



# CHILDHOOD OVERWEIGHT AND OBESITY IN RURAL COMMUNITIES

Ahondju Umadjela, MS, RD/LD  
Instructor, Public Health Program  
School of Nursing and Health Professions  
Langston University  
Langston, OK

# Goals

- Identify strategies for early identification of childhood overweight and obesity in rural communities
- Identify prevention strategies for childhood overweight and obesity prevention in rural communities

# **Goal 1: Strategies for Early Identification**

- Understand current trends in rural childhood overweight and obesity
- Describe prevalence of overweight and obesity in rural communities
- Explain factors that contribute to childhood overweight and obesity

# Rural Communities

- Nonmetropolitan areas
- < 2,500 residents
- Higher rates of overweight and obesity (25% more than urban areas)

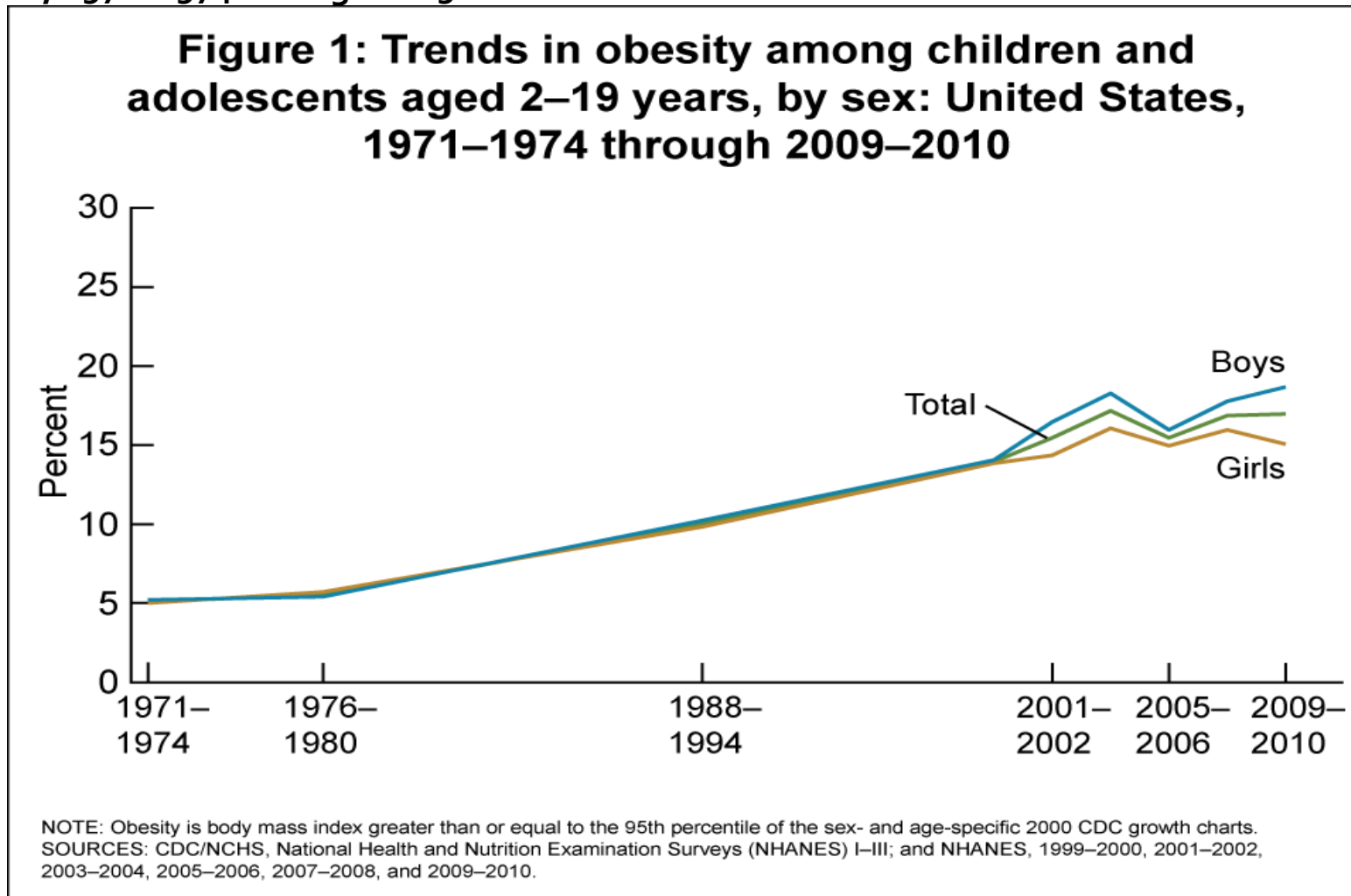
# Early Identification Childhood Overweight and Obesity

- Overweight
  - Excess body weight
- Obesity
  - Body Mass Index (BMI)  $\geq$  95<sup>th</sup> percentile

# Early Identification

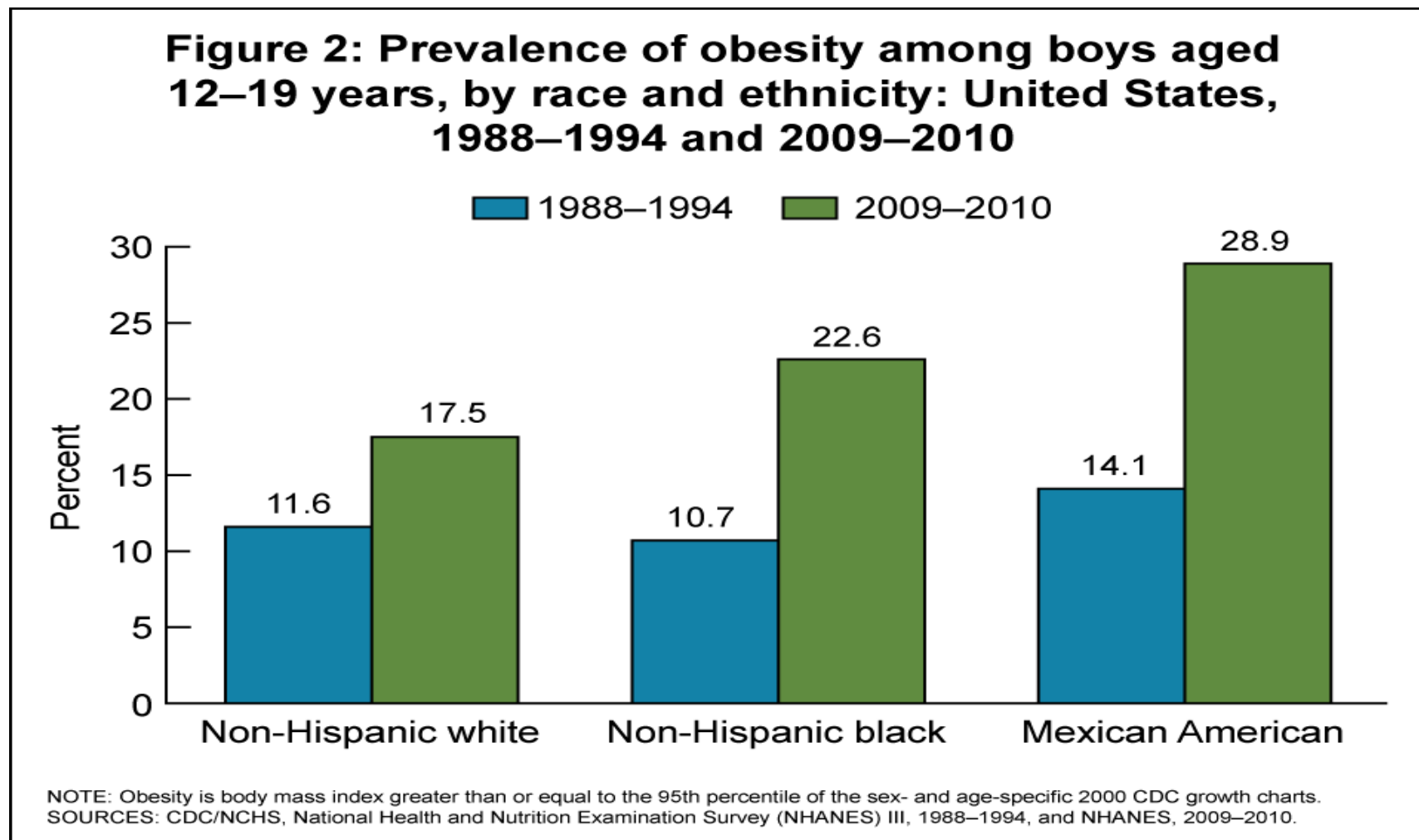
## Obesity Trends

Figure 1: Trends in obesity among children and adolescents aged 2–19 years, by sex: United States, 1971–1974 through 2009–2010



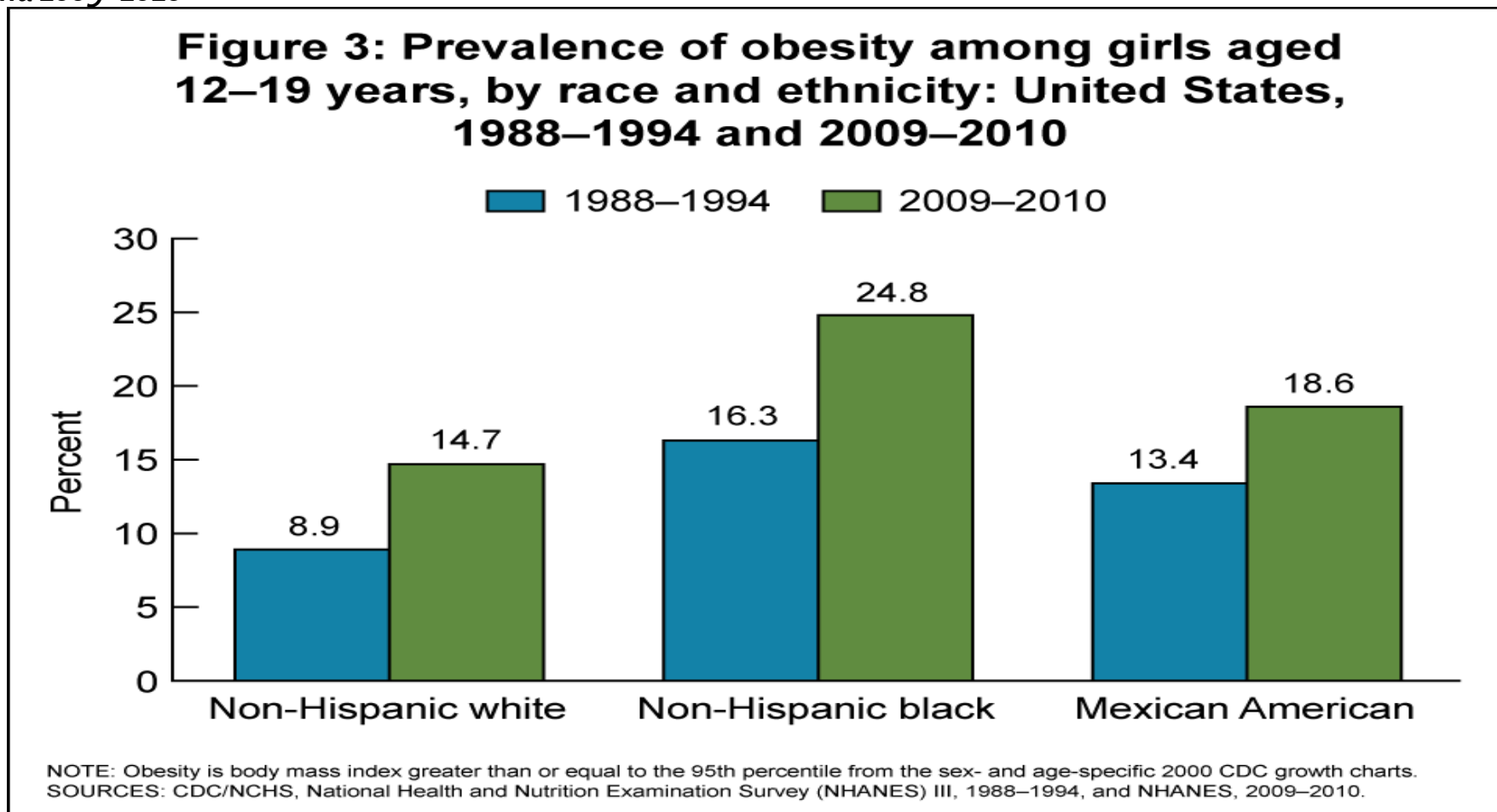
# Early Identification Obesity Prevalence

Figure 2: Prevalence of obesity among boys aged 12-19 years, by race and ethnicity: United States, 1988-1994 and 2009-2010



# Early Identification Obesity Prevalence

Figure 3: Prevalence of obesity among girls aged 12-19 years, by race and ethnicity: United States, 1988-1994 and 2009-2010





# Early Identification

## **Contributing Factors**

- Social Environment
- Food Environment
- Policy Environment

# Early Identification

## Contributing Factors: Social Environment

- Poverty

- In 2010

- ❖ Nation: > 1 in 5 children (15.75 million)

- ❖ State of Oklahoma: 24.5% children (Sample of 226,679)

- In 2009

- ❖ State of Oklahoma: 22.2% (Sample of 200,623)

- Geographic Isolation

- Less preventative care services

- ❖ Limited opportunities for health/ nutrition education

- Fewer sidewalks, playgrounds, parks and exercise facilities

# Early Identification

## **Contributing Factors: Social Environment**

- Geographic Isolation
  - Safety
  - Proximity
  - Aesthetic

# Early Identification

## Contributing Factors: Food Environment

- Food Environment
  - Food Insecurity
  - Food Desert

# Early Identification

## Contributing Factors: Policy Environment

- Policy Environment
  - Influence on
    - ✓ Choices
    - ✓ Food system
    - ✓ Safety maintenance
  - Time frame for policy change

## Goal 2: Prevention Strategies

- Recommendations for childhood overweight and obesity prevention
  - Behavior
  - Federal Programs
  - Local Programs

# Prevention Strategies

## Focus on Behaviors

- 5 target behaviors
  - Balance calories and control portions
  - Increase fruits and vegetables intakes
  - Increase physical activities
  - Increase breastfeeding
  - Decrease sedentary activities

# Prevention Strategies

## **Federal Programs**

- Centers for Disease Control and Prevention
- Health Resources and Services Administration
- Administration for Children and Families
- United States Department of Agriculture



# Prevention Strategies

## **Local Programs**

- Local Health Department
- Community Health Centers
- Colleges/Universities
- Schools

# Questions for Discussion

1. Is your community involved in activities that help reduce childhood overweight and obesity?
2. If yes,
  - a. What are those activities
  - b. What length of time has the community been implementing those activities?
  - c. What is the impact of those activities in your community?
3. If no,
  - a. What are the challenges?
  - b. Do you have suggestions for your community?

# References

- American Community Survey. (2011). Child poverty in the United States: Selected race groups and Hispanic origins. Retrieved from <http://www.census.gov/prod/2011pubs/acsbr10-05.pdf>
- Centers for Disease Control and Prevention. (2012). Prevalence of obesity among children and adolescents : United States, Trends 1963-1965 through 2009-2010. Retrieved from [http://www.cdc.gov/nchs/data/hestat/obesity\\_child\\_09\\_10/obesity\\_child\\_09\\_10.htm](http://www.cdc.gov/nchs/data/hestat/obesity_child_09_10/obesity_child_09_10.htm)
- Centers for Disease Control and Prevention. (2013). *Childhood obesity facts*. Retrieved from <http://www.cdc.gov/healthyyouth/obesity/facts.htm>
- Golan, M., & Crow, S. (2004). Parents are key players in the prevention and treatment of weight-related problems. *Nutrition Reviews*,
- Lynch, W. C., Martz, J., Eldridge, G., Bailey, S. J., Benke, C., & Paul, L. (2012). Childhood obesity prevention in rural settings: Background, rationale, and study design of '4-health,' a parent-only intervention. *BMC Public Health*, 12(1), 255-265. doi:10.1186/1471-2458-12-255
- National Advisory Committee on Rural Health. (2011). The 2011 report to the Secretary: Rural health and human services issues. Retrieved from <http://www.hrsa.gov/advisorycommittees/rural/2011nacsecreport.pdf>
- Østbye, T., Zucker, N. L., Krause, K. M., Lovelady, C. A., Evenson, K. R., Peterson, B. L., . . . Brouwer, R. J. N. (2011). Kids and adults now! defeat obesity (KAN-DO): Rationale, design and baseline characteristics. *Contemporary Clinical Trials*, 32(3), 461-469.
- Reed, D. B., Patterson, P. J., & Wasserman, N. (2011). Obesity in rural youth : looking beyond nutrition and physical activity . *Journal of Nutrition Education and Behavior*, 43(5), 401-408.
- Yensel, C. S., Preud'Homme, D., & Curry, D. M. (2004). Childhood obesity and insulin-resistant syndrome. *Journal of Pediatric Nursing*, 19(4), 238-246.