Early Intervention

AHIP Coverage (Sept/October 2008)

Childhood obesity programs aim to put kids on a new, healthier path to adulthood.

By William Atkinson

In July, the American Academy of Pediatrics (AAP) drew attention to the state of children’s health and fitness when it issued new cholesterol screening and treatment recommendations for children, suggesting that physicians should consider prescribing cholesterol-reducing medications for patients 8 years old and older with high concentrations (>500 mg/dL) of LDL cholesterol (and, in certain extreme cases, for children younger than 8).

News coverage of the announcement sparked public outcry for a renewed focus on the fundamentals of diet and exercise to control weight and reduce the incidence of comorbidities such as high cholesterol.

While reaction to AAP’s updated guidelines may have demonstrated that Americans do have an understanding of the importance and implications of body weight, the Centers for Disease Control and Prevention (CDC) reports the incidence of overweight among children is rising—dramatically—even as nutrition and body weight is among the 28 focus areas of the Department of Health and Human Services’ Healthy People 2010 initiative.

Indeed, data from two National Health and Nutrition Examination Surveys (NHANES), 1971-1974 and 2003-2004, show the prevalence of overweight in children accelerating at an alarming rate, increasing by 8.9 percent among children aged 2-5; by 14.8 percent among children aged 6-11; and by 11.3 percent among children 12-19 years old. (See the table on page 28.) More recently, an analysis by The New York Times of prescription data from Medco Health Solutions, Express Scripts, and Verispan revealed that “hundreds of thousands of children already are taking medication to treat Type 2 diabetes, high blood pressure, high cholesterol, and acid reflux—all problems linked to obesity that were practically unheard-of in children two decades ago.”

As if the data were not already cause for alarm, consider for a moment the implications of population size. The 2000 U.S. Census counted 72.3 million people under the age of 18, or 26 percent of the population. While the U.S. Census Bureau projects the population between the ages of 5-19 to remain relatively flat from 2000 to 2010 (growing just 0.8 percent), an 11.5 percent increase in the 0-4 age cohort is projected.

It is against this backdrop that health plan initiatives commonly aim to prevent obesity using a variety of outreach strategies to educate members about nutrition and fitness.
Some plans, however, also offer clinical programs to treat overweight and obesity in children. Two such programs are being offered by Passport Health Plan in Louisville, Kentucky, and by Highmark Inc. in Pittsburgh.

**Clinical Partnership** The collaboration between Passport Health Plan and the Heuser Clinic’s Childhood Obesity Program is a scientifically based 12-week fitness program developed by Louis Heuser, M.D. The program provides nutritional counseling and exercise programs (cardiovascular exercise and weight training) to help children get started on the road to a healthier lifestyle. A personal trainer and medical staff follow children throughout the program, and participants and their caregivers attend nutritional counseling programs.

All of the participants come to the program with comorbidities directly related to being overweight. Many of these comorbidities resolve with participation in the program. Besides losing weight (while naturally gaining height at the same time) and reducing their BMIs, participants benefit from improved self-esteem and quality of life.

“We began with one child, who has been our ‘pioneer,’” reports J. Eric Davis, social work case manager. “He has been with us all along and has seen the most significant results.

From there, we continued to expand, bringing more and more children into the program.” To date, about 24 children have participated in the program. (See the sidebar on page 32 for a sample of the program’s results.) Selection is somewhat informal, according to Davis. “We look for children who are in the morbid obesity range and who also have at least one comorbidity, such as high blood pressure, diabetes, joint pain, and so on.” In fact, Passport hasn’t turned any child away yet, because all of the children referred to the program have qualified.

To ensure children and their families get the attention and services required to make lifestyle and behavior changes, the program is limited to 15 children at a time. As one child rotates out, another child rotates in from a waiting list. “Generally, most children are in the program for three months,” says Davis. “However, some stay longer, especially if we don’t have a waiting list [at the time].”

The decision to rotate a child out of the program is made jointly by the family, the child, and the Heuser Clinic staff once the child is on the right path. “However, children can rotate back in if they feel things aren’t working out after some time,” says Davis.

The program’s success, says Davis, is due to two unique characteristics—having a nutritionist on staff who works with the entire family and the one-on-one interaction each child has with a personal trainer. Passport serves Medicaid beneficiaries exclusively, a population that seldom has access to such services.

Recognizing that the clinic-based education must translate to the child’s home life, “the nutritionist brings the family in for an initial assessment to find out what is going on in the
home related to eating, and how they can improve that,” he says. Because parents or caregivers are typically the ones who do the food shopping and meal preparation, their participation is an important aspect of the program.

The individual attention of a personal trainer and sense of community with other children in the program improves not only fitness, but also the child’s outlook. “A lot of the children are shunned at school, have poor social skills, and lack self-esteem,” explains Davis. “Being around other children going through the same thing, and having a one-on-one interaction with a personal trainer … is something they normally don’t get.” As such, not only does their weight improve, but their social skills and self-esteem also improve as they progress through the program. “The Heuser Clinic conducts ‘quality of life’ surveys before and after [participation], and [results have] moved in a positive direction for all of the children who have participated,” he adds.

Despite its success, Passport continually looks for opportunities to improve the program. “We have periodic meetings with the staff and the clinic and try to determine what can be improved,” says Helen Homberger, vice president of medical management for Passport. “For example, we are now utilizing a three-month program. However, we may decide that three months is not a workable amount of time.” Passport also monitors the number of children on the waiting list to see if there are a number of children not being served, a data point that is taken into account as the program evolves.

Finding a capable partner—in Passport’s case the local Heuser Clinic—is both a key to success and a limiting factor.

“Since the Heuser Clinic program was already in existence, we didn’t have to create it or find someone to create it,” explains Sherry Rumbaugh, director of medical management care coordination for Passport. “We wanted someone that had the same niche and goal for improving the quality of life of our members, and Heuser did.”

At the same time, Davis says Passport would like to expand the program beyond the one county, but would need to find a similar program already in existence in order to do so.

**Tools to Grow Healthy Adults** “A few years ago, we began to see costs associated with obesity and the relationship between chronic disease and obesity,” recalls Janice Seigle, strategic corporate initiatives director for Highmark Inc. In 2004, Highmark costs attributable to obesity alone were more than $1 billion. “We realized we needed to address these [trends], and help children make better choices, so that they would grow into healthy adults.” After all, studies have shown that children who are obese in adolescence have a very high probability of becoming obese adults.

From 2002 to 2006, Highmark introduced a number of initiatives to address childhood obesity. In 2002, for example, it partnered with the Pittsburgh Public Schools to launch the Fun to Be Fit program to incorporate nutrition education and physical activities into
the curriculum. It then began providing funding for the KidShape program that supports training for educators in the Sports Play and Active Recreation program (SPARK). In 2004, Highmark introduced a Childhood Obesity Toolkit for physicians, providing resources, information, and evidence-based expert guidelines for preventing and treating obesity in their pediatric patients, such as:

- BMI calculator
- Growth charts
- Information about health risks associated with elevated BMI
- Childhood obesity treatment guidelines from the American Academy of Pediatrics (AAP)
- Lists of local and national resources for treatment, recreation, and nutrition education

“Physicians, nurses, or other recognized health care providers, calculate a child’s BMI and use the CDC graph to determine the percentile,” says Seigle. [See the sidebar on page 34 for a primer on children’s BMI.] The physicians’ toolkit also includes resources to be shared with parents to encourage healthy eating and active living at home, including proper diet guidelines and concrete suggestions to promote family physical activity.

More than 2,000 physicians in Highmark’s 49-county service area received the toolkit and were “quite pleased with it,” reports Seigle.

In 2005, Highmark added preventive health obesity benefits for children and adults to its preventive health schedule. For children, these benefits set the stage for appropriate access to care for early treatment of weight problems. The initiative offers ongoing counseling and coaching; support of lifestyle changes; and feedback involving nutrition, activity, and weight management goals as covered benefits.

“The toolkit suggested the algorithms and treatment options,” says Seigle. “The preventive schedule grew out of these recommendations.

Providers told us that reimbursement was an issue, so we made recommended follow-up visits and screenings part of the preventive schedule, so those services are now reimbursed.”

“We realized that children in the 95th BMI percentile are at the highest risk for glucose intolerance, high blood pressure, and other problems,” says Seigle. As such, children with a BMI ≥95th percentile are eligible for two additional annual preventive office visits specifically for obesity and blood pressure measurement; two annual nutritional counseling visits specifically for obesity; and recommended laboratory studies annually: lipid profile, hemoglobin A1C, and fasting glucose, as well as aspartate aminotransferase and alanine aminotransferase (which are liver enzymes, as obesity puts children at increased risk for liver disease). Children with a BMI ≥85th percentile are eligible for one additional annual preventive health office visit specifically for obesity and blood pressure measurement.
As of early August, Highmark was working to update its toolkit. “We hope to get it out this fall,” says Seigle. “In Pennsylvania, through the Department of Welfare, there have been some guidelines established, as well as some treatment options, which are covered under the medical assistance program in the state.

As a result, we wanted to add this information to the toolkit. We are also providing more comprehensive information on early identification and treatment [of childhood obesity].”

In terms of obesity prevention and treatment, both clinical and community interventions are key.

Clinical benefits and programs are important, but it is also important for health plans to recognize the need to reach people in their daily lives, such as in the home, school, work, or community setting. For an example of this concept in action, see the sidebar on page 36 about Highmark Healthy High 5, an initiative of the Highmark Foundation.

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[Sidebar]
**AHIP Offers Obesity Program Resources**
The AHIP Obesity Initiative has supported member health insurance plans’ obesity prevention and treatment efforts since 2003. AHIP’s ongoing series of forums, programs, grants, educational audio conferences, and roundtables bring health plans and other stakeholders together to discuss the challenges of obesity, review the evidence, develop effective strategies, and share models that work.

Visit the AHIP obesity program Web site, [www.ahip.org/obesity](http://www.ahip.org/obesity), this fall for updated resources, including AHIP’s white paper, “Facing the Challenge of Unhealthy Weight: Recommendations for the Health Care Community;” and the “Innovations in Prevention, Wellness, and Risk Reduction” monograph.

The latest in AHIP’s “Innovation” series, “Innovations in Prevention” captures health plans’ commitment to health promotion and risk reduction programs that prevent chronic diseases and conditions.

[Sidebar]
**The Right Path**
The Passport Health Plan and Heuser Clinic Childhood Obesity Program has helped 24 obese children lose weight and gain self-esteem with a focus on nutrition and exercise.

Below are the results achieved by three participants.
“Child A”
age: 12
months in program: 43
at start: 334 pounds, 63 inches tall, BMI 59.2
comorbidities at start: asthma, hyperlipidemia, depression, and pulmonary TB
recent: 158 pounds, 68 inches tall, BMI 24.4

“Child B”
age: 10
months in program: 27
at start: 128 pounds, 52 inches tall, BMI 33.9
comorbidity at start: asthma
recent: 119 pounds, 57 inches tall, BMI 25.7

“Child C”
age: 14
months in program: 6
at start: 229 pounds, 65 inches tall, BMI 38.1
comorbidity at start: fatigue
recent: 228 pounds, 67 inches tall, BMI 35.7
trainer’s comment: “highly motivated and great energy”

—W.A.

[Sidebar]
**About Children’s BMI**
Calculating a child’s body mass index (BMI) is more complex than calculating an adult’s BMI.

According to the Centers for Disease Control and Prevention, a child’s BMI is calculated from body weight and height and takes into account normal differences in body fat by age and sex. Often referred to as BMI-for-age, the number is a reliable indicator of body fatness for most children and teens. BMI does not measure body fat directly, but research has shown that BMI correlates to direct measures of body fat, such as underwater weight and dual energy X-ray absorptiometry (DXA).

After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States.

The percentile indicates the relative position of the child’s BMI number among children of the same sex and age. The growth charts show the weight status categories used with children and teens.
BMI is used to screen children for overweight, at risk of overweight, or underweight. However, CDC cautions that BMI is not a diagnostic tool.

For example, a child may have a high BMI for age and sex, but to determine if excess fat is a problem, a health care provider would need to perform further assessments. These assessments might include skin fold thickness measurements, evaluations of diet, physical activity, family history, and other appropriate health screenings.