



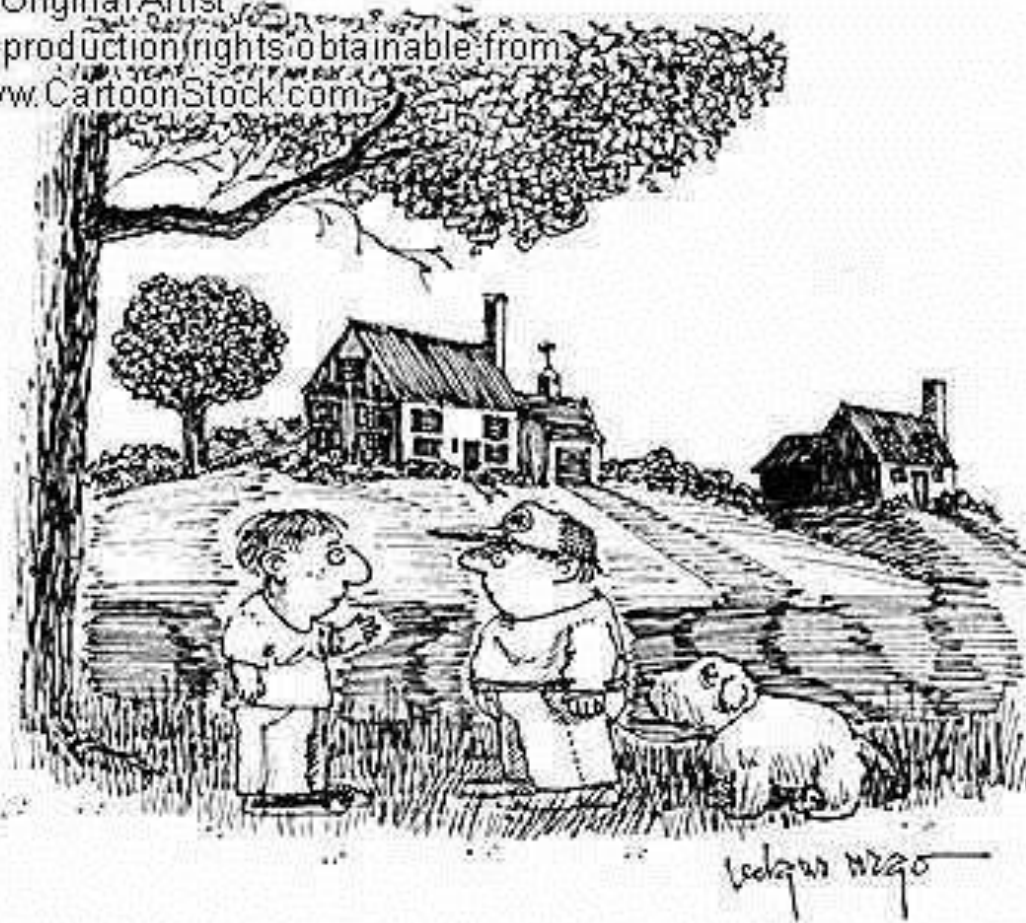
Archana J. McEligot, PhD  
Nutrition for a Changing World  
Overview and Introduction



# Multidisciplinary Field

- The field of nutrition as it relates to childhood obesity today is truly multidisciplinary and involves various disciplines from:
- Food Science (Technical aspects of foods)
- Biochemistry and chemistry
- **Psychological aspects**
- Genetic aspects
- **Personal**
- **Sociocultural**
- Economic
- Political

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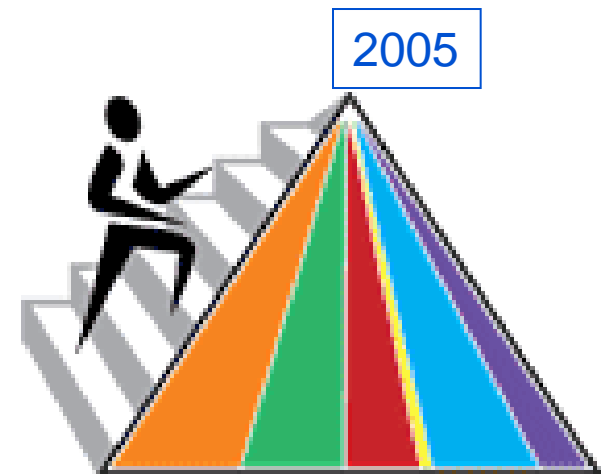
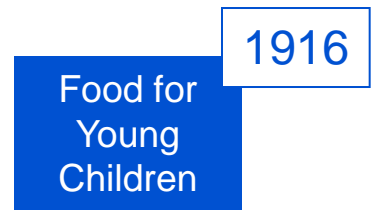
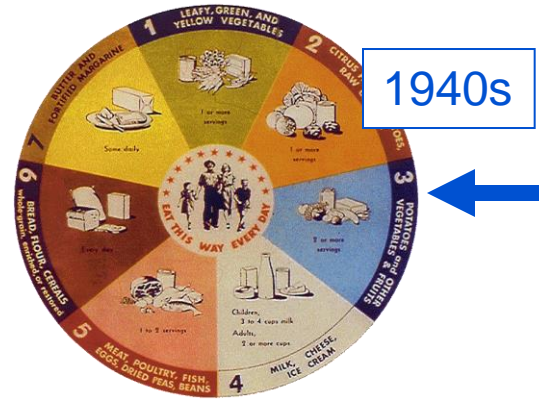
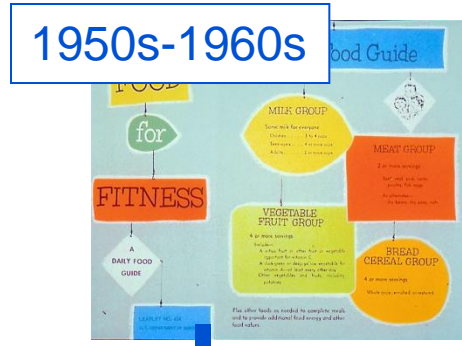
" I HAVE TO BE VERY CAREFUL WHEN I EAT ... MY  
MOTHER SNEAKS CARROTS INTO EVERYTHING. "

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"Our menu is divided into three sections: Cancer causing foods, artery clogging foods, and foods that are being boycotted for political or environmental reasons."

# Changes in USDA's Recommendations



# CHEESEBURGER

**20 Years Ago**



**333 calories**

**Today**



**590 calories**

**Calorie difference: 257 calories**



# SPAGHETTI AND MEATBALLS

**20 Years Ago**



**500 calories**  
**1 cup spaghetti with**  
**sauce and 3 small**  
**meatballs**

**Today**



**1,025 calories**  
**2 cups of pasta with**  
**sauce and 3 large**  
**meatballs**

**Calorie difference: 525 calories**



# BAGEL

**20 Years Ago**



**140 calories  
3-inch diameter**

**Today**



**350 calories  
6-inch diameter**

**Calorie Difference: 210 calories**





# Demographics have changed as well



From left: Shauna Winston, Archana J. McEligot, Ka'ala Pang, Juliet McMullin, Louise Bone and Rebekah Ngewa




# Demographics have changed as well

## California Population

<u>2010 Population</u>	<u>Change from 2000</u>
37,253,956	+ 10.0%

Race/Ethnicity	Share of Population	Change from 2000
Whites:	40%	-5%
Blacks:	6%	-1%
Hispanics:	38%	+28%
Asians:	13%	+31%
Native Americans:	0%	-9%
Multiracial:	3%	+7%
Other groups:	1%	+22%

## Change in demographics

- *How does change in demographics affect nutrition?*
  - *How do changes in demographics affect childhood obesity?*
  - *How does changes in demographics affect education and how should it affect education?*
- 

# NCW Requirements

- **1. Enroll in the nutrition course (HESC 350) for Spring 2012.**
  - Concepts of nutrition as they relate to nutritional needs, practices, and problems throughout the life cycle.
- **2. Enroll in a *new* childhood obesity and nutrition in immigrant populations course for Fall 2012**
  - The course will provide students an understanding of the social, cultural, and environmental framework that influences childhood and adult obesity, particularly in diverse immigrant populations.
- **3. Enroll in an experiential learning course (HESC 495) for Spring 2013.**
  - Internships related to childhood obesity and nutrition will be completed, with either local, regional, or national organization.
- **4. Attend a one weekend symposium hosted by UC Davis and CSUF faculty.**
  - In partnership with UC Davis faculty, the symposium will consist of current research and projects on childhood obesity and nutrition. Also, career opportunities, graduate opportunities, and linkages between UC and CSU systems will be discussed. September 22<sup>nd</sup> and 23<sup>rd</sup>, from 8:30 – 2:00pm.

# Theoretical Background

- Social contextual: Macro and microinfluences on health and health disparities (Pasick 2009).
- It includes familial, demographic, economic, political, legal, organizational, physical environmental, and cultural factors that affect the resources available to individuals throughout their lives.
- At the individual and societal level, issues of acculturation and broader economic and physical environmental influences that may affect, prevent and combat childhood obesity in the immigrant population, will be integrated in the curriculum.

# UC Davis – CSU Fullerton Childhood Obesity Symposium

## Nutritional Biology Topics Relevant to Issues of Obesity in Diverse Populations

- Maternal & child nutrition issues in low-income populations and developing countries
- Fetal origins of chronic disease
- Biologic consequences of obesity and development of chronic disease in children and adults (Diabetes, Cardiovascular disease, and Metabolic syndrome)
- Fruits and vegetables, phytonutrients and health promotion: Food Patterns (MyPlate & more)

## Behavioral & Cultural Influences and Nutritional Interventions

- Behavioral interventions to decrease early childhood obesity in the WIC population
- Acculturation, parental feeding strategies and childhood nutrition in the Hispanic bi-national (US – Mexico) population and Asian-Pacific Islander population
- Nutrition curricula and garden-based learning in the K-12 schools
- Food insecurity, food assistance programs, diet quality and body weight

## Nutrition Literacy and Community Health

- Youth science literacy – impact on nutrition and health
- Fact and Fiction in nutrition, food and agricultural topics
- Career pathways and opportunities in nutrition and community health

# Partners and Collaborators

<b>Working Group</b>		
Archana McEligot, PhD	CSUF, HESC	Nutritional epidemiology, specifically nutrition assessments and interventions
Francene Steinberg, PhD, RD	UC Davis	Registered dietician and nutritional scientist
Jie Weiss, PhD	CSUF, HESC	Evaluating health behaviors in low-income Hispanic populations through decision-making model
Debra Patterson, PhD	CSUF Kinesiology	Physical education in elementary schools
Tu-Uyen Nguyen, PhD	CSUF Asian American Studies	Developing and implementing community-based service-learning courses
Laura Chandler, PHDc	CSUF, HESC	Student advisement, outreach, and internship coordination and placement
Student Advisor	CSUF, various departments	Student engagement
<b>Faculty Advisory Board</b>		
Dr. Maria Linder	CSUF Biochemistry	Designing and implementing high quality student research experiences
Dr. Carl Keen	UC Davis	Developmental nutrition
Dr. Lucia Kaiser	UC Davis	Childhood obesity in the Hispanic population
Dr. Sheri Zidenberg-Cherr	UC Davis	Nutrition education for youth and adults
<b>Community Advisory Board</b>		
Maridet Ibanez, RD	Orange County Health Care Agency	Orange County Nutrition Services/WIC program
Jane Ka'ala Pang	PHIP	Pacific Islander community health, community organizing
Kat Soltanmorad, RD	Orange County Dept. of Education	K-12 school-based nutrition programs
Jackie Tran & Mary Foo	OAPICA	Asian Pacific Islander community health, community organizing, intern supervision
Alejandro Espinoza, MPH	Latino Health Access	Latino community health, community organizing, and intern supervision
<b>External Evaluator</b>		
Dr. Natalie Tran	CSUF Elementary & Bilingual Education	Program evaluation

- Thank you and Questions?

