

**Maryland Spanish Language Perinatal and Infant Oral
Health Quality Improvement (PIOHQI) Program's Oral
Health During Pregnancy Campaign**

Assessment of Media Campaign Impact
January 2017

MARYLAND DENTAL ACTION COALITION

*RESEARCH CONDUCTED BY
RIVERA GROUP INC.
WASHINGTON, DC*

2017

Contents

Executive Summary 3

Report

Introduction 4

Survey Methodology 5

Survey Risk..... 5

Description of Sample and Adult Oral Hygiene..... 6

Sample Size..... 6

Demographic Characteristics of Sample 6

Country of Origin by County 7

Health Issues Important to Latino Families..... 8

Important Health Issues – Open-Ended 8

Important Health Issues – Importance Ratings..... 9

Adult Oral Hygiene..... 10

Tooth Brushing Habits 10

Latina Women Beliefs about Oral Hygiene..... 10

Perceptions of Oral Health Importance during Pregnancy 10

Effects of Oral Health Campaign on Attitudes and Behaviors..... 13

Recall of Dental Health Ads..... 13

Healthcare and Health Insurance Coverage 17

PIOHQP Program's Oral Health during Pregnancy Campaign Assessment

Executive Summary

Description of Sample and Adult Oral Hygiene

Two sets of data were collected from Latina women who live in Maryland. Results of analyses of the first set of data revealed that Latina women in Maryland are mostly from El Salvador and have been in the United States for less than 10 years. Latina women in Maryland have numerous strengths related to oral health practices:

- Among other major health issues, dental health is a concern for them;
- Nearly all of them brush their own teeth at least once per day with toothpaste;
- The vast majority of them take their children to the dentist before the age of 2; and
- Most either brush their children's teeth or have taught their children to brush their teeth on their own.

However, the first set of data also revealed a need for educating Latina mothers. Almost half of Latina women were not getting their children to the dentist at the recommended time, before their first birthday. Over half of all women were not aware that dental care during pregnancy was covered by Medicaid. The vast majority of respondents did not use tap water, reducing their children's exposure to fluoride.

Effects of Oral Health Campaign on Attitudes and Behaviors

After the campaign was implemented, a second set of data was collected from a new group of Latina women to assess the campaign's impact. Results indicated that the campaign was successful. Almost all of women (72.0%) had heard at least one of the campaign's messages and could recall the message without being aided. Some mothers had heard of each of the five campaign messages, primarily from radio ads. Based on these results and their statistical significance, it is evident that the campaign effectively reached the target population and had a substantial positive effect on Latina women's dental attitudes and behaviors. Latino families in the state of Maryland benefitted significantly from this campaign and the radio ads were the strongest method of reaching the population.

Report

PIOHQI Program's Oral Health during Pregnancy Campaign Assessment

Introduction

While doctor visits are routine for pregnant women, visits to the dentist are often neglected. A recent PRAMS study found that more than half (56%) of U.S. women did not visit a dentist during their pregnancy. Moreover, approximately 40 percent of pregnant women have some form of gum disease which has been linked to medical conditions such as heart disease and diabetes. Although experts agree that it's safe for pregnant women to receive dental care, another recent survey revealed that only 42% of women know that receiving dental care during pregnancy is safe.

Low income and minority women, particularly Hispanic, are disproportionately affected by poor oral health. When compared with other ethnicities, Hispanic women rank lowest in Maryland when asked if they knew that it was important to care for their mouth during pregnancy or had dental insurance.

In an effort to improve upon these disproportionate findings, the Maryland Office of Oral Health, (OOH) at the Maryland Department of Health and Mental Hygiene, (DHMH), and the Maryland Dental Action Coalition (MDAC) conducted a social marketing campaign to educate Latinas about the importance of oral health during pregnancy. Key messages of the campaign included that it is important and safe to visit a dentist during pregnancy and that dental care for pregnant women in Maryland is covered by Medicaid.

The Spanish Language Oral Health during Pregnancy campaign ran from October 3 through November 25 and targeted Latinas ages 18 – 45 who reside in Prince Georges and Montgomery counties as well as in Baltimore City. The campaign included radio advertising on WLZL-FM (El Zol, 107.9), Pandora, YouTube and online advertising, and the distribution of a campaign brochure through community outreach. The campaign was modeled after and branded as part of the MDAC's highly successful Dientes Sanos, Niños Sanos (Healthy Teeth, Healthy Kids) campaign to reduce oral disease in children.

Before launching the Spanish Language Oral Health during Pregnancy Campaign in October 2016, MDAC conducted a pre-campaign survey to provide statistically-valid baseline data on awareness and self-reported oral health behaviors. A post-campaign survey was also conducted to allow us to measure any changes generated as a result of hearing, seeing or reading campaign messaging against these two metrics (awareness and self-reported behavior). The pre- and post-campaign surveys utilized the same survey questions. The data obtained from this survey will be used to allow MDAC to better evaluate the campaign and potentially revise campaign messaging so that the campaign can provide a more valuable and informed service to the public.

Both the pre- and post-campaign surveys helped us to determine the respondents' awareness and self-reported behavior with respect to proper oral health habits. Interviewers asked the survey participants if they value and practice oral health behaviors during pregnancy, and if so, the specific techniques

used. The survey then assessed participants' understanding and application of the best practices in caring for one's oral health during pregnancy. Finally, the interviewer asked participants if they had encountered specific oral health messages and where they had encountered them in order to determine media effectiveness in communicating the PIOHQI campaign messages to the target audience. Comparing pre- and post-campaign surveys will allow measurement of changes generated throughout the campaign activities against these two metrics (awareness and self-reported behaviors).

This report compares data gathered during the pre- and post-campaign surveys in order to determine if the campaign was effective in communicating oral health messages to the target audience.

Survey Methodology

The pre- and post-campaign surveys were conducted through intercept interviews, i.e., intercepting and engaging persons who appeared to meet participant criteria in public locations and conducting the survey in health clinics, shopping malls, grocery stores, laundromats, etc. The surveys lasted 10 to 15 minutes per individual surveyed. It was not necessary to collect information from health records to complete the survey.

Three hundred one (101) and three hundred four (304) individuals were surveyed for the pre- and post-campaign surveys, respectively, which were conducted in Maryland's Baltimore, Montgomery, and Prince George's Counties. The pre-campaign survey was conducted in October of 2016, while the post-campaign survey was conducted in November and December of 2016.

To conduct both surveys, interviewers followed the instructions presented in the Spanish-language Survey Form and Instructions (Attachment 1). They first approached women who appeared to meet the study criteria and engaged them in a conversation to assess their overall eligibility and willingness to participate. If they seemed to qualify and agreed to participate, the interviewers asked them several screening questions to confirm their eligibility and, if they clearly qualified, read the study's informed consent form to them (and provided them with a copy of the informed consent language), obtained their verbal informed consent to participate, and administered the survey. At the end of the survey, the interviewers provided each respondent with \$5 cash as compensation for their participation in the survey and asked each respondent to place her initials and cell phone number on a log to acknowledge receipt of the cash incentive (Attachment 2). A consultant from the Rivera Group, Inc. called 100 of both pre- and post-campaign participants by random selection to confirm participation in the survey (Attachment 3).

Online survey software (www.surveygizmo.com) on computer tablets was used to conduct each survey and enter the data. The data collected was then exported to statistical software (SAS 9.3) for analysis.

Survey Risk

We believe that there was minimal risk and significant potential benefit from post-campaign survey participation. Some individuals may have felt uncomfortable when asked to speak openly about their oral health experiences and practices. In order to put participants at ease, they were given the option to opt out of any questions that made them feel uncomfortable. The individuals were exposed only to evidence-based oral health information of a non-controversial nature that can only benefit them on a personal level. On a public health scale, the benefits of obtaining qualitative information from these groups allows MDAC to more appropriately focus the message of its Spanish language campaign,

reach its intended audience and potentially change the behavior of at-risk individuals, thereby increasing healthy behaviors and access to critically needed oral health care. The pre- and post-campaign surveys will allow MDAC to determine whether the campaign has reached its target audience and communicated its messages.

Description of Sample and Adult Oral Hygiene

Sample Size

In the Pre-Campaign Survey, a total of 301 Maryland residents completed the survey. All 301 respondents knew the county that they lived in, and 100 to 101 surveys were collected from residents of each county. Additionally, in the post-campaign survey, a total of 304 Maryland residents completed the survey. At least 100 respondents from each locality completed the survey and all respondents knew which county or city they lived in.

	<i>Baltimore</i>	<i>Montgomery</i>	<i>Prince George'</i>	<i>Total</i>
<i>Pre-Campaign</i>	<i>100</i>	<i>100</i>	<i>101</i>	<i>301</i>
<i>Post-Campaign</i>	<i>101</i>	<i>101</i>	<i>102</i>	<i>304</i>

Demographic Characteristics of Sample

Most women were younger than 35 and had at least two children. More than half of the women did not have a high school diploma. All women had lived in the United States for less than 10 years.

Age¹

<i>Age Range</i>	<i>Pre-Campaign</i>		<i>Post-Campaign</i>	
	<i>Percent</i>	<i>n</i>	<i>Percent</i>	<i>n</i>
<i>18-25</i>	<i>21.5%</i>	<i>62</i>	<i>27.7 %</i>	<i>80</i>
<i>26-34</i>	<i>35.4%</i>	<i>102</i>	<i>36.5%</i>	<i>107</i>
<i>35-49</i>	<i>27.1%</i>	<i>78</i>	<i>21.9%</i>	<i>64</i>
<i>40-45</i>	<i>16.0%</i>	<i>46</i>	<i>13.9%</i>	<i>41</i>

Education²

<i>Educational Attainment</i>	<i>Pre-Campaign</i>		<i>Post-Campaign</i>	
	<i>Percent</i>	<i>n</i>	<i>Percent</i>	<i>n</i>
<i>Less than High School</i>	<i>51.9%</i>	<i>148</i>	<i>56.8%</i>	<i>159</i>
<i>High School Graduate</i>	<i>41.1%</i>	<i>117</i>	<i>36.4%</i>	<i>102</i>
<i>Some college</i>	<i>5.9%</i>	<i>17</i>	<i>6.4%</i>	<i>18</i>

¹ Pre-survey missing n=13, Post-survey missing n=12

² Pre-survey missing n=16, Post-survey missing n=24

<i>Educational Attainment</i>	<i>Pre-Campaign</i>		<i>Post-Campaign</i>	
	<i>Percent</i>	<i>n</i>	<i>Percent</i>	<i>n</i>
<i>Bachelor's Degree</i>	<i>1.1%</i>	<i>3</i>	<i>0.4%</i>	<i>1</i>

Length of Time Living in the United States

<i>Years</i>	<i>Pre-Campaign</i>		<i>Post-Campaign</i>	
	<i>Percent</i>	<i>n</i>	<i>Percent</i>	<i>n</i>
<i>Less than 10 years</i>	<i>100.0%</i>	<i>301</i>	<i>100.0%</i>	<i>304</i>

Number of Children³

<i>Children</i>	<i>Pre-Campaign</i>		<i>Post-Campaign</i>	
	<i>Percent</i>	<i>n</i>	<i>Percent</i>	<i>n</i>
<i>0</i>	<i>0.0%</i>	<i>0</i>	<i>9.8%</i>	<i>27</i>
<i>1</i>	<i>29.5%</i>	<i>78</i>	<i>21.7%</i>	<i>60</i>
<i>2</i>	<i>43.9%</i>	<i>116</i>	<i>35.9%</i>	<i>99</i>
<i>3</i>	<i>20.8%</i>	<i>55</i>	<i>27.2%</i>	<i>75</i>
<i>4</i>	<i>3.4%</i>	<i>9</i>	<i>2.9%</i>	<i>8</i>
<i>5 or more</i>	<i>2.3%</i>	<i>6</i>	<i>2.5%</i>	<i>7</i>

Country of Origin by County

Pre-Campaign Survey. Most participants were from El Salvador, Honduras, Guatemala, Mexico and Bolivia in all three counties. While Prince George's and Montgomery County had the most participants from El Salvador, Baltimore City/County had over one-third of its participants of Honduran nationality. Prince George's County had the largest proportion of residents from Guatemala. A total of n=18 respondents did not report their country of origin.

Pre-Campaign Country of origin	City/ County			
	Montgomery (n = 93)	Prince George's (n = 94)	Baltimore (n = 96)	(n = 283)
El Salvador	48.4% (45)	60.6% (57)	26.1% (25)	44.9% (127)
Honduras	17.2% (16)	9.6% (9)	38.5% (37)	21.9% (62)
Guatemala	10.8% (10)	17.0% (16)	7.3% (7)	11.7% (33)
Mexico	10.8% (10)	6.4% (6)	15.6% (15)	10.9% (31)
Bolivia	5.4% (5)	1.1% (1)	--	2.1% (6)
Other*	7.4% (7)	5.3% (5)	12.5% (12)	8.5% (24)

* From Ecuador, Argentina, Nicaragua, Panamá, Peru, Puerto Rico, and USA.

³ Pre-survey missing n=16, Post-survey missing n=28

Post-Campaign Survey. The distribution of country of origin did not change substantially in the top four countries of both pre- and post-campaign surveys. Over half of the sample was Salvadoran, with the remaining sample mostly Mexican, Honduran, and Guatemalan. Eighteen (18) respondents did not report their country of origin in the pre-campaign survey, and similarly 17 did not report it in the post-campaign survey.

Country of origin	City/ County			(n = 279)
	Montgomery (n = 96)	Prince George's (n = 92)	Baltimore (n = 91)	
El Salvador	76.3% (74)	52.1% (50)	34.7% (33)	54.5% (157)
Guatemala	2.1% (2)	28.1% (27)	11.6% (11)	13.9% (40)
Honduras	16.5% (16)	12.5% (12)	20.0% (19)	16.3% (47)
Mexico	4.1% (4)	3.1% (3)	21.1% (20)	9.4% (27)
Ecuador	0.0% (0)	0.0% (0)	8.4% (8)	2.8% (8)
Other*	1.0% (1)	4.2% (4)	4.2% (4)	3.2% (9)

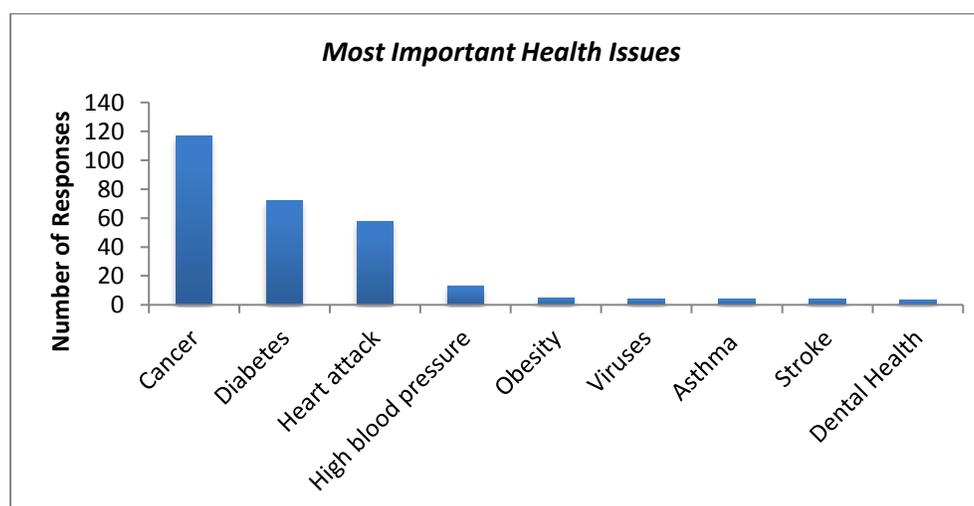
*Columbia, Nicaragua, Puerto Rico, Dominican Republic and USA.

Health Issues Important to Latino Families

Important Health Issues – Open-Ended

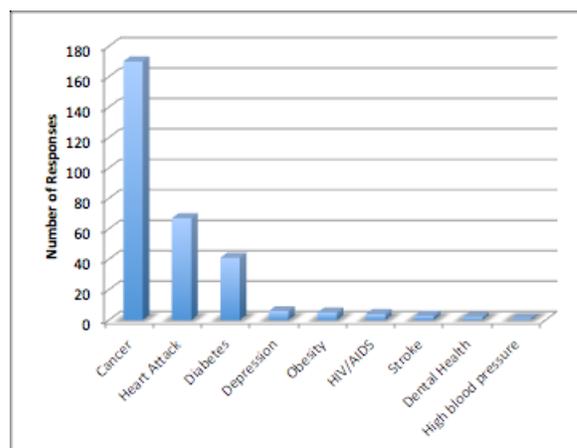
Pre-Campaign Survey. When asked as an open-ended question, the primary health issue most important to Latino families was by far cancer—nearly half of the sample indicated that this was the most important to their family in both the pre and post surveys. Heart attack and diabetes were the other top two most common health concerns among the respondents. Other important issues included high blood pressure, obesity, viruses, asthma, stroke, and dental health.

What is the most important health issue to your family?



Post-Campaign Survey. Post-Campaign Survey answers were similar with their top three important issues being the same as the pre-campaign survey; cancer, diabetes, and heart attack. Other important issues found in the post-campaign survey included depression, obesity, HIV/AIDS, stroke, dental health, and high blood pressure. Depression and asthma were the two important health issues that did not appear on both the pre- and post- campaign survey responses.

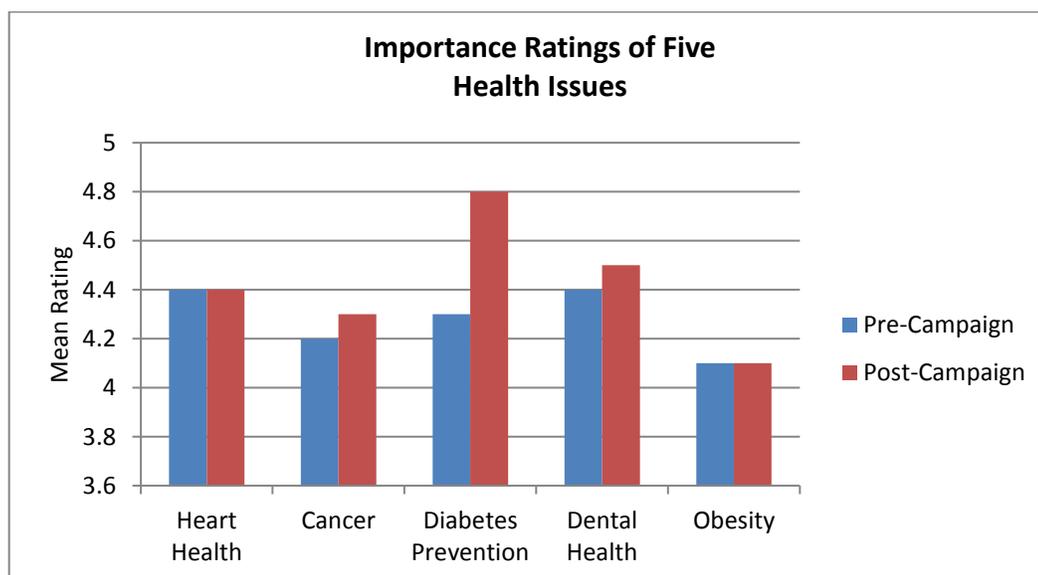
What is the most important health issue to your family?



Important Health Issues – Importance Ratings

In both the Pre-Campaign and Post-Campaign Surveys, mothers rated dental health, heart health, obesity, cancer, and diabetes prevention high when asked to rate the importance of each health issue on a zero to five scale, five indicating greater importance. As can be seen in the figure below, responses did somewhat differ between pre- and post-campaign survey. Cancer, diabetes prevention, and dental health importance ratings all increased from the pre- to post-campaign survey responses, while heart health and obesity remained at equally high importance ratings.

Importance ratings of five health issues, 1 (not at all important) to 5 (very important)



Adult Oral Hygiene

Tooth Brushing Habits

In the Pre-Campaign survey 86.3% of women reported having brushed their teeth earlier that day, while 100% of women reported brushing their teeth the same day of the post-campaign survey (15.9% positive percent change). Combining both sets of respondents, 93.2% said they had brushed their teeth that day. Almost all respondents said that they had used toothpaste when they brushed their teeth; 99.3% in the pre-survey and 100% in the post-survey. While a few respondents said they used baking soda in the pre-campaign (.7%).

Latina Women Beliefs about Oral Hygiene

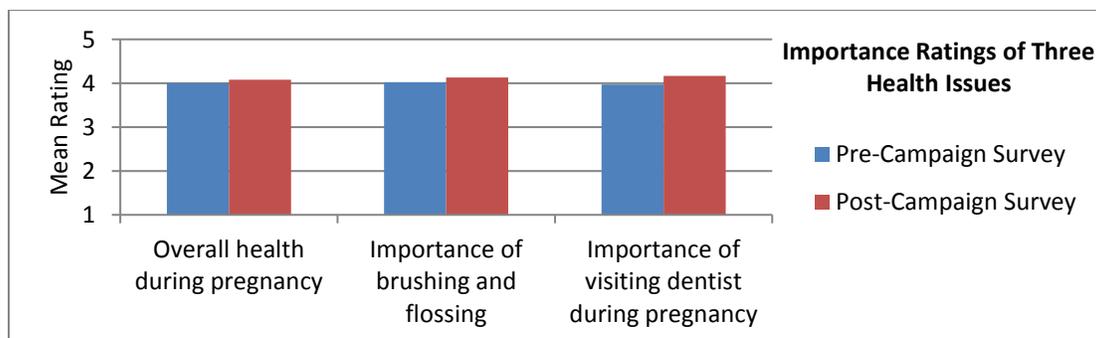
Perceptions of Oral Health Importance during Pregnancy

Women were asked a series of six questions regarding the importance of overall oral health (teeth and gums) during pregnancy, as well as healthy oral health habits for mothers during pregnancy. The first three questions were based on a scale of 1-5, where 1 is not at all important and 5 is extremely important. While the last three questions were based on a scale of 1-5 where 1 means “Does not affect at all” and 5 means “Greatly affects.”

Pre-Campaign Survey. When asked about overall oral health during pregnancy, half of the women felt that it was very important (54.2%), while a slightly smaller percentage of women responded that it was extremely important (26.5%). Respondents mainly found brushing and flossing their teeth to be very important, and extremely important (47.3% & 32.6%, respectively), and similarly found the need to visit their dentist during pregnancy as very important (47.0%) and extremely important (31.8%).

Post-Campaign Survey. Comparatively, half of the women felt that overall oral health during pregnancy was very important (69.5%), while a slightly smaller percentage of women responded that it was extremely important (20.5%). Respondents mainly found brushing and flossing their teeth to be very important, and extremely important (67.3%), an additional 23.7% found this topic to be extremely important. Respondents similarly found the need to visit their dentist during pregnancy as very important (67.5%) and extremely important (25.5%). When comparing mean scores from the pre- and post-campaign surveys, there is a small increase in importance ratings in the three categories of health issues.

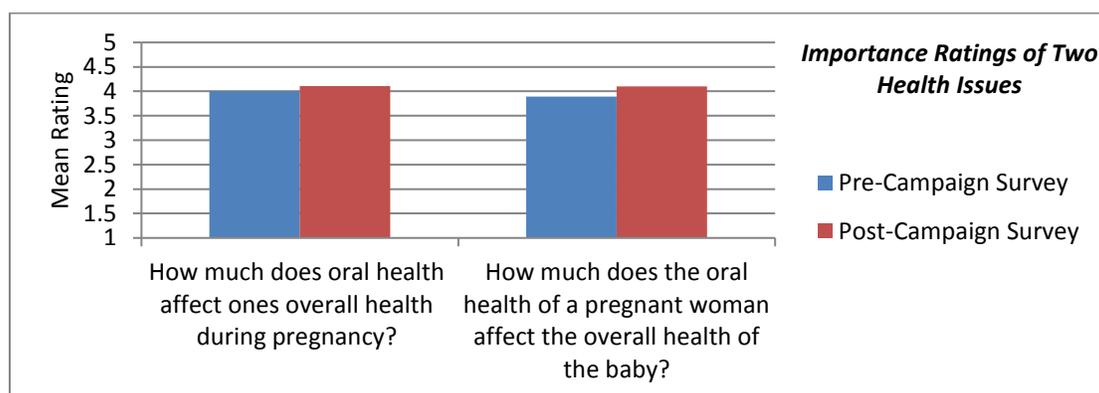
Importance ratings of three health issues, 1 (not at all important) to 5 (extremely important)



Pre-Campaign Survey. When rating the perceived safety level of receiving dental health care during a pregnancy, half of the respondents felt it is completely safe (51.2%) while 16.1% thought that is not at all safe. Lastly, half of the women believed that their own oral health somewhat affects their overall health during pregnancy (52.6%) while 29.0% felt that it greatly affects their overall health. Additionally, it was found that a majority of women believed the oral health of a pregnant woman somewhat affects (42.1%) and greatly affects (33.3%) the health of a baby during pregnancy.

Post-Campaign Survey. However, during the post-campaign survey, most of the respondents felt it is completely safe to receive dental health care during a pregnancy (78.7%) and only 0.34% thought that is not at all safe, demonstrating a higher rating of confidence in dental visits during pregnancy than during the pre-campaign survey. Similar to the pre-campaign survey, half of the women believed that their own oral health somewhat affects their overall health during pregnancy (54.0%) while 32.2% felt that it greatly affects their overall health. Additionally, it was found that a majority of women believed the oral health of a pregnant woman somewhat affects (52.1%) and greatly affects (34.5%) the health of a baby during pregnancy. When comparing mean scores, only changes were found in the last two questions while the mean importance rating for receiving dental health care during pregnancy remained at 4.0 for both the pre- and post-campaign surveys. The last two questions depicted in the graph below slightly increased in the post-campaign survey.

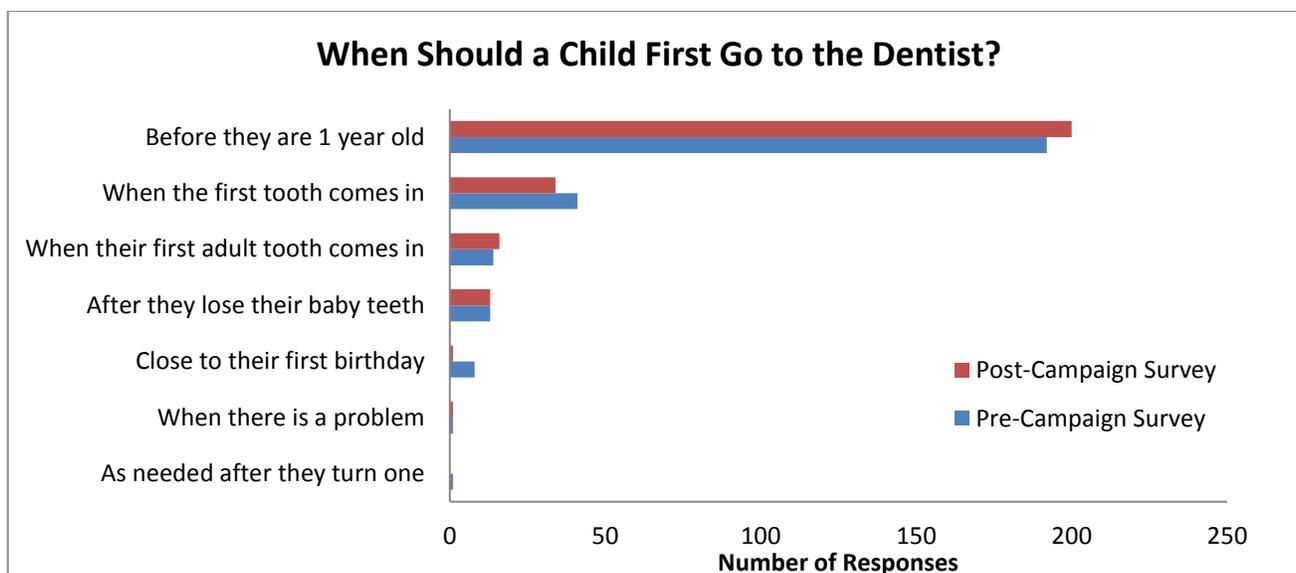
Importance ratings of two health issues, 1 (does not affect at all) to 5 (greatly affects)



In general, when should children go to the dentist?

Most women knew that children should go to their dentist before they are 1-year-old in both the pre- and post-campaign surveys (71.1% and 75.5%, respectively). However, some women had other beliefs about when the first appointment should be made for a child. A portion of women in both surveys (pre: 15.2%, post: 12.8%) thought that a dentist visit was not necessary until the first tooth came in.

When should a child first go to the dentist?



When did mothers actually take their first child to the dentist?

There was an increase in women reporting their child's first visit to the dentist before the age one. While more mothers first reported taking their children to the dentist between the age of 1 and 2 in the pre-campaign, by the time of the post-campaign survey, about half of mothers reported taking their child to the dentist before their 1st birthday. This was statistically significant and showed a percent change of 27.7%.

	Pre-Campaign Survey <i>Percent (n)</i>	Post-Campaign Survey <i>Percent (n)</i>	Percent Change
Before 1st birthday	38.6% (102)	49.3% (139)	27.7%
Between 1 and 2 years old	45.5% (120)	40.7% (114)	-10.5%
Between 2 and 3 years old	14.0% (37)	9.7% (27)	-30.7%
3 years old or older	1.9% (5)	-	N/A

How do women care for their children's oral health?

Most women in both the pre- and post-campaigns brushed the gums and teeth of their child (77% and 73.9%, respectively). Of the women in both surveys who reported brushing their children's teeth almost all (pre: 81.9% and post: 69.2%) reported using toothpaste to do so, and a much smaller portion stated that they used a type of kid's toothpaste.

Women reported similarly in the pre- and post-campaign surveys with only 20.2% and 24.4%, respectively, of women reported not brushing their child's teeth or gums, while far less reported brushing their child's teeth every so often (2.8% and 1.7%, respectively). When they were asked why they did not, most reported that their children brushed their teeth on their own in both surveys.

However, a small number of participants also reported that the reason they did not brush their child's teeth was because the child was still too young to have their teeth cleaned (pre: 27.9%, post: 29.6%).

Source of water

Do you drink tap water?

Do you drink tap	Pre-Campaign Survey Percent (n)	Post-Campaign Survey Percent (n)
Yes	32.2% (91)	15.0% (45)
No	67.8% (192)	85.0% (255)

In both the pre- and post-campaign surveys, an overwhelming percent of women did not drink tap water, and an increase in non-tap drinkers was observed in the post-campaign survey results with a percent change of 25.4% increase. Of those who did not drink tap water, most purchased bottled water to drink (Pre-Campaign Survey: 80.0%, Post-Campaign Survey: 86.6%) and almost one-fourth filtered tap water before drinking it (Pre-Campaign Survey: 13.8%, Post-Campaign Survey: 25.5%). When asked why women did not drink tap water, the taste (pre: 43.1%, post: 25.5%) and safety concerns (pre: 54.9%, post: 73.5%) were the top reasons for opting for bottled or filtered water

Effects of Oral Health Campaign on Attitudes and Behaviors

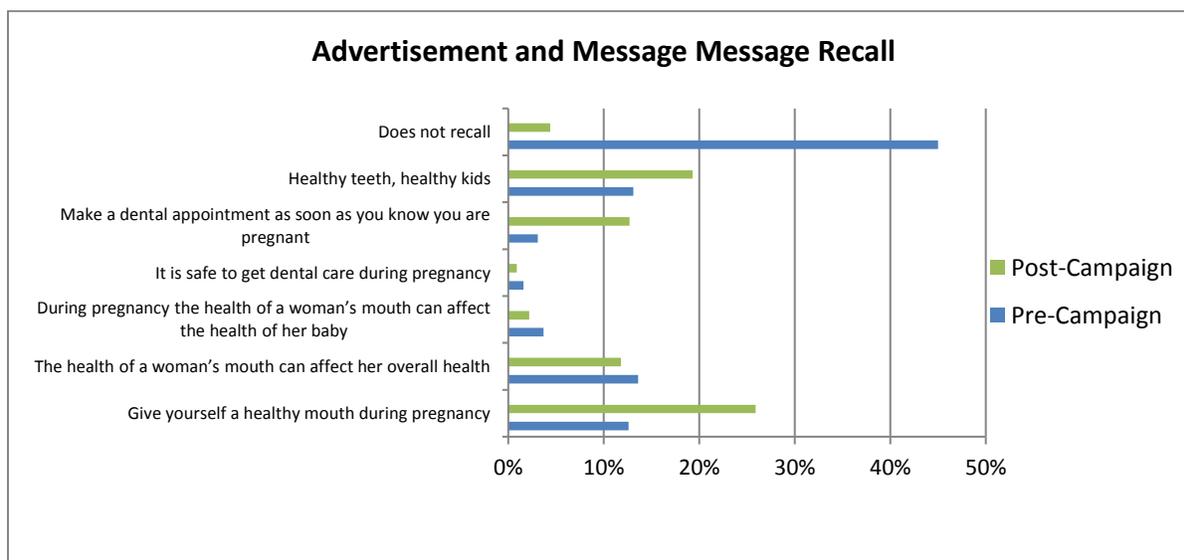
Recall of Dental Health Ads

What dental media campaigns have you heard in the past year?

(Unaided recall)

Unaided recall involved asking respondents to recall the message that they remembered and recording their responses, without reading the options.

In the past year, what advertisements or messages about dental health have you heard?



Where did you hear the advertisement or message?

Almost half of women reported hearing the ads on the radio in the post-campaign survey in comparison to 1% of women in the pre-campaign. This positive increase can be explained due to the timing of the surveys, with the pre-campaign survey being administered prior to the radio ad campaigns. The pamphlets were an impactful resource in distributing the ads and messages in both pre- and post-campaigns.

Where heard ad?	Radio	Pandora	Bus/transit advertisement	Pamphlet	Friend/Family	Other	Don't remember
Pre-Campaign Survey	1.0% (2)	4.5%(9)	1.5% (3)	22.5% (45)	6.5% (13)	15.5% (31)	48.5% (97)
Post-Campaign Survey	49.3% (112)	--	0.4% (1)	18.5% (42)	4.9% (11)	22.0% (50)	4.9% (11)

Which dental media campaigns have you heard in the past year?

(Aided recall)

1) *The health of a woman's mouth is important during pregnancy.* Significantly more respondents had heard of this message after the campaign as compared to before the campaign. The vast majority of respondents said that they heard this message after the campaign, (76.3%). Post-Campaign respondents said they heard or read this message primarily on the radio and in a pamphlet.

Have you heard this message?

	Pre-Campaign Survey Percent (n)	Post-Campaign Survey Percent (n)
Yes	56.3% (162)	76.3% (212)
No	43.8% (126)	23.7% (67)

Where did you hear this message?

	Radio	Pandora	Bus/ Transit	Pamphlet	Friend/ Family	Other	Does not remember
Pre-Campaign Survey	2.7% (6)	2.7% (6)	0.9% (2)	31.8% (71)	13.5% (30)	30.5% (68)	17.9% (40)
Post-Campaign Survey	24.5% (56)	1.8% (4)	1.3% (3)	34.1% (78)	9.6% (22)	5.7% (13)	23.1% (53)

2) *It is safe to get dental care during pregnancy.* Significantly more respondents had heard of this message after the campaign as compared to before the campaign. Over half of respondents said that they heard this message after the campaign, (57.2%). Post-Campaign respondents said they heard or read this message primarily on the radio and in a pamphlet.

Have you heard this message?

	Pre-Campaign Survey Percent (n)	Post-Campaign Survey Percent (n)
Yes	33.0% (90)	57.2% (163)
No	67.0% (183)	42.8% (119)

Where did you hear this message?

	Radio	Pandora	Bus/ Transit	Pamphlet	Friend/ Family	Other	Does not remember
Pre-Campaign Survey	0.5% (1)	4.6% (9)	1.6% (3)	16.0% (31)	20.6% (40)	15.0% (29)	41.8% (81)
Post-Campaign Survey	15.7% (29)	1.6% (3)	0.0% (0)	37.8% (70)	14.1% (26)	7.6% (14)	23.2% (43)

3) Medicaid pays for dental care during pregnancy. Twice as many respondents had heard of this message after the campaign as compared to before the campaign. The vast majority of respondents said that they heard this message after the campaign, (68.1%). Post-Campaign respondents said they heard or read this message primarily on the radio and in a pamphlet.

Have you heard this message?

	Pre-Campaign Survey Percent (n)	Post-Campaign Survey Percent (n)
Yes	35.6% (99)	68.1% (194)
No	64.4% (179)	31.9% (92)

Where did you hear this message?

	Radio	Pandora	Bus/ Transit	Pamphlet	Friend/ Family	Other	Does not remember
Pre-Campaign Survey	0.5% (1)	2.0% (4)	1.5% (3)	21.8% (43)	21.3% (42)	11.2% (22)	41.6% (82)
Post-Campaign Survey	31.1% (69)	1.4% (3)	0.0% (0)	26.1% (58)	9.9% (22)	9.5% (21)	22.1% (49)

4) The health of a woman's mouth during pregnancy can affect her overall health and the health of her baby. A significant proportion of respondents had heard of this message after the campaign as compared to before the campaign. The vast majority of respondents said that they heard this message after the campaign, (67.7%). As per most of the responses, post-Campaign respondents said they heard or read this message primarily on the radio and in a pamphlet.

Have you heard this message?

	Pre-Campaign Survey Percent (n)	Post-Campaign Survey Percent (n)
Yes	46.4% (127)	67.7% (195)
No	53.7% (147)	32.3% (94)

Where did you hear this message?

	Radio	Pandora	Bus/ Transit	Pamphlet	Friend/ Family	Other	Does not remember
Pre-Campaign Survey	1.4% (3)	1.9% (4)	1.4% (3)	22.1% (47)	17.4% (37)	18.8% (40)	37.1% (79)
Post-Campaign Survey	20.1% (43)	0.0% (0)	0.0% (0)	32.71% (70)	17.3% (37)	6.5% (14)	23.4% (50)

5) Make a dental appointment as soon as you know you are pregnant. Significantly more respondents had heard of this message after the campaign as compared to before the campaign. The vast majority of respondents said that they heard this message after the campaign, (76.3%). Post-Campaign respondents said they heard or read this message primarily on the radio and in a pamphlet.

Have you heard this message?

	Pre-Campaign Survey Percent (n)	Post-Campaign Survey Percent (n)
Yes	52.1% (146)	78.0% (223)
No	47.9% (134)	22.0% (64)

Where did you hear this message?

	Radio	Pandora	Bus/ Transit	Pamphlet	Friend/ Family	Other	Does not remember
Pre-Campaign Survey	0.5% (1)	2.5% (5)	0.5% (1)	36.3% (74)	12.8% (65)	31.9% (65)	15.7% (32)

	Radio	Pandora	Bus/ Transit	Pamphlet	Friend/ Family	Other	Does not remember
Post-Campaign Survey	33.1% (77)	0.0% (0)	0.0% (0)	27.5% (64)	9.9% (23)	6.4% (15)	23.2% (54)

When women cited “Other” regarding where they had heard the ad campaign, the top sources in both surveys were at a clinic, on TV, or church.

Have you heard of Healthy Teeth, Healthy Kids?

	Pre-Campaign Survey <i>Percent (n)</i>	Post-Campaign Survey <i>Percent (n)</i>
Yes	71.9%	95.2%

Almost all women heard *Healthy Teeth, Healthy Kids* when asked if they had heard of the campaign with aided recall (pre: 71.9%, post: 95.2%). There was an increase from 19.9% (51) to 72.7% (205) of women who recalled hearing a radio announcement regarding the importance of oral health during a woman’s pregnancy from the pre- to post-campaign surveys. Additionally, there was an increase from 70.0% to 78.2% of women stating the ad to be Useful from the pre- to post-campaign. Over half of the women stated that they had received a pamphlet of the ad campaign *Give yourself a healthy mouth during pregnancy* (pre: 33.6%, post: 60.2%), also by aided recall. In general, the women who received the pamphlet felt that it was Useful (57.0%) and Very Useful (36.8%) in the post-campaign survey.

Healthcare and Health Insurance Coverage

When asked if they knew whether or not Medicaid covered dental health costs during their pregnancy in Maryland, 48.3% (144) of women said yes during the post-campaign survey compared to 40% (116) during the pre-campaign survey. When comparing the pre- and post-campaign survey responses 35.9% (104) and 31.9% (95) of women were unsure and 24.1% (70) and 19.8% (59) did not know about this coverage, respectively. However, overall, about one fourth of women stated having health insurance (pre: 35.8%, post: 23.9%). Private health insurance was the most common type of insurance held by the women who stated having insurance (pre: 57.5%, post: 67.6%), while pre: 37.3% and post: 25.7% of respondents said they had Medicaid.

**Attachment: Survey Form and Instructions
(In English)**

Spanish Language Oral Health Survey

SURVEY FORM AND INSTRUCTIONS

Sponsored by: Maryland Dental Action Coalition

Administered by Rivera Group, Inc.

SURVEY INSTRUCTIONS

To administer the survey, the interviewers will seek and approach Hispanic women who appear to be of child bearing age (between the ages of 18-40), and...

- Appear to be pregnant, and/or...
- Are walking with a child/children who appear to be 6 years old or younger.

Excuse me. Good [morning, afternoon, evening]. We're offering \$5 gift cards to Hispanic women if they complete a short verbal survey that lasts only 10 to 15 minutes. The survey is about health and is sponsored by the Maryland Dental Action Coalition. To participate, you must be between 18 and 40 years of age. Would you be interested in helping us with the survey?

If the potential respondent does not meet the criteria for participation, or does not agree to participate, the interviewer will say,

Thank you anyway. Pardon the interruption. Have a nice day.

If the potential respondent meets the study criteria and agrees to participate, the interviewer will say,

Wonderful! Thank you! Can you do the interview now or should we do it when you finish what you're doing?

If the potential respondent wants to schedule the interview later, such as after an appointment or shopping, the interviewer will indicate that she will wait to conduct the interview at her present location (or other preferred location).

If the potential respondent wants to have the interview conducted immediately, the interviewer will identify a private location or area in the vicinity and utilize her assigned computer tablet to obtain the respondent's verbal informed consent and conduct the interview.

At the end of the interview, the interviewer will provide the respondent with a \$5 gift card and ask the respondent to place her initials on a log that contains the gift card serial number to acknowledge receipt.

PARTICIPANT SCREENING

Q1. Are you between 18 and 40 years old?

- a. Yes (*Continue.*)
- b. No (*Thank and terminate.* Thank you for your time and cooperation. Unfortunately, your responses do not qualify you to continue with the survey. We appreciate your help. Have a great day.)

Q2. Are you a resident of the state of Maryland?

- a. Yes (*Continue.*)
- b. No (*Thank and terminate. Read language above in Q1.*)

Q3. In what county/city do you live? (*Record response*)

Counties to be surveyed in Maryland:

Montgomery County
Prince George's County
Baltimore City

If she does not live in any of these counties, thank and terminate. Read language above in Q1b.

Q4. How long have you been living in the United States?

- a. 10 years or less (*Continue.*)
- b. Over 10 years (*Thank and terminate. Read language above in Q1.*)

INFORMED CONSENT

Before we start the survey, I need to go through the formality of reading a description of the study and of your role in the study, and after reading it, to ask you again if you agree to participate in the study. Here it goes:

The purpose of this survey is to determine perceptions and practices around the topic of dental health. You are being asked to participate in this project because you're a Hispanic woman between the ages of 18 – 40. The risk to you for participating in this survey is minimal. Any risk for participating in this project is no more than would be expected during any survey. In all surveys there is a risk for potential loss of confidentiality. Loss of confidentiality will be minimized in this project by allowing only members of the project team to see and hear your feedback and answers to the survey questions. Loss of confidentiality will also be minimized by storing your data in a secured server. The data collected by this survey will be destroyed by our company – Rivera Group -- after it is reported to the primary investigator, the Maryland Dental

Action Coalition. You may or may not benefit from taking part in this survey. You need to decide if your participation in this survey is in your best interest. It will not cost you anything to take part in this project. The alternative to participation is to not take part. If you chose not to take part, you will not be affected.

This survey does not request confidential health information. Only our client and members of the project team will have access to your survey results. The information generated in the survey will only be used for the purposes of this project which is to create oral health educational materials for Spanish speaking populations. The data from the project may be published. However, you will never be identified by name. Everyone using project information will work to keep your personal information confidential. Your personal information will not be given out unless required by law.

Your participation in this survey is completely voluntary. You may stop at any time. You do not have to take part in this survey if you do not want to. You are free to withdraw your consent or ask questions at any time. You are being asked to provide consent for yourself.

Refusal to take part or to stop taking part in the survey will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to stop taking part, if you have questions, concerns, or complaints please contact the investigator, **Ms. Oroma Igwe, at: 410-312-5456**. There are no adverse consequences (physical, social, economic, legal, or psychological) of your decision not to participate in this project.

When asked if you agree to participate in this survey, saying yes indicates that you have willingly listened to this information about consent and agree to participate in the project.

Do you agree to participate in this survey? (Please state Yes or No.)

Here is a copy of the statement I just read for your information.

***Begin:* Thank you, again, for agreeing to participate.**

SURVEY

1. What would you say are the most important health issues for you and your family?
(Record responses.)

2. We'd like to better understand how you view several health issues and how important they are to you and your family. Using a scale from 1-10, where '1' means 'Not at all important' and 10 means 'Extremely Important', let's begin with... (Read.

Rotate. As the surveyor reads this question to the participant they should ask the entire question for each option and repeat the formula for the scale each time.)

- a. Heart health (Enter number 1-10 _____)
- b. Dental health (Enter number 1-10 _____)
- c. Diabetes prevention (Enter number 1-10 _____)
- d. Cancer prevention (Enter number 1-10 _____)
- e. Obesity prevention (Enter number 1-10 _____)

3 Let's talk more about dental health. When did you last brush your teeth?
(Record responses.)

4. What did you put on the tooth brush? *Do not read answers. Accept all answers that apply. Probe for responses. Record message as they describe it.)*

- a. Toothpaste
- b. Baking soda
- c. Other: _____

5. On a scale from 1-10 where 10 means 'Extremely Important', please tell me how important the health of a woman's mouth (the health of her teeth and gums) is during pregnancy?

6. On a scale from 1-10 where 10 means 'Extremely Important', please tell me how important it is for a pregnant woman to brush and floss her teeth daily?

7. On a scale from 1-10 where 10 means 'Extremely Important', please tell me how important it is for a woman to see a dentist during her pregnancy?

8. On a scale from 1-10 where 10 means 'Completely safe', please tell me how safe it is for a woman to receive dental care during pregnancy?

9. On a scale from 1-10 where 10 means 'Significantly affects', please tell me how much the health of a pregnant woman's mouth (the health of her teeth and gums) affects her overall health?

10. On a scale from 1-10 where 10 means 'Significantly affects', please tell me how much you think the health of a pregnant woman's mouth (the health of her teeth and gums) may affect the health of her baby?

11. Does Medicaid in Maryland pay for a woman to receive dental care during her pregnancy?

- a. Yes
- b. No
- c. Don't know/Not sure

12. Do you have any small children? (If yes, go to #13; if no, go to #17)
- a. Yes
 - b. No

OK, now let's talk about children's dental health.

13. At what age do you think a child should have his/her first visit to the dentist? (*Do not read choices– circle response below or record*)

- a. Within first year
 - a. At first tooth
 - b. When permanent (adult) teeth start coming in
 - c. After baby teeth fall out
 - d. When there is a problem
 - e. Any age they indicate over the age of one (*Record answer.*)
-

14. At what age did your oldest child first visit the dentist?

- a. Before first birthday
- b. Between 1st and 2nd birthdays
- c. Between 2nd and 3rd birthdays
- d. Other (*Record response – if child has not seen a dentist, ask child's age and record response.*) _____

15. Do you clean your child's mouth, gums, or brush (his/her) teeth? If yes (*Ask if she cleans the child's gums or brushes the child's teeth. If she answers brush teeth, ask: What do you put on the brush?*) _____

Then go to 17.

If no, or sometimes, go to 16.A.

16.A. Why not? Or why not regularly? (*Do not read answer categories. Mark the one that best fits respondents' answer.*)

- a. Child brushes own teeth
- b. No toothbrush
- c. Don't have time
- d. Child won't let me
- e. Do not think it is important
- f. Other _____

17. Do you drink water that comes from the tap/sink/faucet?

- a. Yes (Skip to #18.)

b. No (*Skip to 17.A. Then follow-up with: #18. Record answers.*)

17.A. Why not? (*Do not read answer categories. Mark the one that **best** fits respondent's answer.*)

- a. Taste preference
- b. Unsafe
- c. Other _____

18. Where do you get your drinking water from?
(*Record responses.*)

19. In the last six months, have you heard any Spanish language advertising or read any Spanish language brochures about the health of a woman's mouth during pregnancy? (*Record responses.*)

- a. Yes
- b. No (*Skip to #22*)

20. What information do you recall from the advertisement or from reading the brochure (*Do not read list. Accept all that apply. Probe for multiple responses. Record message as they describe it.*)

- a. Give yourself a healthy mouth during pregnancy
- b. The health of a woman's mouth is important during pregnancy
- c. The health of a woman's mouth can affect her overall health
- d. During pregnancy the health of a woman's mouth can affect the health of her baby.
- e. It is safe to get dental care during pregnancy
- f. Medicaid pays for dental health care during pregnancy (Medicaid covers dental care for pregnant women)
- g. Dientes Sanos Ninos Sanos
- h. Other (*Specify*): _____
- i. Don't recall/Don't remember

21. Where do you recall hearing, reading, or seeing the message(s)? (*Do not read list but record responses. Mark all that apply.*)

- a. Radio, if radio--ask what station: _____
- b. Pandora
- c. Bus/transit advertisement
- d. Brochure/pamphlet
- e. Friend or family member
- f. Other: _____
- g. Don't recall/Don't remember

22. Do you recall hearing, reading, or seeing any message that said: "The health of your mouth is important during pregnancy"?

- a. Yes
- b. No (*Skip to #23*)

22.A. Where do you recall hearing, reading, or seeing the message? (*Do not read list but record responses – mark all that apply.*)

- a. Radio----ask what station? _____
- b. Pandora
- c. Bus/transit advertisement
- d. Brochure/pamphlet
- e. Friend or family member
- f. Other: _____
- g. Don't recall/Don't remember

23. Do you recall hearing, reading, or seeing any messages that said: "It is safe to get dental care during pregnancy"?

- a. Yes
- b. No (*Skip to #25*)

24. A. Where do you recall hearing, reading, or seeing the message? (*Do not read list but record responses – mark all that apply.*)

- a. Radio----ask what station? _____
- b. Pandora
- c. Pandora
- d. Bus/transit advertisement
- e. Brochure/pamphlet
- f. Friend or family member
- g. Other: _____
- h. Don't recall/Don't remember

25. Do you recall hearing, reading, or seeing the message "Medicaid pays for dental care during pregnancy"?

- a. Yes
- b. No (*Skip to #27*)

26. A. Where do you recall hearing, reading, or seeing the message? (*Do not read list but record responses – mark all that apply.*)

- a. Radio----ask what station? _____
- b. Pandora

- c. Bus/transit advertisement
- d. Brochure/pamphlet
- e. Friend or family member
- f. Other: _____
- g. Don't recall/Don't remember

27. Do you recall hearing, reading, or seeing the message "The health of a woman's mouth during pregnancy can affect her overall health and the health of her baby".

- a. Yes
- b. No (*Skip to #28*)

27. A. Where do you recall hearing, reading, or seeing the message? (*Do not read list but record responses – mark all that apply.*)

- a. Radio, ask what station? _____
- b. Pandora
- c. Bus/transit advertisement
- d. Brochure/pamphlet
- e. Friend or family member
- f. Other: _____
- g. Don't recall/Don't remember

28. Have you ever heard of Dientes Sanos Ninos Sanos?

- a. Yes
- b. No
- c. Don't know/Not sure

29. Do you recall hearing a radio advertisement about the importance of dental health during pregnancy?

- a. Yes (*Ask: Where did you hear the radio ad? (On what station?)*) _____
- a. No (*Skip to 31*)

30. On a scale from 1-10 where 10 means 'Extremely helpful', how helpful was the information in the radio advertisement? (*Record response.*)

31. Did you receive a brochure called *Give Yourself a Healthy Mouth During Pregnancy?*

- a. Yes (*Ask: Where did you get the brochure?*) _____
- b. No (*Skip to D1*)
- c. Don't Know /Not Sure (*Record and skip to D1.*)

32 A. On a scale from 1-10 where 10 means 'Extremely helpful', how helpful was the information in the brochure? (*Record response.*)

(Continue: We have just a few more questions.)

D1. How old are you?

- a. 18-25
- b. 26-34
- c. 35-49

D2. What is the highest level of education you have completed?

- a. Less than high school
- b. High school graduate
- c. Some college/technical
- d. 4-year college degree
- e. Some post graduate
- f. Graduate degree
- g. Refused

D3. Do you have children? (*Record response*)

D4. How many children do you have? (*Record response*)

D5. What is your country of origin? (*Record response*)

Those are all the questions I have. Thank you very much for your time. Have a nice evening/day. If you have questions, feel free to contact the person who is listed on the Informed Consent sheet I gave you.