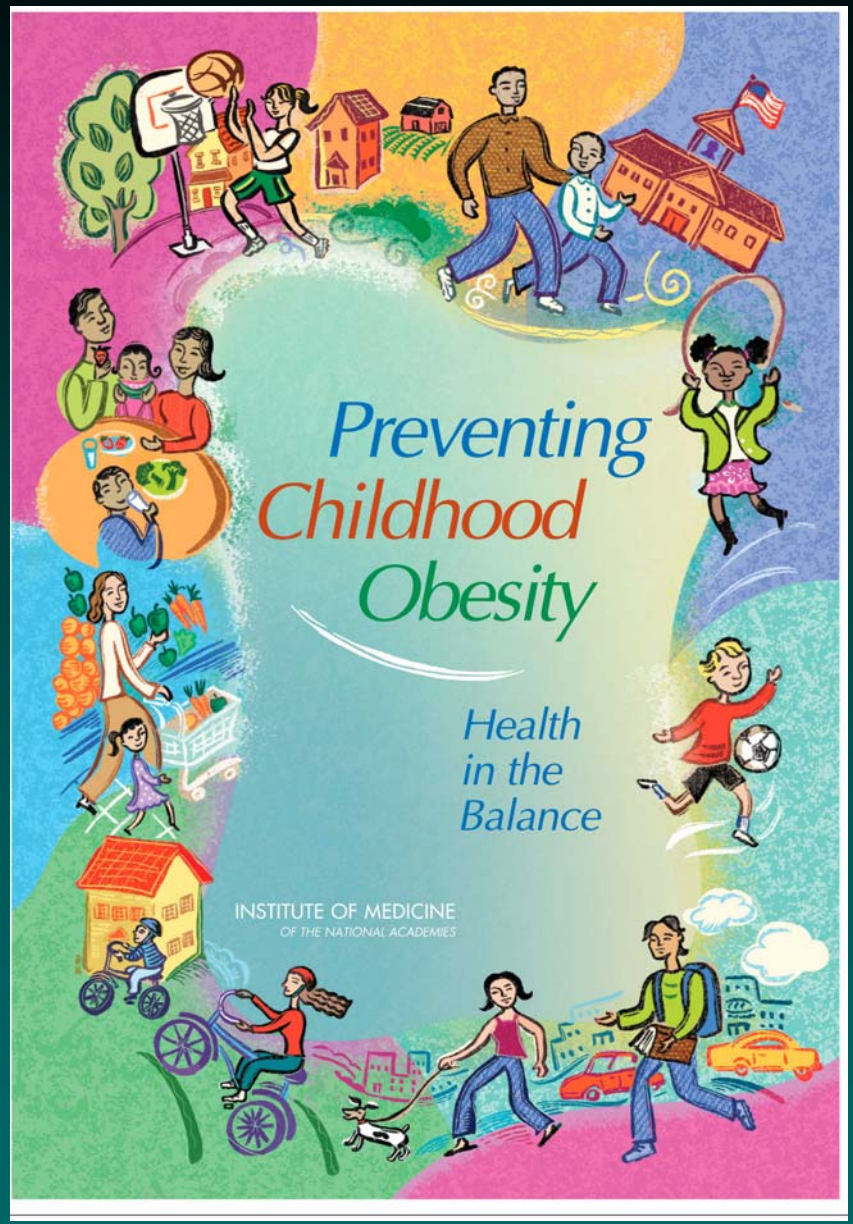
Health in the Balance: Preventing Childhood Obesity

Institute of Medicine 2004



THE NATIONAL ACADEMIES
Advisers to the Nation on Science, Engineering, and Medicine

INSTITUTE OF MEDICINE

Background

- Congressional request (2002)
- Sponsors: CDC, NIH, ODPHP, RWJF
- 19-member multidisciplinary committee
  - Six physicians; epidemiologists, economist, researchers, scientists
- Task: prevention-focused action plan
- 24 months

Committee on Prevention of Obesity in Children and Youth

JEFFREY P. KOPLAN *(Chair)*, Emory University
DENNIS M. BIER, Baylor College of Medicine
LEANN L. BIRCH, Pennsylvania State University
ROSS C. BROWNSON, St. Louis University
JOHN CAWLEY, Cornell University
GEORGE R. FLORES, The California Endowment
SIMONE A. FRENCH, University of Minnesota
SUSAN L. HANDY, University of California, Davis
ROBERT C. HORNIK, University of Pennsylvania
DOUGLAS B. KAMEROW, RTI International
SHIRIKI K. KUMANYIKA, University of Pennsylvania
BARBARA J. MOORE, Shape Up America!
ARIE L. NETTLES, University of Michigan
RUSSELL R. PATE, University of South Carolina
JOHN C. PETERS, Procter & Gamble Company
THOMAS N. ROBINSON, Stanford University
CHARLES ROYER, University of Washington
SHIRLEY R. WATKINS, SR Watkins & Associates
ROBERT C. WHITAKER, Mathematica Policy Research

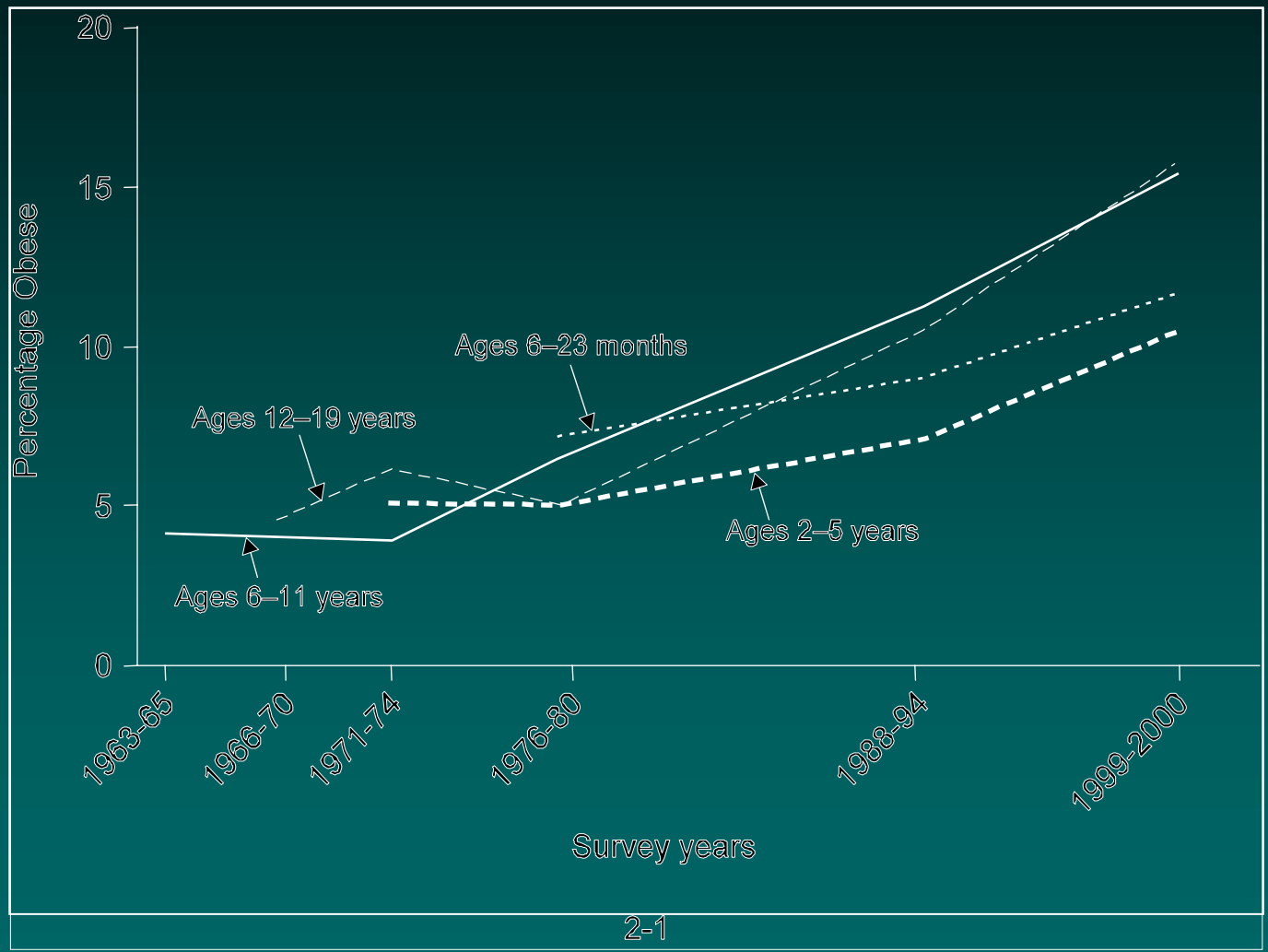
THE NATIONAL ACADEMIES
Advisers to the Nation on Science, Engineering, and Medicine

INSTITUTE OF MEDICINE

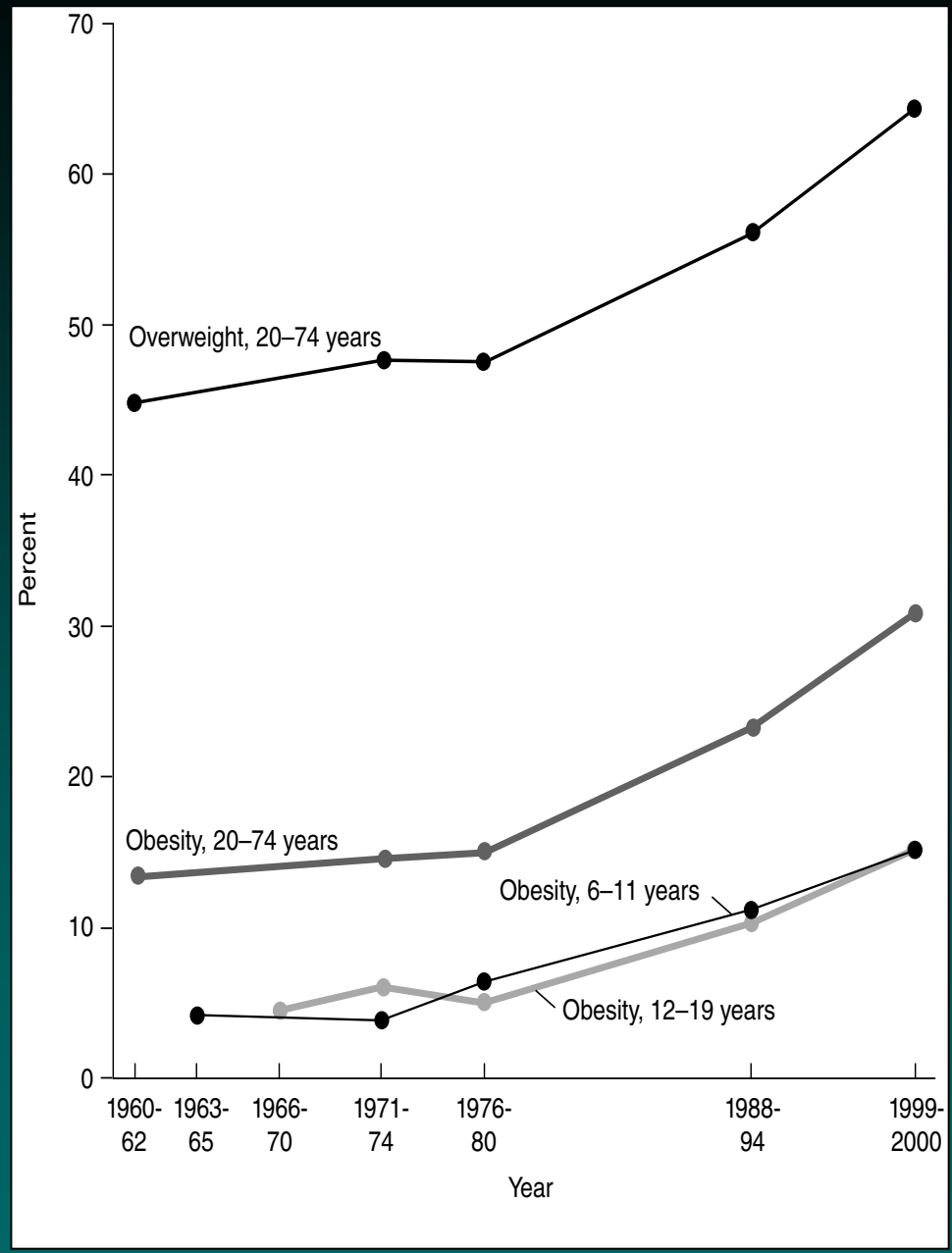
An Epidemic of Childhood Obesity

- Since the 1970s, obesity prevalence has
  - Doubled for preschool children aged 2-5 years
  - Doubled for adolescents aged 12-19 years
  - Tripled for children aged 6-11 years
- More than 9 million children and youth over 6 years are obese
- Similar trends in U.S. adults and adults internationally

Age-Specific Trends in Obesity



Trends By Age, Children and Adults 1960-2000



Economic Costs

- Obesity-associated annual hospital costs for children and youth increased from $35 million to $127 million from 1979-1981 to 1997-1999
- National health-care expenditures related to obesity and overweight for U.S. adults range from $98 billion to $129 billion annually (2004 dollars; adjusted for inflation)

Implications for Children and Society

Physical, social, emotional health consequences

Physical Health

Glucose intolerance and insulin resistance
Type 2 diabetes
Hypertension
Dyslipidemia
Hepatic steatosis
Cholelithiasis
Sleep apnea
Orthopedic problems

Emotional Health

Low self-esteem
Negative body image
Depression

Social Health

Stigma
Negative stereotyping
Discrimination
Teasing and bullying
Social marginalization

Key Stakeholders

- Families
- Schools
- Communities
- **Health care**
- Industry
- State and local governments
- Federal government

Review of the Evidence

- The committee strongly endorsed an action plan based on the best *available* evidence instead of waiting for the best *possible* evidence
- Integrated approach to the available evidence
    - Limited obesity prevention literature upon which to base recommendations
    - Parallel evidence from other public health issues
    - Dietary and physical activity literature

Changing Social Norms

Public Health Precedents

- Tobacco control
- Underage drinking
- Highway safety
- Seatbelt use and child car seats
- Vaccines

Terminology

- In report, *obesity* refers to children and youth who have a body mass index (BMI) equal to or greater than the 95th percentile of the age- and gender-specific BMI charts of the Centers for Disease Control and Prevention (CDC)
- In most children, such BMI values are known to indicate elevated body fat and to reflect the presence or risk of related diseases

Energy Balance

Energy intake = Energy expenditure

For children, maintain ***energy balance at a healthy weight*** while protecting health, growth and development, and nutritional status

Obesity Prevention Goals

For the *population* of children and youth, create an environmental-behavioral synergy that:

- Reduces the incidence and prevalence of childhood and adolescent obesity
- Reduces the mean population BMI levels
- Improves the proportion of children meeting Dietary Guidelines for Americans
- Improves the proportion of children meeting physical activity guidelines
- Achieves physical, psychological, and cognitive growth and developmental goals

Obesity Prevention Goals (cont)

For *individual* children and youth

- A healthy weight trajectory, as defined by the CDC BMI charts
- A healthful diet (quality and quantity)
- Appropriate amounts and types of physical activity
- Achieving physical, psychosocial, and cognitive growth and developmental goals

Key Conclusions

- Serious nationwide health problem requiring a population-based prevention approach
- The goal is energy balance – healthful eating behaviors and regular physical activity
- Societal changes at all levels are needed – multiple sectors and stakeholders

What's Needed

- Leadership
- Evaluation
- Resources
- Efforts at all levels
- Change in societal norms:

Obesity prevalence increasing → **Healthful eating behaviors and physical activity are the norm**

Action Plan for Obesity Prevention

- National Public Health Priority
- Healthy Marketplace and Media Environments
- Healthy Communities (including Health Care)
- Healthy School Environment
- Healthy Home Environment

Healthy Homes

Promote Healthful Eating and Regular Physical Activity

- Exclusive breastfeeding for first 4 to 6 months
- Provide healthful foods - consider nutrient quality and energy density
- Encourage healthful decisions – portion size, how often and what to eat
- Encourage and support regular physical activity
- Limit TV and recreational screen time to < 2 hours per day
- Parents as role models
- Discuss the child's weight status with his or her health care provider

Healthy Schools

Provide A Consistent Health-Promoting Environment

- Improve school foods – nutritional standards for all foods
- Increase physical activity – at least 30 minutes
- Enhance curriculum
- Reduce in-school advertising
- Utilize school health services
- Provide individual student BMI assessments to parents
- Bolster after-school programs
- Use schools as community centers

Healthy Communities

Promote Healthful Eating and Regular Physical Activity

- Mobilize communities
  - Build diverse coalitions
  - Address barriers for high-risk populations
  - Develop and evaluate community programs
- Enhance built environment
  - Revise city planning practices
  - Prioritize capital improvement projects
  - Improve opportunities for walking and bicycling to school
  - Improve access to healthful food (e.g., farmers' markets, supermarkets)

Healthy Marketplace and Media

Food and Beverage, Restaurant, Entertainment, and Recreational Industries

- Products, meals, and opportunities
  - Healthful products and meals, innovative packaging
  - Physical activity opportunities
- Labeling
  - Total calorie information, nutrient and health claims
- Advertising and marketing
  - National conference to set guidelines
  - Industry self-regulation
  - FTC authority to monitor compliance
- Multi-media and public relations campaign

National Priority

Government at all levels to provide coordinated leadership

- Federal coordination
- Program and research efforts to prevent childhood obesity in high-risk populations
- Resources for state and local grant programs, support for public health agencies
- Independent assessment of nutrition assistance programs and agricultural policies
- Research and surveillance efforts

Research Priorities

- Evaluation of interventions
- Behavioral research – factors involved in changing dietary and physical activity behaviors
- Community-based research

Focus on the Health Care Community

Health Care Community

- Professionals who care for children
  - Pediatricians, family physicians, nurses, etc.
- Professional organizations
  - AMA, AAP, AAFP, ACPM, ANA, etc.
- Training programs and certifying entities
  - Medical schools, residencies, CME, MoC, boards
- Health plans, insurers, and accreditors
  - Kaiser, CIGNA, NCQA, etc.

Health Care Professionals

- Routinely track BMI
- Offer relevant evidence-based counseling and guidance
- Serve as role models
- Provide leadership in their communities

Professional Organizations

- Disseminate evidence-based clinical guidance
- Establish programs on obesity prevention
- Coordinate with each other to present a consistent message

Training Programs and Certifying Entities

- Include obesity prevention knowledge and skills in their curricula across the spectrum of education: undergraduate, graduate, postgraduate
- Require obesity prevention knowledge and skills in their maintenance of certification examinations

Health Plans, Insurers, and Accreditors

- Provide incentives to their enrollees for maintaining healthy body weight
- Cover routine screening and counseling about body weight—diet and physical activity—as clinical preventive services
- Include these activities as benchmarks in quality assessment measures

"Preventing childhood obesity is a collective responsibility… The key will be to implement changes from many directions and at multiple levels."

For More Information

www.iom.edu/obesity/