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## **Oral health and health care among US South Asians**

Kavita P. Ahluwalia, DDS, MPH  
K.P. Das, BDS, MPH  
Division of Community Health, SDOS  
Columbia University

## **Why is oral health important?**

- Oral diseases impact quality of life
    - Eating/taste/chewing, kissing, smiling, esthetics, talking, pain (depression)
  - Oral diseases are increasingly being associated with systemic diseases
    - Diabetes, Cardiovascular diseases, CVD, osteoporosis, pre-term birth
  - Some conditions, (oral cancer and untreated infections), have high morbidity and mortality
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- However, I would like to also offer the opinion, that regardless of relationships with systemic diseases, oral health in and of itself, plays an important role in general health and well-being, and should be pursued for its own sake.
  - Oral diseases can have a negative impact on QoL, ability to eat, talk, smile, social interactions, facial esthetics, and they can be painful. In some cases, like oral cancer and untreated infections, they can be fatal.
  - It is important to remember that most dental diseases can easily managed by good daily care, and regular professional preventive visits. These are easy conditions to manage, and it is up to us to make it happen.

### **The burden of oral diseases (US)**

- Among the most common chronic diseases in the US
    - Dental caries is the most common disease of childhood
    - Most adults have periodontal diseases
    - 30% of adults over 65 are edentulous
    - The incidence of oral cancer is higher than that of cervical cancer
    - Toothache is the most common source of oral-facial pain among adults
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- In the US, the burden of oral disease is high.
  - Dental caries is the most common disease of childhood, and periodontal diseases are ubiquitous.
  - An interesting fact is that oral cancer has a higher incidence than cervical cancer, yet although there are practice guidelines around regular cervical exams, there are no guidelines around oral cancer early detection, which as a woman, I can guarantee is much less invasive, painful, or embarrassing.

## **Economic impact (US)**

Although morbidity from most oral diseases can be contained by good daily care and regular dental visits, more than **51 million school hours and 164 million work hours** are lost each year due to dental illnesses.

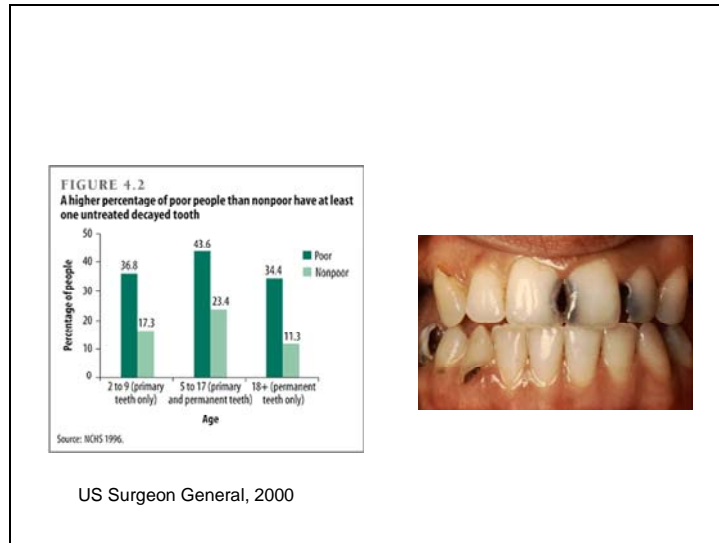
This estimate does not include the sequelae of oral diseases and their impact on systemic health

The economic impact of oral diseases is high, and may be an underestimate.

### **Oral health and healthcare disparities in the US**

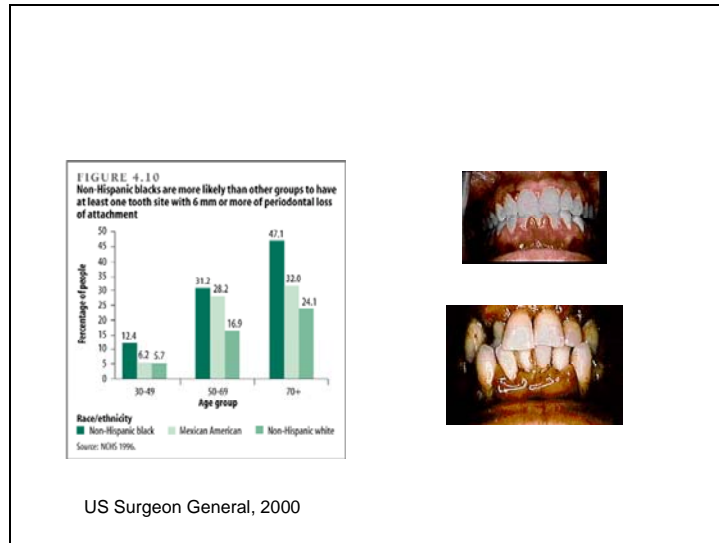
- Primarily due to fluorides and good preventive care, the prevalence of severe, untreated oral diseases in the US is relatively low.
  - However, there remain grave disparities by race/ethnicity and SES in oral health and healthcare in the US
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- Although we have done a good job of preventing and managing oral diseases, there remains a segment of the US population that suffers disproportionately from oral diseases and is unable to access care.
  - This is mostly along SES lines

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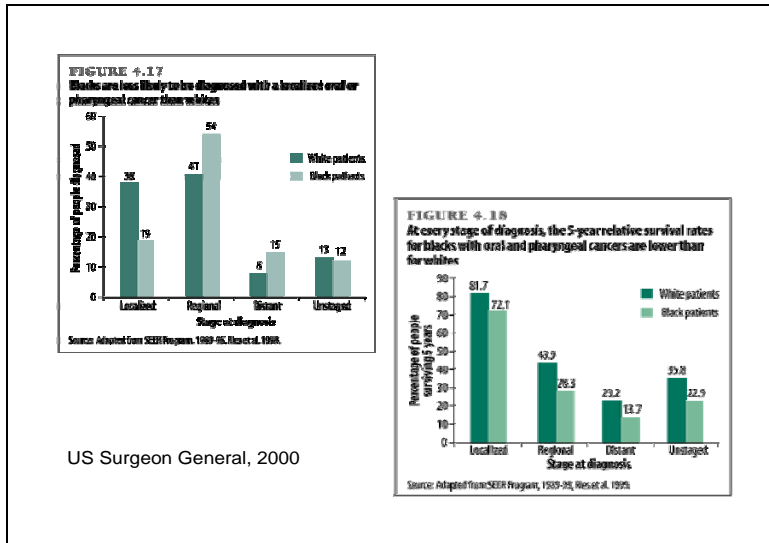
Poor people are more likely to have untreated dental decay

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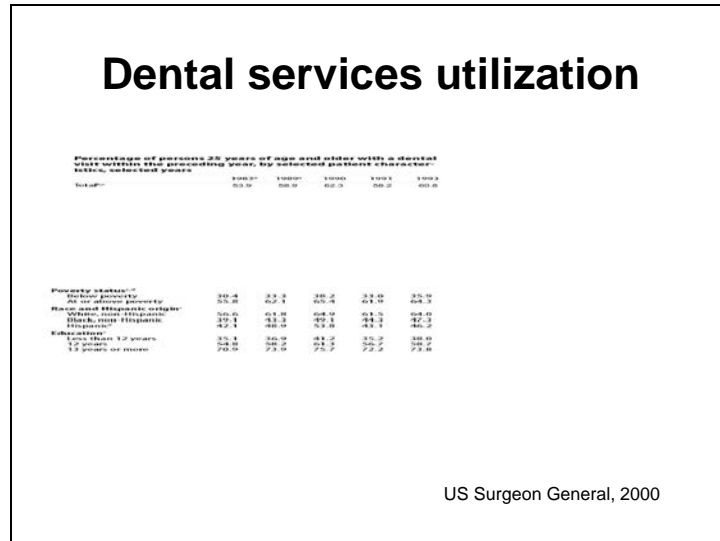


African Americans are more likely to have severe periodontal diseases

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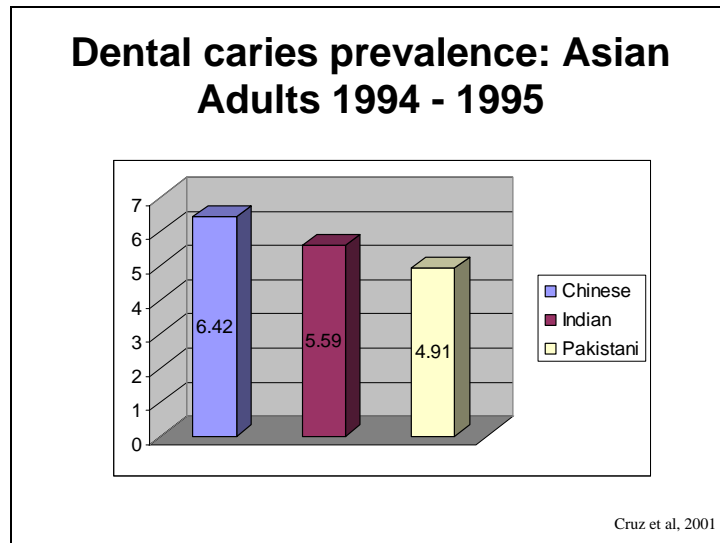
African American's with oral cancer are diagnosed later than whites, and outcomes are poorer. It is thought that this is primarily an access issue.



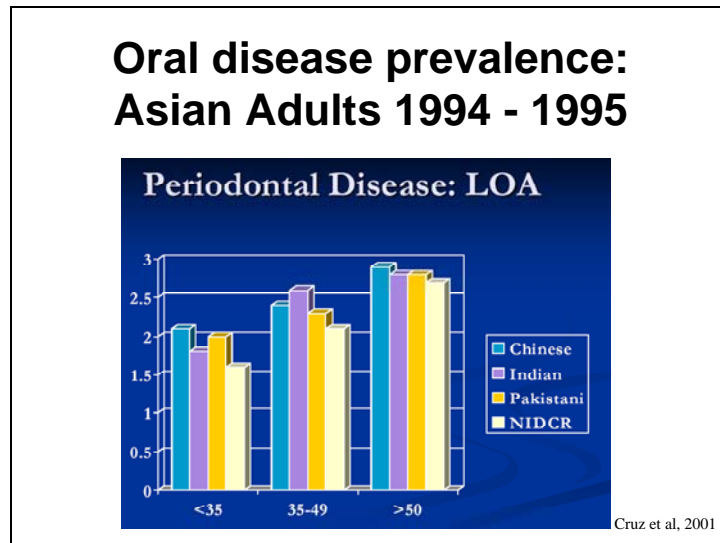
- When you look at utilization, there are some clear trends
  - As income increases, utilization increases
  - As education increases, utilization increases. Hold this thought, because we will revisit it when we talk about S. Asians.

## **What about South Asians?**

- You're probably wondering what all this has to do with South Asians. I just wanted to paint the national picture, so you can see where we fit in.
- For starters there aren't many data on South Asians in the US. Most of the studies are small regional studies. There is only one study that is national in scope.
- Even the Surgeon Generals Report on Oral Health, which we are all so very proud of, does not explicitly mention South Asians.
- This conference is an important first step in putting us on the map.
- I have put together some information the best I can, and have made some inferences that are not based in the best science and evidence. However they will give us a point to start from and will help us think about where to go.



- First what is the prevalence of disease?
- A small NYC study done by Cruz and colleagues at NYU suggests that there is a relatively high prevalence of dental caries in South Asian Adults



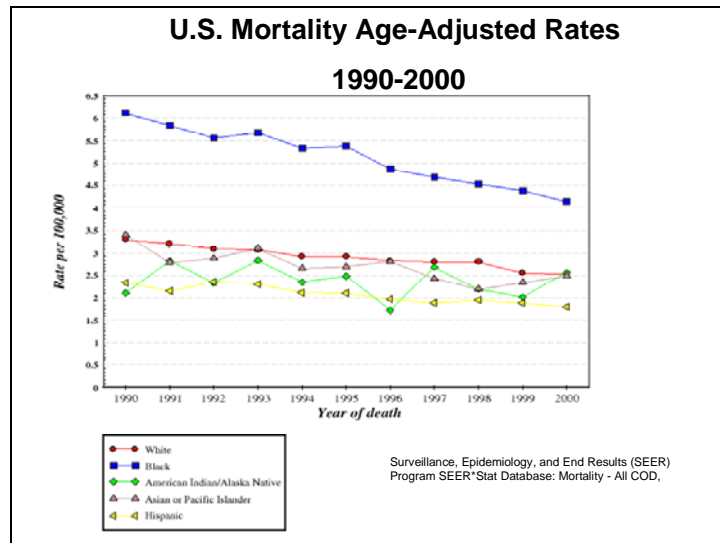
- Looking at Periodontal diseases, South Asians have higher prevalence than national (NIDCR) estimates

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**Cancer Incidence by Primary Site: 2000, Males and Females, Age-adjusted (Table 1.7) - 1.1** (National Center for Chronic Disease Prevention and Health Promotion, CDC)

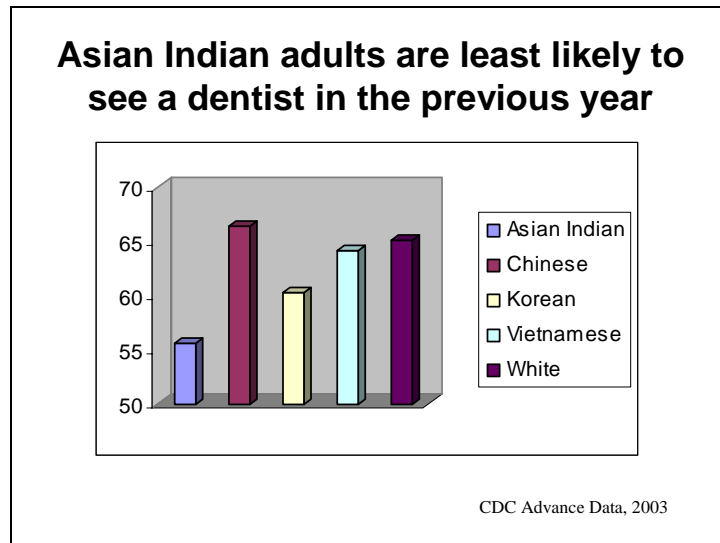
Primary Site	All Races	White	Black	Asian/Pacific Islander
<b>All Sites</b>	464.2 (463.3-465.1)	462.7 (461.8-463.6)	464.0 (461.1-467.0)	398.2 (294.2-302.3)
<b>Oral Cavity and Pharynx</b>	10.4 (10.3-10.6)	10.3 (10.1-10.4)	10.8 (10.3-11.2)	8.3 (7.6-9.0)
<b>Lip</b>	0.8 (0.8-0.9)	0.9 (0.9-0.9)	0.1 (0.1-0.1)	—
<b>Tongue</b>	2.6 (2.5-2.6)	2.6 (2.5-2.7)	2.1 (1.9-2.3)	1.6 (1.4-2.0)
<b>Salivary Gland</b>	1.2 (1.1-1.2)	1.2 (1.1-1.2)	0.7 (0.6-0.9)	0.9 (0.7-1.2)
<b>Floor of Mouth</b>	0.8 (0.7-0.8)	0.7 (0.7-0.8)	1.1 (0.9-1.2)	0.4 (0.2-0.6)
<b>Gum and Other Mouth</b>	1.6 (1.6-1.7)	1.6 (1.5-1.6)	1.8 (1.6-2.0)	1.2 (0.9-1.5)
<b>Nasopharynx</b>	0.6 (0.5-0.6)	0.4 (0.4-0.5)	0.7 (0.6-0.8)	2.8 (2.5-3.2)
<b>Tonsil</b>	1.4 (1.3-1.4)	1.4 (1.3-1.4)	1.5 (1.3-1.6)	0.6 (0.4-0.8)
<b>Oropharynx</b>	0.4 (0.4-0.4)	0.4 (0.3-0.4)	0.7 (0.6-0.8)	—
<b>Hypopharynx</b>	0.8 (0.8-0.9)	0.8 (0.7-0.8)	1.4 (1.3-1.6)	0.5 (0.4-0.7)
<b>Other Oral Cavity and Pharynx</b>	0.4 (0.3-0.4)	0.3 (0.3-0.4)	0.8 (0.5-0.7)	—

- WE don't have oral cancer rates by South Asian subgroup at a national level.

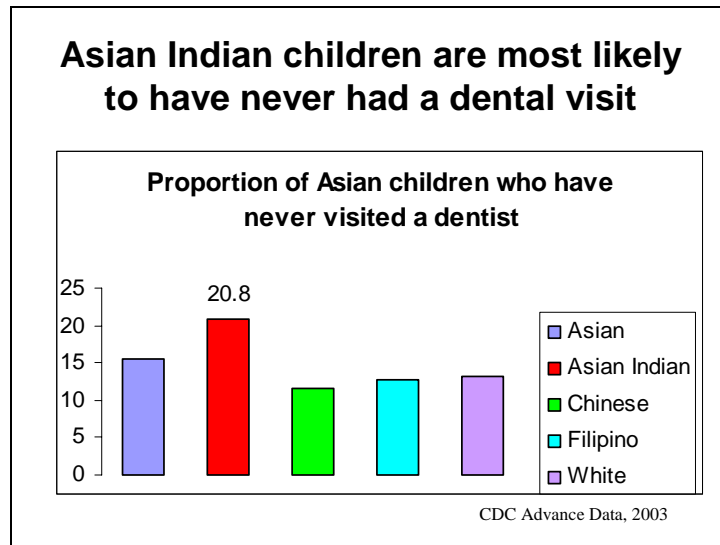


This slide is on oral cancer mortality.

Decreasing among most groups, but increasing in Asians



- These data were taken from a study that was national in scope and looked at almost 800 Indians, utilizing the NHIS data.
- The startling thing is that Asian Indians were least likely to have seen a dentist in the past year. Only 56.6% reported that they had seen a dentist.



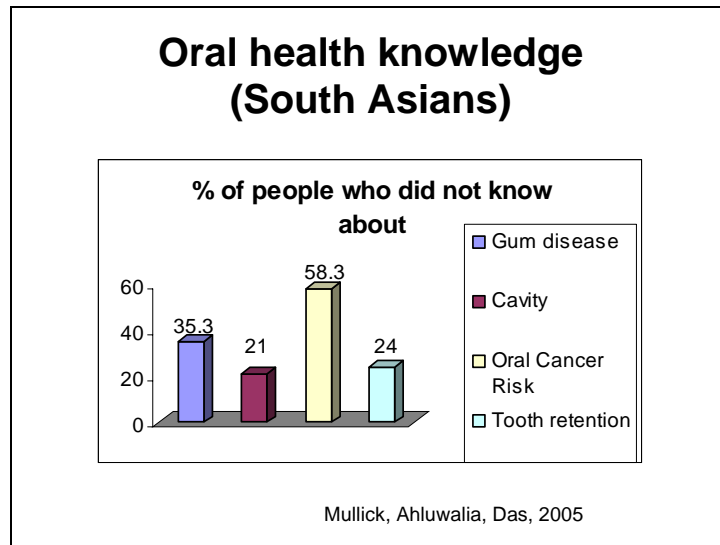
- The same data indicate that close to 1 in 5 Indian children between the ages of 2 and 17 has NEVER seen a dentist

### **Dental services utilization among South Asians**

- Preliminary data (ongoing study):
  - 15% of adults have never seen a dentist
  - 27% see a dentist only in an emergency
  - 60% said they do not see a dentist because they don't think they need to

Mullick, Ahluwalia, Das, 2005

- Some data that we are collecting in NY and NJ suggests that 15% of South Asians have never seen a dentist and more than half don't think they need dental care
- This is an important contrast with national trends in the same age group, in which cost is the most common reason for not seeking care.



- Looking at dental knowledge –
- 35% did not know what gum disease is, and close to 60% did not know that oral cancer is a big problem in South Asia

### **South Asians and oral health**

- Limited data suggest that dental disease prevalence is relatively high, oral health knowledge is low, and utilization of services is problematic

Conclusions from the data are that disease is prevalent, and knowledge and utilization of dental services is low.

- The question to ask is why, and what do we do about it?

## Predictors of oral health and healthcare

- **Age**
- **Gender**
- **Disease Prevalence**
  - Dentate/Edentulous
- **Access**
  - Insurance status
  - Language
- **Education**
- **Income**
- **Nativity**
- **Time in the US**
- **Knowledge/Opinions**
- **Health Behaviors**
- **Perceived Need and impact on Quality of Life**
  - Race/Ethnicity
  - Country of origin
  - Religion
  - Acculturation
  - Health Literacy

- These are some of the variables that social scientists and public healthers have put forward to explain the phenomena we have just explored
- As age increases, utilization decreases, primarily because Medicare does not pay for dental benefits
- Language can be an important barrier, but remember that the data I am presenting are pertinent to English speakers.

<b>Adult Dental Visits by selected characteristics, US 1997 - 2000</b>		
	<b>% Asian</b>	<b>% White</b>
<b>Total</b>	61.9 (1.05)	64.2 (0.26)
<b>Sex</b>		
male	59.3 (1.53)	61.1 (0.33)
female	64.4 (1.40)	67.2 (0.30)
<b>Education</b>		
< 12 <sup>th</sup> grade	52.3 (3.04)	39.6 (0.48)
High school graduate	56.5 (2.53)	60.0 (0.39)
Some college and above	67.6 (1.17)	75.2 (0.24)
<b>Poverty Status</b>		
Poor	47.0 (3.36)	44.9 (0.92)
Near Poor	47.0 (2.62)	45.7 (0.53)
Not Poor	70.1 (1.16)	71.3 (0.27)
<b>Years in the US</b>		
< 5 years	47.1 (2.39)	45.4 (1.60)
5 – 10 years	55.8 (2.71)	50.5 (1.52)
10 – 15 years	<b>60.4 (2.96)</b>	<b>50.3 (1.56)</b>
<b>Nativity</b>		
Born in the US	<b>74.3 (2.10)</b>	<b>65.2 (0.27)</b>
Foreign born	59.5 (1.26)	55.0 (0.64)
<b>Health Insurance</b>		
Not covered	38.8 (2.72)	39.0 (0.50)
Covered	66.9 (1.05)	68.2 (0.25)
Public Coverage	56.2 (2.64)	55.1 (0.42)

**% Adults who had visited a dentist in the past year    CDC Advance Data**

- Looking at Asians as a whole, we see the same trends as with national data –
  - As income and education go up, so does utilization
  - As time spent in the US increases, so does utilization, and US born adults are more likely to visit the dentist than those born outside the US.

**Dental services utilization and selected characteristics, 1997 - 2000**

Variable	Asian	Indian	Korean	White
% Adults never seen DDS	3.6	8.1	2.5	0.8
% Children never seen DDS	15.5	20.8	13.2	13.2
% 18 years or older	N/A	75.5	73.6	77.0
% Some college or more	N/A	78.2	67.9	52.7
<b>Poverty</b>	N/A			
% Poor		8.3	10.5	8.0
% Not poor		53.1	52.1	57.8
<b>Health Insurance</b>	N/A			
% No Insurance		18.8	26.5	13.1
% Public Insurance		5.1	10.7	19.7
% Foreign born	N/A	79.4	80.8	8.3

CDC Advance Data, 2003

- However, when you separate the data by country of origin – there are some important differences to note
- Comparison with Koreans – similar demographic background. Although South Asians were not poorer and had more education than Koreans and whites, their utilization of dental services was very low.

### Oral disease prevalence: Asians in NYC, 1994 - 1995

Variable	Chinese (n=254)	Indian (n=133)	Pakistani (n=84)
Mean age	49.78	46.53	40.43
Education % > 12 yrs	18	66	69
Dental Caries (DMFT)	6.42	5.59	4.91
Untreated Decay	24.39	29.65	33.50
Missing Teeth	2.86	2.47	0.82

Cruz et al, 2001

- Cruz's data indicate a similar pattern – untreated dental decay is highest among South Asians even though they have significantly more education.
- Something other than the usual suspects, education, income etc is going on.

## Oral health and “culture”

- In a study by Cruz et al, among Asians perceived oral health status was not associated with objective measures of disease prevalence
    - Ethnicity (country of origin) and income were associated with perceived oral health status
  - CDC Advance data suggests that US-born adults and children of US-born adults are more likely to visit the dentist (Acculturation?)
  - Ahluwalia, Senie, Ahsan are exploring the role of religion and ethnic subgroup identity on oral cancer risk. Preliminary data suggest a link between religion and risky behaviors.
  - However, the role of ethnic, religious and national subgroup identity, and acculturation, and their effect on oral health and oral health behaviors have not been established in South Asians
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- I think the answer lies in ethnic and cultural perception of oral health and oral care needs.
  - Cruz notes that perceived need was not associated with objective measures of oral disease, but that ethnicity was associated with perceived need.
  - We are looking at oral cancer risk among south Asian seniors and preliminary data suggest that there are religious differences in risky behaviors.
  - It is imperative that we comprehensively address the effects of ethnicity, religious identity and acculturation on perception of oral health, health seeking behaviors, perceived impact on QoL. Unless we understand these factors, we will not be able to build appropriate interventions that address preventive behaviors.

### **...from the data**

- Despite a relatively young, educated population, utilization of dental services low
  - Oral health and health care are not seen as a priority, and/or access to services is problematic
  - Ethnicity, culture, religion, acculturation may play a role in health literacy, health seeking behaviors and oral health outcomes
- The data are not representative and may underestimate the problem
  - Convenience Samples
    - Non-English speakers
    - Undocumented
  - Social desirability
  - South Asian Diaspora

So in conclusion, although we are dealing with a highly educated population, utilization of services is problematic.

- This leads me to believe that either oral health is not a priority or access to care is problematic.
- I think we need to investigate the influence of culture on oral health and healthcare.
- Please also bear in mind that what I have shared with you may be an underestimate because the data are not representative

## Where do we go from here?

### – South Asian community and Community-based organizations

- The impact of oral health on QoL and systemic health
- Risky behaviors, prevention and daily and professional care
- Navigating the system, public benefits, access to care
- Importance of participating in research

### – Care providers

- Risky behaviors and targeting of preventive services
- Non-traditional providers can play a role in education, primary prevention and case management

- So, where do we go from here?
- I think the simple answer is that we need more data.
- However, I think we are all stakeholders and can all come together to address oral health and healthcare in the South Asian community.
- Firstly it is important that the community is educated on oral health and its impact on general health and wellbeing and the role of daily and professional care on oral health outcomes
- I think providers, regardless of whether they are dental providers are not can and should play a big role in education especially in high risk individuals e.g. diabetics, tobacco users etc.

**– Research and academic community**

- Importance of oral health and healthcare
  - SAPHA Brown Paper
  - QoL, Systemic diseases, Oral cancer, HIV
- Nurture future professionals and leaders in academic careers
- Advocate for disaggregated data at the local, state and national level

**– Policy makers and legislators**

- The economics of doing nothing
- Language- and culture-appropriate materials, interventions and services

- All of us in the research community must also come together and recognize the importance of oral health; Oral health was absent from the SAPHA Brown Paper, even oral cancer, which is a very big problem in South Asia received only a passing mention
- It is also important that we nurture future professionals in academia and research, for we need to build a cadre of individuals who will continue the work.
- Finally, I hope we can all join together to make our voices heard at the policy level. Unless we come together and ask for language and culture appropriate services we will never get what we are entitled to; So I ask that we work together, to build a healthy community, and in so doing, a healthy country.