

Perceptions of Obesity Risk & Prevention in Chinese Americans

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Obesity is a Global Epidemic



Globally, there are more than 1 billion overweight adults, at least 300 million of them obese

Obesity in China

- Obesity below 5%
- Obesity rates increased three-fold or more since 1980 in some areas of China
- Rates are almost 20% in some cities



Obesity in the United States

65% of the adult population is overweight or obese

	% overweight	% obese
1976-1980	46	15
1999-2000	65	31

Why?

- Dietary factors:
 - Increase intake of fats and simple sugars
- Decrease in physical activity
- Technology

Immigrants and Acculturation

- Acculturation to a westernized lifestyle is a risk factor for obesity
- The longer immigrants live in the U.S., prevalence of obesity increases

Obesity Epidemic in the United States

- **Also on the increase are obesity-related chronic diseases**



Health Consequences

- > 17% of all deaths attributable to being overweight or obese in 2000 in U.S.
- Associated with: cardiovascular disease, type 2 diabetes, hypertension, stroke, dyslipidemia, osteoarthritis, and some cancers

Top 5 Countries with Largest Number of People affected by Diabetes (in 2003)

Countries	Number of People (million)
India	35.5
China	23.8
United States of America	16.0
Russia	9.7
Japan	6.7

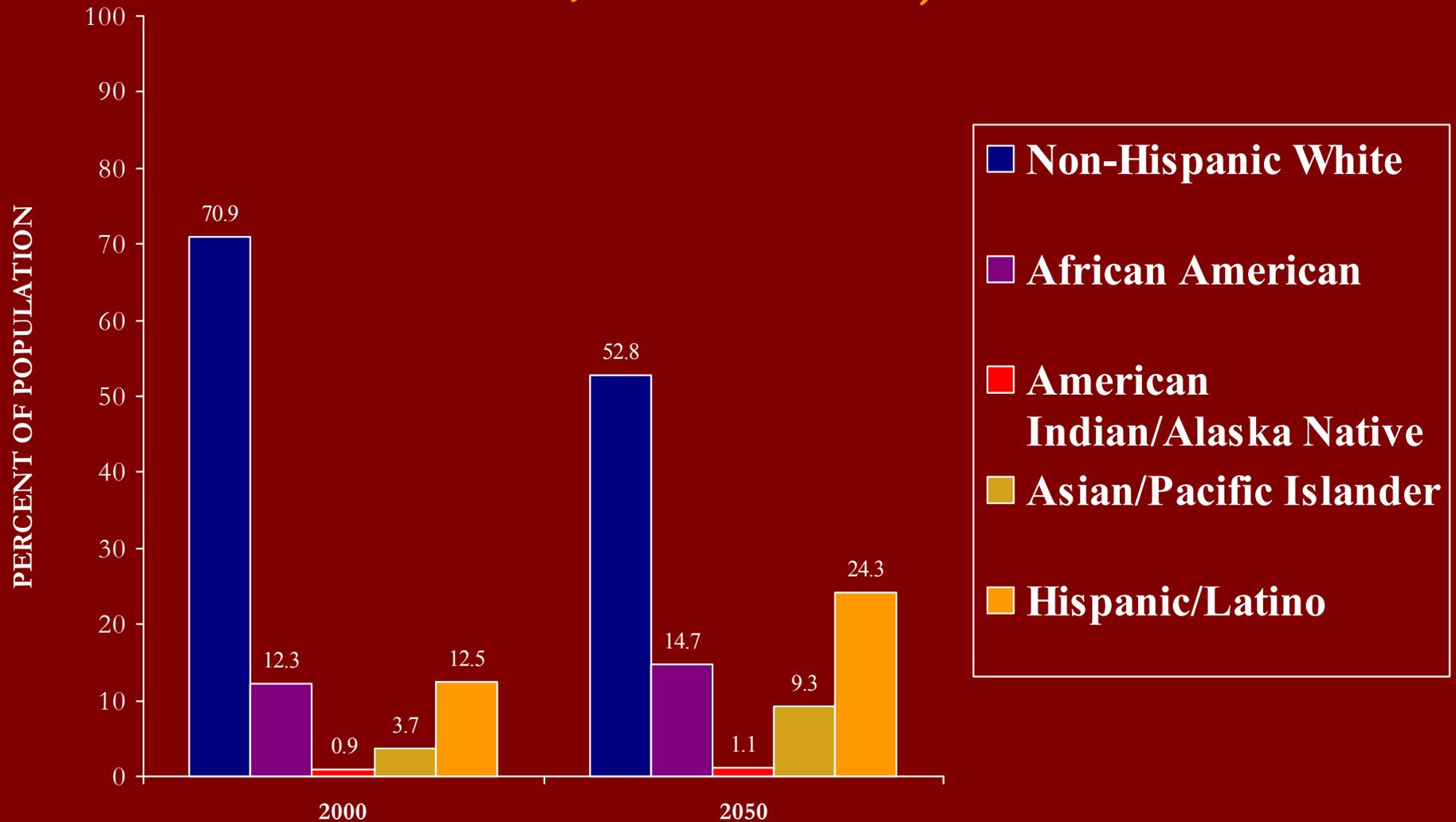
According to Dr. William Hsu, Director of the Asian Clinic at Joslin:

"Asian descents need to carefully guard their weight because their risk for developing diabetes rises sharply even with a small amount of weight gain above the target appropriate for their ethnicity".

Asian US Demographics

- Of all population groups, the largest increase expected is in the Asian American/Pacific Islander (AAPI) population, which is expected to almost triple its current size by 2050.

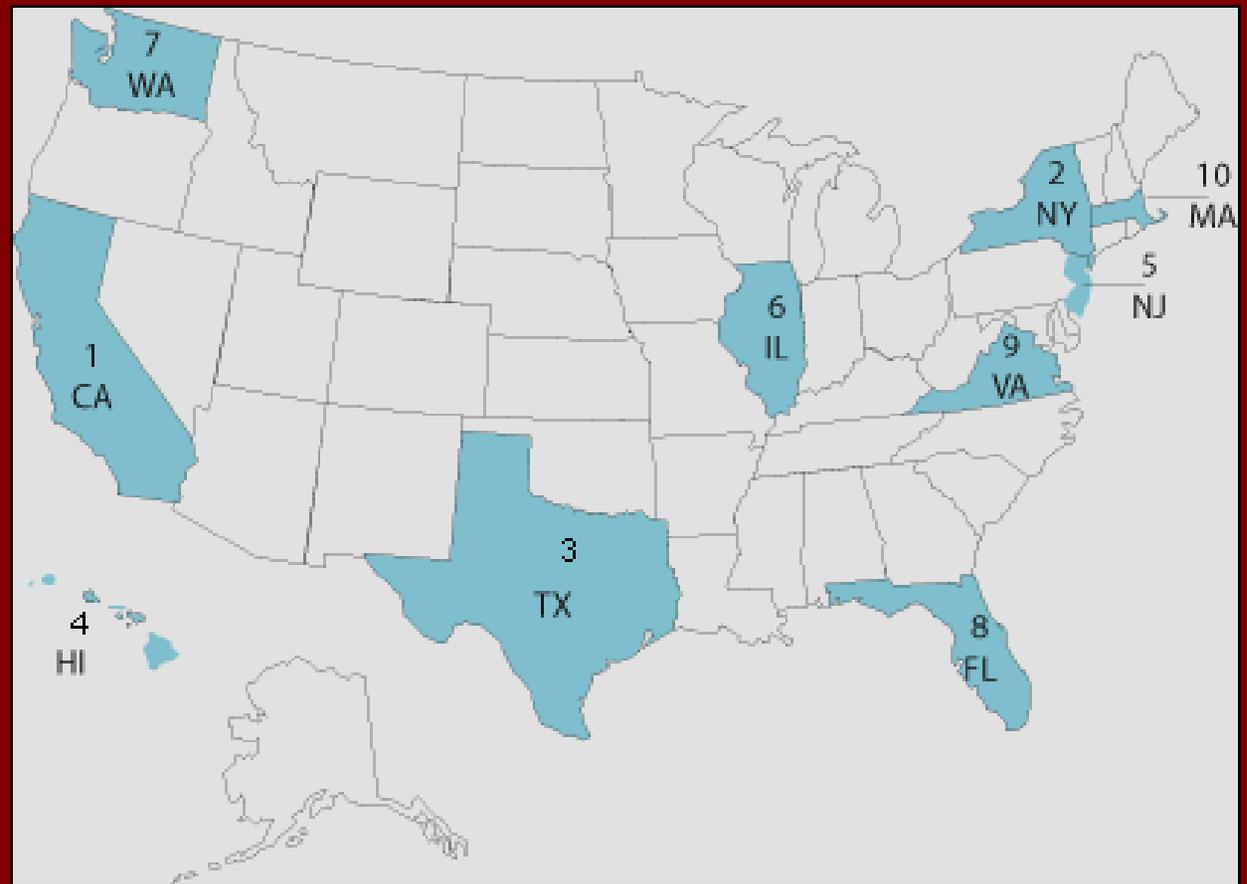
Population by Race & Hispanic Origin: United States, 2000 & Projected 2050



Source: U.S. Census Bureau

Top 10 states displaying the largest Asian American population

Over half of the Asian population lives in New York, California, and Hawaii

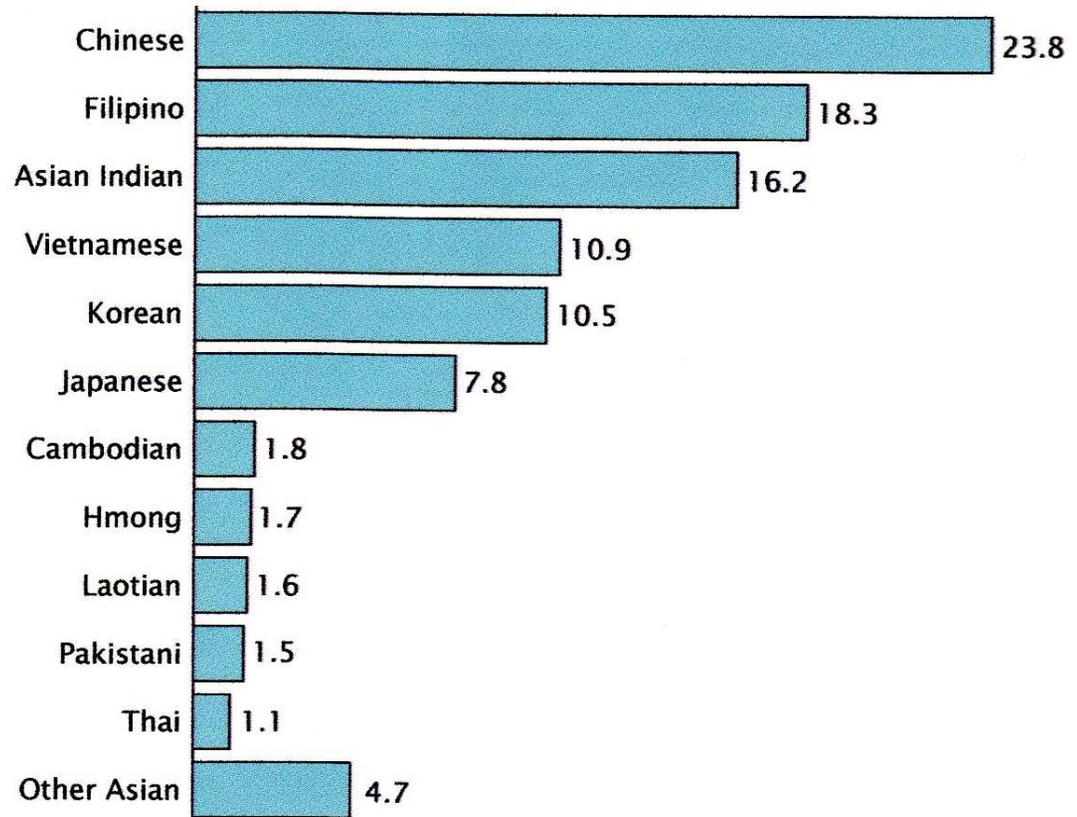


**Chinese
Americans
comprise
the largest
group of
Asians**

Figure 1.

Asian Population by Detailed Group: 2000

(Percent distribution. Data based on sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/cen2000/doc/sf4.pdf)



Source: U.S. Census Bureau, Census 2000 special tabulation.

**TABLE 8: OVERWEIGHT PREVALENCE AND BMI DATA FOR ASIAN AMERICANS
(N = 13,031) IN A NORTHERN CALIFORNIA HMO, 1978–1985**

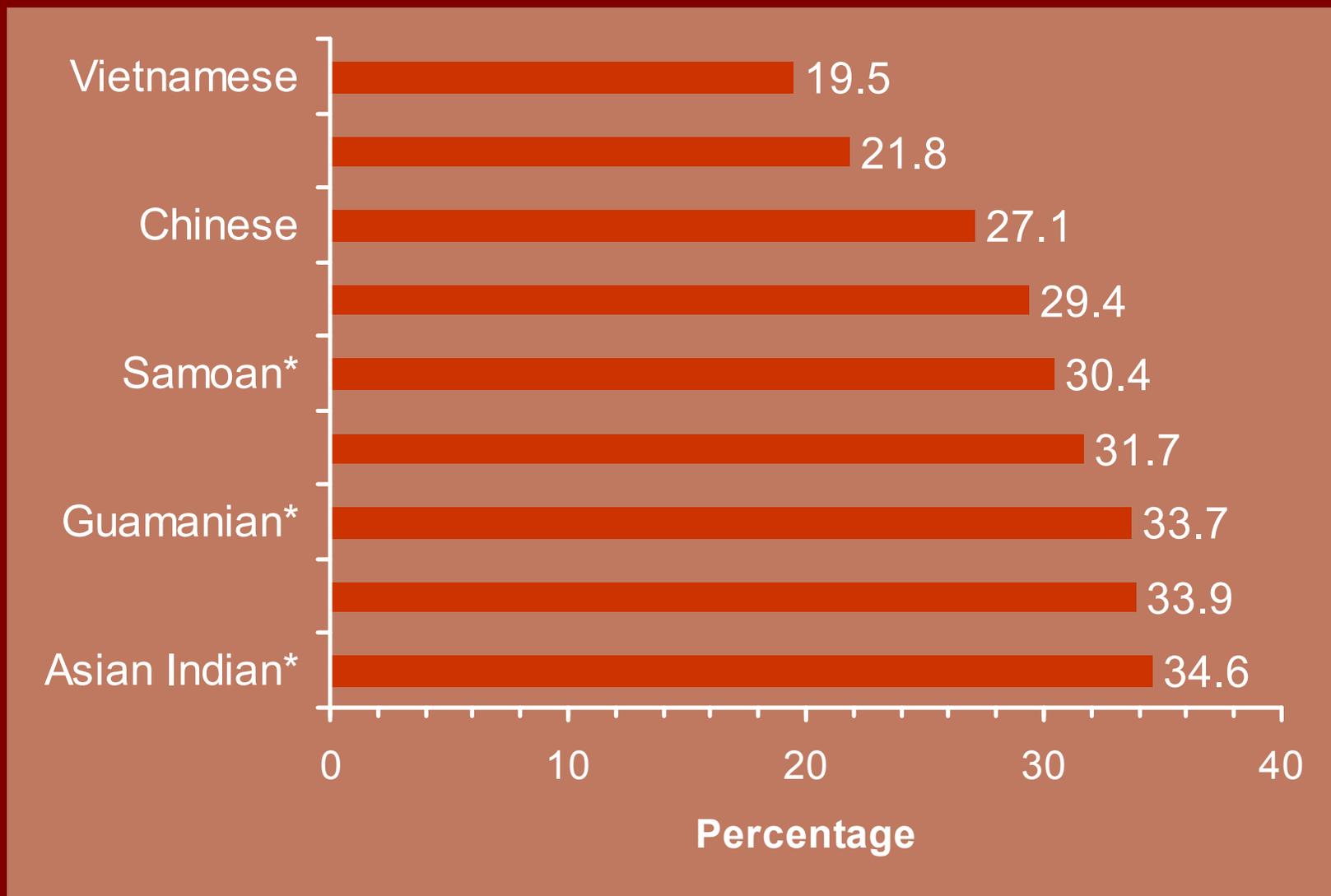
Trait	Chinese	Filipino	Japanese	Other Asian
<i>Age (mean ± SD)</i>				
Males	40.2 ± 14.2	39.2 ± 13.4	42.1 ± 14.1	35.9 ± 10.4
Females	38.0 ± 13.6	36.8 ± 11.6	40.9 ± 13.4	34.1 ± 10.5
<i>BMI ≥ 24.4 kg/m²</i>				
Males	26.9	41.8	38.0	28.9
Females	12.8	25.5	18.0	14.6
<i>Mean BMI</i>				
Males	22.9	23.9	23.7	23.6
Females	21.2	22.8	21.6	22.2

Source: Klatsky & Armstrong, 1991.

10 Leading Causes of Death Asian American & Pacific Islander Population (2004)

- 1. Cancer**
- 2. Heart disease**
- 3. Stroke**
- 4. Unintentional Injuries**
- 5. Diabetes**
- 6. Influenza, pneumonia**
- 7. Chronic lower respiratory disease**
- 8. Suicide**
- 9. Nephrities, Nephrotic Syndrome, Nephrosis**
- 10. Alzheimer's Disease**

Heart Disease as Percentage of All Deaths in U.S.



Obesity and Overweight Defined

- Body Mass Index—**BMI**—kg/m²

	Overweight	Obese
Common Benchmarks	> 25	> 30
WHO Asian Benchmarks	> 23	> 27.5

Waist Circumference

- Used to identify risk for type 2 diabetes
- Lower waist circumferences in Asians than whites increase risk

	Men	Women
White Benchmarks	> 99 cm	> 85
Asian Benchmarks	> 85 cm	> 80

Research Issue

Despite the expansion of Chinese Americans living in the U.S. and increase in obesity and obesity-related health problems:

Limited obesity studies have been conducted with Chinese Americans.

Purpose of Qualitative Study

- **What are the perceptions of obesity risk & prevention in Chinese American adults aged 18 to 30 residing in the New York City metropolitan area?**



Methods

Purposive sample of 40
Chinese Americans

U.S.-born participants

New York City metropolitan
area

Ages 18 to 30 years

Mean age = 22 years

40% male, 60% female

60% full-time college /
40% full-time employees



Research Sample

Recruitment Strategies:

News releases

**Flyers posted at Chinese
businesses**

Religious organizations

**Educational
organizations**



Interview Format

- Semi-structured interview
- 11 broad categories of questions:
 - **How would you define obesity?**
 - **What are some health consequences of obesity?**
 - **Do you personally feel susceptible to obesity?**
 - **What are the major causes of obesity in Chinese Americans?**
 - **What do you think is the best way to prevent obesity in Chinese Americans?**

Interview Questions

Constructs used from
major social
psychological theories

Health Belief Model

**Theory of Planned
Behavior**

**Social ecological
models of health
behavior**



Data Collection

- **All interview questions were pilot-tested**
 - (n = 20)
- All 40 interviews were tape-recorded & transcribed verbatim
- **Length of interviews**
 - (30 minutes to an hour)

Data Analysis

- **Researchers independently coded data to ensure agreement & consistency**
- **Transcripts systematically coded using NUD*IST Vivo (NVivo software) for qualitative research**
- **Multiple investigators checked for consistency between codes & coding of text data**
- **Identified recurrent patterns & themes**
- **Formulation of theoretical framework**

Results

- Participants defined obesity as being very overweight based on standard weight for height
- Health consequences of obesity:
 - Cardiovascular problems
 - Impairment of physical activity
 - Negative psychological effects due to social stigma

Perceived Susceptibility

- 42% indicated obesity as major issue for Chinese Americans
- 52% perceived the protective benefits of genetic factors & healthful traditional Chinese diets
- 60% perceived susceptible to obesity
 - **Poor diet, lack of exercise, genetic factors**

Satisfaction with Weight

- 54% were satisfied with current weight
- Of the 38% who were not satisfied:
 - 40% (6/15) felt they were too skinny
 - 60% (8/15) claimed they were too heavy



Perceived Major Causes of Obesity

- Environmental factors
 - Abundance of readily available, unhealthful foods
 - Powerful food advertisements & media influences
 - Increase in fast food consumption
 - Veering away from traditional Chinese diets



Perceived Major Causes of Obesity

- **Decline in physical activity**
 - **Popularity of computer-related entertainment**
- **Increase in working parents**
 - **Increased stress levels**
 - **Tendency to consume fast food**
- **Adaptation to American culture**
 - **Pressure among college students to consume high amounts of alcohol**

Perceived Major Causes of Obesity

- 55% indicated social & physical environment as more influential
- 40% believed genetic factors had a dominating effect in the development of obesity

Perceived Obesity Prevention

- Adopting healthful diets
 - Decreasing portion sizes
 - Eating breakfast
 - Eating at home
 - Reducing fast food
- Increasing exercise



Perceived Obesity Prevention

- Providing healthful environment
 - Role modeling of parents
 - Positive media advertisements
 - Provision of healthful foods served in restaurants
- Increasing awareness & education



Barriers to Healthful Eating

- **Social environmental barriers:**
- **Physical environmental barriers:**
 - **Abundance of junk foods**
 - **Large portion sizes served in restaurants**
- **Cultural influences:**
- **Psychological factors:**
 - **Stress, boredom, reaction to deprivation**

Social Influence

80% indicated parents as major influence affecting food choices

Friends

Relatives

Media

Athletic coach

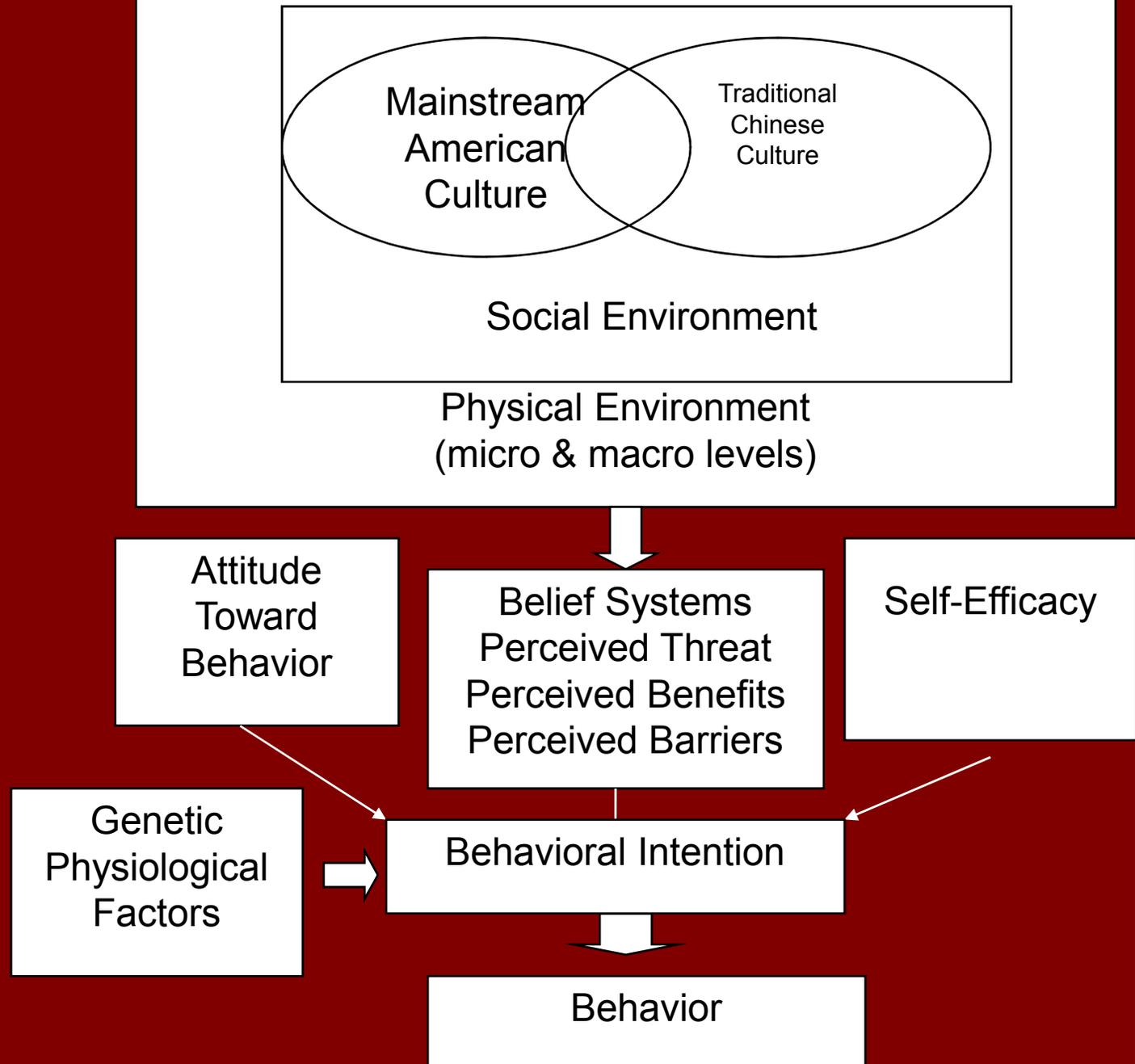
Co-workers



Self-Efficacy

- Knowledge of health & eating nutritious meals
 - **Awareness of food choices**
- Benefits of physical appearance
- Being in touch with one's perception of health
- Self-responsibility for weight
- Cooking for oneself

Chinese American Model for Obesity Prevention



Conclusions

- **Obesity primarily seen as a non-Asian phenomenon**
- **Physical and social environments as main causes of obesity among Chinese-Americans**
- **Following traditional healthy Chinese food practices is difficult**



Physical Factors

- **Abundance of inexpensive, convenient and unhealthy food choices**
- **Media generated advertisements**



Social Factors

- Acculturation decreases consumption of traditional Chinese foods
- Fast food feels like home

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立即参加



Study Limitations

- Small, non-random sample
- Interpretation of data analysis may be subject to bias
- No quantitative surveys to confirm beliefs, attitudes and behavioral responses
- No anthropometric measurements taken

Implications

- **Physical & social environmental changes**
- **Public policies to promote tasty, low-cost, healthful food choices**
- **Collaboration of food industry & governmental, agricultural, academic institutions**
- **Increased awareness of sound nutrition**

Implications

- **Acknowledge cultural perspectives & social stigmas**
- **Promote short & long-term outcomes**
- **Promote informed choice at eateries**
 - **Portion size control**
 - **Ingredient substitutions**
- **Encourage home-cooked meals (less fat)**

We can make a difference.
Thank you!

