Tahoe Forest Hospital District

Behavioral Risk Factor Surveillance System (BRFSS)

Presented by: Holleran March 29, 2011



BACKGROUND AND METHODOLOGY

Tahoe Forest Hospital District requested that Holleran conduct a Behavioral Risk Factor Surveillance System (BRFSS) study among its adult community using the Centers for Disease Control and Prevention (CDC) BRFSS tool. The BRFSS is a national initiative, headed by the CDC that assesses the health status and risk factors among U.S. citizens.

Tahoe Forest Hospital District coordinated with representatives from Holleran and customized the BRFSS tool to assess the needs of area residents. The tool was developed by selecting various core sections and modules from the BRFSS tool and adding individualized questions. Depending upon respondents' answers to questions regarding exercise, asthma, diabetes, etc., interviews averaged 10 to 12 minutes in length.

A sampling strategy was developed by Holleran and approved by Tahoe Forest Hospital District. The sampling strategy identified the number of completed surveys needed within each zip code across the service areas. The final sample (473) yields an overall error rate of +/-4.5% at a 95% confidence level. Data collection took place between August 23 and October 15, 2010.

The calculated response rate for the study is 15.5%. Holleran follows the guidelines for survey research quality established by the Council of American Survey Research Organizations (CASRO). Likewise, Holleran calculates response rates according to the definition established by CASRO as outlined in the document, "On the Definition of Response Rates." The response rate is equal to the number of completed interviews divided by the number of eligible respondents. The number of eligible respondents is the total number of potential respondents minus wrong numbers, disconnects, ineligible respondents, and an estimate of disqualified respondents among those on the list who were not contacted. For a more detailed description of the determination of response rates, refer to the CASRO article "On the Definition of Response Rates."



RESEARCH OBJECTIVES

The research objectives of the assessment were as follows:

- 1. To gather statistically valid information on the health status of residents in the Tahoe Forest Hospital District.
- 2. To develop and finalize sampling strategies relevant to target populations.
- 3. To accurately represent all populations within the target area.
- 4. To develop accurate comparisons to the national baseline of health and quality of life measures to provide trending information for the future.
- 5. To interpret the meaning of the data collected so that needs are accurately depicted for area residents.
- 6. To utilize results in community benefit endeavors and strategic planning efforts.
- 7. To conduct research in a fully confidential manner consistent with the Code of Standards and Ethics promulgated by the Council of American Survey Research Organizations (CASRO).



READING THE RESULTS

All figures included within the report reflect the percentage of respondents. It should be noted that the Tahoe Forest Hospital District data and 2009 National BRFSS data included in the report were calculated with a weighting variable. The national weighting variables correct for any demographic differences that may exist between the sample and the population it represents.

Holleran conducted tests of significance to identify differences among various subsets. For example, they identified significant differences between 2011 Tahoe Forest District and National responses. Holleran conducted all tests of significance using the nonparametric test, "Chi-Square." The cutoff used for significance was $p \le .01$. This cutoff, rather than $p \le .05$, was used to account for the inability to reliably calculate effect size. Analyses of effect size for nonparametric tests have limited validity as they are highly influenced by a large sample size.



SUMMARY OF STRENGTHS AND OPPORTUNITIES

Areas of strength and opportunity (statistically different from the 2009 National BRFSS data) are identified below. It is important to note that some questions on the survey did not have comparisons to National data. Those specific areas without any benchmark comparisons are not included in the summary below. Additionally, there are a few areas that are open to debate as to whether they are a strength or opportunity.

Areas of Strength vs. the National Data:

Healthier/Better than the Nation

- Overall rating of general health
- > Days where mental health prevented usual activities
- Percentage told they have diabetes
- Percentage told they have high blood pressure
- Percentage with high blood pressure exercising
- Proportion told they have angina or coronary heart disease
- Percentage who have smoked 100 or more cigarettes in your entire life
- Proportion of smokers who no longer smoke
- ➤ Body Mass Index (BMI)
- Limitations due to physical, mental, or emotional problems
- Flu vaccine sprayed in nose within the past year
- > Fruit and fruit juice consumption
- Frequency and duration of moderate activity
- General satisfaction with life



Areas of Opportunity vs. the National Data:

Less Healthy/Worse than the Nation

- Health insurance coverage
- > Time since last routine checkup
- ➤ Blood sugar tested for diabetes in the past three years
- Percentage taking medicine for high blood pressure
- Time since blood cholesterol was last checked
- Percentage ever having a pneumonia shot

Additional Areas of Difference (Positive/Negative finding unclear):

- One person as a personal doctor or health care provider
- Proportion of individuals with high blood pressure who do not drink
- Level of activity at work
- > Time since last HIV test
- Use of a rapid test for HIV
- Time since eyes were last examined



Demographic Differences:

Differences between demographic groups are identified below. Comparisons by race are between Hispanic respondents and non-Hispanic respondents. The name(s) of the group that appears in each column identifies who is less healthy/worse.

Differences between:	Gender	Race	
Differences between.	Gender	Race	
Overall rating of general health		Hispanic	
Days with poor physical/mental health		Hispanic	
Mental/emotional problem limiting activity		Hispanic	
Percentage unable to seek help for mental health	Female	-	
due to cost	гетпате		
Health insurance coverage		Hispanic	
Proportion unable to see a doctor due to cost or lack		Hienanie	
of transportation		Hispanic	
Time since last routine checkup		Hispanic	
Time since last test for diabetes		Hispanic	
Blood cholesterol checked		Hispanic	
Heart attack	Male		
Percentage who have smoked 100 or more		Non Hispania	
cigarettes		Non-Hispanic	
Currently a smoker		Hispanic	
Body Mass Index (BMI)	Male	Hispanic	
Alcohol consumption	Male	Non-Hispanic	
Pneumonia shot		Hispanic	
Flu vaccine	Male		
Drink fruit juices regularly	Female	Non-Hispanic	
Eat a family meal		Non-Hispanic	
Fruit consumption (excluding fruit juice)	Male		
Moderate activity outside of work for at least 10	Lomala	Lionania	
minutes	Female	Hispanic	
Ever been tested for HIV		Hispanic	
Receive the needed social and emotional support	Female	Hispanic	
General satisfaction with life		Hispanic	



Differences between:	Gender	Race
Time since last eye exam		Hispanic
Percentage unable to see an eye care professional due to cost or lack of insurance	Female	Hispanic
Ever had a mammogram	N/A	Hispanic
Ever had PSA test	N/A	Hispanic
Ever had a sigmoidoscopy or colonoscopy		Hispanic
Stressed about having enough money for rent/ mortgage or nutritious meals		Hispanic
Language/cultural barriers preventing medical care		Hispanic
Unable to seek dental health due to cost	Female	Hispanic



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March 29, 2011

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Methodology

A total of 451 individuals who reside within the Tahoe Forest Hospital District were interviewed by telephone to assess their health practices and health status.

The number of completed interviews yields a response rate of 15.5%*. In addition to the telephone interviews, 22 respondents completed a face to face interview. The total of 473 respondents yields an overall error rate of +/-4.5% at a 95% confidence level.

Only full time residents were interviewed. A full time resident was considered someone who spends at least sixty percent of their time within the Tahoe Forest Hospital District.

Interviews were conducted between February 1 and March 4, 2011. Each interview lasted approximately 10-12 minutes depending upon what criteria were met by the respondents.

*Based upon the response rate calculation defined by the Council of American Survey Research Organizations.

Statistical Considerations

All data sets utilized in the report are statistically weighted to counter for demographic imbalances (e.g. Over-representation of females compared to males).

All statistics are weighted with the exception of the demographic information.





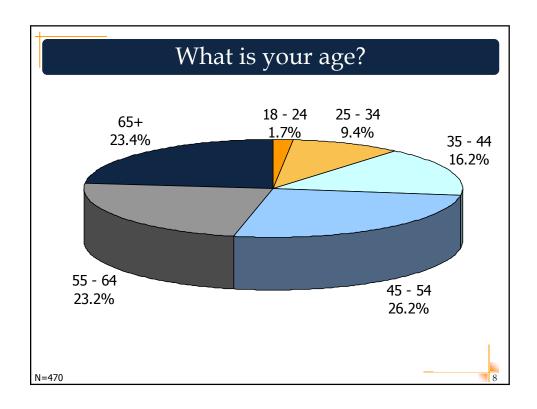
Respondent Demographics

Response Rates Zip Percent 96160 1.6% 96161 41.5% 96162 1.1% 96140 4.4% 96142 2.9% 96143 11.1% 96145 9.1% 96146 2.2% 95724 0.2% 95728 0.2% 89450 2.0% 89451 23.7%



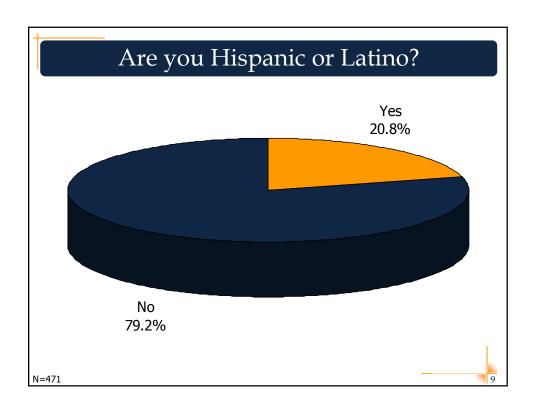


Gender				
Tahoe Forest Hospital District BRFSS 2011	Tahoe Forest Hospital District Census*			
42.4%	53.3%			
57.6%	46.7%			
	Tahoe Forest Hospital District BRFSS 2011 42.4%			









Race				
Race	Tahoe Forest Hospital District BRFSS 2011	Tahoe Forest Hospital District Census*		
White	81.8%	91.0%		
Black or African American	0.0%	0.6%		
Asian	0.4%	1.3%		
Native Hawaiian or Other Pacific Islander	0.2%	0.3%		
American Indian or Alaska Native	0.7%	1.6%		
Other	16.8%	7.5%		
Hispanic or Latino**	20.8%	13.9%		

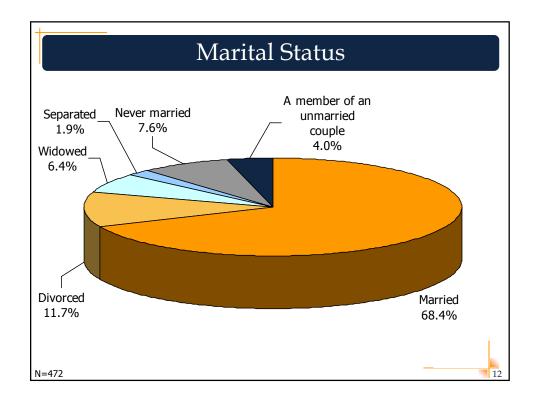




Service in United States Armed Forces

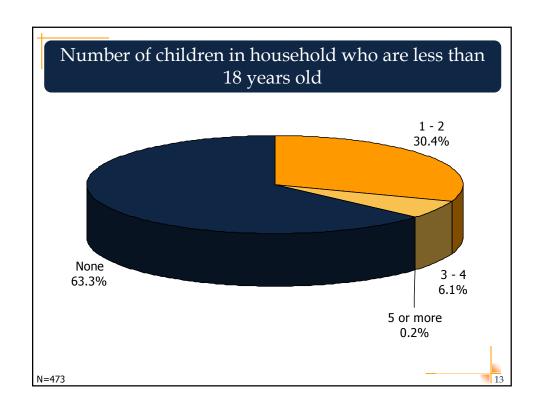
Ever served on active duty?	Percent
Yes, now on active duty	0.0%
Yes, on active duty during the last 12 months but not now	0.2%
Yes, on active duty in the past, but not during the last 12 months	9.5%
No, training for Reserves or National Guard only	0.6%
No, never served in the military	89.6%

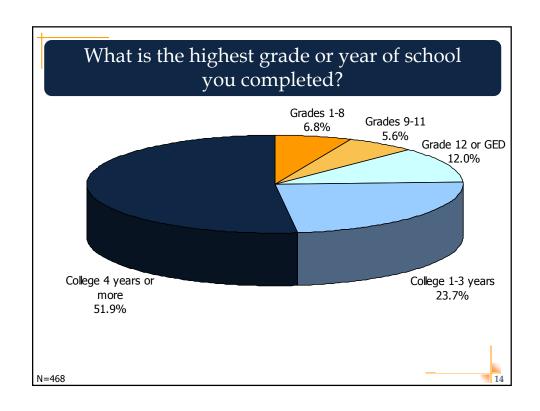
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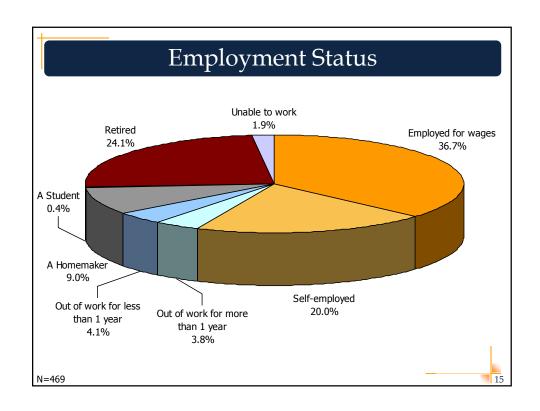


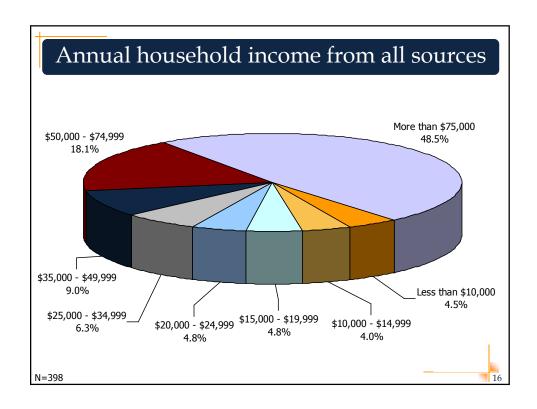






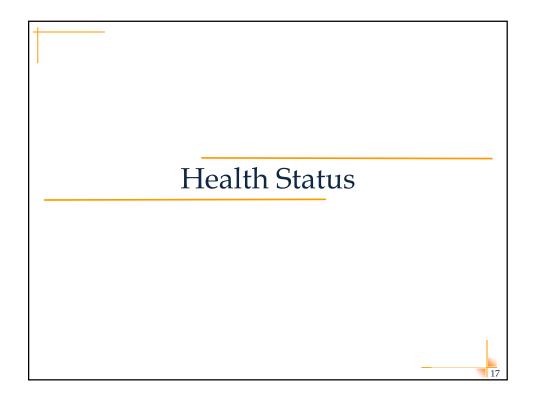


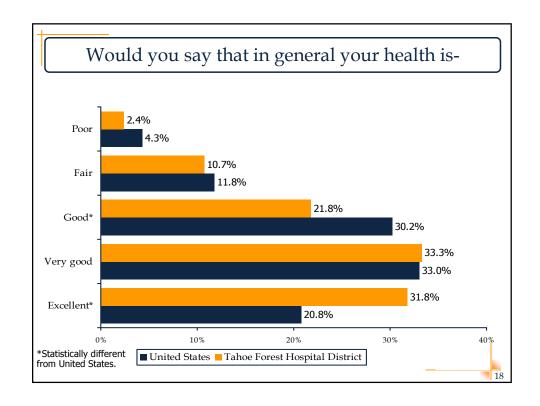
















Statistically Significant Differences by Race and Gender

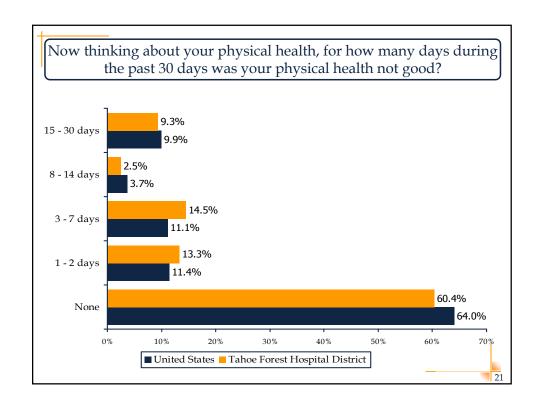
Health Status

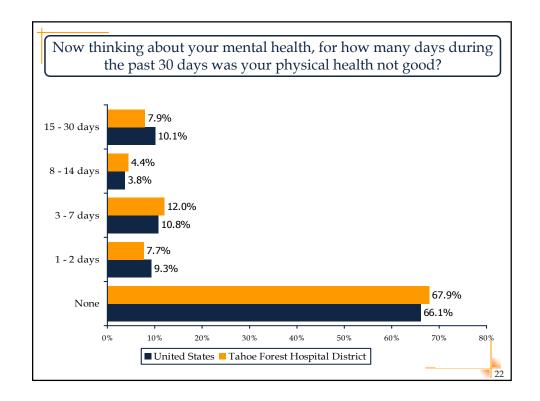
• Non-Hispanic respondents are more likely to say their health, in general, is better than Hispanic respondents.

Healthy Days – Health-Related Quality of Life



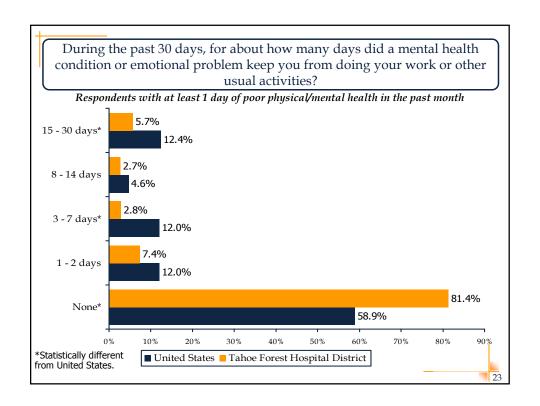


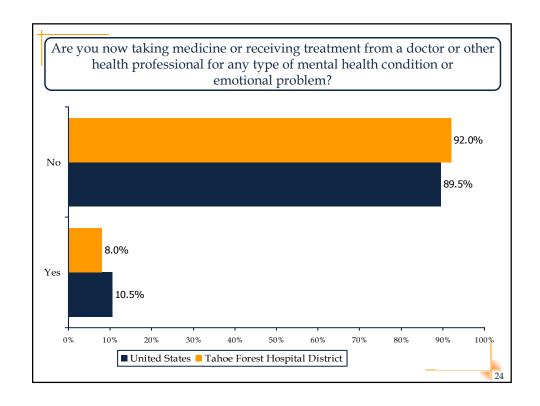






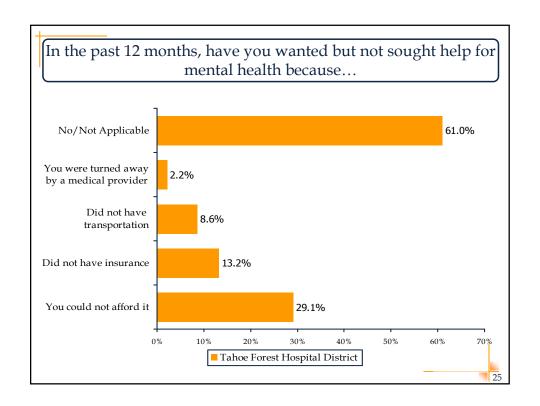












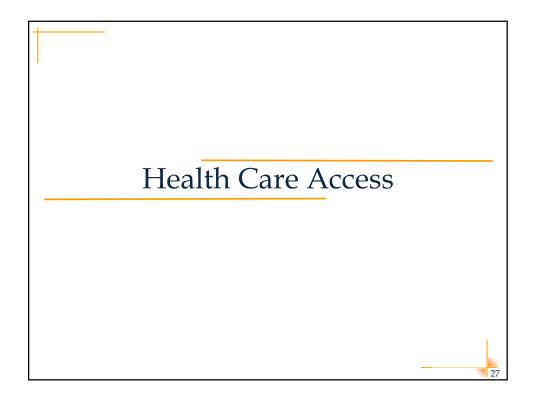
Statistically Significant Differences by Race and Gender

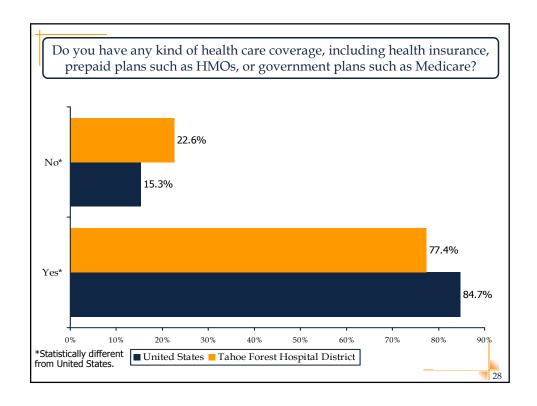
Healthy Days - Health Related Quality of Life

- Hispanic respondents are more likely to have had more days than non-Hispanic respondents where their physical or mental health was not good.
- Hispanic respondents are more likely to have been kept from work or other usual activities due to a mental health condition or emotional problem than non-Hispanic respondents.
- Female respondents are more likely to have been unable to seek help for mental health because they could not afford it, while male respondents are more likely to have not had a problem seeking help.



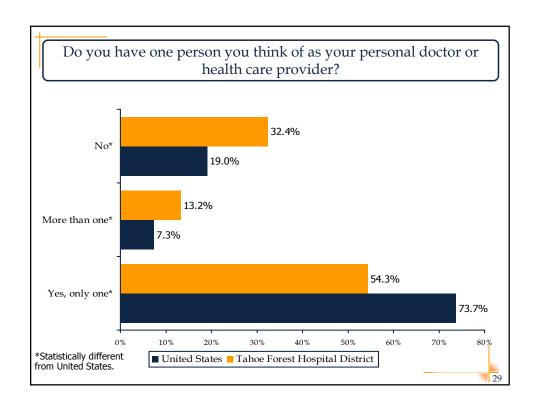


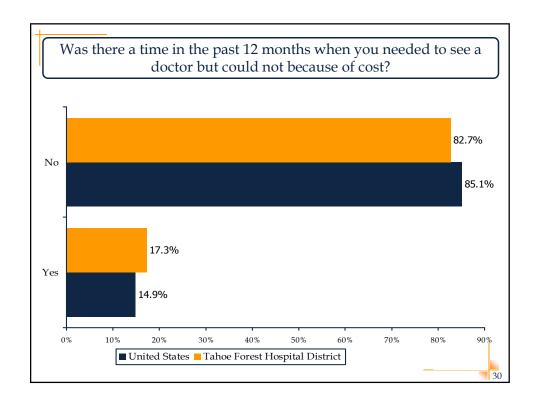






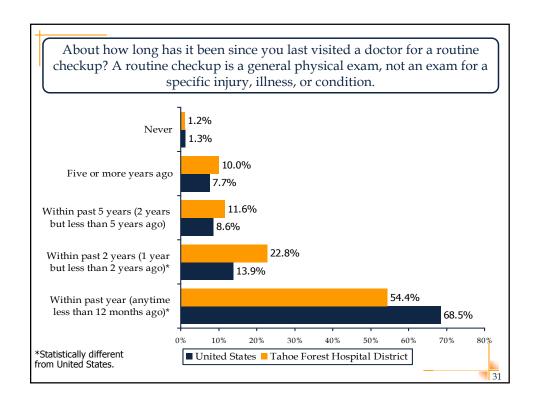


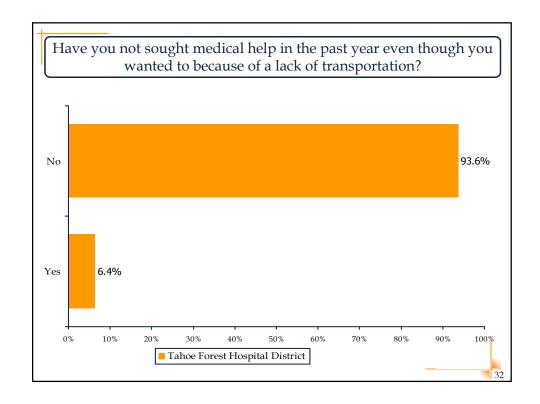
















Statistically Significant Differences by Race and Gender

Health Care Access

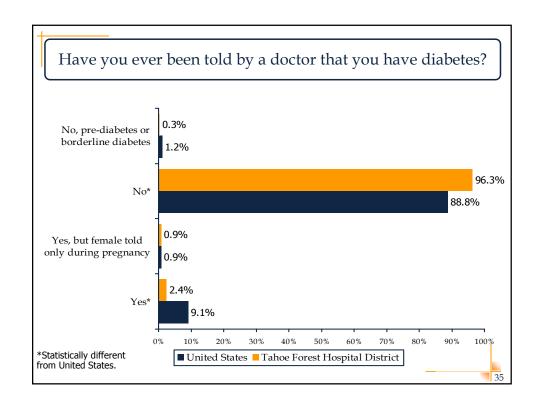
- Non-Hispanic respondents are more likely to have health care coverage than Hispanic respondents.
- Non-Hispanic respondents are more likely to have only one person who they think of as their personal doctor than Hispanic respondents.
- Hispanic respondents are more likely to have been unable to see a doctor in the past 12 months due to cost or lack of transportation than non-Hispanic respondents.
- Non-Hispanic respondents are more likely to have visited a doctor for a routine checkup in the past year while Hispanic respondents are more likely to have last visited a doctor for a routine checkup within the last 2 5 years.

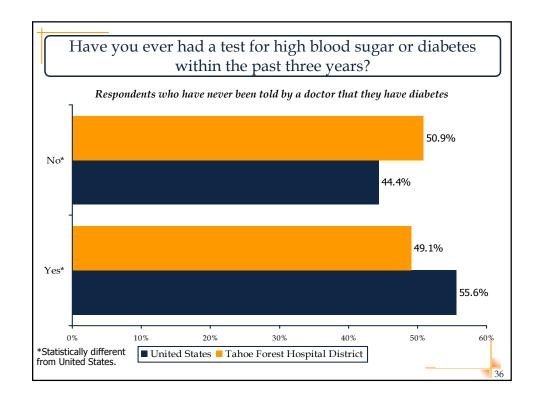
33

Diabetes



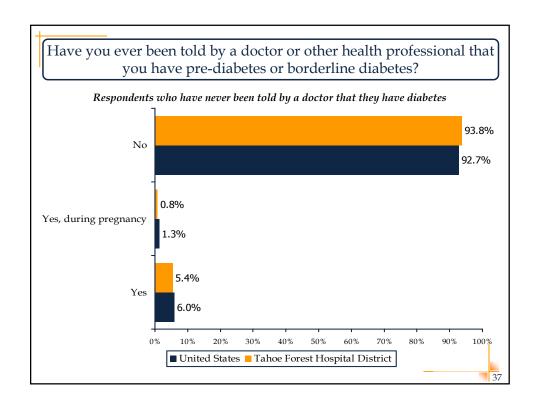


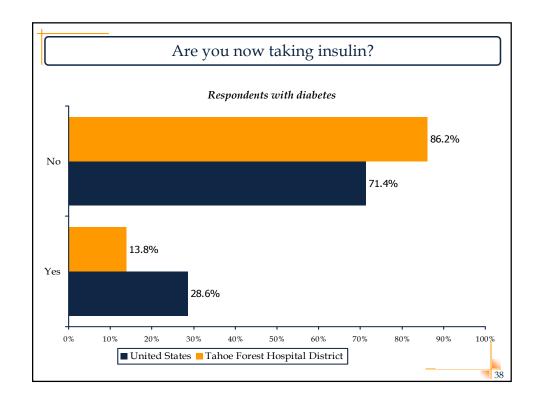






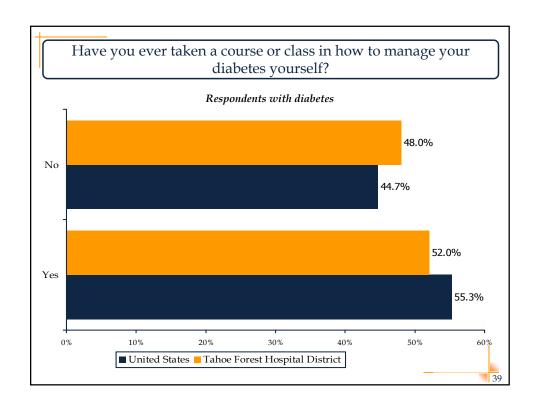


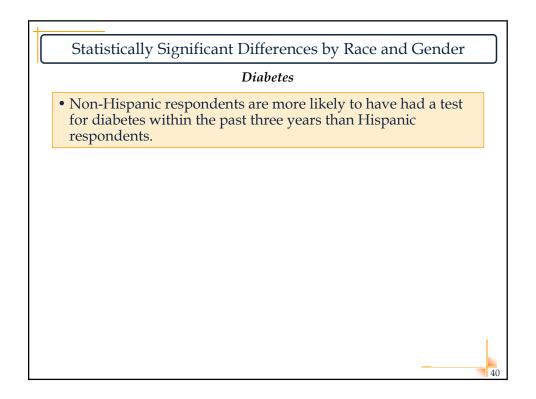






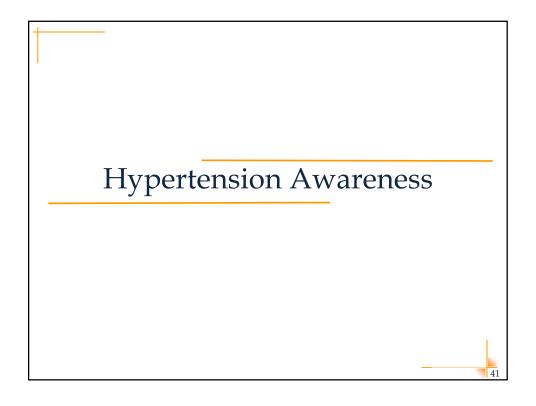


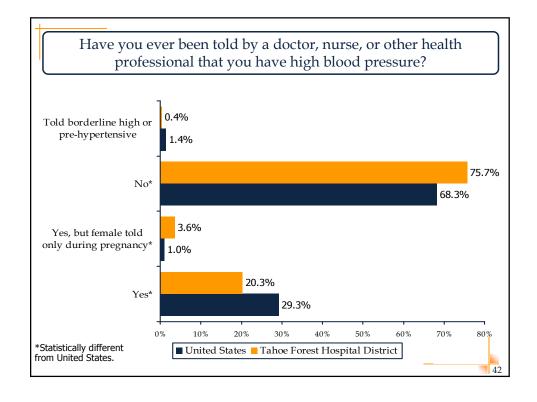






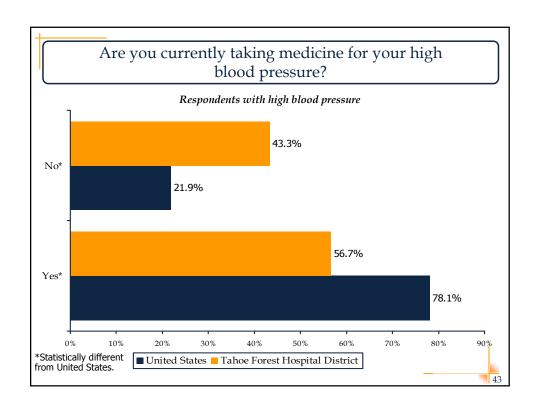


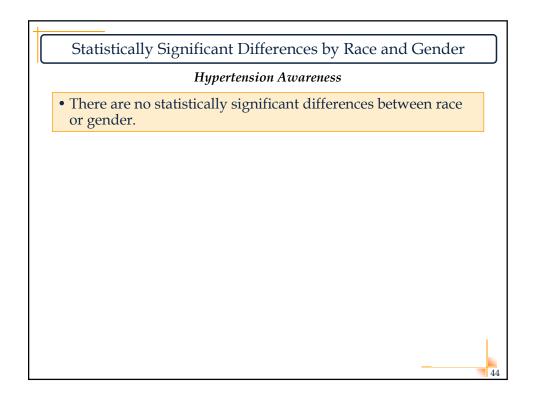








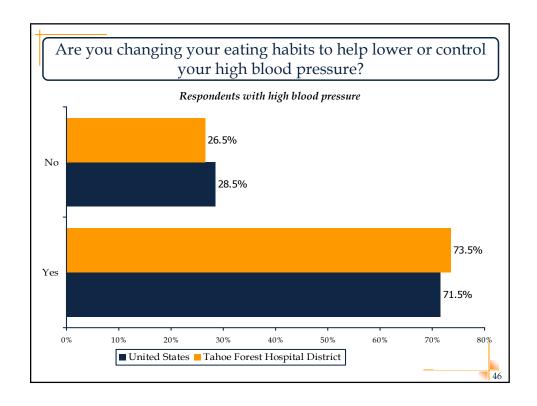






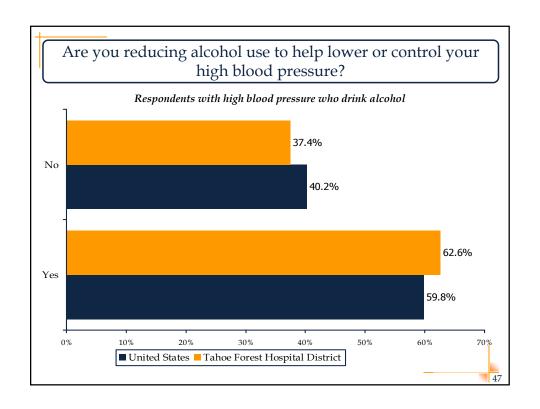


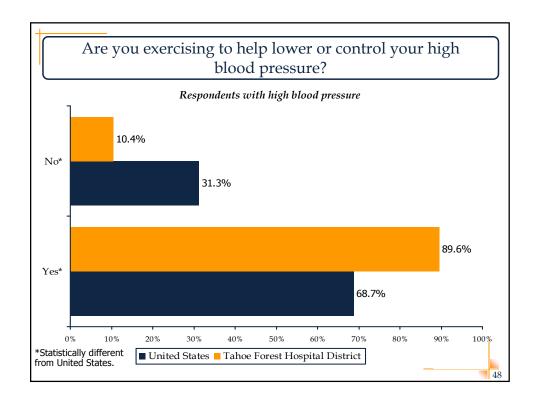
Actions to Control High Blood Pressure







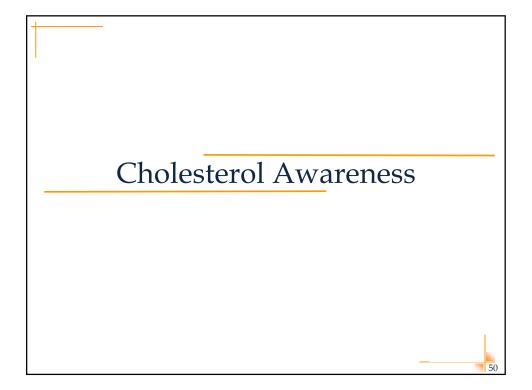






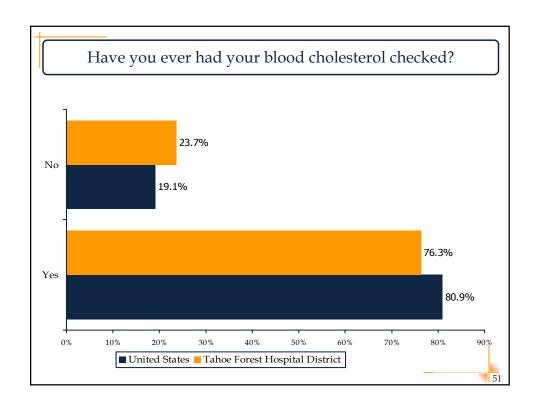


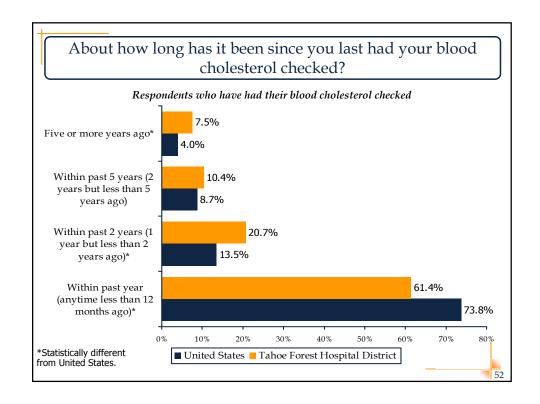
Statistically Significant Differences by Race and Gender **Actions to Control High Blood Pressure** There are no statistically significant differences between race or gender.**





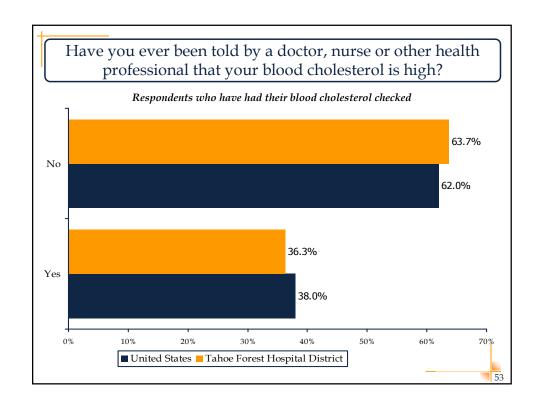


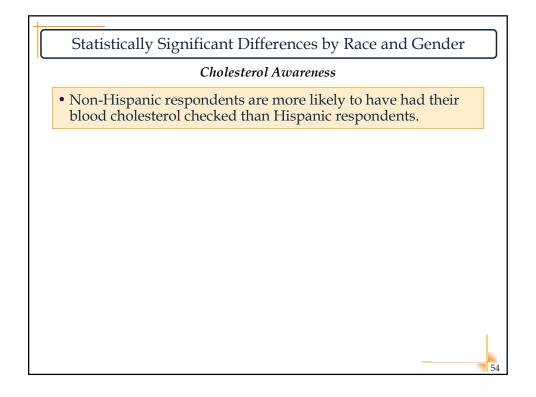






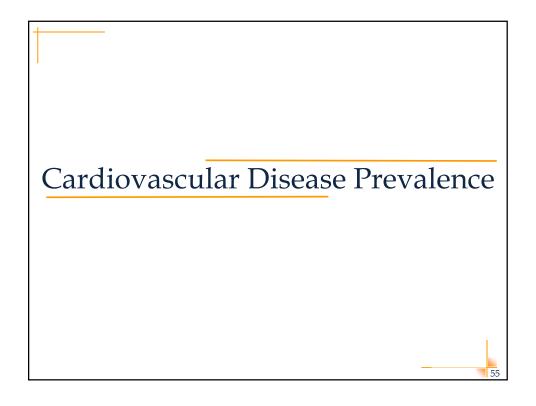


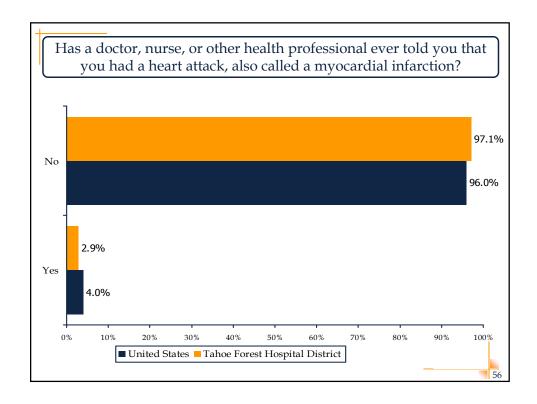






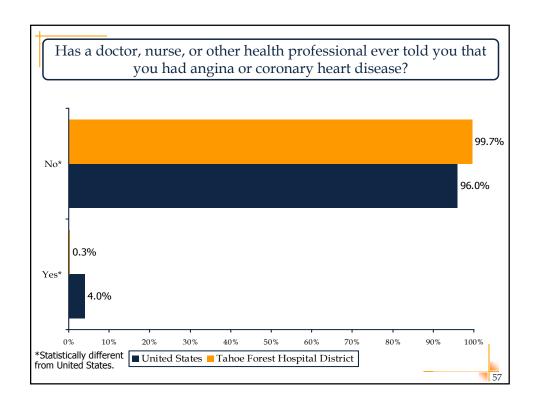


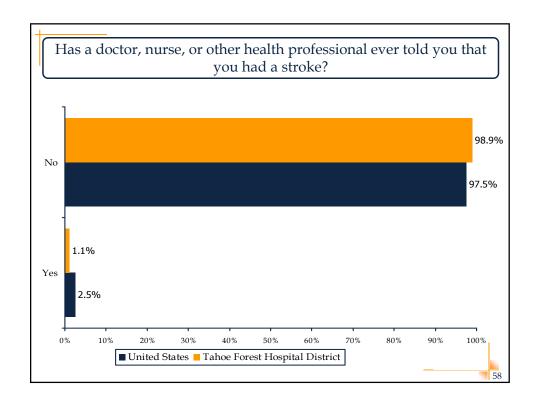








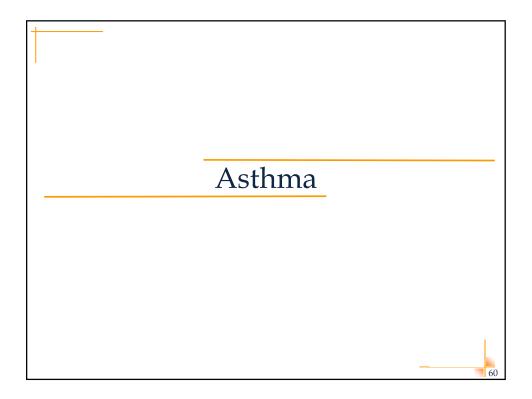






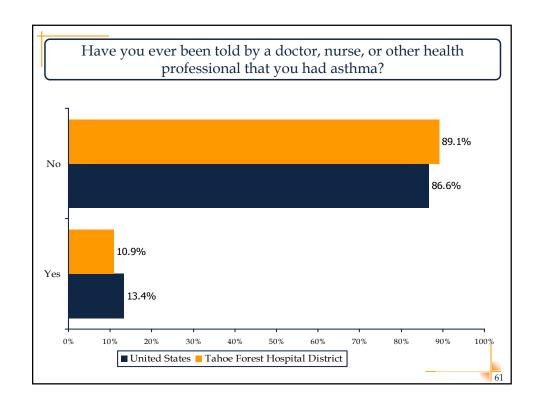


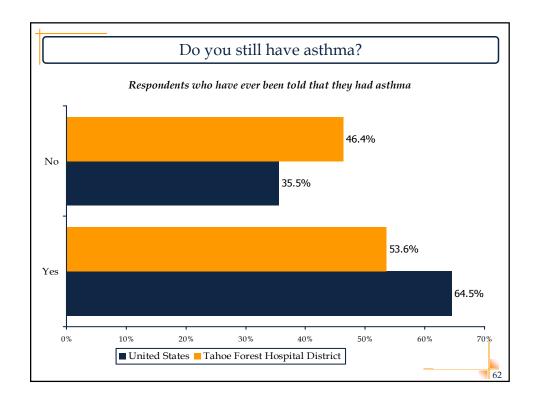
Statistically Significant Differences by Race and Gender Cardiovascular Disease Prevalence Male respondents are more likely to have had a heart attack than female respondents.







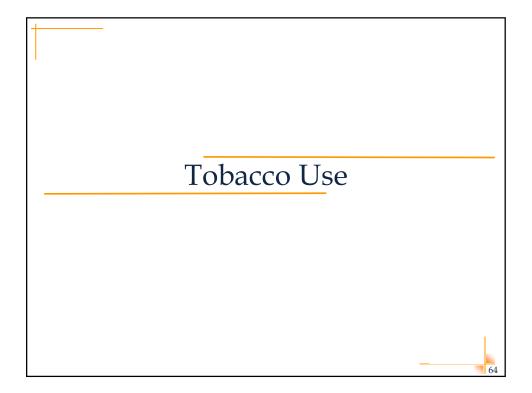






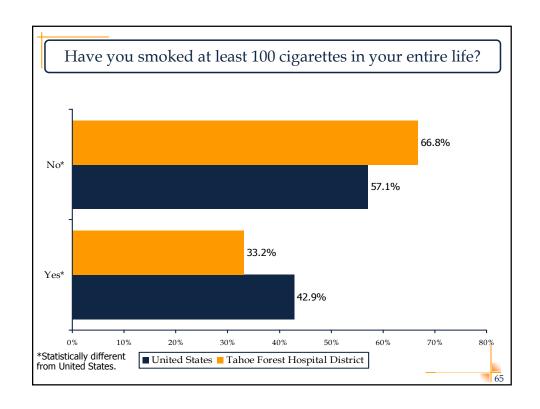


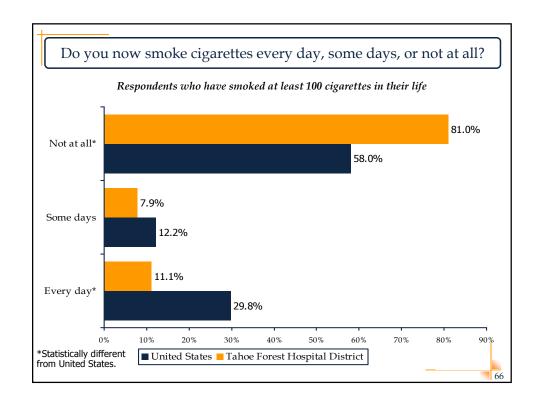
Statistically Significant Differences by Race and Gender **Asthma* • There are no statistically significant differences between race or gender. **There are no statistically significant differences between race or gender.**





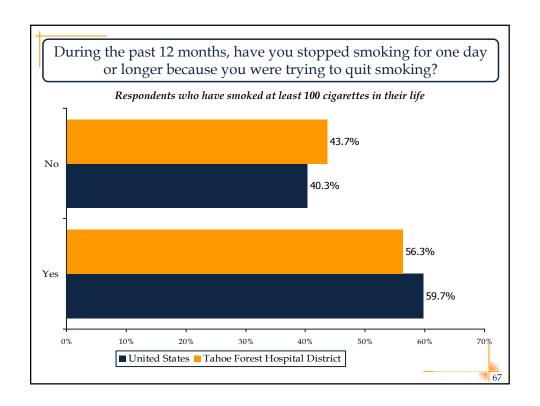


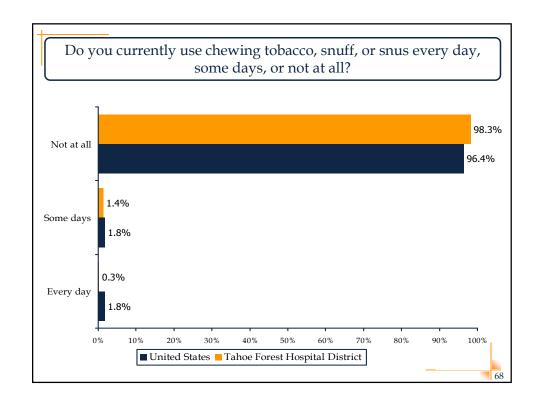
















Tobacco Use

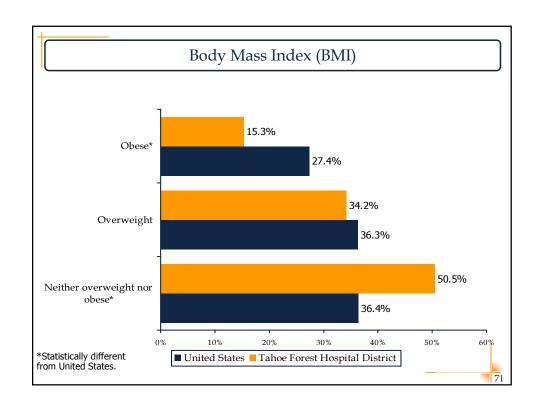
- Non-Hispanic respondents are more likely to have smoked at least 100 cigarettes in their lifetime than Hispanic respondents.
- Non-Hispanic respondents are more likely to currently not smoke cigarettes at all while Hispanic respondents are more likely to smoke cigarettes some days.

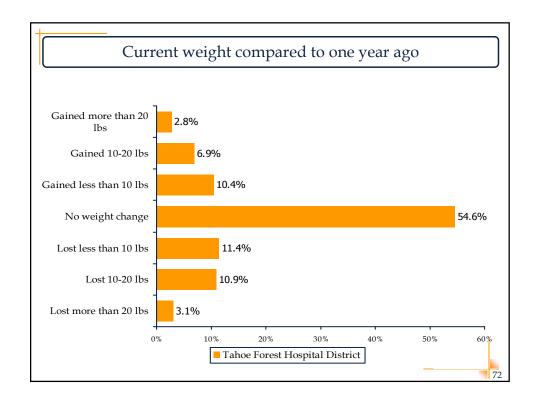
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Weight Control



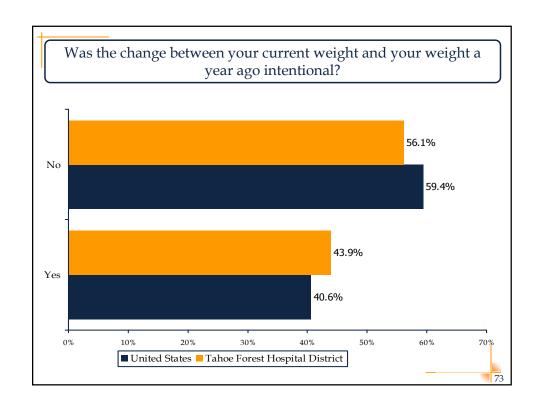


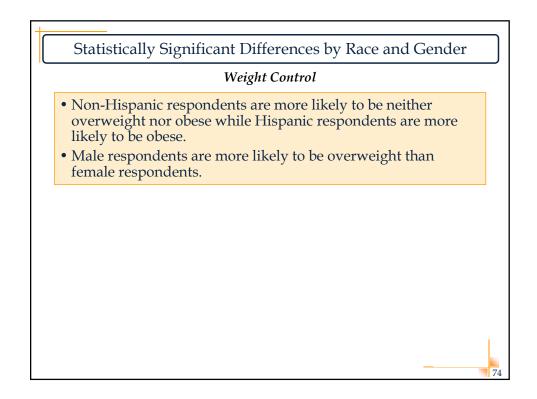






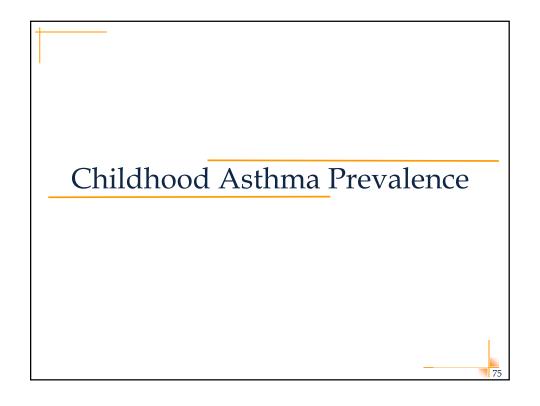


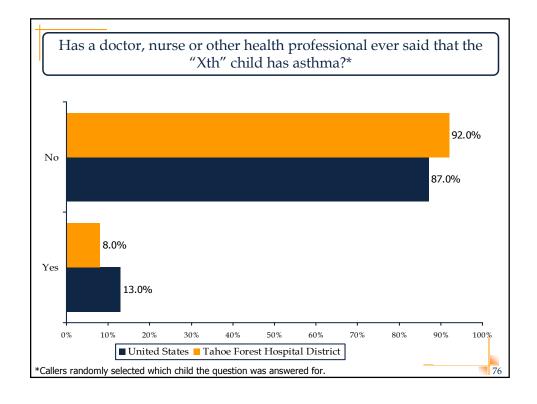






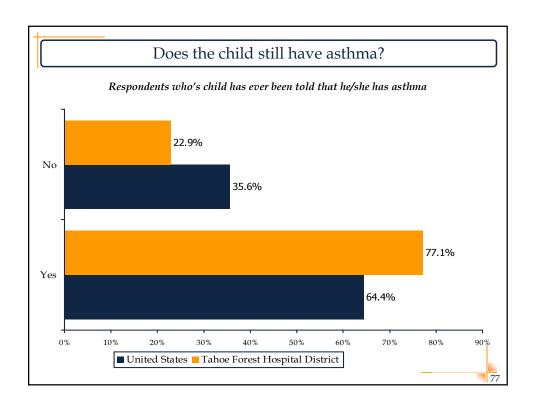


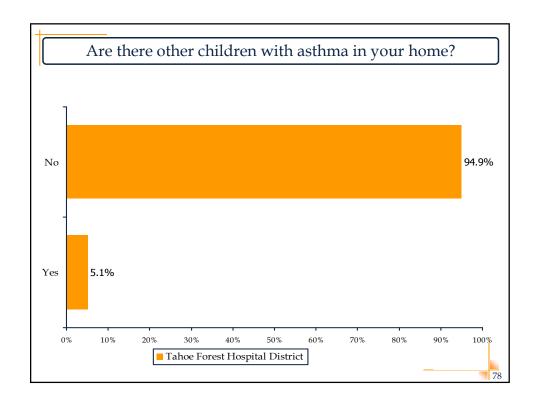








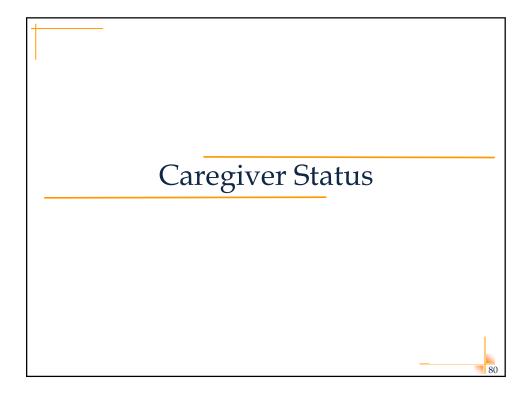






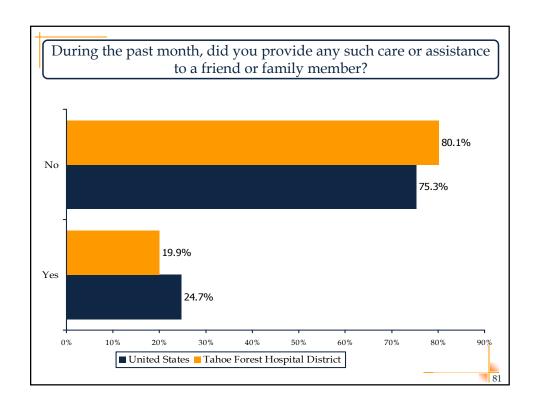


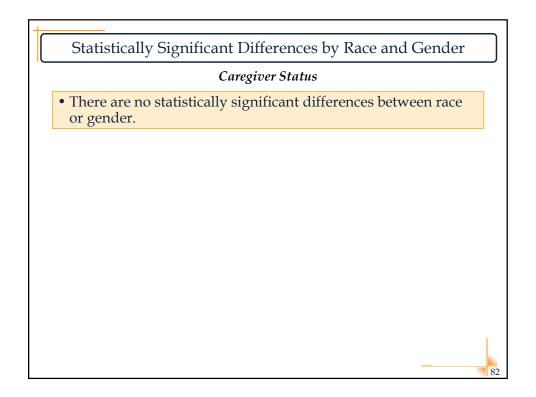
Statistically Significant Differences by Race and Gender Childhood Asthma Prevalence Race and gender demographics were not collected for the child responses are based on. As a result, statistical testing cannot be performed.







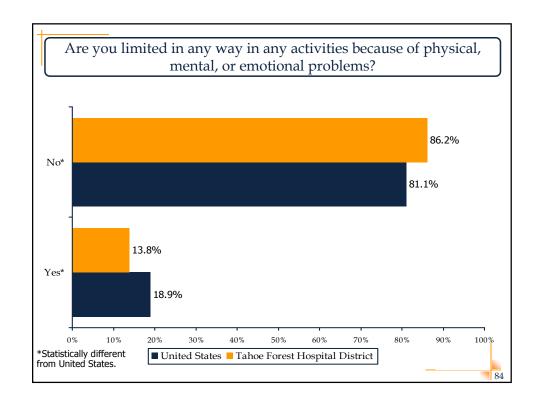






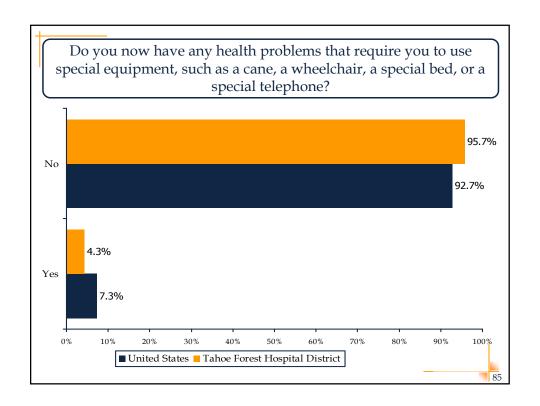


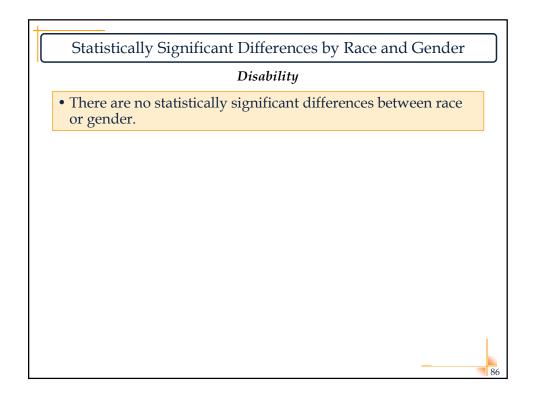






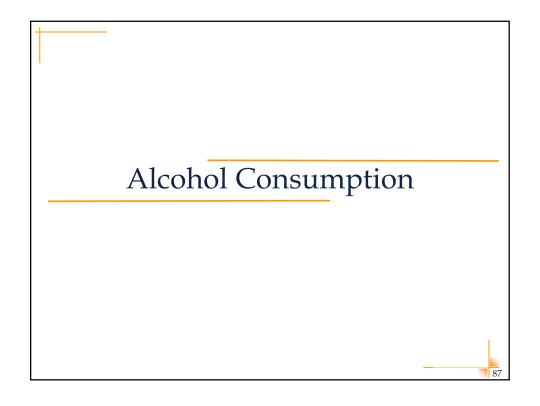


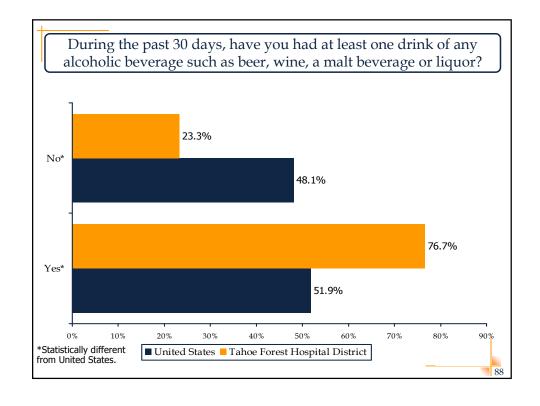






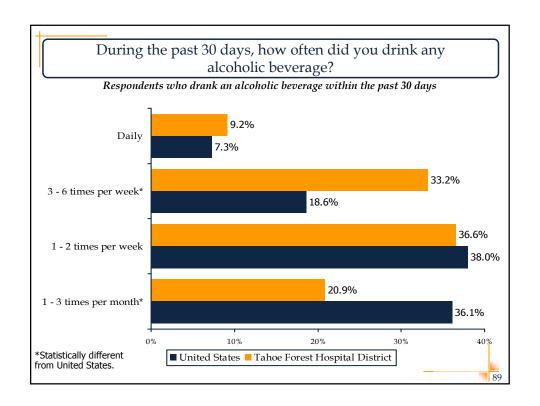


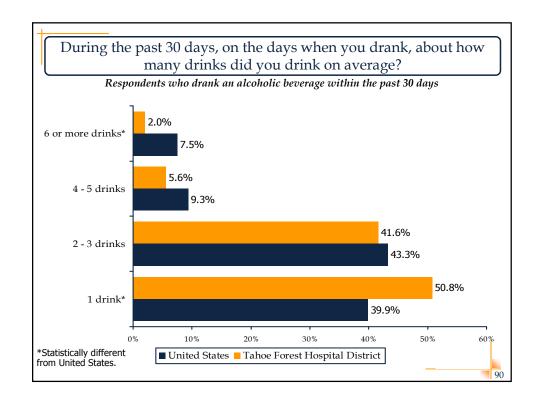






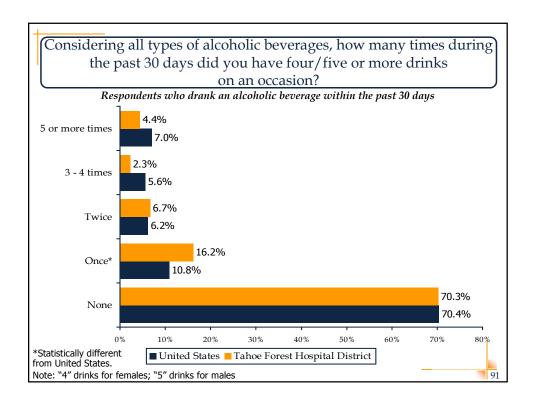










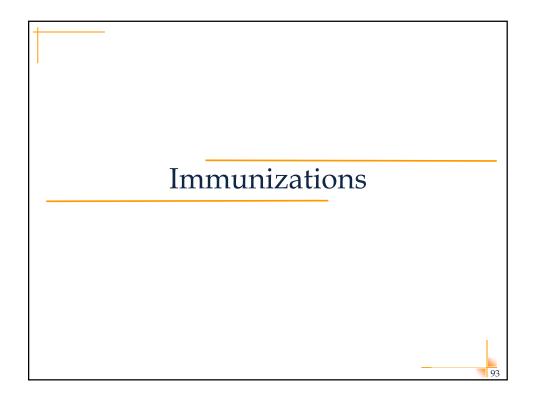


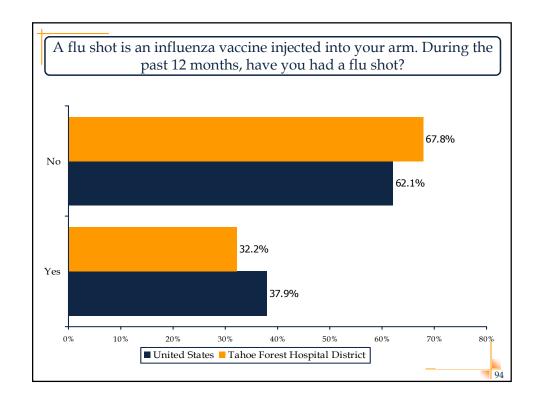
Alcohol Consumption

- Non-Hispanic respondents are more likely to have had at least one drink in the past 30 days than Hispanic respondents.
- Non-Hispanic respondents are more likely to drink an alcoholic beverage more days per week than Hispanic respondents.
- Male respondents are more likely to have had at least one alcoholic beverage in the past 30 days than female respondents.
- Female respondents are more likely to drink only 1 drink at a time when they do drink, while male respondents are more likely to have 4 5 drinks.
- Male respondents are more likely than female respondents to have had 5 or more drinks on an occasion within the past 30 days.



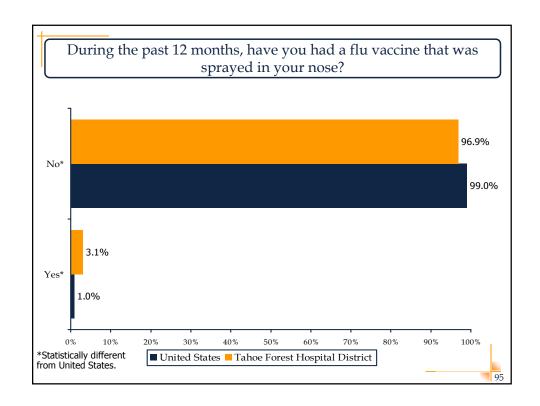


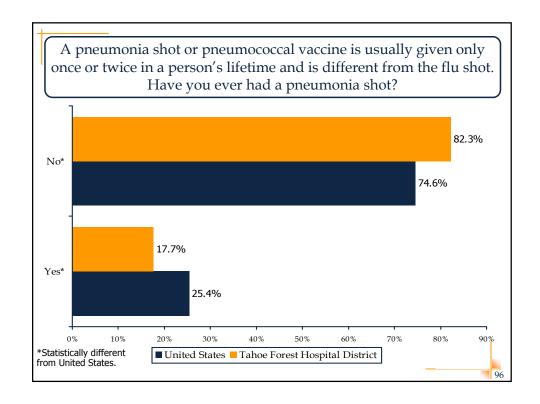






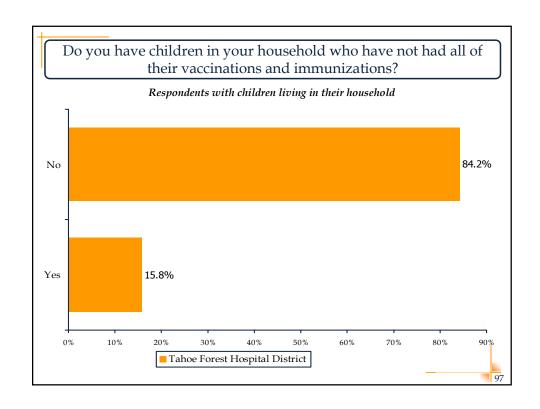


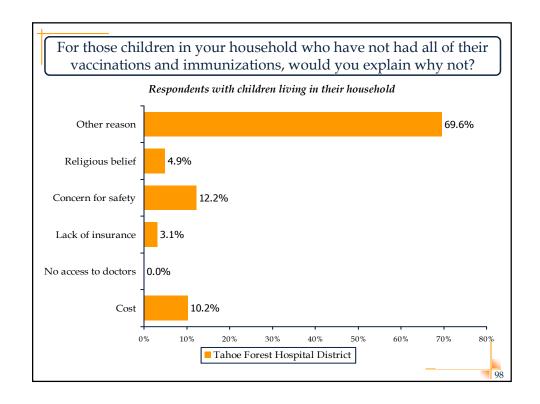
















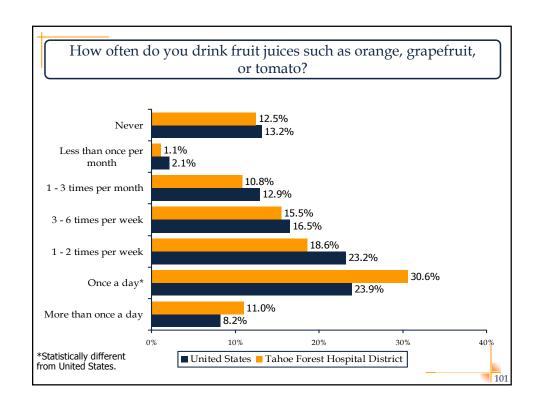
Immunizations

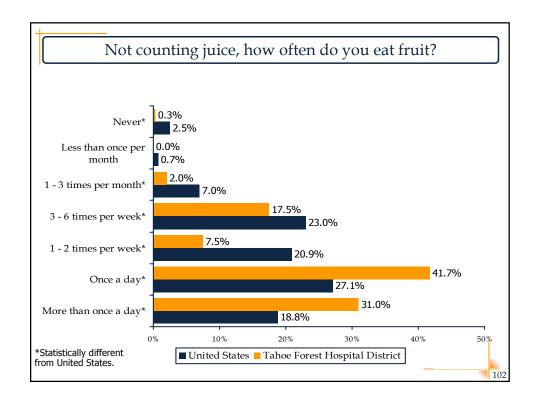
- Non-Hispanic respondents are more likely to have had a pneumonia shot than Hispanic respondents.
- Female respondents are more likely to have had either a flu shot or flu vaccine spray within the past year than male respondents.

Fruits and Vegetables



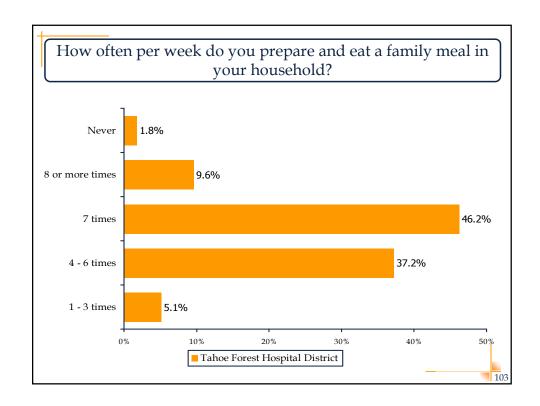


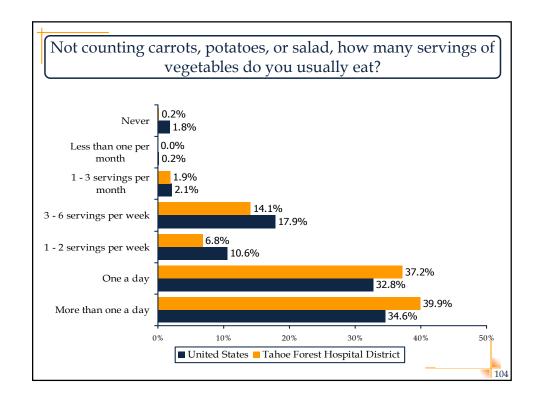
















Fruits and Vegetables

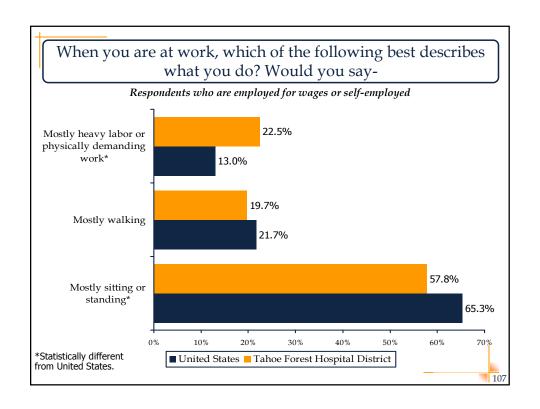
- Hispanic respondents are more likely to drink fruit juices and eat fruit more than non-Hispanic respondents.
- Hispanic respondents are more likely to eat a family meal (8 or more times a week) than non-Hispanic respondents.
- Female respondents are more likely to never drink fruit juices than male respondents.
- Female respondents are more likely to eat fruit more than once a day than male respondents.

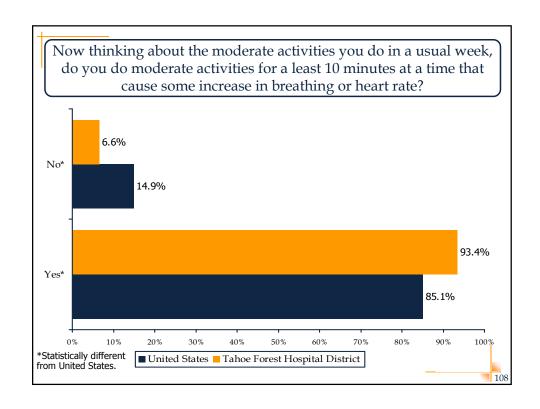
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Physical Activity



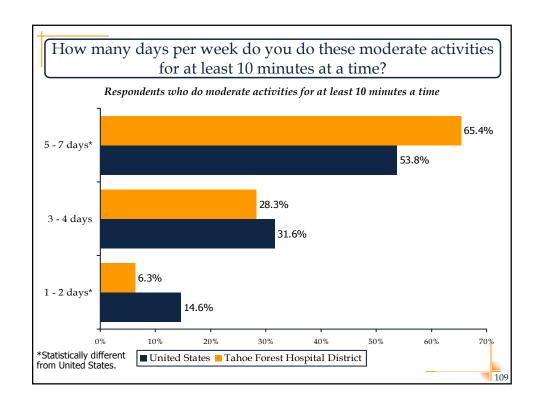


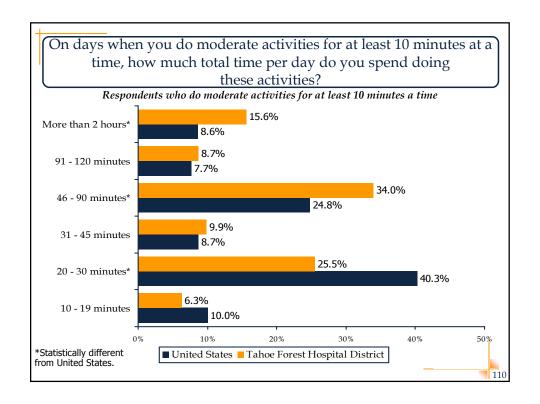
















Physical Activity

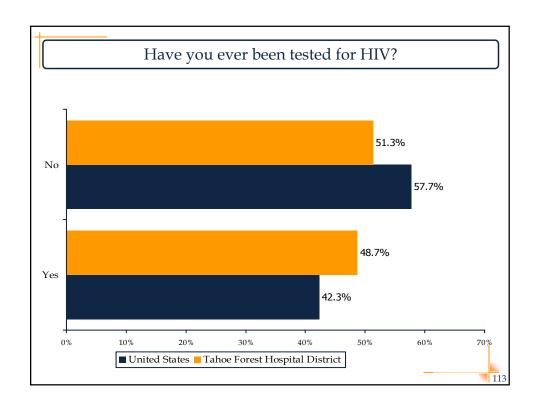
- Non-Hispanic respondents are more likely be mostly sitting or standing at work while Hispanic respondents are more likely to be mostly walking.
- Non-Hispanic respondents are more likely to do moderate activities outside of work for at least 10 minutes at a time in a usual week than Hispanic respondents.
- Hispanic respondents who do moderate activities outside of work are more likely to spend 10 30 minutes than non-Hispanic respondents.
- Male respondents are more likely to do moderate activities outside of work (for more than 2 hours at a time) than female respondents.

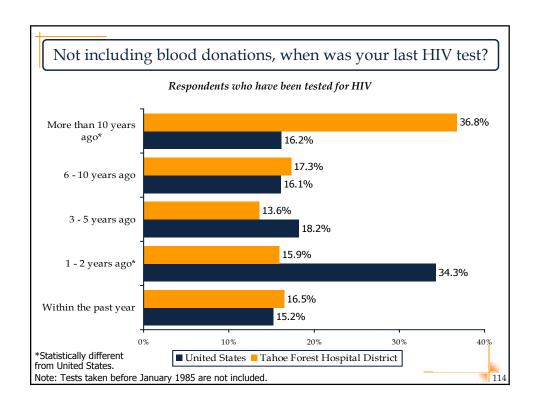
HIV/AIDS

Only asked of respondents under 65 years of age



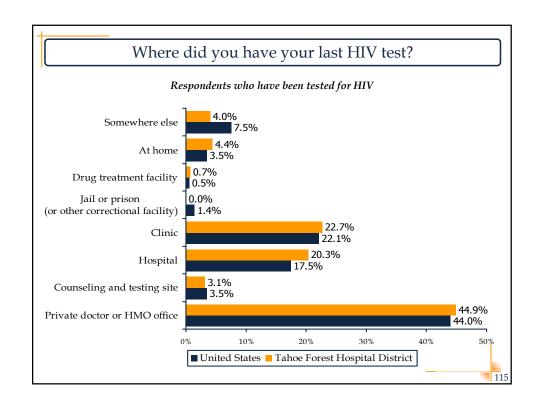


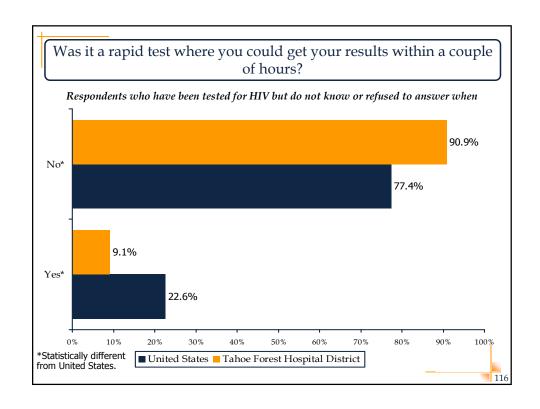






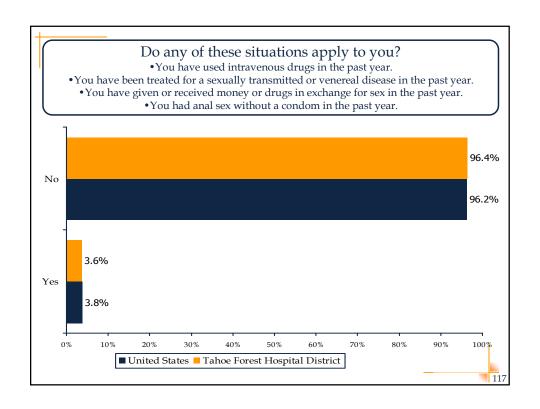


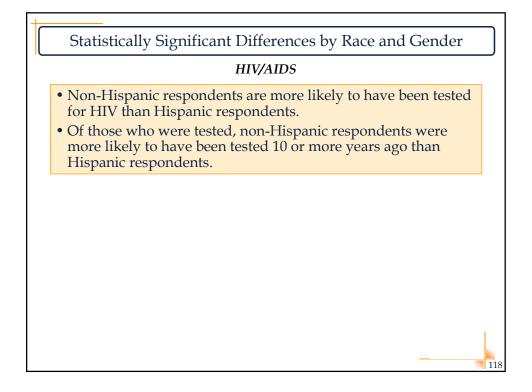








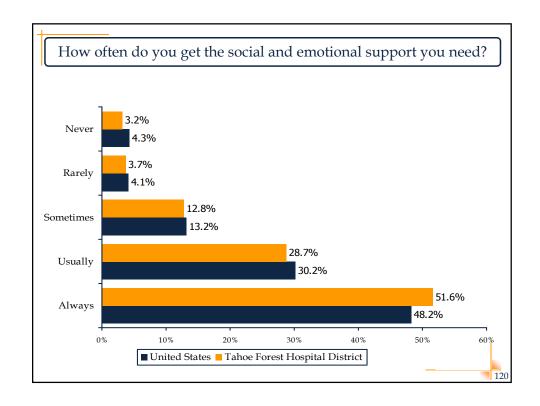






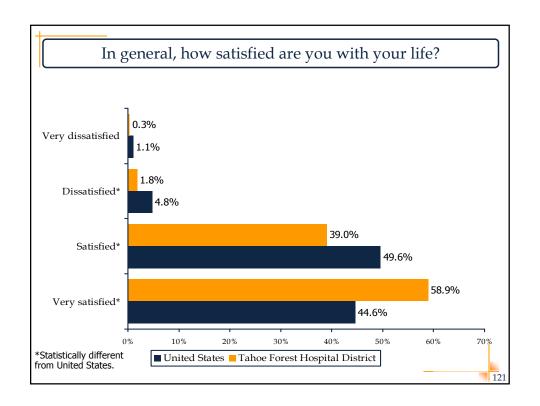


Emotional Support and Life Satisfaction







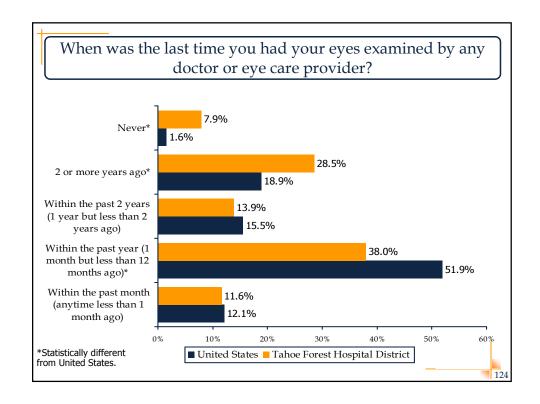


Statistically Significant Differences by Race and Gender *Emotional Support and Life Satisfaction*

- Hispanic respondents are less likely to get the social and emotional support they need than non-Hispanic respondents.
- Non-Hispanic respondents are more likely to be very satisfied with their lives than Hispanic respondents.
- Male respondents are more likely to always get the social and emotional support they need than females respondents.

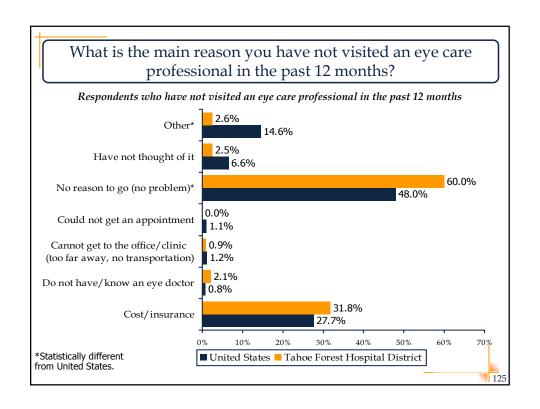


Visual Impairment and Access to Eye Care









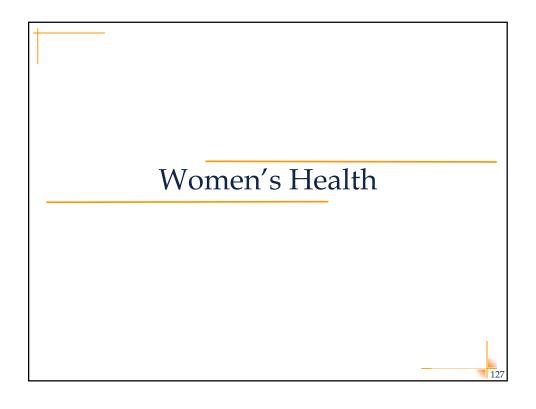
Visual Impairment and Access to Eye Care

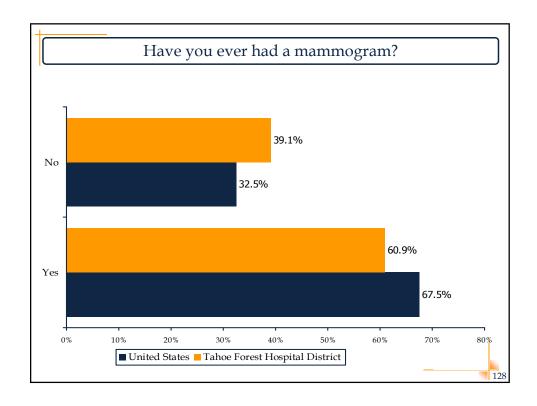
- Non-Hispanic respondents are more likely to have had their eyes examined by a doctor or eye care provider within the past year while Hispanic respondents are more likely to have never had their eyes examined.
- Hispanic respondents are more likely to have not visited an eye care professional in the past year due to the cost or lack of insurance than non-Hispanic respondents.
- Female respondents are more likely to have not visited an eye care professional in the past year due to the cost or lack of insurance than male respondents.



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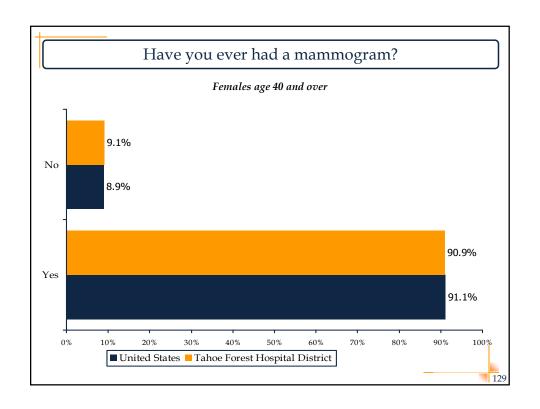


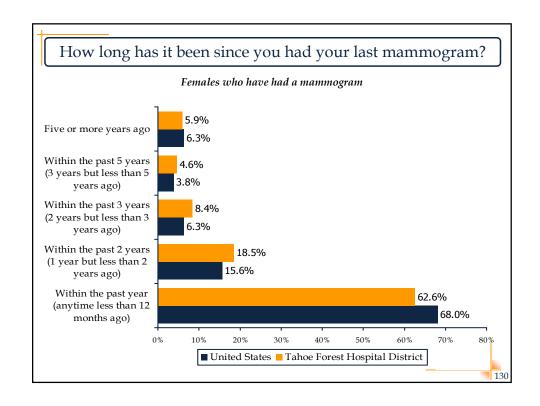






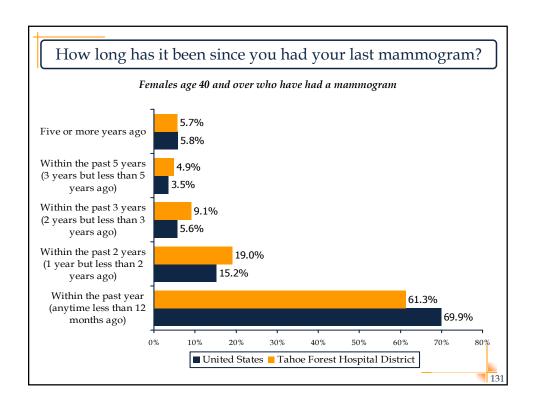


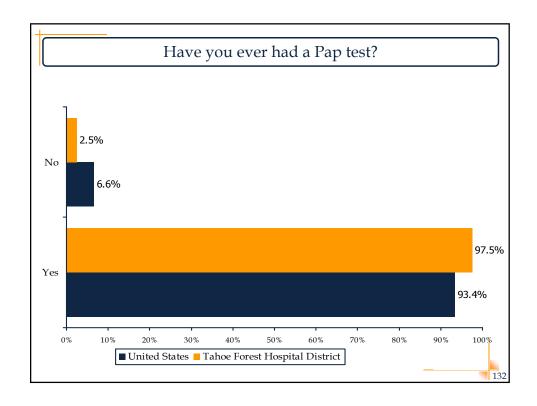






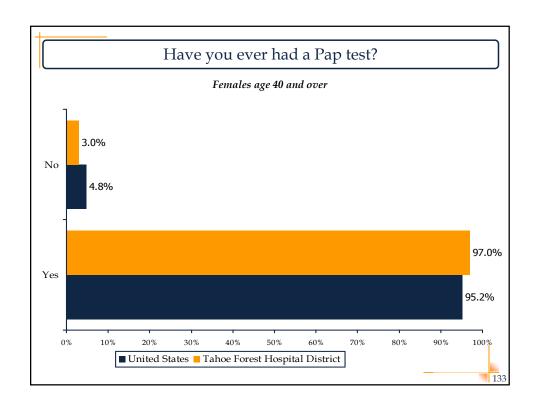


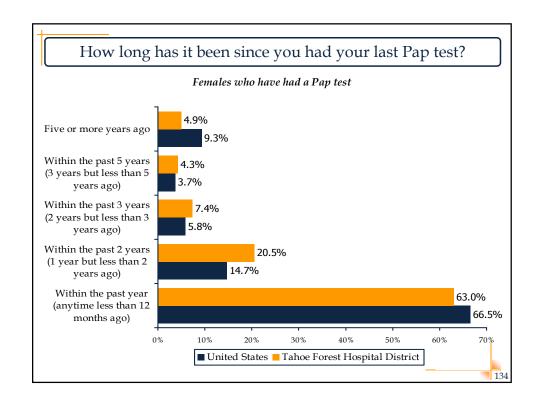






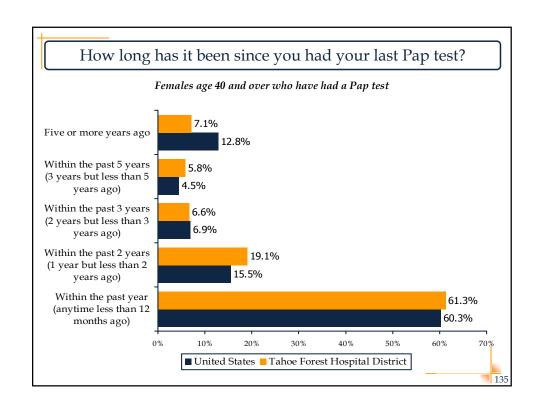


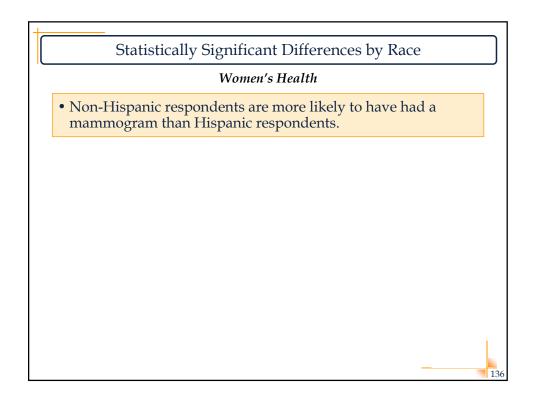






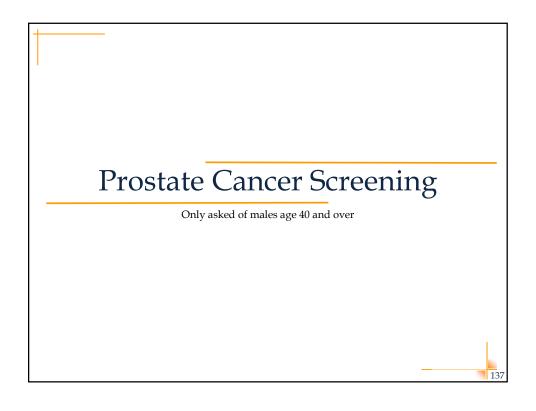


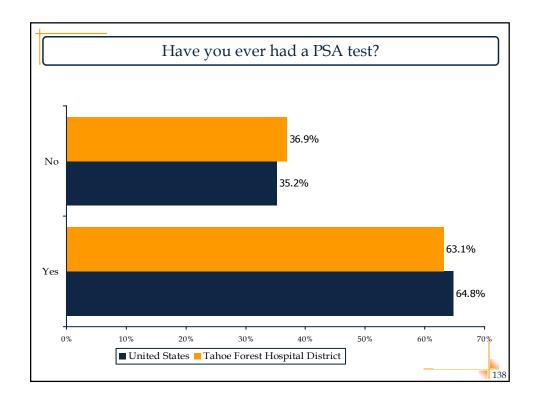






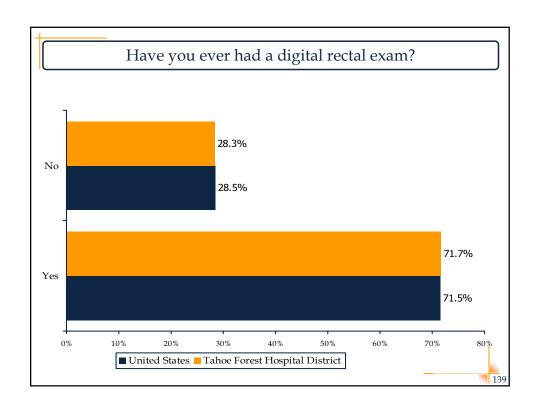


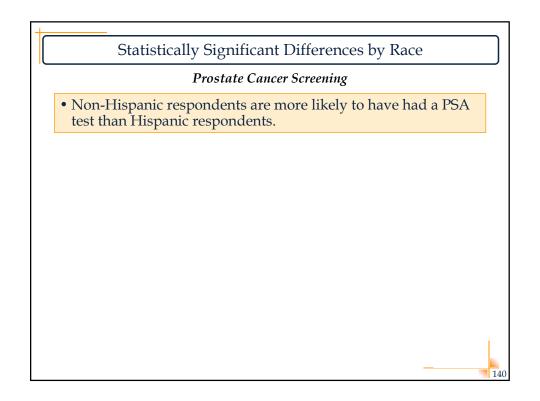






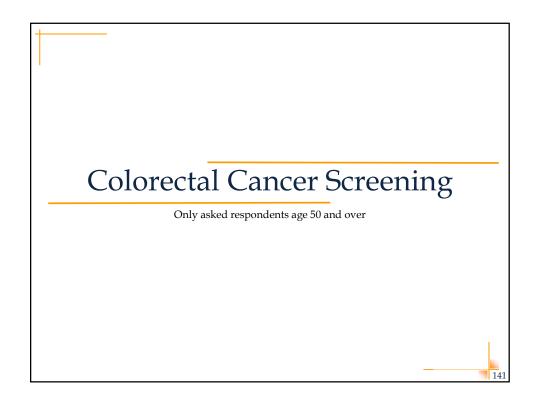


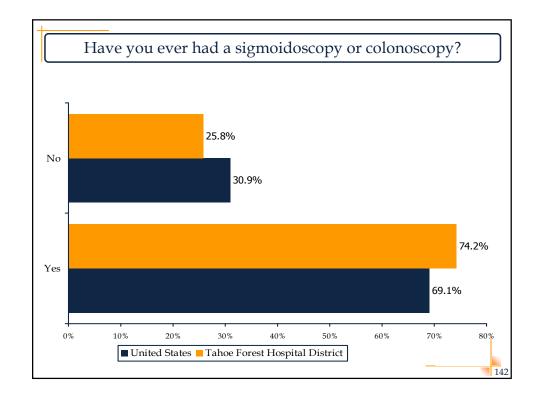






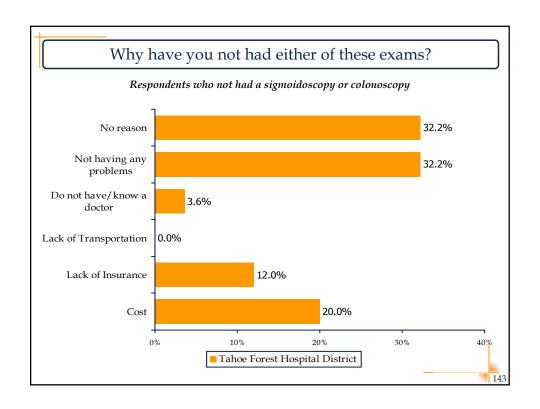


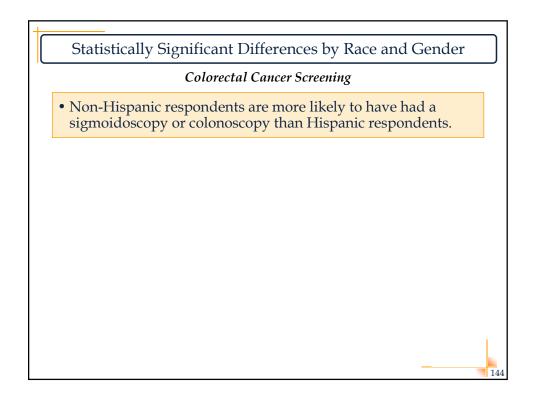








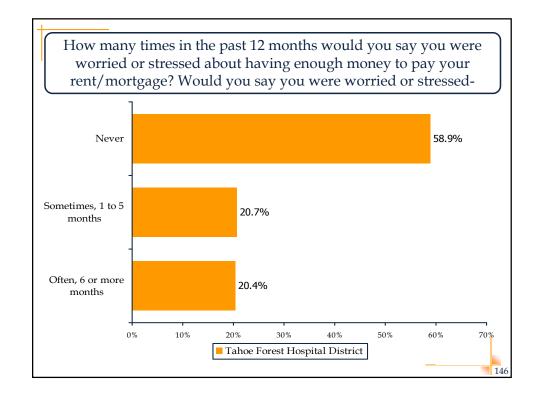






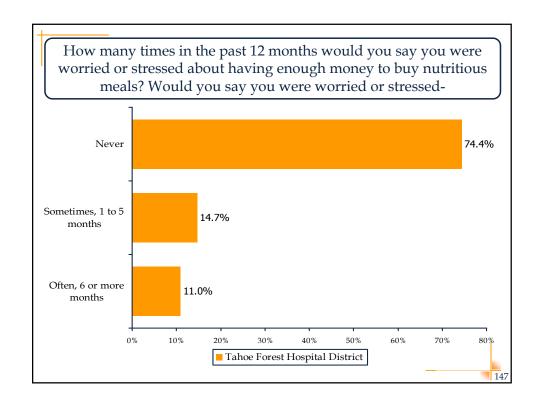


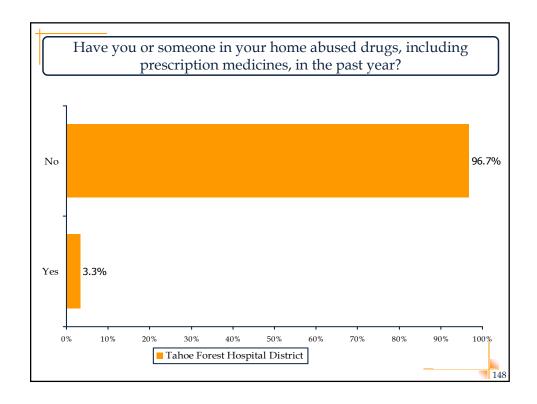






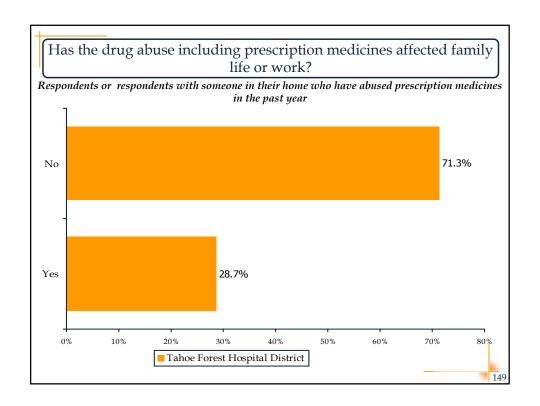


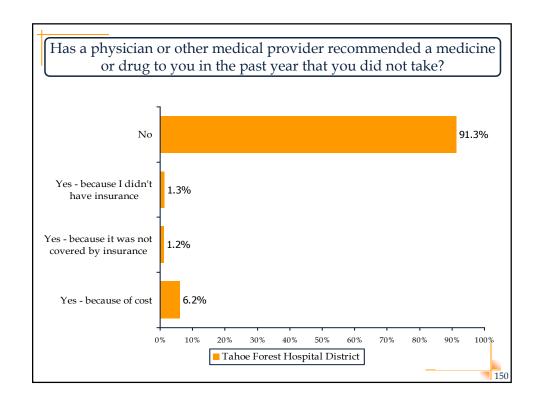






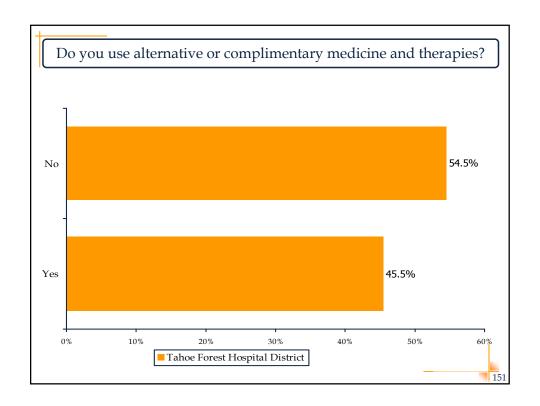


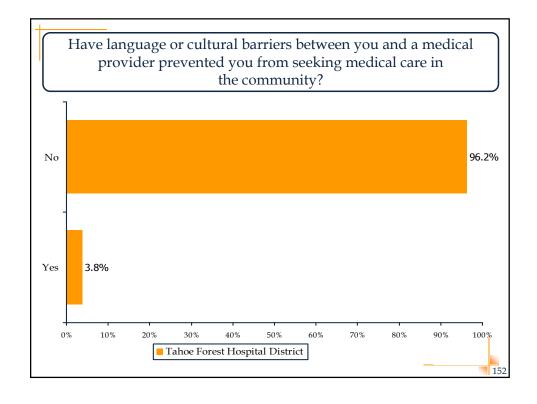






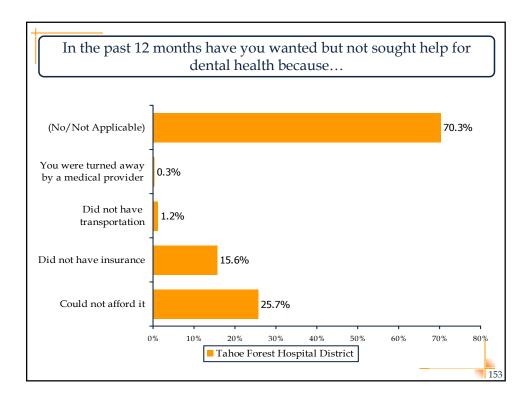












Statistically Significant Differences by Race and Gender

Social Context

- Hispanic respondents are more likely to have been worried or stressed about having enough money for rent/mortgage and nutritious meals in the past 12 months than non-Hispanic respondents.
- Non-Hispanic respondents are more likely to use alternative or complimentary medicine and therapy than Hispanic respondents.
- Hispanic respondents report having language/cultural barriers preventing them from seeking medical care in the community.
- Hispanic respondents are more likely than non-Hispanic respondents to have wanted to seek help for dental health in the past 12 months but were unable to because they could not afford it or did not have insurance.
- Female respondents are more likely to have been unable to seek help for dental health because they could not afford it than male respondents.



