

# Obesity: Actions, Realities, and Directions for the Future

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**DNRC**



# Obesity in the US

- Nearly two thirds of US adults are overweight (BMI  $\geq 25$ ), and over 30% are obese (BMI  $\geq 30$ )
- 400,000 deaths per year due to poor diet/inactivity
- \$117 billion/year in economic costs (2000 data)
- ***Obesity is also a problem in the World***

# Overweight and Obesity

Multiple complex factors contribute to overweight and obesity, such as

- Inherited
- Metabolic
- Behavioral
- Environmental
- Cultural
- Socio-economic components

***Including their interactions***

# Obesity is a Chronic Disease

- **Adverse health effects are part of a continuum**
- **Time-limited treatments are rarely effective**
- **Multiple sectors of the community impact effectiveness of prevention and intervention efforts**

**Obesity is defined in terms of  
adverse effects on health, not  
population norms**

# What Is BMI?

- **Body mass index (BMI) =**  
**weight (kg)/height (m)<sup>2</sup>**
- **BMI is an effective**  
**screening/epidemiologic tool; it is not a**  
**diagnostic tool**
- **For children, BMI is age and gender**  
**specific, so BMI-for-age is the measure**  
**used**

# Obesity Classification for Adults

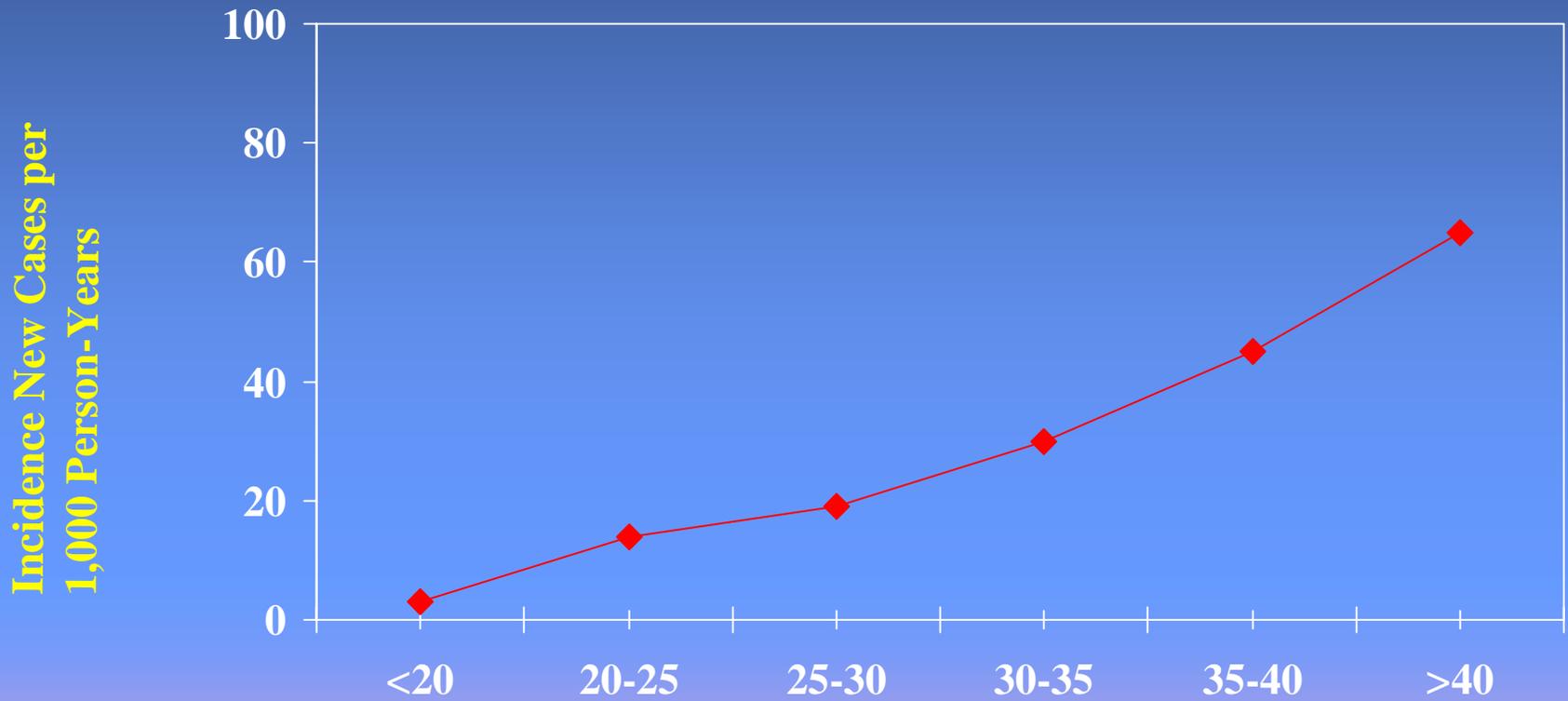
Overweight: BMI  $\geq$  25 kg/m<sup>2</sup>

Obesity: BMI  $\geq$  30 kg/m<sup>2</sup>

<u>BMI</u>		<u>Obesity Class</u>
25.0 – 29.9	Overweight	
30.0 – 34.9	Obesity	I
35.0 – 39.9	Obesity	II
$\geq$ 40.0	Extreme Obesity	III

**Degree of risk increases  
with degree of overweight**

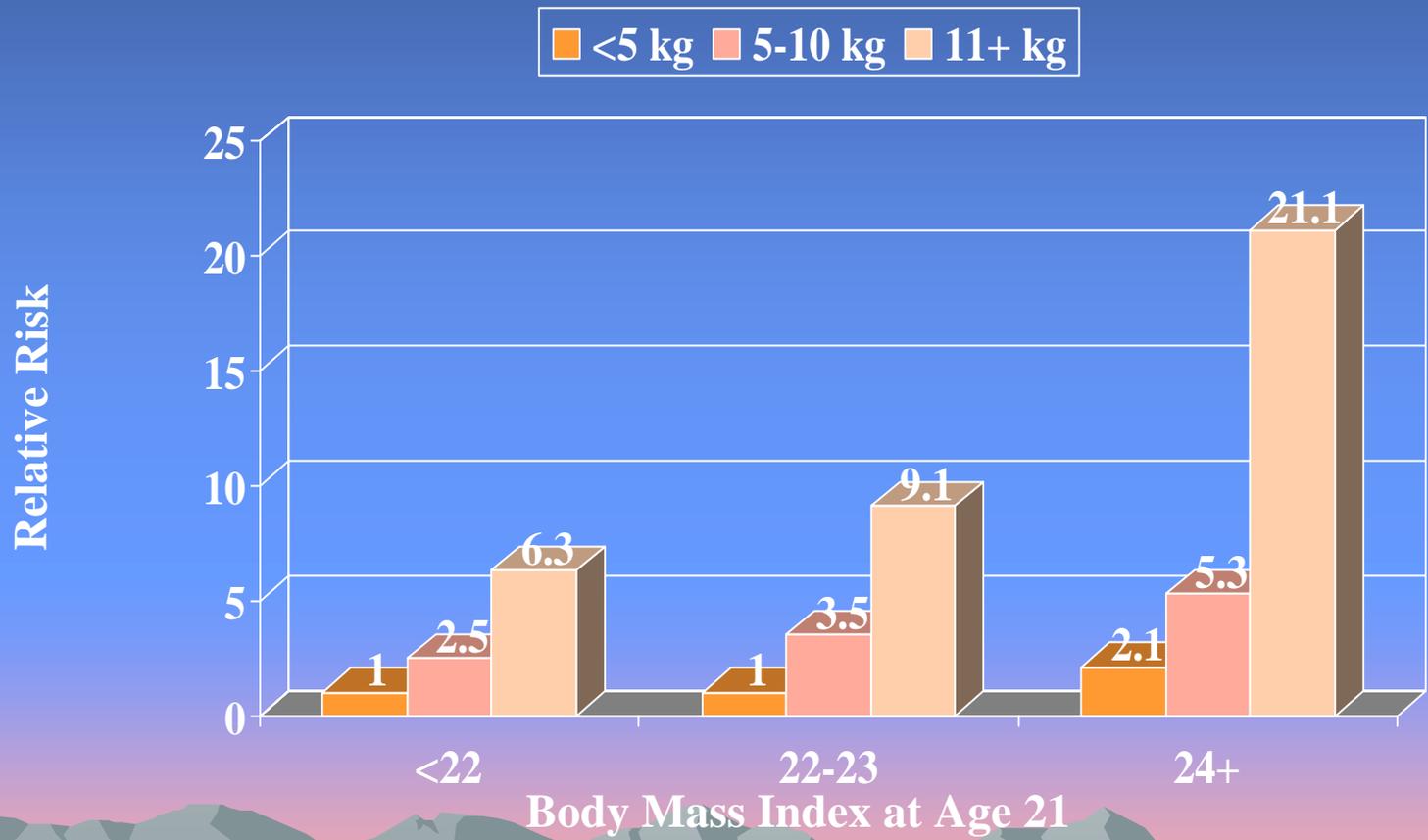
# Obesity and Diabetes Risk



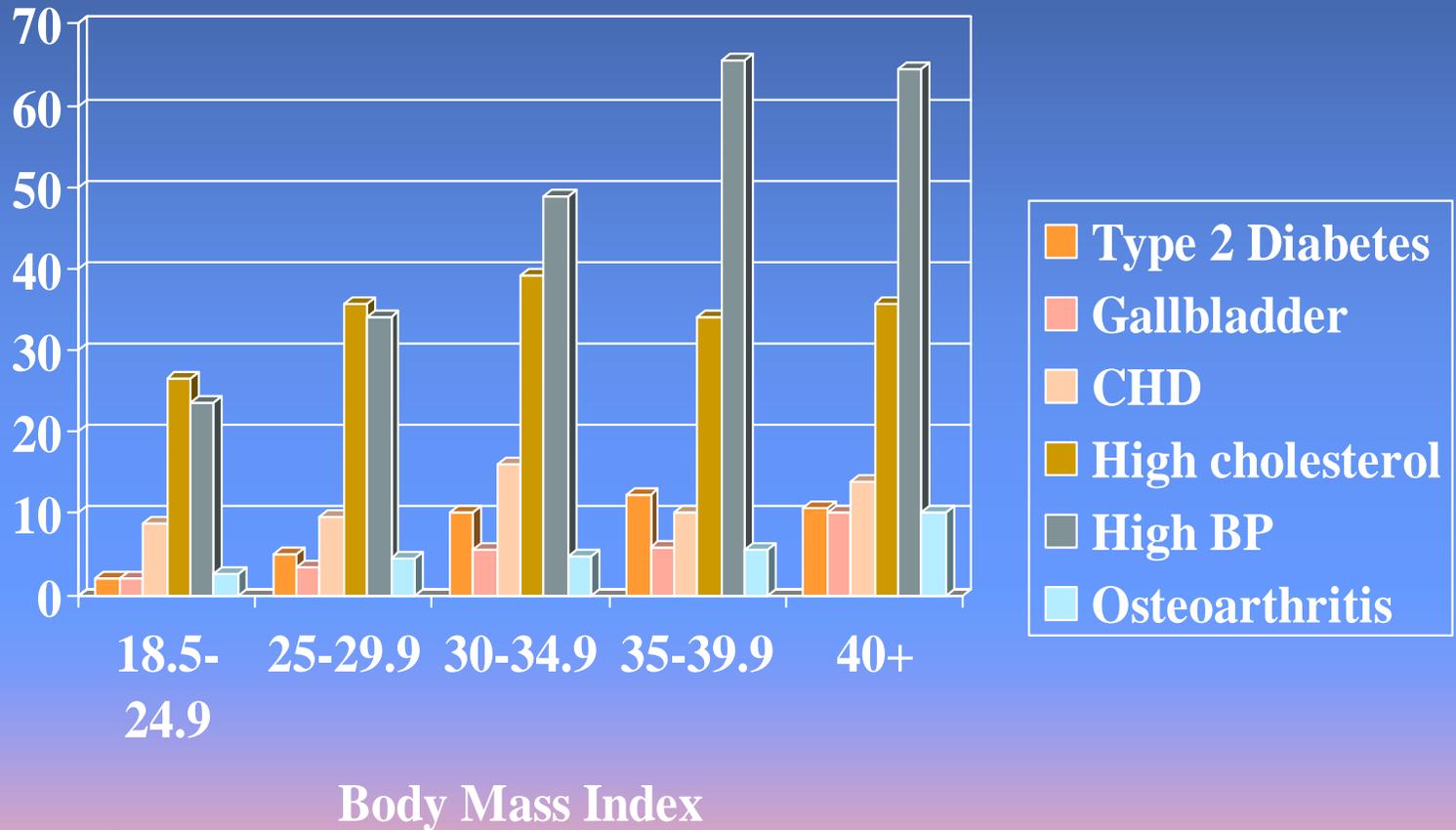
BMI Levels

# Weight Gain and Diabetes Risk

## Weight Change Since Age 21

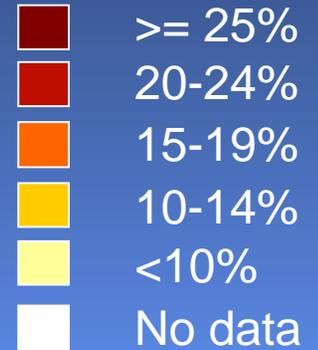
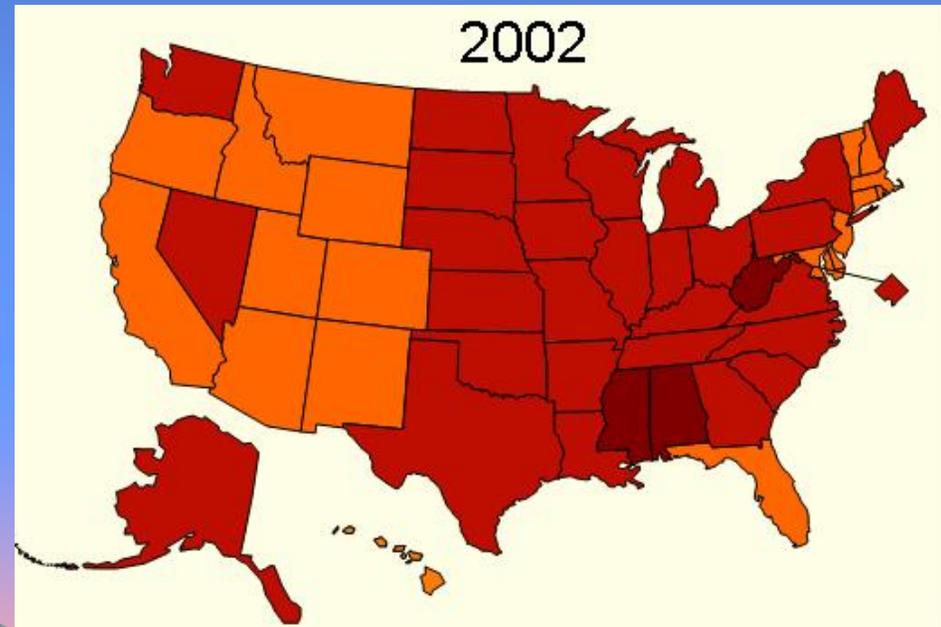
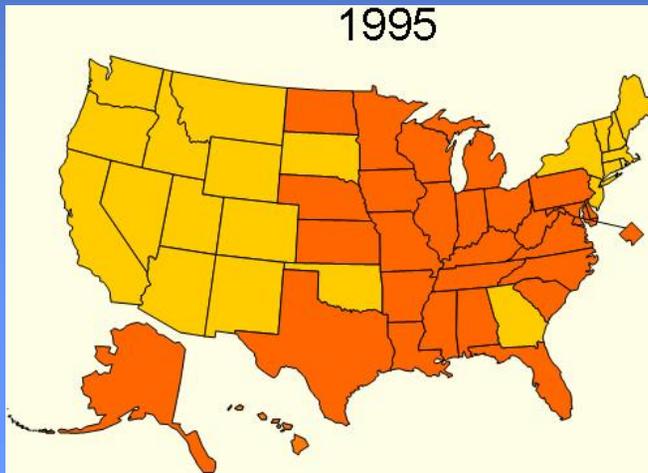
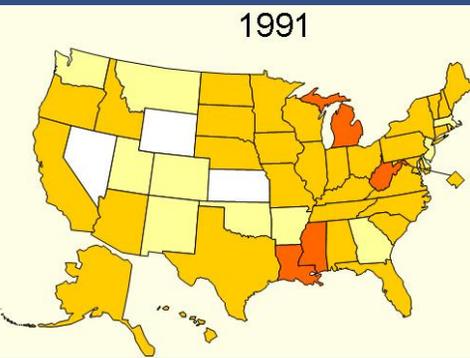


# Prevalence of complications: men



**Risk influenced by  
Regional Fat Deposition  
and Degree of Visceral  
Adiposity**

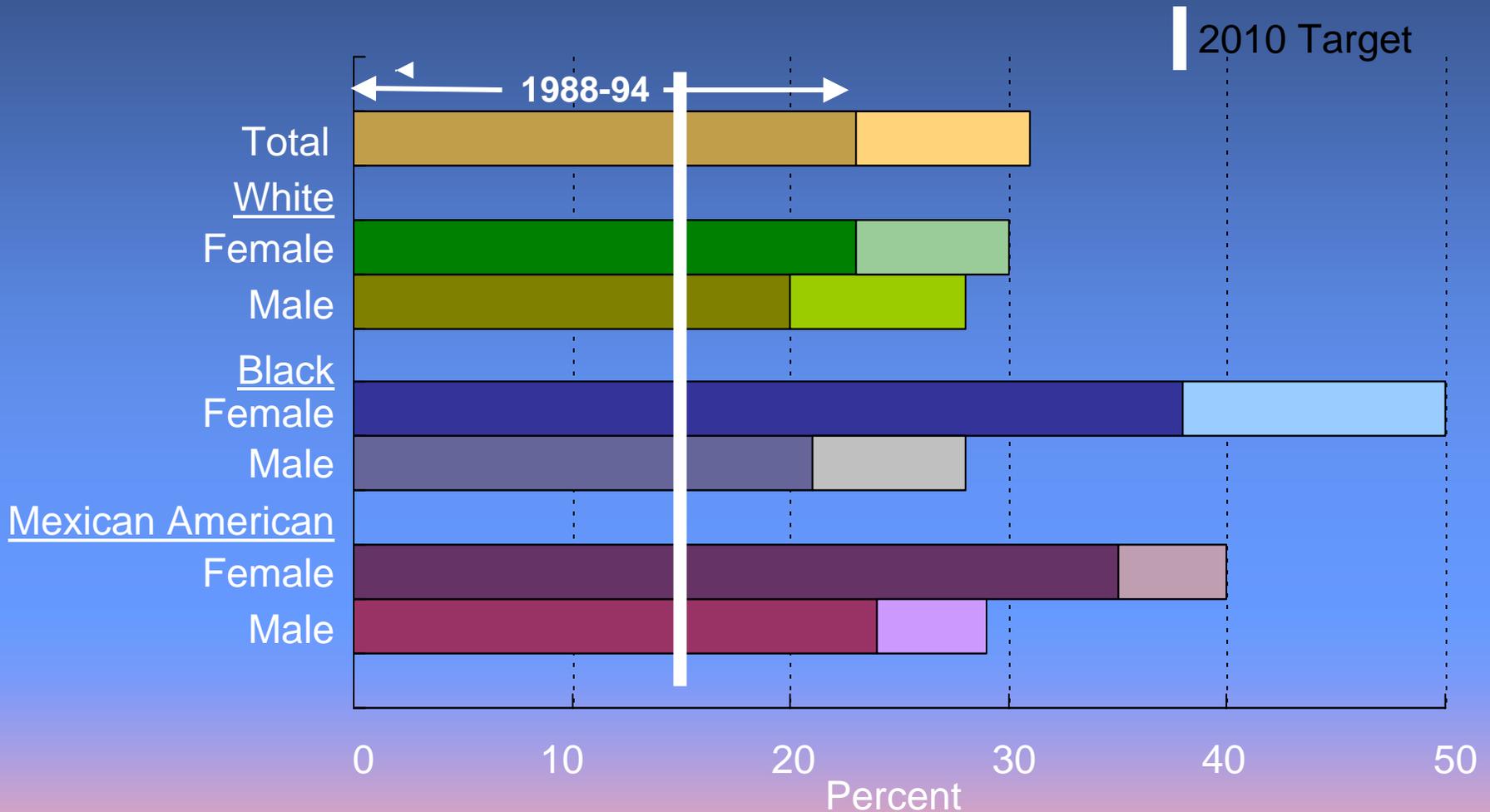
# Changes in Prevalence of Adult Obesity



Note: Data are for ages 18 years and over, **based on self-reported weight and height via telephone interview**. Obesity is defined as BMI  $\geq$  30.0.

Source: Behavioral Risk Factor Surveillance System, NCCDPHP, CDC.

# Adult Obesity: 1988-94 to 1999-2000



Note: Data are for ages 20 years and over, age adjusted to the 2000 standard population. Obesity is defined as BMI  $\geq 30.0$ . Black and white exclude persons of Hispanic origin. Persons of Mexican-American origin may be any race.  
 Source: National Health and Nutrition Examination Survey, NCHS, CDC.

# Overweight and Obesity: A Public Health Priority

- **Prevention or intervention to improve health**
- **Need to be aware of social, cultural, and environmental influences**
- **Must have access to family and community support**
- **Everybody must do their share**

The Surgeon General's  
Call To Action  
To Prevent and Decrease  
Overweight and Obesity  
2001



U.S. Department of Health and Human Services

**“Overweight and obesity...  
have reached epidemic  
proportions in the United  
States...Left unabated,  
overweight and obesity may  
soon cause as much  
preventable disease and  
death as cigarette smoking”**

**- David Satcher, M.D.,  
Ph.D.**

# HealthierUS

## The Four Pillars

- Be physically active daily
- Eat a nutritious diet
- Get preventive screenings
- Make healthy choices and avoid risky behaviors



To solve the obesity epidemic, we need to emphasize the role of **partnering** in the implementation of *Individual, Community, and National Strategies* **and providing added value**

# Realities

- **There is a finite limit of financial and human resources**
- **Consequently, interactions across Agencies and other organizations are imperative in order to enhance our investments**

# Who should be involved?

- **Schools**
- **Businesses**
- **Health care organizations**
- **Media**
- **Families**
- **Communities**
- **Governments**
- **You**

***Priority Setting*** needs to  
take into consideration  
identified  
***Challenges/Barriers*** and  
***Strategies***

# Priority Setting

- **Research**
- **Communication**
- **Community**
- **Family and Individuals**

# Research Priorities

## What do we need to know?

- What is it about obesity that leads to increased health risk?
- Do/Why interventions work for some and not for all?
- Will earlier interventions be more effective?
- What are the long-term benefits of weight loss?
- What determines behavior or choice?

# NIH Obesity Research Task Force

*Given the relevance of obesity-associated morbidities to the missions of most or all NIH Institutes and Centers, along with new scientific opportunities for research, the NIH clearly can and must play a major role in addressing the increasingly severe obesity epidemic and its serious implications for public health.*

- **Establishment of the Task Force by Dr. Elias Zerhouni, Director, NIH, to facilitate progress in obesity research (April 2003)**
- **Co-chaired by Directors of NHLBI and NIDDK; members include representatives from many additional NIH components**

# Charge to the NIH Obesity Research Task Force

- **Develop an NIH strategic plan for obesity research based on identification of areas of greatest scientific opportunity and need.**

**<http://www.obesityresearch.nih.gov/>**

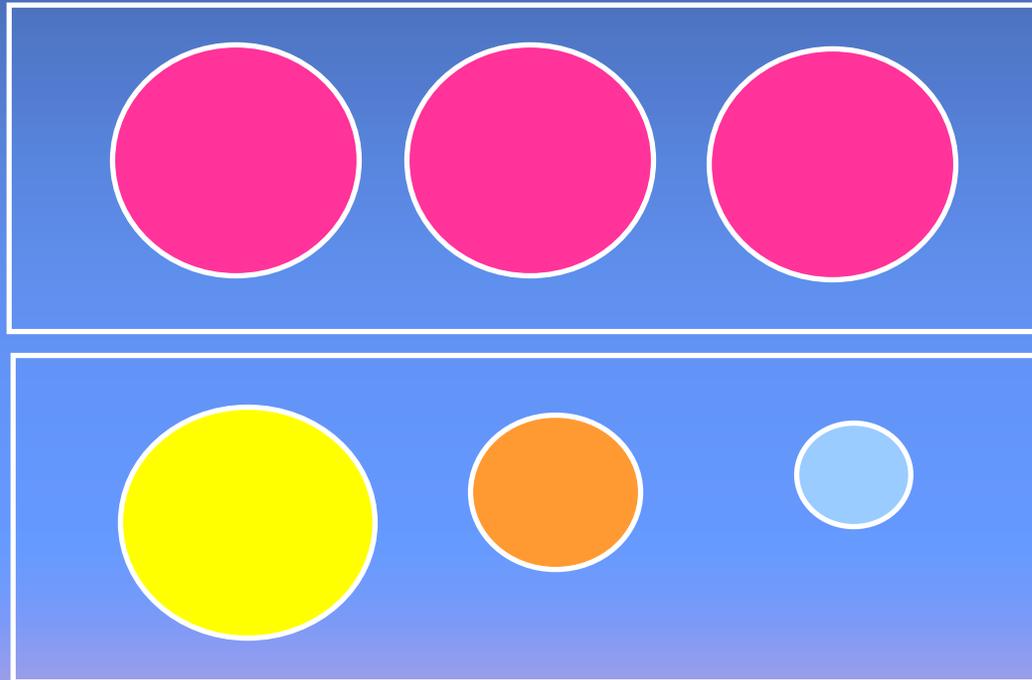
- **Serve as a point of contact for obesity research-related issues between NIH and external agencies.**

# Communication Priorities: How can we convey complex concepts?

- Obesity is a chronic disease
- Everyone will not be successful with same intervention
- Sustained small changes can benefit
- Who is overweight or obese?
  - Perceptions from the media
  - Perceptions within different cultures
- Energy Balance

# Perceptions

Understanding of 'balanced diet'



# Communication Priorities:

## How can we convey complex concepts?

- **Understanding of health messages**
  - Portion size versus serving size
  - Fitness versus weight loss
  - Increased activity versus exercise
- **Terminology**
- **Interpretation of scientific studies**
- **Sustained promotion of more healthful choices related to diet and activity**

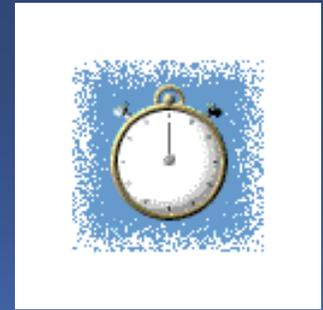
# Community Priorities

- Supportive environment for healthy lifestyle choices (social norms)
- Involvement of all sectors of the community
- Safe, convenient, affordable venues for activity
- Food preparation instruction in schools, community centers, and other locations

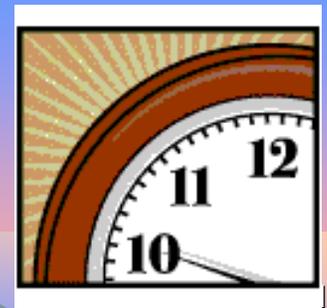
# Family and Individual Priorities

Priorities are influenced and supported by those around you.

- Culture
- Socio-economic
- Environment
- Peers
- Time



# Time: A barrier to lifestyle modification?



# Multidimensional Effect of Time

- **Time Constraints**
- **Time Allocation**
- **Impact of time constraints on time allocation**

# Time Pressure/Constraints

- Real or Perceived?
- Increased stress or stress reduction?



# Time Allocation

- Are our concerns with time more related to our priority setting?
- Challenges
  - How do we elevate healthful eating and increased physical activity in people's lives?
  - .....especially in the complex lives of the poor and minorities?

# Factors Impacting Time

- **Commuting**
- **Work Demands**
- **Scheduled Activities**
- **Income Constraints**

# Scheduled Leisure Activities

- Reading
- Spending time with family or kids
- TV watching
- Fishing
- Going to the movies
- Team sports
- Exercise (aerobics/weights)
- Gardening
- Church/Church Activities
- Computer Activities
- Eating out

*Harris Poll: Oct 13-15, 2003 , n= 1017 adults nationwide*

# Time Access

- **Differential in access to time utilization as a function of social class, etc**
  - Number of work hours
  - Longer commutes
  - Single parenting
  - Multiple family members in the work force

# Impact of time constraints on time allocation

- **Limited time, strength of other demands determine priority setting**
  - **Schools**
    - More emphasis on traditional academic courses, even when health improvement courses offered there is a lack of incorporation of healthy lifestyle principles in other areas of the school
  - **Workplace**
    - Increased labor saving devices have not translated into healthier work environments
  - **Healthcare**
    - Trend toward capitated reimbursement leads to emphasis on increased volume and decreased time which results in time being spent on directly reimbursed activities.

# Summary

- **Life-long modification of behaviors will be needed**
- **Prevention is the ultimate goal for those who are not overweight**
- **Improvement in health risk is the goal for all**
- **Everyone needs to become a Partner**

# *Paul Ambrose*



*Let us all strive to  
make a difference*



Thank you for  
listening

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