The Physician Practice: Changes for Effective Patient Management

Goutham Rao, MD
Clinical Director, Weight Management and Wellness Center
Children's Hospital of Pittsburgh
Associate Professor, University of Pittsburgh School of Medicine
Highmark Childhood Obesity Summit
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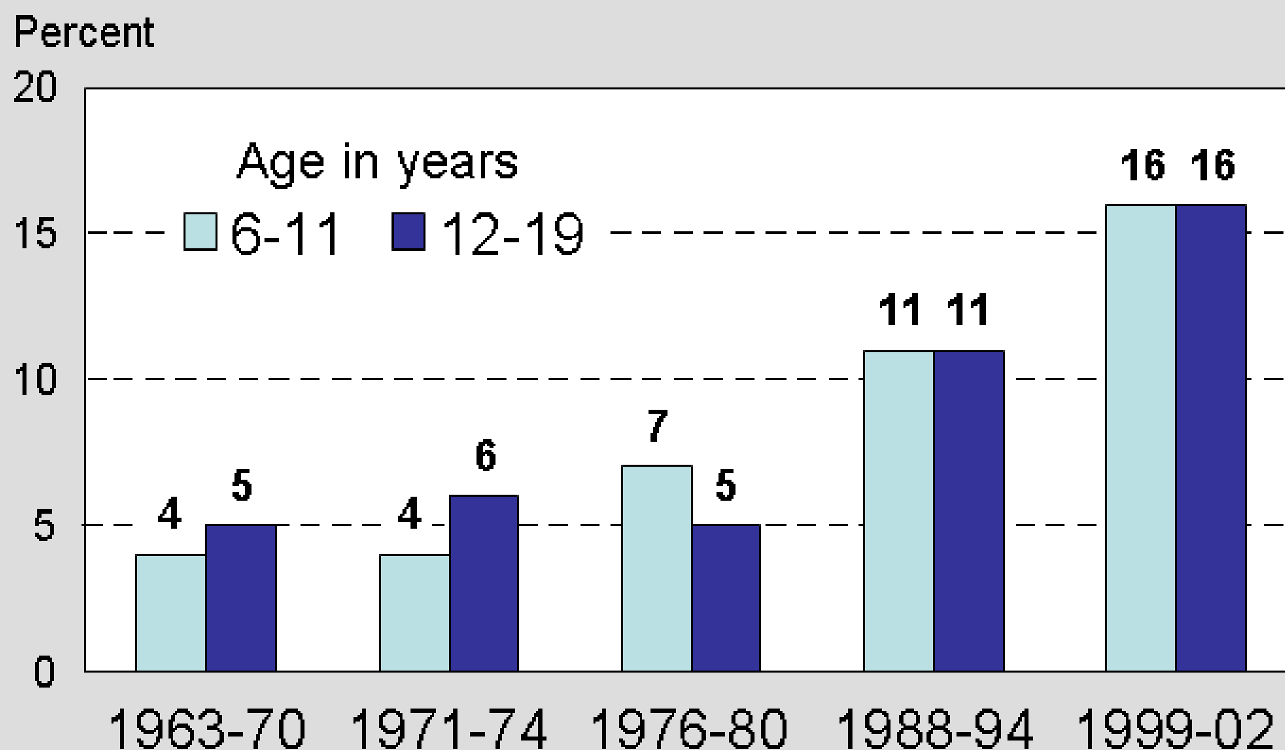
Figure 1. Prevalence of overweight among children and adolescents ages 6-19 years



NOTE: Excludes pregnant women starting with 1971-74. Pregnancy status not available for 1963-65 and 1966-70. Data for 1963-65 are for children 6-11 years of age; data for 1966-70 are for adolescents 12-17 years of age, not 12-19 years.
SOURCE: CDC/NCHS, NHES and NHANES

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Consequences

- 2 fold increase in risk of hypertension
- 3 fold increase in risk of adult diabetes

Consequences in Childhood

- Number of diagnoses of type 2 diabetes in children increased 10-fold between 1982 and 1992.
- Approximately half of all new cases of diabetes in children are type 2.

So what should we do???

- Drugs
- Michael Lemonick (Time Magazine): “We’ll keep getting fatter and fatter, with no real prospect of reversing the trend. Unless medical science provides a quick fix that is.”

Drugs

- Two major concerns:
  - Effectiveness
  - Side effects

  1940s: Thyroid hormone

  heart rhythm disturbances

  sudden death

  1960s: Amphetamines

  addiction, high blood pressure, death

Drugs Cont'd

- 1992: Fenfluramine-phentermine
  - Primary pulmonary hypertension
  - Pulled off marked in 1997
- Phenylpropanolamine (Accutrim, Dexatrim)
  - Widely used for many years.
  - Association with increased risk of stroke.
  - Pulled off market in 2000.

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Drugs Cont’d

- Available drugs:
  - Sibutramine (Meridia)
    - Average weight loss is approximately 10 lbs/year
    - Cost per year is approximately $1080.00
    - Or roughly $100/lb
  - Orlistat (Xenical)
    - Side effects

Future Drugs

- Drug development now focused upon manipulating appetite through regulation of leptin, ghrelin, and cholecystokinin.
- Rimonabant (cannabinoid antagonist)
  - Average of 20lb weight loss in adults after 2 years.

Conclusions

- Obesity drugs have a poor track record both in terms of side effects and effectiveness.
- A safe, effective pharmacological solution is many years away.

What about surgery?

- 16,000 bariatric surgeries performed in 1992.
- 103,000 performed in 2003.
- 140,000 performed in 2004
- Gastric bypass
- Gastric banding

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What about surgery?

- Effective in a large number of patients.
- Safety is a concern.
- Adverse outcomes depend upon experience of surgeon and facility.
- 1/50 chance of death within 20 days of surgery.
- Average cost: $25,000
- To solve America's obesity problem (adults): $2,174, 025, 000,000

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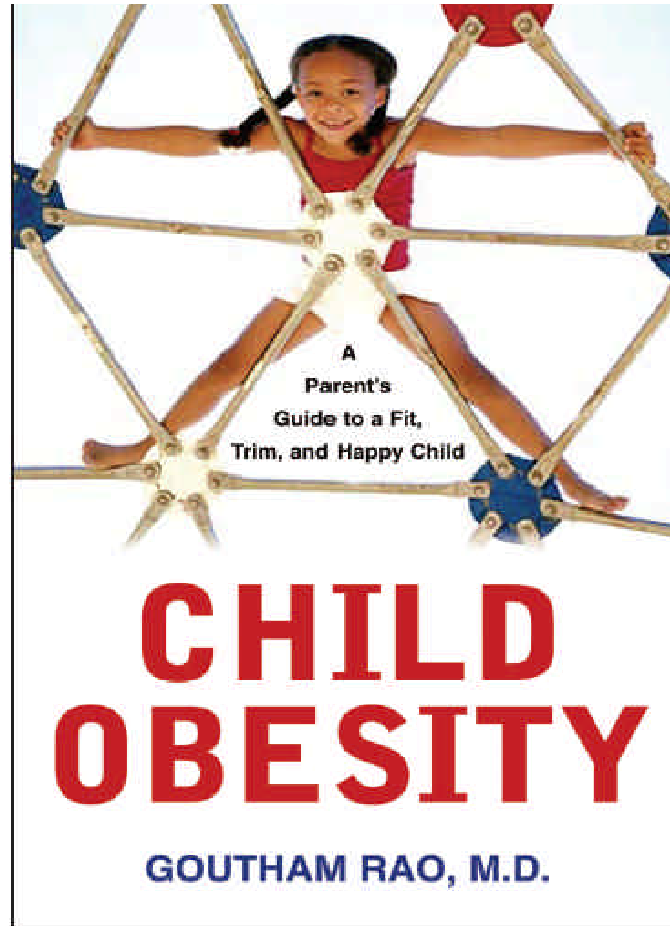
Educating Parents

Child Obesity: A Parent's Guide to a Fit, Trim and Happy Child



What about the built environment?

- Broad definition:
  - Schools, cities, workplaces
  - Community-based practices
  - Restaurants

U.S. Preventive Services Task Force on Childhood Obesity

- Scathing indictment of the research community.
- Lack of research in primary care.
- 1998 editorial in Journal of Pediatrics: “In the case of obesity (childhood) the primary care physician is left in the uncomfortable (but familiar) position of needing to something now for the patient and family seeking help, regardless of the uncertainty about the nature of the disease and the absence of a cure.”
- “There are critical research gaps in answering the most basic questions needed to enable clinicians to engage strategies to **prevent current and future weight-related morbidities among children**. Despite the fact that many of these gaps were pointed out > 10 years ago, little subsequent research has addressed the most clinically relevant questions.”

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Barriers to treating pediatric obesity

- Perrin et al
  - 1. **Better counseling tools to guide patients toward lifestyle modification**
  - **2. Better tools to communicate weight problems to patient and family**
  - 3. Easy to understand patient management guidelines
  - 4. Better reimbursement for obesity counseling
  - 12% of pediatricians reported “high self efficacy” in managing obesity.

Changing Physician Behavior

- Dissemination of guidelines is ineffective.
- Traditional continuing medical education (CME) is ineffective.
- **Electronic reminders**
- Audit and feedback
- Academic detailing
- Financial or other incentives

Changing Patient Behavior

- “Intensive Programs”
- Impact = Participation Rate * Efficacy
- Whitlock et al. on smoking cessation:
  - “Group approaches produce quit rates of 30 – 40% but reach only a small proportion of highly motivated smokers volunteering for treatment (3 – 5% of all smokers). Thus, their potential impact on the prevalence of smoking is substantially less than systematically delivered primary care interventions, which can feasibly reach the 70% of smokers who visit their clinicians each year and result in 5% to 10% overall quit rates.”

Office Visits and Office Practice

- Average ambulatory office visit time = 16. 3 minutes
- 5 As Paradigm:
  - Ask
  - Advise
  - Agree
  - Assist
  - Arrange

5 As

- Ask about common behaviors that contribute to obesity.
- Advise about their impact upon weight.
- Agree upon goals.
- Assist with goals.
- Arrange follow-up to re-enforce agreement (behavioral contract.)

Medical News TODAY
www.medicalnewstoday.com

Doctor Proposes Five Steps We Can Take To Help Curb Child Obesity
19 Apr 2006

Weight problems among children have now reached epidemic proportions. And it's no wonder. High-calorie fast foods and soft drinks are everywhere, and they are heavily promoted in many of the 40,000 television commercials that kids watch every year.

In Child Obesity: A Parent's Guide to a Fit, Trim, and Happy Child, nationally recognized expert on child obesity Dr. Goutham Rao uses the latest and best medical evidence available to show you how to help your child avoid or overcome this prevalent and dangerous health problem.

In the first part of his easy-to-read and informative book, Dr. Rao gives you the knowledge you need to understand the scope of the problem. He identifies the five principal culprits for obesity among children: soft drinks ("liquid candy"); fast food; television and video games; the inactivity of youngsters both at school and at play; and the changing patterns of family behavior, which have led to irregular meal times and the over-consumption of "convenience" foods.

The Big Five

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The Big Five

- Sweetened beverages
- Fast food
- Television
- Lack of habitual or “free time” physical activity
- Lack of family meals and poor feeding practices (e.g. food restriction)

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Tools

- Nursing evaluation: Body Mass Index
- Nursing assessment of common behaviors contributing to obesity
- Increased awareness in physical environment
- Incorporation into an electronic health record (EMR)

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EHRs and Prevention

- Chaudhry et al, Annals of Internal Medicine, 2006
- Systematic review of EHRs on quality, efficiency, and costs
- 12/10 “adherence” studies evaluated EHRs in preventive health care delivery

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EHRs and Prevention

- Reminder systems/alerts for primary prevention:
  - Improved influenza vaccination rates (improvement of 12 to 18%)
  - Improved pneumococcal vaccination rates (improvement of 20 to 33%)
  - Improved fecal occult blood testing (adults) (improvement of 12 to 33%)

Identifying Problem Behaviors

- Questionnaire:
- **1. Does the child consume more than 1 serving (8 – 12 oz) of sweetened beverage per day? (fruit juice, fruit drinks, regular soft drink, sports drink, regular iced tea, energy drink, flavored or sweetened milk) Yes/No**
- **2. Does the child consume "traditional fast food" more than 1 time per week? (burgers, French fries, chicken nuggets, fried chicken, breaded chicken, etc.) Yes/No**
- **3. Does the child engage in more than 2 hours of "media time" per day? (television, computer use, video games, music players, etc.) Yes/No**
- **4. Does the child have evening meals with one or both parents less than twice per week? Yes/No**
- **5. Does the child engage in less than 30 minutes of habitual physical activity per day? Yes/No**

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