | 21% | 11 | 27% | 185 | 19% | 154 | 21% | 446 | 20% | | | | | | | | |
| Interpersonal Comms | 31 | 11% | 3 | 10% | 16 | 9% | 7 | 17% | 115 | 12% | 66 | 9% | 238 | 11% | | | | | | | | |
| Medical Professional | 47 | 17% | 2 | 7% | 56 | 31% | 14 | 34% | 258 | 26% | 173 | 24% | 550 | 24% | | | | | | | | |
| Missing | 2 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 31 | 4% | 34 | 2% | | | | | | | | |
| Other | 59 | 21% | 3 | 10% | 36 | 20% | 4 | 10% | 284 | 29% | 198 | 27% | 584 | 26% | | | | | | | | |
| Print Media | 50 | 18% | 7 | 24% | 23 | 13% | 4 | 10% | 124 | 12% | 89 | 12% | 297 | 13% | | | | | | | | |
| Total | 280 | 100% | 29 | 100% | 182 | 100% | 41 | 100% | 994 | 100% | 732 | 100% | 2,258 | 100% | | | | | | | | |

Table 8 shows how callers heard about the Quitline in the target DMAs and the rest of Florida, and during the smoking cessation campaign, and the rest of the year, comparing Hispanic, Black and White calls. For an added comparison, the answer 'Radio' is taken out of the Electronic Media category and allowed to stand on its own. From the table it is of interest to note that during May and June in the target DMAs, 87% of all Hispanic callers (n=432) identified radio as their source of information about the Quitline. Comparably, 78% of all African American callers (n=183) cite the radio as their source of information about the Quitline. Only 57% of White callers (n=255) name the radio as a source of information. These findings again demonstrate the impact of the radio campaign in motivating Hispanic and African American smokers to call the Quitline.

If we compare the citation of radio as the source of information about the Quitline during the rest of 2007, the percentage of times it is mentioned drops significantly, as shown in Table 8. Only 16% of Hispanic callers in the target counties mentioned radio as a source of information. In the rest of Florida, Hispanic callers mention the radio 14% of the time. The same pattern holds for African American callers, with only 7% noting the radio in the target counties and 2% mention of radio in the rest of Florida. White callers also mention radio more often than during the campaign months, noting radio only 3% of the time in both the target DMAs of the rest of Florida.

A final important issue to consider is the problem of second hand smoke and the potential of the Quitline to reduce the risk for children under 18 by helping their parents to quit smoking. Tables 9 and 10 provide data on the number of children living in the households of Hispanic and African American smokers, based on responses given by smokers who called the Quitline. Along with the number of these households, the table shows the average number of children reported in smoking homes, an estimated number of children affected by second-hand smoke, the average number of cigarettes smoked per day by the caller and the average age of the smoker.

Table 9. Children Under 18 in Households of Hispanic Smokers, Comparing Cigarettes Smoked and the Average Age of Client in the Target County DMAs versus the Rest of Florida

| | Location of Hispanic Calls to the Quitline | Children Under 18 in Household | Average Number of Children in Household | Total Number of Children | Average Number of Cigarettes Smoked per Day | Average Age of Hispanic Clients |
|--------------------------|--|--------------------------------|---|--------------------------|---|---------------------------------|
| May-June 2007 | Spanish Language Target DMA Counties | 268 | 1.8 | 487 | 18 | 36 |
| | Rest of Florida | 30 | 2.0 | 59 | 22 | 37 |
| Rest of 2006-2007 | Spanish Language Target DMA Counties | 98 | 1.9 | 185 | 17 | 38 |
| | Rest of Florida | 22 | 2.0 | 43 | 19 | 36 |
| Total | All of Florida | 418 | 1.9 | 797 | 19 | 37 |

Table 9 shows that 268 Hispanic smokers who called the Quitline during May and June reported having children under 18 living in the households, compared to 30 callers from the rest of Florida. Another 98 Hispanic smokers from the target DMAs called the Quitline during the rest of 2006-2007, and another 22 calls from the rest of Florida during the rest of 2006-2007. These numbers might reflect the residential dispersion of Hispanic families in the state, with a majority of the population living within the targeted DMA counties. From July 2006 to July 2007, there were a total of 418 Quitline calls from Hispanic smokers in households with smokers who had children under 18.

The average number of children in the Hispanic households across Florida was 1.9. This gives an estimated total of 797 children at risk of second hand smoke in the home. Based on the latest quit rate for the Florida Quitline, calculated in the 2007 Quit Rate Report at 11.0%%, this indicates that 88 children in this group could have their risk of second hand smoke eliminated if this percentage of household members quit smoking. The average Hispanic smoker consumes around one pack of cigarettes per day, and is in his or her mid to late 30s.

Table 10. Children Under 18 in Households of Black Smokers, Comparing Cigarettes Smoked and Average Age of Client in the Target County DMAs versus the Rest of Florida **DONE**

| | Location of Black Calls to the Quitline | Children Under 18 in Household | Average Number of Children in Household | Total Number of Children | Average Number of Cigarettes Smoked per Day | Average Age of Black Clients |
|--------------------------|---|--------------------------------|---|--------------------------|---|------------------------------|
| April-June 2006 | Black Radio Target DMA Counties | 129 | 2.1 | 273 | 16 | 35 |
| | Rest of Florida | 8 | 2.0 | 16 | 11 | 41 |
| Rest of 2006-2007 | Black Radio Target DMA Counties | 69 | 2.1 | 142 | 13.3 | 37 |
| | Rest of Florida | 17 | 1.7 | 29 | 16.8 | 35 |
| Total | All of Florida | 223 | 2.0 | 439 | 14 | 37 |

Table 10 shows that there are a good number of children under 18 at risk in the African American community. During the media campaign, a total of 223 African American smokers reported children under 18 living in their households. At two children per household, this indicates that about 439 Black children are at risk of second hand smoke in these homes. Based on the Quitline quit rate of 11.0%, this would indicate that another 48 children in the target counties would have their risk of second-hand smoke eliminated if and when their parent(s) quit. The average number of cigarettes smoked in these households is about 14, and the average age is late 30s.

The final concern is to consider the services requested by the target Hispanic and African American populations, to determine their interest in receiving counseling to quit smoking. Table 11 compares the services requested by Hispanic, African American and White callers. All three ethnic groups were similar in that the most requested service was counseling, followed by self-help.

Table 11. Comparison of Services Requested by Clients During May-June 2007 and the Rest of the Year, in the African American Target County DMAs and the Rest of Florida

| Requests for Service during the 2007 Media Campaign, May – June 2007 | | | | | | | | | |
|---|-----------------|-------------|--------------|-------------|--------------|-------------|--------------|----------------|--------------|
| | Hispanic | | Black | | White | | Other | Missing | Total |
| 2007 Target DMAs | n | % | n | % | n | % | n | n | n |
| Counseling | 333 | 67.0% | 156 | 66.4% | 260 | 58.4% | 39 | 7 | 795 |
| Info | 4 | 0.8% | 7 | 3.0% | 12 | 2.7% | 1 | 188 | 212 |
| Missing | 8 | 1.6% | 3 | 1.3% | 12 | 2.7% | 3 | 0 | 26 |
| Self-Help | 152 | 30.6% | 69 | 29.4% | 161 | 36.2% | 19 | 8 | 409 |
| Total | 497 | 100% | 235 | 100% | 445 | 100% | 62 | 203 | 1442 |
| Rest of Florida | | | | | | | | | |
| Counseling | 29 | 74.4% | 14 | 73.7% | 85 | 63.4% | 13 | 1 | 142 |
| Info | 2 | 5.1% | 1 | 5.3% | 6 | 4.5% | 0 | 52 | 61 |
| Missing | 2 | 5.1% | 0 | 0.0% | 3 | 2.2% | 0 | 0 | 5 |
| Self-Help | 6 | 15.4% | 4 | 21.1% | 40 | 29.9% | 2 | 1 | 53 |
| Total | 39 | 100% | 19 | 100% | 134 | 100% | 15 | 54 | 261 |
| Requests for Service from the Rest of 2006-2007 | | | | | | | | | |
| | Hispanic | | Black | | White | | Other | Missing | Total |
| 2007 Target DMA | n | % | n | % | n | % | n | n | n |
| Counseling | 176 | 62.9% | 126 | 69.2% | 634 | 63.8% | 55 | 11 | 1002 |
| Info | 18 | 6.4% | 6 | 3.3% | 40 | 4.0% | 4 | 559 | 627 |
| Missing | 8 | 2.9% | 6 | 3.3% | 33 | 3.3% | 1 | 1 | 49 |
| Self-Help | 78 | 27.9% | 44 | 24.2% | 287 | 28.9% | 21 | 11 | 441 |
| Total | 280 | 100% | 182 | 100% | 994 | 100% | 81 | 582 | 2119 |
| Rest of Florida | | | | | | | | | |
| Counseling | 22 | 75.9% | 25 | 61.0% | 261 | 62.4% | 22 | 7 | 337 |
| Info | 2 | 6.9% | 0 | 0.0% | 12 | 2.9% | 2 | 197 | 213 |
| Missing | 1 | 3.4% | 1 | 2.4% | 18 | 4.3% | 1 | 2 | 23 |
| Self-Help | 4 | 13.8% | 15 | 36.6% | 127 | 30.4% | 9 | 4 | 159 |
| Total | 29 | 100% | 41 | 100% | 418 | 100% | 34 | 210 | 732 |

From the table it is clear that the majority of Hispanic callers, 67.0%, living in the target counties, who called during the media campaign, requested counseling (n=333). The same can be said for African American callers, who requested counseling 66.4% of the time (n=156), as well as for White callers, who requested counseling 58.4% of the time (n=260). The percentage of Hispanic callers requesting counseling during the media campaign was about the same as the 62.9% of calls from the target counties during the rest of 2007 (n=176). Hispanic callers from the rest of Florida requested counseling at an even higher rate, at 74.4% during the ad campaign and at 75.9% during the rest of the year.

More African American callers requested counseling from outside the target counties, at 73.7%, during the media campaign, than in the target counties. White callers requested counseling 63.4% of the time outside of the target counties, and about the same for the rest of 2006-2007.. From this evidence it would appear that the radio ad campaign was successful in motivating more smokers to call the Quitline, and mostly successful in inducing them to seek counseling.

Conclusions from Spanish Language and Black Radio Media Campaigns

Calls to the Florida Quitline reached their second annual volume in 2006-2007, with 4,177 calls total, 19.8% of which were from Hispanic callers (n=826) and 7.8% from African American Callers (n=325). There were an average of 348 calls per month across the state, with an average of 69 per month for Hispanic callers and 27 per month for African American callers. A total of 721 calls were logged in April 2007, the first month of the smoking cessation radio campaign., with 44.7% of the calls from Hispanic callers (n=322) and 9.6% from Black callers (n=69). Across the three months of the media campaign, Hispanics called the Quitline at an average rate of 168 calls per month, which is about four and a half times the average of 36 for the rest of the year. Blacks called the Quitline with an average volume of 43 per month during the media campaign, about twice the average volume of 22 call per month for the rest of 2007.

The radio campaigns appear to be successful in motivating the targeted Hispanic and Black audiences to call the Quitline, based on the increased frequency of calls among Hispanics and African Americans during the media campaign in 2007.

If the increase in the number of calls is an indicator of advertising success, then the Spanish language ads were more successful than the ads aired on Black radio.

When we compare the proportion of calls to quit smoking versus all other reasons to call by Hispanics and African Americans the greatest number call to quit smoking, particularly during the three months of the media campaign, when almost all Hispanic and African American calls were to quit smoking. The evidence points to positive effects of the media campaign.

Another comparison of call volume to the Quitline can be made between the target DMA counties and the rest of the counties in Florida. 91% of the calls from Hispanics in 2007 came from within the DMA counties. The majority of Quitline calls from Hispanic smokers, 64.1%, came during the campaign months and from within the target DMA counties.

The data indicate a similar pattern among African American callers, with the greatest number calling during the media campaign from the DMA counties. The African American response during the media campaign was not as strong as the Hispanic response, with Only 42.9% of African Americans in the target counties calling the Quitline during the media campaign; and the larger proportion, 57.1%, calling during the rest of 2007.

These findings suggest that the smoking cessation campaign on Black radio was less successful than among Hispanic smokers. Calls from White smokers followed a different pattern, with only about a quarter of calls occurring during the media campaign month, either within the DMA counties and the rest of Florida. These proportions suggest that neither of the advertising campaigns had an impact on White callers.

In general more women than men call the Quitline and in general the ratio of Hispanic and African American women to men calling the Quitline is about two women to one man. During the media campaign months, however, a greater proportion of Hispanic men called the Quitline during May and June 2007 than during the rest of the year. This might suggest that Hispanic men were more motivated to call the Quitline due to radio advertising than are women, who tend to be more responsive to their doctor's advice. When the same comparison is made among African American men and women in the targeted DMA counties, there are similar findings. While more Black women call the Quitline, during the media campaign more Black men call the Quitline, 43% of callers compared to 36% the rest of the year.

The majority of calls come from adults above 34, by about 60% to 40% for the target age group. When calls from the target DMAs are examined, the African American 18-34 age group did account for a slightly larger proportion of calls during the media campaign months, 42.3% of the calls, compared to 36.1% of Hispanics in this age group, which is about the same as the percentage for the year. From the data, it would appear that the media campaign did not motivate smokers in the 18 to 34 year old age group to call in a significantly greater proportion than during the rest of 2007.

The Spanish language advertising campaign was carried solely over Spanish language radio stations, resulting in 82% of Hispanic callers from the targeted DMA counties identifying radio as the medium from which they learned about the Quitline (n=392). In like measure, 63% of Blacks cited radio as the medium through which they heard about the Quitline (n=61). White callers identified radio only 18% of the time (n=56). These findings again demonstrate the impact of the radio campaign in motivating Hispanic and African American smokers to call the Quitline.

Comparing the identification of radio as the source of information about the Quitline during the rest of 2007, only 31% of Hispanic callers in the target counties mentioned radio and African American mention it only 13% of the time. Only 1% of White callers identified radio as the source of information about the Quitline.

During the media campaign, 256 Hispanic smoking households reported having children under 18 living in them, with an estimated total of 468 children at risk of second hand smoke in the home. Based on the quit rate for the Florida Quitline, 18.9%, this indicates that 85 children in this group could have their risk of second hand smoke eliminated if this percentage of parents quit smoking. During the media campaign, a total 49 African American smokers reported children under 18 living in their households, with about 89 Black children at risk of second hand smoke in these homes. Based on the Quitline quit rate, this would indicate that another 33 children in the target counties would have their risk of second-hand smoke eliminated when their parent(s) quit.

The majority of Hispanic callers, 63.1%, living in the target DMA counties requested counseling. African American callers in the target counties requested counseling 59.8% of the time, which can be compared to the 58.4% of White callers who request counseling. Of interest is that proportionately fewer Hispanics and African Americans requested counseling during the media

campaign than they did during the rest of the year. It would appear that the radio ad campaign was successful in motivating more smokers to call the Quitline, but was not as successful in causing them to seek counseling.

In general, the Spanish language media campaign in April, May and June 2007 was highly successful in motivating Hispanic smokers to call the Florida Quitline. The Black radio campaign was not as successful in motivating African American smokers to call. Proportionately more Hispanic smokers called in response to the smoking cessation advertising campaign than did African American callers. For some reason the ads aired on Black radio stations did not seem to impel African American smokers to call the Quitline as effectively as the Spanish language ad. The Spanish language media campaign could thus be summarized as successful, which the African American media campaign was not as successful.

II. Prenatal Smoking Cessation Media Campaign

In May and June 2007, the Florida Department of Health, Division of Health Access and Tobacco, Tobacco Prevention Program conducted a smoking cessation media campaign targeting pregnant smokers. The goal of the media campaign was to motivate pregnant women who smoke cigarettes to seek smoking cessation counseling from the Florida Quitline. The campaign was targeted to pregnant women over metropolitan radio stations with “footprints” that covered 34 counties in Florida. Based on statistics compiled by media buyer, the radio advertising was broadcast across the 31 counties with a total of 2,945 spots, 1,569 of which were Bonus spots. In May and June 2007, a total of 48 pregnant women called the Florida Quitline, six times the average number of 7.8 calls per month from pregnant women during the rest of 2006-2007. In May and June 2007, 87.5% of all pregnant women calling the Quitline called from Florida counties in the targeted DMAs.

Target Audience of the Media Campaign

The target audience of the prenatal cessation media campaign was pregnant women between the ages of 18 and 34. The media buyer employed by the Department of Health leveraged the broadcast “footprint” in the five metropolitan areas to reach women in adjacent counties. The Designated Market Areas (DMA) in Florida map out media coverage areas in the state based around major metropolitan areas. By taking advantage of the DMAs that cover the five target metropolitan areas, the target area was increased to a total of 31 Florida counties. A map of the DMA coverage area is shown in Figure 5, below.

The media buyer purchased programming on radio stations in Gainesville, Jacksonville, Miami, Orlando and Tampa and to provide coverage across the 34 counties.

The Gainesville DMA includes Alachua, Dixie, Gilchrist and Levy counties, with an estimated population of 45,100 women between the ages of 18 and 34. In these counties there were 3,192 births per year in 2001-2003, of which 366 were smoking births, for a smoking percentage of 11.5% among new mothers.

The Jacksonville DMA includes Duval, Baker, Clay, Nassau, Putnam and St. Johns. This area has a population of 611,321 women, of all ages. There were 19,188 births in the Jacksonville DMA in 2005, and 2,134 of those were smoking births to women who had not quit smoking, for a percentage rate of 11.1%.

The Miami DMA includes Broward, Miami and Monroe counties. The three counties had a population of 2,041,679 women in 2005, of all ages. There were 56,201 births in the Miami DMA in 2005, but only 868 smoking births, for a percentage rate of 1.5%.

The Orlando DMA includes Flagler, Volusia, Lake, Seminole, Orange, Osceola, Brevard and Sumter. There were 1,170,764 women in these eight counties in 2005, and 35,042 births. Of these, 3,034 were smoking births, for a percentage rate of 8.7%.

The Tampa/St. Petersburg DMA covers ten counties in its area: Citrus, Hardee, Hernando, Highlands, Hillsborough, Manatee, Pasco, Pinellas, Polk and Sarasota. This area had the largest population of women between 18 and 34, at 612,017. There was a total of 44,765 births per year in 2001-2003, with 5,184 of the new mothers also smoking, for a percentage rate of 11.6%.

Figure 5 Designated Market Areas Covering Thirty-one Counties in the Prenatal Smoking Cessation Media Campaign



Prenatal Smoking Cessation Media Campaign Goals

The problems associated with smoking during pregnancy are well-documented. For example, one study conducted by the Department of Health, Healthy Start Prenatal Screening program found that smokers have statistically significantly more low birth weight babies, 12.2% of all births, than non-smokers at 10.1% of all births.⁷ In addition to the child in utero, small children in

⁷ Melanie Simmons (2003). An Analysis of Healthy Start Prenatal Screening Data: Women Who Choose to Be Screened Versus Those Who Do Not An Analysis of Healthy Start Prenatal Screening Data. Retrieved from http://www.doh.state.fl.us/rw_webmaster/news/abstracts/smoke.html on April 13, 2007.

the household are also at risk of second-hand smoke. From an analysis of pregnant women who called the Florida Quitline between 2003 and 2007, 48% of them had children under 18 in the household, with an average of 1.5 children in each household.

The media campaign targeted women between 18 and 34 as the age group most likely to be pregnant. All women in the target DMAs were presented with smoking cessation radio spots that discouraged smoking while pregnant and encouraged them to call the Florida Quitline. The ads provided the Quitline telephone number. The goal of the media campaign was to inform and motivate the target audience to act in a certain way. The ad must provide enough information to members of the attending audience that they remember the basic message in the ad. The ad message should offer an emotional appeal that moves the viewer to action; this is the motivational appeal. The final element of a successful ad is to give the audience a behavioral step, which offers to a pathway to resolution, for example a number to call. In the case of the smoking cessation campaign, the number to the Florida Quitline was 1-877-UCan-Now (1-877-822-6669).

The expected outcome of the media campaign was for pregnant smokers to call the Florida Quitline for counseling in smoking cessation. There was a clear expectation that women from the nine original high smoking birth counties would call the Quitline, with pregnant women from surrounding counties an added bonus. There was no estimated number of pregnant women projected to call the Quitline. It was expected, however, that the media campaign would encourage more pregnant women to call the Quitline than the average of 7.8 women per month who called between July 2006 and April 2007. And, indeed, 42 pregnant women called from the targeted counties in the two months of the campaign. The major source of measurement for the outcome of calls is from the American Cancer Society intake surveys, delivered to every person who calls the Florida Quitline.

The goals of this analysis are threefold. The first goal is to assess whether the media campaign reached its targeted audiences in each county by analyzing the demographic characteristics of Floridians who call the Quitline during that period of the media campaign. The second goal is to determine whether the media campaign was successful in motivating members of the target audiences to call the Florida Quitline. The third goal is to assess the effectiveness of the media campaign in supporting the overall Florida Quitline goals of increasing smoking cessation, reducing second-hand smoke and reducing tobacco use in the general population.

Media Strategy for the Prenatal Smoking Cessation Media Campaign

The media buyer company used radio as the primary medium for the smoking cessation message. A total of 2,945 radio ads were aired over 16 radio stations during May and June, for a total cost of 225,000.

The Gainesville DMA covers four counties, with a population of 280,669, an estimated 45,100 of whom are women in the 18 to 34 target market. Smoking Cessation ads were aired over WOGK, WRUF and WTRS. A total of 156 Paid and 312 Bonus spots were aired, for a total of 312 ads. The total budget for the Gainesville television campaign was \$9,600.

Table 12 Media Market Profiles for the 2007 Prenatal Smoking Cessation Campaign

| Tampa | | | | | |
|---------------------------|-------------------|--------------------|--------------------|------------------|-------------------|
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WBTP | 104 | 104 | 208 | 0 | \$23,800 |
| WFLZ | 88 | 176 | 264 | 0 | \$21,600 |
| WLLD | 112 | 112 | 224 | 30 | \$15,600 |
| Total Tampa | 304 | 392 | 696 | 30 | \$61,000 |
| Orlando | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WJHM | 104 | 104 | 208 | 18 | \$17,040 |
| WJRR | 82 | 82 | 164 | 72 | \$15,000 |
| WPYO | 96 | 96 | 192 | 0 | \$15,600 |
| WTKS | 80 | 80 | 160 | 48 | \$15,440 |
| Total Orlando | 362 | 362 | 724 | 138 | \$63,080 |
| Miami | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WEDR | 89 | 89 | 178 | 0 | \$22,875 |
| WMIB | 74 | 74 | 148 | 0 | \$20,940 |
| WPOW | 96 | 96 | 192 | 0 | \$19,200 |
| Total Miami | 259 | 259 | 518 | 0 | \$63,015 |
| Jacksonville | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WAPE | 79 | 79 | 158 | 0 | \$11,800 |
| WFKS | 112 | 112 | 224 | 0 | \$6,800 |
| WJBT | 104 | 209 | 313 | 0 | \$9,705 |
| Total Jacksonville | 295 | 400 | 695 | 0 | \$28,305 |
| Gainesville | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| WOGK | 43 | 43 | 86 | 40 | \$4,080 |
| WRUF | 56 | 56 | 112 | 0 | \$3,360 |
| WTRS | 57 | 57 | 114 | 0 | \$2,160 |
| Total Gainesville | 156 | 156 | 312 | 40 | \$9,600 |
| Total All Stations | | | | | |
| Radio Station | Spots Paid | Bonus Spots | Total Spots | Billboard | Gross Paid |
| Total All Stations | 1,376 | 1,569 | 2,945 | 208 | \$225,000 |

The Jacksonville DMA consists of six counties, Baker, Clay, Duval, Nassau, Putnam and St. Johns. The Jacksonville DMA population totals 1,193,173 people, 611,321 of whom are women. The campaign spots were aired over WAPE, WFKS and WJBT, with 295 Paid and 400 Bonus spots, for a total of 695 plays. The total cost of the radio campaign was 28,305.

The Miami DMA, is made up of Broward, Miami-Dade and Monroe Counties. It has the largest population in the state with 3,956,386 people, of which 2,041,679 are women. Radio ads were aired over WEDR, WMIB and WPOW. A total of 359 Paid and 259 Bonus spots were aired, for a total of 518 spots. The total cost of the campaign in Miami was \$63,015.

The Orlando DMA includes eight counties: Flagler, Volusia, Lake, Seminole, Orange, Osceola, Brevard and Sumter. Orlando is in Orange county. There were 2,302,114 people in these seven counties in 2005, of whom 1,170,764 were women. Ads were aired over WJHM, WJRR, WPYO and WTKS, with a total of 724 spots, split half and half between Paid and Bonus spots. The radio campaign cost \$63,080.

The Tampa/St. Petersburg DMA consists of ten counties: Citrus, Hardee, Hernando, Highlands, Hillsborough, Manatee, Pasco, Pinellas, Polk and Sarasota. The Tampa DMA population consists of 3,702,289 people, with 1,913,733 women. The radio stations in Tampa were WBTP, WFLZ and WLLD, which aired a total of 696 spots, 304 of which were Paid and 392 Bonus spots. The total cost of the campaign was \$61,000.

Methodology for Evaluating the Media Campaign

The methodology for evaluating the prenatal smoking cessation campaign in June 2005 is based on two datasets, an input dataset that summarizes the important elements of the advertising campaign and an output dataset based on the ACS intake survey which collects demographic data on the target audience taking calling the Quitline. The first is composed of the data provided by the media buyer, Anson-Stoner, concerning media play during the campaign. These data include the target audiences for each DMA in the campaign, the airtime logs of radio and TV ads for each DMA, the frequency with which ads were broadcast per day, the times when ads were aired, the target audience reach of TV and radio ads in each DMA and viewing frequency of ads. These data were available for the entire prenatal smoking cessation campaign.

The second dataset provides measures for assessing the behavior of the target audiences based on the American Cancer Society Quitline intake survey that is administered to each client who calls the Quitline number prior to setting up a counseling session. Quitline intake survey data for the entire twelve months of 2005 are used to provide a comparison of the calling patterns during the media campaign versus all other months of the year. Data categories include demographic data, service data related to the Quitline, personal and social data, communication-related data, and behavioral data relevant to smoking and smoking cessation. This study uses data fields from a subset of the data categories:

- e) Demographic data: Gender, Age, Ethnicity, and County of Caller.
- f) Personal and Social data: Pregnant Caller, Number of Children in Household, and Children Under 18 in Household.
- g) Service data related to the Quitline: Reason for Call, Service Requested by Client.

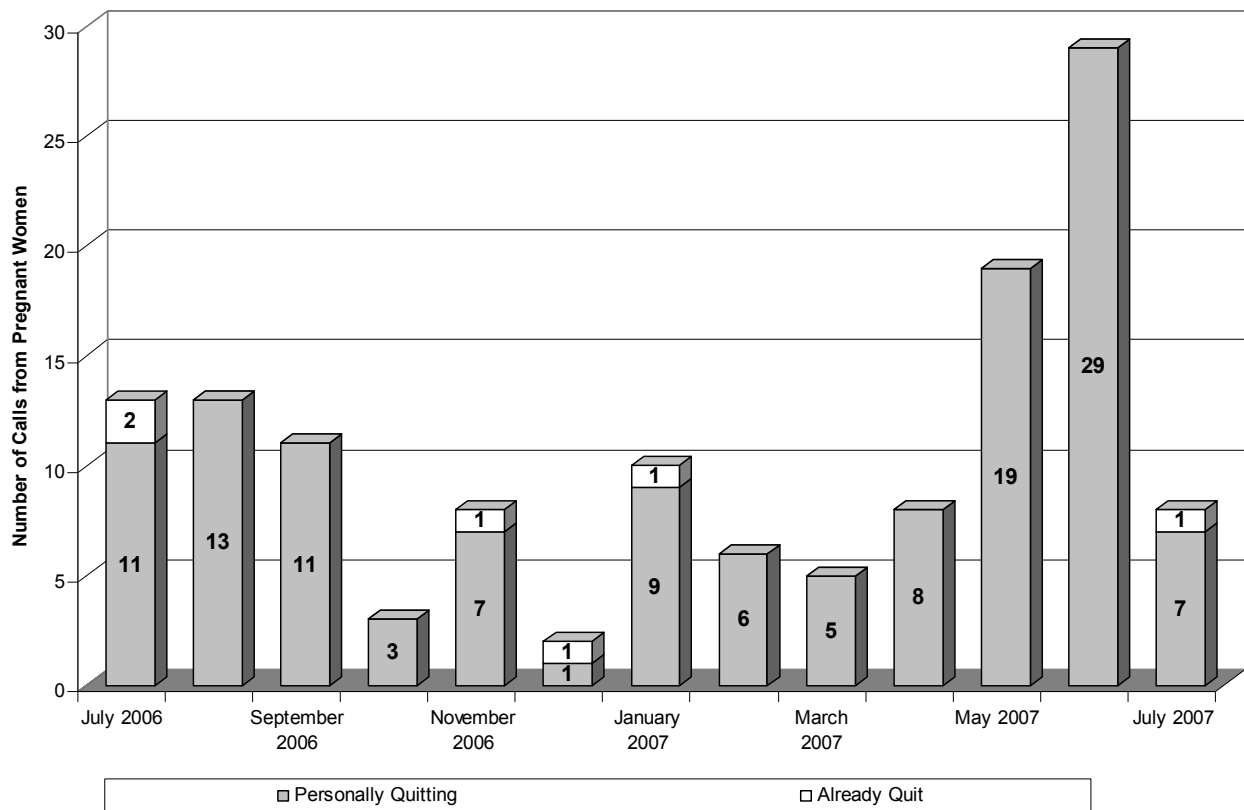
h) Communication-related data: How Client Heard About the Quitline, Recall of TV Ad?

Other sets of data from the 2000 US Census and the 2002 Florida Behavioral Risk Factor Surveillance Survey (BRFSS) are used as a background to the study.

Pregnant Callers and Reason for Calling the Quitline

Because the prenatal media campaign was targeted at pregnant women, the volume of calls from this audience is clearly important, especially when comparing calls in May and June 2007 with other all months, DMA target counties versus the other counties, age groups, children under 18 in the household (second-hand smoke risks), and how the callers heard about the Quitline. The analysis starts with the calling patterns across the year. The number of pregnant women calling the Florida Quitline in between July 2006 and July 2007 is shown in Figure 6, which displays the number of pregnant women calling across Florida by month, and the reason for their call. It is immediately evident that significantly more pregnant women called the Quitline in May and June 2007 than in any other month of the year, and all but six called to quit smoking, and those five had already quit. The monthly average of calls in May and June 2007, at 24, is six times higher than the monthly average of 7.8 in the previous months.

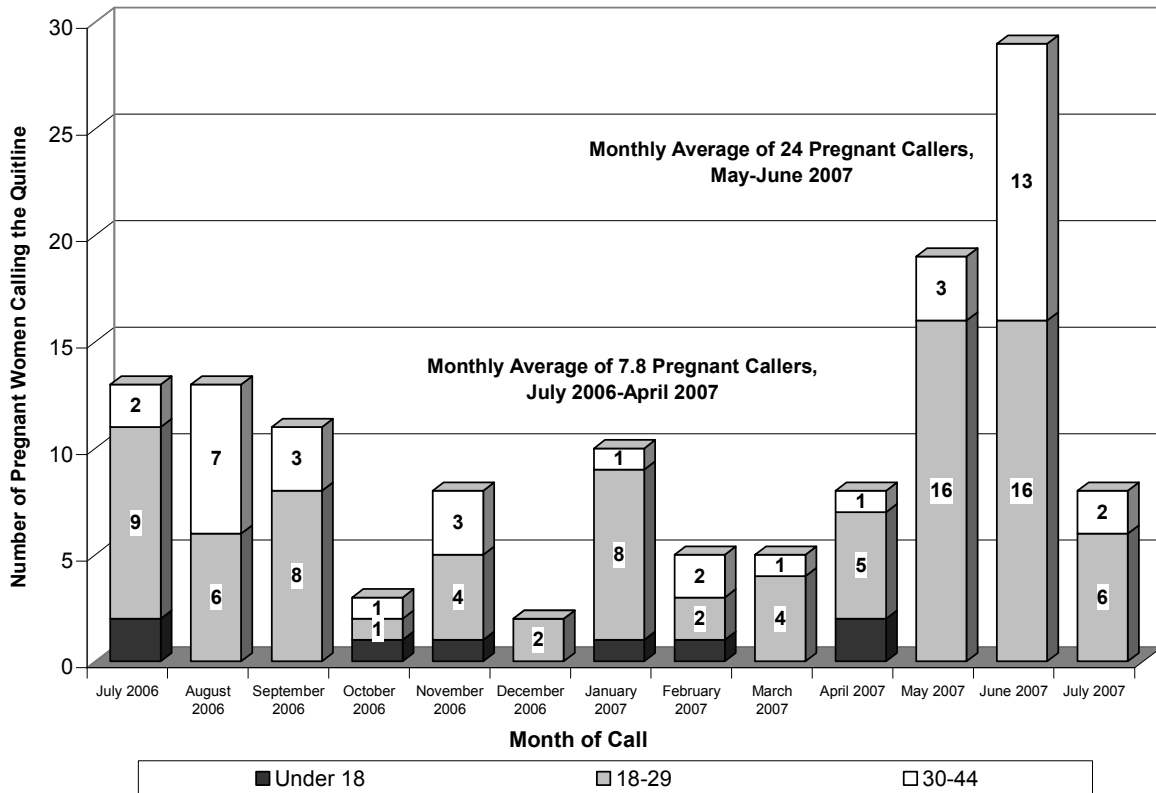
Figure 6. Reason for Calling the Quitline among Pregnant Women, July 2006 to July 2007



When we look at the ages of the pregnant women calling the Quitline, as shown in Figure 7, it is clear that the majority are between the ages of 18 and 44, which encompasses the target age group of the prenatal cessation media campaign. The majority of pregnant callers are within the

18-29 age group particularly during May and June, when 32 women in the age group called the Quitline, 66% of all pregnant women calling in these two months.

Figure 7 Comparison of the Percentage of Quitline Calls from Pregnant Women Who Are Smokers, July 2006 to July 2007



When pregnant callers are separated out by DMA target county, it is clear that the greatest number of pregnant caller during the media campaign months, 31.3% of pregnant clients (n=15), called from the Orlando DMA, as shown in Figure 8. The next largest proportion of pregnant callers, 22.9%, are from the Tampa/St. Petersburg DMA. Hillsborough County has the largest number of female smokers than any other county in the media campaign target counties, 103,056.⁸ Ten pregnant women called the Quitline from Miami during the media campaign. The rest of the counties in the DMA market area demonstrate a lower volume of calls from pregnant women, in general less than the average number of calls from pregnant women through the year.

A total of 42 pregnant women called from these DMAs during May and June 2007, which is about a third, 35.6%, of all the pregnant women who called from those counties in the rest of the year (n=43). When compared to the relatively small 12.5% of pregnant women calling the Quitline from the other counties in May and June 2007 (n=8), the large percentage of pregnant callers in the DMA target counties indicates that the media campaign was influential in getting the women to call, all except in the Gainesville DMA.

^{8 8} 2002 Florida Behavioral Risk Factor Surveillance Survey. Department of Health dataset.

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Figure 8 Comparison of Quitline Calls from Pregnant Women, from the DMA Target Counties versus the Rest of Florida During June 2005 and the Rest of 2005, by Age Group

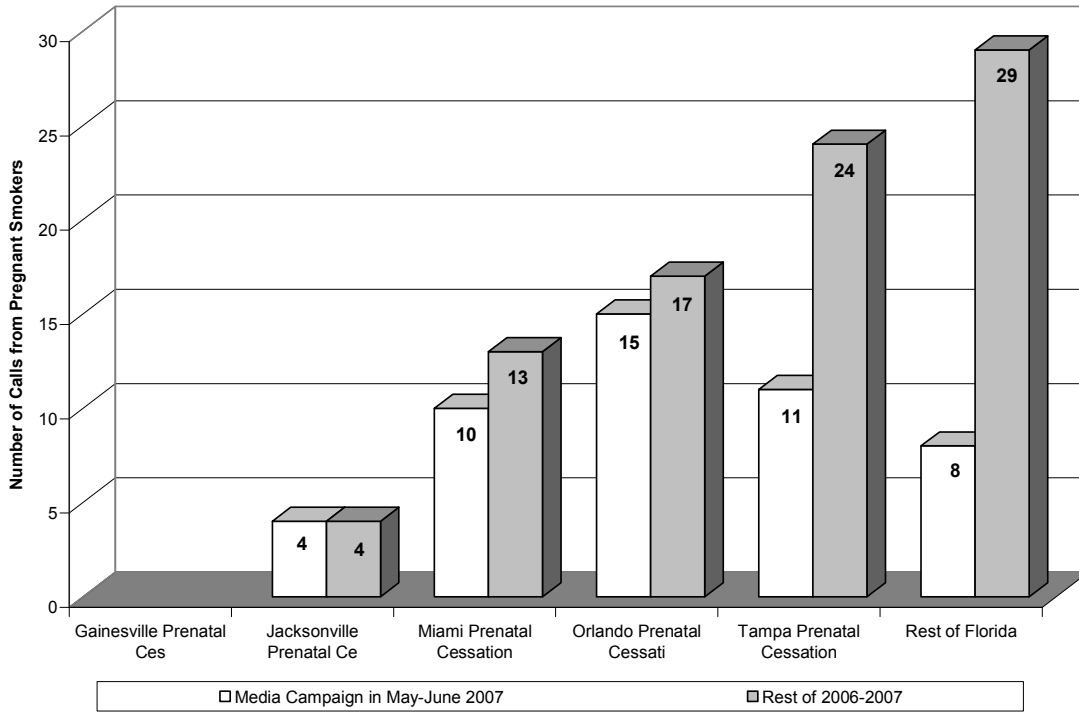
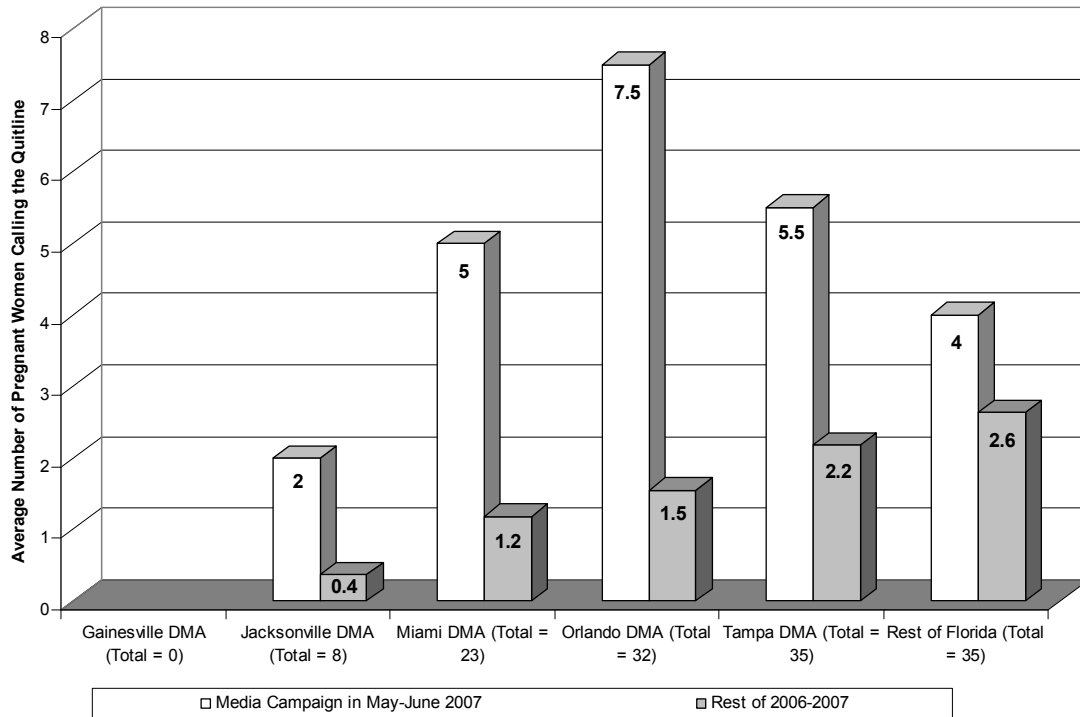


Figure 9 Comparison of Average Quitline Calls from Pregnant Women, from the DMA Target Counties versus the Rest of Florida During June 2005 and the Rest of 2005, by Age Group



An interesting comparison of calling volume is to compare the average monthly calls by target DMA among pregnant women. When we do this, the significant effects of the prenatal cessation radio campaign become apparent, as shown Figure 9. In this chart the average calls per month during the media campaign months and the rest of 2007 are compared. Significantly, the calls from the Orlando DMA are five times greater during the campaign, at 7.5 per month, than during the rest of the year, at 1.5 per month. The Tampa DMA, at 5.5 average calls per month is twice the average calls in the rest of the year. The Miami DMA shows the same pattern. From this chart it is clear that the radio advertising in these three county areas was quite effective in motivating pregnant women to call the Quitline.

One of the final indicators of the media campaign is the role of the media in encouraging pregnant women to call the Quitline. Table 13 shows the number and percent of pregnant women citing how they heard about the Florida Quitline. For ease of comparison all of the DMA target counties are grouped and compared with the rest of Florida during May and June 2007 and the rest of the year. From the chart it is clear that more pregnant women cited radio during the media campaign than during the rest of the year. In the DMA target counties, 93.9% of the pregnant women (n=31) stated that they learned about the Quitline from radio, versus 6.1% who heard about the Quitline from the radio (n=2). Only six pregnant women heard about the Quitline from another communication channel. Comparing the DMA target counties during the rest of the year, it is clear that no pregnant women cite the radio as a source of information about the Quitline, compared to all of the pregnant women who cite another communication source. Once again, the radio campaign is shown to have exerted a positive influence on the pregnant women in the target DMAs.

Table 13. Comparison of How Pregnant Callers Heard About the Quitline in DMA Target Counties and Rest of Florida

| Source of Information | May-June 2007 | | | | Rest of 2007 | | | | Total |
|-----------------------|-------------------------|--------------|------------|-------------|-------------------------|--------------|------------|--------------|------------|
| | Prenatal Cessation DMAs | | Rest of FL | | Prenatal Cessation DMAs | | Rest of FL | | |
| | n | % | n | % | n | % | n | % | |
| Radio | 31 | 93.9% | 2 | 6.1% | 0 | 0.0% | 0 | 0.0% | 33 |
| Medical Professional | 4 | 6.8% | 3 | 5.1% | 31 | 52.5% | 21 | 35.6% | 59 |
| Other | 3 | 10.0% | 3 | 10.0% | 16 | 53.3% | 8 | 26.7% | 30 |
| Electronic Media | 2 | 22.2% | 0 | 0.0% | 7 | 77.8% | 0 | 0.0% | 9 |
| Interpersonal Comms | 0 | 0.0% | 0 | 0.0% | 3 | 100.0% | 0 | 0.0% | 3 |
| Print Media | 0 | 0.0% | 0 | 0.0% | 1 | 100.0% | 0 | 0.0% | 1 |
| Total | 40 | 29.6% | 8 | 5.9% | 58 | 43.0% | 29 | 21.5% | 135 |

A final analysis of the effectiveness of the 2007 Prenatal Cessation Campaign is to look at the requests for service from pregnant women calling the Quitline. The only two services requested by pregnant women are counseling and information, as shown in Table 14. 30.5% of requests for counseling from pregnant women (n=39) came during the media campaign. Another 42.2% of requests for counseling came during the rest of 2006-2007 (n=54). Keeping in mind that these calls came during an eleven month period, the number of women motivated to call the Quitline during the two months of the media campaign is a more significant number.

Table 14. Requests for Service among Pregnant Women Calling the Quitline, by Target DMAs versus Rest of Florida and Media Campaign versus the rest of 2006-2007

| Service Requested by Client | May-June 2007 | | | | Rest of 2007 | | | | Total n |
|--------------------------------|-------------------------------|-------|------------|------|-------------------------------|-------|------------|-------|------------|
| | Prenatal Cessation DMAs | | Rest of FL | | Prenatal Cessation DMAs | | Rest of FL | | |
| | n | % | n | % | n | % | n | % | |
| Counseling | 39 | 30.5% | 8 | 6.3% | 54 | 42.2% | 27 | 21.1% | 128 |
| Info | 1 | 14.3% | 0 | 0.0% | 4 | 57.1% | 2 | 28.6% | 7 |
| Total | 40 | 29.6% | 8 | 5.9% | 58 | 43.0% | 29 | 21.5% | 135 |

Conclusions from Prenatal Media Campaign

The prenatal smoking cessation media campaign that aired in June 2005 appears to have successfully informed women and men about the Florida Quitline, and motivated smokers, especially pregnant smokers, to call the Quitline for help. The data show that 625 people called the Quitline in June, 2005, much higher than the average of 351 per month over the rest of 2005. A larger than average number of 18 to 34 year old women and men called the Quitline in June, with 61.6% of them calling from one of the DMA target counties.

Instead of an average of eight pregnant women per month, 60 pregnant women called the Quitline in June 2005. Among the pregnant women who called the Quitline, 78.6% called from one of the target DMAs and another 15.0% called from counties within the “footprint” of the target DMAs. This indicates that over 93% of the pregnant women who called the Quitline in June 2005 did so within broadcast reach of the media campaign.

The majority, 97.5%, of the pregnant woman who called the Quitline in June wanted to quit smoking. Half of the pregnant women calling the Quitline from the DMAs had children under 18 in the household, for a total of 37 children at risk of second hand smoke. Pregnant smokers calling from the DMAs requested counseling to quit smoking 79.6% of the time, which could help lower the second hand risk to many children. Only 8.5% of the pregnant women calling the Quitline from the DMAs cited radio as their source of their knowledge about the Quitline, but 78.7% cited television as their source. Fully 70% of the pregnant women could remember the TV ad well enough to describe it. The average media cost for calling the Quitline was \$704 per person.

From the data presented, it seems clear that the prenatal smoking cessation media campaign that aired in June 2005 had a positive effect on motivating both pregnant women and men and women in the 18 to 34 age range to call the Florida Quitline. The increased volume of calls in June 2005 is like no other month before it, and the seven-fold increase in the number of calls from pregnant women points to a successfully targeted campaign. The general recognition of TV ads as a stimulus to call the Quitline points to the efficacy of the advertising.

One anomaly in the data stands out – that only two pregnant women from the original nine counties with high smoking birth rates called the Quitline. There could be multiple explanations for this finding, and these should be investigated before another media campaign is developed. Otherwise, the prenatal smoking cessation media campaign was successful in motivating pregnant women smokers to call the Florida Quitline.

Recommendations

Spanish Language Radio Advertising Campaign

1. The Spanish language ad was successful in motivating callers who identified themselves as Hispanics to contact the Quitline. Its appeal could stem from the way the message is presented in Spanish idiom, a result of being developed in Spanish. This being the case, more radio ads should be developed in Spanish to reach a predominantly Spanish-speaking population of smokers.
 - a. The use of Spanish language radio stations to air the media campaign should be continued.
2. It might be a good idea to develop several ads in English featuring a clearly Hispanic character speaking in English to reach the young Hispanic population of smokers who do not listen to Spanish language radio.
 - a. English language Hispanic ads can be aired on popular radio stations, based on the patterns of listenership.
3. The response to the Spanish language advertising was overwhelming in the first month of air play, declined in the second month, then fell to the average monthly volume by the third month. It might be better to air the ads with two or three months in between to prevent "message fatigue." Careful tracking of call volumes will indicate whether this pattern of air play is successful.
 - a. If several Spanish-language ads are developed, they can be used in rotation among the Target Designated Market Area to present different spots to listeners.
4. While the Designated Market Areas in south Florida selected for this advertising campaign hold the largest populations of Spanish-speaking smokers, another estimated 41,445 Hispanic smokers live in the rest of Florida. The ad campaign might also focus on areas of north and central Florida where these smokers live.
 - a. One spot might be played in each North Florida target Designated Marketing Area per month, through the year.

Black Radio Advertising Campaign

1. The response to the adult ads aired on Black radio was positive, but somewhat tepid compared to the response from Hispanic callers. One problem may be the ads themselves, which were generic adult ads, and were not shaped for the target audience as was the Spanish language ad. A new set of ads should be developed using a message style that is more in tune with popular Black culture. For example, ads may be more successful using a hip hop, or other message style.
 - a. Focus groups from the African American target population should be engaged to develop targeted ads.
 - b. A set of two or three ads should be developed based on the findings of the focus groups.

5. The frequency of calls from African Americans slowed down in May and June, indicating that there was some “message fatigue” in the listeners. Ads should be played over the year, with several months in between each one.
 - a. If more than one ad is developed, then the set can be played in rotation through the year in each target Designated Market Area.
6. Advertising campaigns should be targeted to the areas of Florida not covered by this campaign, to address the large African American population living in north and central Florida.
 - a. A set of ads could be played in a different Designated Market Area each month in rotation to offer staggered coverage of the north and central Florida target populations.