Obesity Outcomes and Cost Consequences—Synthesis of Research Findings

OVERVIEW

Overweight and obesity are significant and growing problems in our society. The prevalence of overweight among young people has nearly tripled in the last 30 years: In 1971-74 only 4 percent of children aged 6-11 and 6 percent of adolescents aged 12-19 were overweight.[1] By 2003-04, the prevalence had increased to 19 and 17 percent of children and adolescents, respectively.[2] Overweight in children is associated with orthopedic complications, metabolic disturbances, type 2 diabetes, disrupted sleep patterns, poor immune function, endocrine problems, impaired mobility, increased blood pressure and hypertension,[3,4] and various psycho-social consequences.[5,6,7, 8,9] Addressing the problem of obesity is a national priority—one key Healthy People 2010 objective is to reduce the prevalence of overweight among children and adolescents ages 6-19 years to 5 percent.[10]

Obesity has its roots in childhood, so addressing the problem early has the potential to improve health and save money in the long term. Compared to their normal weight peers, children who are overweight during preschool are five times more likely to be overweight at age 12.[11] As children get older this relationship holds true. Between the ages of 7 and 15, body mass index (BMI) predicts adult obesity; the heaviest children in this age group (BMI >16) are 3 times more likely to become obese as adults.[12]

ECONOMIC IMPACT

Childhood overweight has significant economic consequences. Among youths aged 6-17, estimated hospital expenditures where obesity was a principal or secondary diagnosis equaled $127 million in 2001.[13] This represents a near three fold increase from $35 million in 1979-1981.[14] Direct national medical expenditures for conditions attributable to obesity reached $70 billion in 1995 and indirect costs totaled $48 billion.[15] Government and businesses bear significant burden of these costs: Approximately 50 percent of obesity related costs are paid by Medicare and Medicaid[16] while US businesses spend 12.7 billion annually on obesity through health insurance, life insurance, disability time, and paid sick leave.[17] As the population ages and both government and businesses increase the amount they spend on healthcare through Medicare and pensions, obesity will be an even larger economic burden on the private and public sectors.

INTERVENTIONS

Obesity research is a relatively new field and although many interventions exist, the evidence demonstrating the effectiveness of these efforts is mixed. Some successful interventions have been based in the school setting. For example, one study conducted among Head Start programs in Chicago found that children receiving information on healthy eating plus additional exercise time in class had less weight gain than a control group of peers.[18] Another school-based study aimed to reduce television, video, and video game viewing time among third and fourth graders. This intervention resulted in lower television viewing and meals eaten in front of the television, and lower BMI, triceps skinfold thickness, waist circumference, and waist-to-hip ratio measures among intervention children.[19]

Interventions to prevent and treat childhood overweight have been implemented in clinical settings as well, although the literature on these programs is extremely limited. One study conducted among11-15 year olds attending private clinics in San Diego County found that a physician-assisted program was able to improve children's physical activity and dietary intake behaviors but had no impact on BMI.[20]

Interventions conducted in children's homes suggest that the involvement of parents is important to reducing childhood overweight. In fact, some interventions have targeted parents solely, concluding that this is more effective than targeting both parent and child.[21] Findings such as these illustrate how important healthy families are in preventing and treating overweight among children.

Because of the limited evidence of program effectiveness to date, researchers point to the need to address the immediate and direct causes of childhood overweight with consideration of the socio-economic context within which this occurs.[22,23,24] They suggest that such an approach will require the active involvement of the health care and education sectors, as well as commercial food producers and processors, retailers, advertisers and the media, among others.

STATE ACTIVITIES

State MCH programs are leading the way with innovative efforts to reduce childhood overweight, and ultimately save valuable healthcare dollars. These activities include:

- Provided by AMCHP
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