

Inequities in Food Security Across the Lifespan: Cultural and Geographic Issues

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Overview

- **More than 50 million Americans live in food insecure households**
- **May understate the problem for hard-to-reach populations**
- **Households uncertain of having or able to acquire enough food for all members**

Overview

- **Low/very low food security a formidable public health challenge**

-Ziliak and Gundersen, 2011; Nord, Coleman-Jensen, Andrews, & Carlson, 2010; Sharkey, Dean, & Johnson, 2011

Objectives

- **Define food security in a cultural and geographic context**
- **Discuss the importance of food security status in maintaining nutritional health across the lifespan**
- **Describe the importance of understanding contextual influences on food security and healthy eating**

Objectives

- **Describe the opportunities and barriers that affect low-income populations in underserved and persistently poor areas**
- **Describe the strategies for measuring food security across the lifespan**
- **Identify potential approaches for reducing food insecurity**

Food Security

- Describes an adequate quality and/or quantity of food at the household, adult and/or child levels
- Condition necessary for a population to be healthy and properly nourished

Food Insecurity

- Limited or uncertain availability of nutritionally adequate and safe food
- Limited or uncertain ability to acquire acceptable foods in socially acceptable ways

– Anderson, 1990

Measurement

- Household level
- Frame of reference

Food Insecurity Items

- Household
 - Worry about running out of food
 - Food runs out and not enough money to get more
 - Eat same foods for several days
 - Run out of food needed to prepare meal

– Sharkey, Dean, and Johnson, 2011

Food Insecurity Items

- Adult
 - Cannot afford to eat properly
 - Hungry but unable to afford enough food
 - Eat less because not enough money
 - Cut size or skip meals because not enough money to buy food

Food Insecurity Items

- Child
 - Cannot afford to give children balanced meals
 - Children do not eating enough because household can't afford enough food
 - Children are hungry but household can't afford more food

Food Security Status

- **Food secure**
 - No indication of food access problems or limitations
- **Marginal food security**
 - One or two reported indications
 - Anxiety over food sufficiency or shortage of food in the household

Food Security Status

- **Low food security**
 - Multiple indications of food access problems
 - Reduced quality, variety, or desirability of diet
 - Few indications of reduced food intake

Food Security Status

- **Very low food security**
 - Multiple indications of reduced food intake
 - Disrupted eating patterns
 - Hungry but unable to eat

Magnitude of Food Insecurity

Disproportionate Burden of Food Insecurity in the U.S.

	All	Low food security	Very low food security
White	11%	8%	4%
Black	27%	18%	9%
Hispanic	28%	20%	8%
Other	14%	9%	4%
All households	16%	11%	5%

Household Food Security in the United States in 2010. Coleman-Jensen, Nord, Andrews, and Carlson
ERS Report Administrative Publication 057, September 2011

2010

- **21% of households with children**
- **38% of low-income households**
 - Below 130% poverty line
- **20% elderly living alone**
 - Coleman-Jensen, Nord, Andrews, and Carlson, 2011

2009

- 8.8 million older adults were food insecure
- 3.5 million older adults experienced hunger
 - Very low food security
- Higher rates among African-American and Hispanic older adults

– Ziliak and Gundersen, 2011

Disproportionate Burden of Food Insecurity

	Food Insecure
Mexican American ¹ (n = 610)	78%
North Carolina Seniors ² (n = 279)	59% Black
North Carolina Seniors ³ (n = 268)	42% - 54.9% in 1 y
North Carolina Seniors ⁴ (n = 268)	37% Black vs 15% White
Brazos Valley (TX) Rural Seniors (n = 582)	43% Black vs 9% White

¹ Sharkey, Dean, & Johnson (2011), under review; ² Sharkey, *J Nutr* 133:3485-3491, 2003; ³ Sharkey, *The Gerontologist* 45(6):773-782 (2005); ⁴ Sharkey and Schoenberg, *J Aging Health* 17(4): 507-527 (2005)

Food Insecurity in the South – 2009

- 18% of households in South
- Highest rates of older adult food insecurity in the South
- Eight of ten states in U.S. with highest rates of food insecurity in the South

– Coleman-Jensen, Nord, Andrews, and Carlson, 2011; Ziliak and Gundersen 2011

Food Insecurity

- Homebound older adults (NC) (n=279)
 - 10% food insufficient
 - No food in the house
 - Skipped meals because no food or money

Food Insecurity

- 32% at risk of being food insufficient
 - Choose food or medications
 - Choose food or paying bills
- Food insufficiency increased over time

– Sharkey, 2003; Sharkey, 2005

Food Insecurity – Older Adults

- Rural older adults (n = 1,059)
 - 19%
 - Ran out of food and unable to buy more
- Older Mexican-origin women (n = 140)
 - 77% food insecure
 - 68% very low food security

– Sharkey, Johnson, and Dean, 2011; Sharkey, Dean, and Johnson, 2011

Food Insecurity – Urban and Rural Women (n = 1,367)

- Household food insecurity
 - 30% rural (279) vs 24% (101) urban
 - 32% at risk of being food insufficient
 - Choose food or medications
 - Choose food or paying bills
- Food insufficiency increased over time

– Sharkey, 2003; Sharkey, 2005

Food Insecurity – Mexican-origin Women (n = 610)

- 78% (household, adult, or child)
- Most severe - child food insecure
 - 49% of all households
 - 62% of households with children

– Sharkey, Dean, and Johnson, 2011

Food Insecurity – Mexican-origin Children (n = 50)

- 64% food insecure
 - 36% low food security
 - 28% very low food security

– Sharkey, Nalty, Johnson, and Dean, under review

Domains of Food Insecurity

- Uncertainty or anxiety
- Insufficient quantity of food
 - Perception
 - Observed
- Insufficient quality of food
 - Perception
 - Observed
- Reductions in food intake

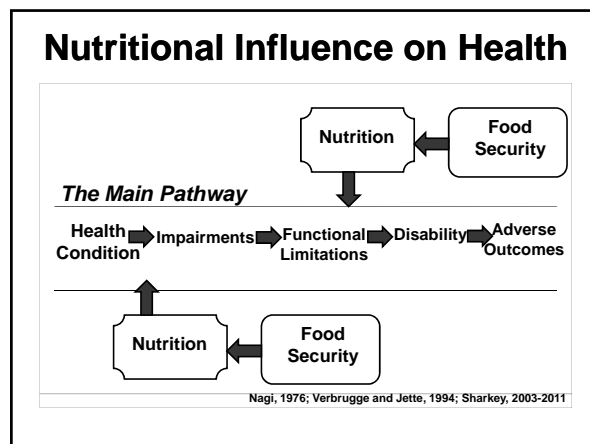
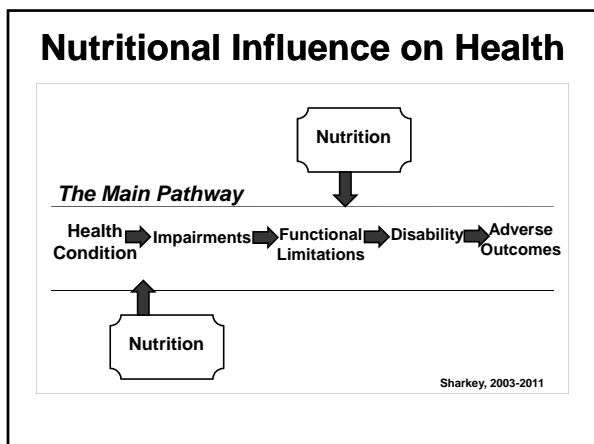
Importance of Food Security Status

Prevention and Management

The Main Pathway



Nagi, 1976; Verbrugge and Jette, 1994; Sharkey, 2003-2011



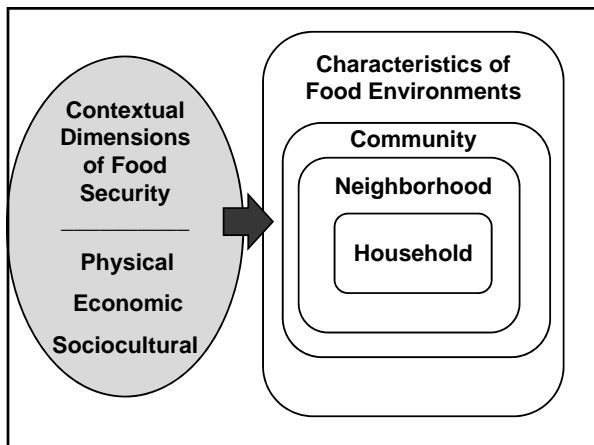
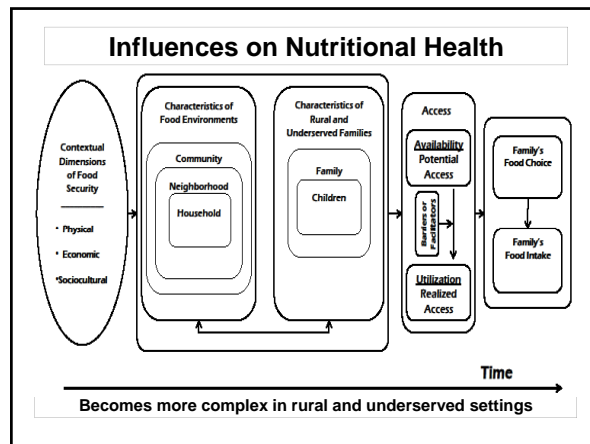
Influence of Food Insecurity

- ### Food Insecurity
- Older adults
 - Low nutrient intakes: protein, magnesium, phosphorus, B6, Vitamin A, zinc, and multiple nutrients
 - Multi-morbidity: ≥3 diseases
 - Increased severity over time among older adults with diabetes
- Sharkey, 2003; Sharkey, 2005

- ### Food Insecurity
- Adult women
 - Fair-to-poor general health
 - Poor physical health
 - Frequent mental distress
 - Household food supplies
 - Increased energy, sodium, fat, and SFA
- Sharkey, Johnson, and Dean, 2011; Dean and Sharkey, 2011

- ### Food Insecurity
- Children
 - Poor academic performance and developmental problems in children
 - Diminished nutritional status
 - Higher intakes in added sugars and total fat

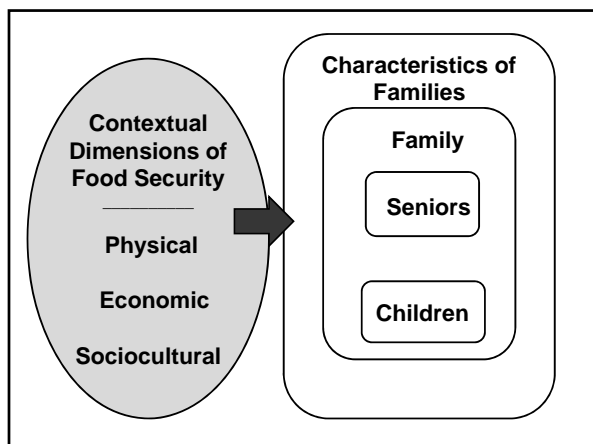
Contextual Influences



- ### Physical Contexts
- Traditional, convenience, and non-traditional food stores
 - Alternative food sources
 - Household food supplies
 - Housing
 - Refrigeration and storage
 - Technology

- ### Economic Contexts
- Food availability and price
 - Neighborhood deprivation
 - Nutrition programs
 - Household resources
 - Seasonality

- ### Sociocultural Contexts
- Population shifts
 - Growth of new immigrant populations
 - Strain on infrastructure
 - Dietary acculturation
 - Language



Physical Contexts

- Transportation
- Population shifts
- Cultural traditions
- Dietary acculturation
- Language
- Individual capacity and complexity of tasks

Economic Contexts

- Dietary acculturation
- Household resources
 - Extent and severity
 - Frequency
- Nutrition knowledge
- Food acquisition/preparation skills
- Household composition

Sociocultural Contexts

- Literacy
- Food preferences
- Social support
- Nutrition assistance

Strategies for Measuring Food Security

- Individual
 - Seniors
 - Adults
 - Children

Strategies for Measuring Food Security

- Household
 - Total household
 - Within household
- Neighborhood

Food Insecurity and Material Hardship

- Not think of poverty in simply economic terms
- Outcome of a balancing act involving employment of resources against needs
 - Resources
 - Income, social and human capital

Food Insecurity and Material Hardship

- Needs
 - Demands for food, clothing, shelter, medical care, etc.

Multicultural Issues

- Life course experiences
- Economic history of the area
- Physical and economic access to sufficient, culturally appropriate food
 - Individual
 - Household
 - Neighborhood
 - Community

Multicultural Issues

- Balancing resources and needs
- Variation between and within communities and groups
- Food insecurity as episodic, recurrent, or chronic
- Role of nativity

Multicultural Issues

- Underestimation of the problem, especially among hard-to-reach populations
- Perceived vs. objective

Potential Approaches to Reducing Food Insecurity

- Tailored nutrition education
- Skill building
- Resource management
- Engagement of community health workers
- Program utilization
- Community partnerships

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