

NPHHI

National Public Health  
*and* Hospital Institute

OBESITY TREATMENT PROGRAMS  
IN PUBLIC HOSPITALS AND HEALTH SYSTEMS

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IN PUBLIC HOSPITALS AND HEALTH SYSTEMS

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WASHINGTON, DC

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## About The National Public Health and Hospital Institute (NPHHI)

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NPHHI is a private, nonprofit research and education organization established in 1988 to address the major issues facing public hospitals, safety net institutions, and underserved communities, as well as related health policy issues of national priority. The Institute's membership includes the hospitals and health systems that comprise NAPH. The NPHHI board includes public and nonprofit sector leaders in health policy and service delivery.

## About The National Association of Public Hospitals and Health Systems (NAPH)

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NAPH represents more than 100 of America's most important safety net hospitals and health systems. These facilities provide high-quality health services for all patients, including the uninsured, regardless of ability to pay. They also provide many essential community-wide services, such as primary care, trauma care, and neonatal intensive care and educate a substantial proportion of America's doctors and nurses. At the national level, NAPH advocates on behalf of its members on issues of importance to safety net health systems across the country. NAPH also conducts research on a broad range of issues that affect safety net hospitals.

## Acknowledgments

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## Executive Summary

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After a dramatic increase over the last 30 years, the prevalence of obesity in the U.S. population is at an all-time high. Today, nearly two out of every three Americans are either overweight or obese, and the cause of death for one out of every eight people in the nation is from illnesses related to obesity. Costs associated with providing care for obesity-related illnesses account for roughly \$92.6 billion annually, approximately half of which is funded by Medicaid and Medicare. Given that research has shown obesity to be a stronger indicator of chronic conditions than either smoking or alcohol abuse, it is clear why health care experts have labeled the nation's rapid rise in obesity rates a serious health crisis.

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Obesity treatment is a particularly important issue to public hospitals for several reasons. Public hospitals are located in urban and low-income areas and provide a high volume of inpatient and outpatient care to culturally diverse uninsured and underserved patients. Research indicates that poor racial and ethnic minority populations, who comprise the public hospital patient base, experience obesity and the correlated negative health effects more frequently than wealthier non-minority patients. Because public hospitals are leaders in innovative cultural and linguistic practices, many minority patients rely on them to provide culturally-competent obesity treatment services that they may not receive elsewhere.

Data from the National Public Health and Hospital Institute (NPHHI) *Obesity Treatment Programs in Public Hospitals Study*, which analyzed 69 program interventions, indicate a number of important characteristics. Members of the National Association of Public Hospitals and Health Systems (NAPH) are more likely to offer obesity programs for children than adults. Additionally, 58 percent of reported programs are directed at adults, almost 44 percent target families, and 28 percent focus on hospital staff.

Physicians and dietitians are the most common obesity treatment clinicians, though the former are more likely to be the main provider and the latter are more often the secondary provider.

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Clinicians that specialize in mental health care—including social workers, psychologists, and psychiatrists—are typically secondary providers. More than 46 percent of the 69 programs included in the study involve at least one mental health provider.

Most of the programs collaborate with community resources.

- 59 percent provide a list of local recreational sites to its participants.
- 25 percent offer discounts to local gyms.
- 15 percent team up with local farmers markets.
- 7 percent partner with other hospitals.

Public hospital obesity programs assist their patients in other ways as well. For instance:

- 65 percent provide resources for patients with low literacy;
- 32 percent provide access to safe areas for physical activity;
- 25 percent provide coupons for healthy foods and produce; and
- 10 percent provide vouchers to patients for transportation to the hospital.

NPHHI's study found a number of common features among the most promising obesity treatment practices, including those profiled in case studies from Boston Medical Center, Harris County Hospital District, MetroHealth Medical Center, Santa Clara Valley

Medical Center, and the University of Kansas Medical Center. For example:

- Obesity programs in NAPH members tend to combine nutrition, activity and behavioral modification components and promote lifestyle change.
  - Most offer an orientation for patients in order to gauge patient motivation before beginning the program and inform patients of what to expect during the intervention.
  - Providers tailor the intervention to individual patients, but also provide group sessions in order to offer more support.
  - Motivational interviewing is often used, which more fully involves the patient in setting and meeting personal goals.
  - Pediatric programs involve family members in the intervention. All of the programs encourage patients to continue follow-up after completing the program.
  - Many recruit privately-insured patients so that they can expand their services to more uninsured patients.
  - Program coordinators leverage resources by identifying and publicizing inexpensive or free community resources (e.g., local recreational facilities) as part of their obesity program and by partnering with the private sector to obtain free samples and educational materials for program participants.
  - Many programs maximize patient participation and financing by working with reimbursement incentives (e.g., scheduling patient visits with a physician
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certified in nutrition rather than a dietitian when dietitian visits are not reimbursed).

In conclusion, the NPHHI study found that, while obesity is seen as a major public health problem, policymakers and payers are not reimbursing for treatment with an eye toward efficiency in the health care system.

The health care system is structured to finance the most costly outcomes of obesity, rather than obesity treatment that could prevent the need for such outlays. Until that fundamental paradigm changes, public hospitals are making important headway in combating this epidemic with creative approaches that particularly target vulnerable populations.

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## Introduction

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After dramatic increases over the last 30 years, the prevalence of obesity in the U.S. population has more than doubled since the mid-1970s and is now at an all-time high.<sup>1</sup> Among adults, rates increased from 15 percent in 1980 to 33 percent in 2004. During that same period, obesity incidence for children aged 6–11 jumped from 7 percent to nearly 19 percent, and for those aged 12–19, rose from 5 percent to 17 percent.<sup>2</sup> Today, nearly two out of every three Americans are either overweight or obese, and the cause of death for one out of every eight people in the nation is from illnesses related to obesity.<sup>3</sup> Costs associated with providing care for obesity-related illnesses account for roughly \$92.6 billion annually,<sup>4</sup> approximately half of which is funded by Medicaid and Medicare.<sup>5</sup> As research has shown that obesity is a greater indicator of chronic conditions than either smoking or alcohol abuse,<sup>6</sup> it is clear why health care experts have labeled the nation’s rapid rise in obesity rates over the past several decades a serious health crisis.<sup>7</sup>



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### Hospitals Adjust to the Growing Epidemic

The increasing obesity epidemic directly affects a hospital’s bottom line. In 2003, the hospital group-purchasing organization Novation conducted a study of 300 materials management directors about the impact of obesity on hospital supplies, equipment, construc-

tion, and staffing. A full 80 percent of respondents reported admitting more severely obese patients than in the previous year, resulting in shorter lifecycles for current equipment and a need for new types of purchases: stronger wheelchairs and beds, wider gowns, and larger blood-pressure cuffs. Novation estimated the financial impact related to treating severely obese patients was up

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to \$500,000 annually.<sup>8</sup> The company did a follow-up study in 2007, in which nearly a third of participating hospitals cited an increase in workplace injuries related to caring for severely obese patients. Given that 78 percent of hospitals in the study reported increased admissions of severely obese patients (up 22 percent from the previous year), there are no signs that the epidemic is slowing down.<sup>9</sup>

According to the Health Research and Education Trust (HRET), a research organization affiliated with the American Hospital Association, “the role of hospitals [in treating obesity] is often overlooked, even though hospitals are in a prime position to tackle this growing epidemic, given their wealth of medical expertise and their leadership position within communities.”<sup>10</sup> Indeed, the literature supports HRET’s assessment with examples of how hospital obesity treatment programs have been found effective at weight loss.<sup>11, 12</sup> In addition, patients seeking aggressive weight loss, or who have related physical or psychological problems, are advised to seek help at hospital-based weight loss programs rather than commercial programs. Doctors and researchers agree that “in general, hospital-based programs... are equipped to help people who are severely overweight in addition to those who have problems such as diabetes or hypertension or depression. Unlike major commercial diet centers, which typically are run by company-trained personnel, hospital-based

programs are staffed by doctors, dietitians, exercise physiologists, and psychologists who specialize in obesity treatment.”<sup>13</sup>

### Public Hospitals Play a Key Role

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Obesity treatment is a particularly important issue to public hospitals for several reasons. Members of the National Association of Public Hospitals and Health Systems (NAPH) are safety net hospitals located in urban and low-income areas, and they provide high volumes of inpatient and outpatient care to culturally diverse uninsured and underserved patients. Research indicates that poor racial and ethnic minority populations, who comprise the public hospital patient base, experience obesity and the correlated negative health effects more frequently than wealthier non-minority patients.<sup>14, 15, 16</sup>

Indeed, experts have found a disproportionate rise in the prevalence of obesity among African Americans and Hispanic Americans.<sup>17</sup> Other studies have found higher obesity rates among those with low income and low education levels.<sup>18</sup> Data from the Centers for Disease Control indicate that obesity rates have increased most sharply for African American women and Mexican American men in recent years.<sup>19</sup> Hispanic teens reportedly have experienced the highest rates of growth in body-mass index (BMI) ratios, and African American women fall disproportionately under the extreme BMI

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(i.e., >40) group.<sup>20</sup> These daunting statistics indicate that public hospitals are responsible for providing care to a substantial portion of obese patients, many of whom could not afford treatment for this disease in other health care settings. Consequently, public hospitals play an important role in stemming both the national obesity epidemic and the racial, ethnic, and socioeconomic disparities in obesity incidence.

Additionally, many minority patients rely on public hospitals to provide culturally-competent obesity treatment services that they may not receive elsewhere, as public hospitals are leaders in innovative cultural and linguistic practices.<sup>21</sup> Indeed, language differences have been cited as a barrier to treatment of obesity among adults and children, particularly among Latino populations.<sup>22</sup> Causes and attitudes about obesity vary widely from one society to another, and the literature indicates that no single obesity treatment intervention will prove successful for patients in all demographic groups. As a result, there is a need for multiple, tailored approaches to obesity treatment, and public hospitals are in a prime position to offer individualized treatment to their diverse patient population.

### **Purpose of the Study**

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The National Public Health and Hospital Institute (NPHHI) conducted this study for several reasons. If the health care system's ultimate goal is to stem the

obesity epidemic and associated chronic diseases, a logical first step is to understand the scope of the problem and the current thinking about solutions. Therefore, NPHHI's primary objectives in conducting this study were to take an inventory of public hospital obesity interventions, assess the challenges facing providers and patients, and identify any treatment trends that emerge. No such analysis or compilation of programs was previously available. Because public hospitals are laboratories for individualized program development, NPHHI correctly anticipated that many interventions currently exist within the NAPH membership. Some of these efforts have been particularly effective, as described in the case study portion of this monograph, below.

### **Background and Methodology**

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Providing effective obesity treatment services is a difficult task, and more research is needed to determine which interventions and factors lead to the best outcomes. To better understand public hospital obesity-related interventions and seek out promising practices, NPHHI established, and sought guidance from, an advisory board of obesity experts at safety net facilities. With their input, NPHHI created and administered a survey to the 123 hospitals and health systems comprising the NAPH membership. This survey sought to ascertain the range and characteristics of programs available to children, ado-

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lescents, and adults (including hospital employees) to perceive common barriers to providing successful treatment, and to identify key aspects of innovative obesity programs offered by safety net hospitals across the nation. In total, the study collected data on 69 interventions from 41 NAPH hospitals. All respondents were hospital staff directly involved in obesity program administration.

### Selecting Programs for Case Study

Using the survey data, NPHHI staff identified particularly innovative programs based upon two criteria: the program had to provide an individualized intervention that incorporates cultural and linguistic aspects into the treatment, and the program had to offer data that demonstrate “favorable patient outcomes” post-treatment. These were defined as weight loss/BMI decreases, participant satisfaction with the treatment, and documented behavioral change. NPHHI staff then interviewed directors of five programs at five hospitals: Boston Medical Center (Boston, MA), University of Kansas Medical Center (Kansas City, KS), Harris County Hospital District (Houston, TX), Santa Clara Valley Medical Center (San Jose, CA), and MetroHealth Medical Center (Cleveland, OH).

### Survey and Case Study Topics

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This monograph presents complete findings from the survey and case studies, including:

- Types of obesity interventions;
- Eligible patients;
- Program characteristics (e.g., size, types of providers, hospital department housing the program, and outcomes measured);
- Program financing (including techniques to cover low-income populations);
- How hospitals tailor their programs for diverse populations;
- How programs utilize community resources; and
- Challenges hospitals face in providing obesity treatment.

Each case study shows examples of how the program has addressed barriers to providing obesity treatment, as well as other unique aspects of the program that make it successful.

### Defining Obesity

Survey data reveal that most NAPH hospitals have common definitions for obesity: 83 percent use “BMI of 30 or higher,” while 73 percent rely on a patient’s weight (controlling for age, gender, and height). Newer measures, such as percent body fat (25+ percent in men and 35+ percent in women indicates obesity), are used by 41 percent of NAPH members with obesity treatment programs. Other measures include waist circumference of 40+ in men and 35+ in women, which is used at 17 percent of responding hospitals, and waist-to-hip ratio of .95+ in men and .80+ in women, which is recognized at 5 percent of respondents’ facilities.

## NPHHI Study Findings

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Survey data reveal that NAPH hospitals and health systems are more likely to have obesity programs that target children or adolescents than programs that focus on adults, families, or hospital staff. Specifically, member facilities indicate that they offer obesity treatment interventions addressing the needs of children (83 percent), adolescents (81 percent), adults (71 percent), hospital staff (63 percent), and families (59 percent) (see Figure 1).

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However, because many hospitals identified multiple interventions (41 hospitals reported data for 69 programs), NPHHI conducted a similar analysis by program. While NAPH member facilities are most likely to offer programs for children, 58 percent of member programs are directed at adults, 54 percent at children, and 49 percent at adolescents. Almost 44 percent target families and only 28 percent focus upon hospital staff. Four programs (5.8 percent) address other populations: two programs deal exclusively with women, one program targets patients in rehabilitation, and another program concentrates on mental health clients (see Figure 2).

### Type of Intervention

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Most survey respondents classified their program as more than one type of intervention. The most frequently identified types of obesity interventions include nutrition-based (45 percent), clinic-based (36 percent), primary care (25

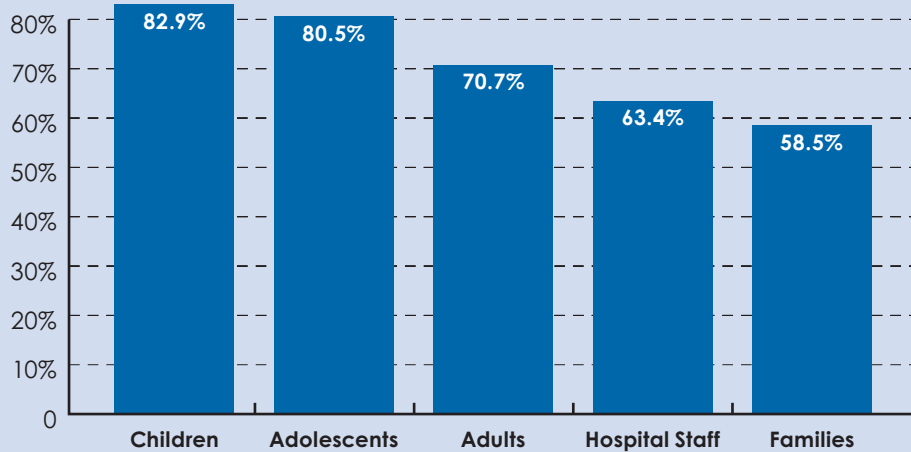
percent), bariatric surgery (16 percent), research (15 percent), and health education programs (15 percent).

The following were less common (see Figure 3): employee-targeted programs, school interventions, and employee or employee-family-focused programs. Approximately seven percent classified their program as “other,” which includes: exercise to prevent the onset of diabetes, shared medical appointments, and support groups for both gastric bypass and non-surgical patients. Programs for children are more likely to be nutrition-based than those aimed at adults. Adult programs are more likely to be bariatric surgery programs and research programs. For a breakdown of interventions by pediatric versus adult program type, see Figure 4.

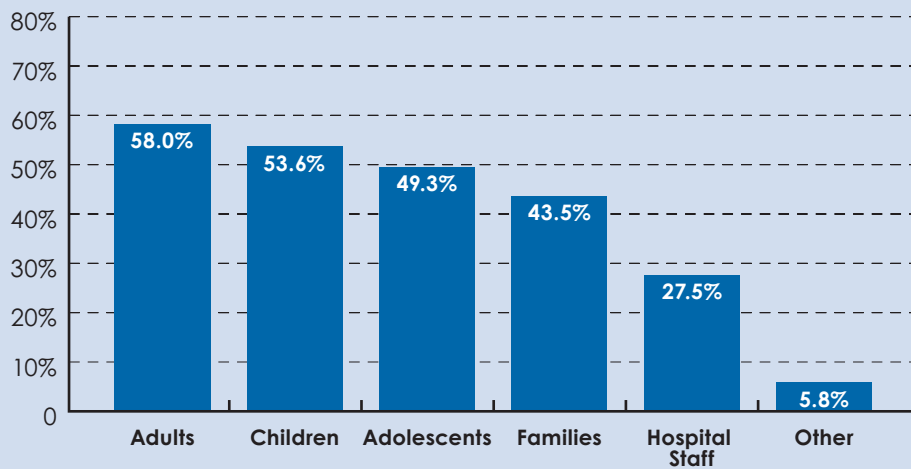
### Program Location and Providers

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The most common hospital departments to house obesity programs are pediatrics (32 percent), internal medicine (21 per-

**FIGURE 1****Percent of Responding Public Hospitals (of the 41 Surveyed) that have Obesity Programs, by Target Population**

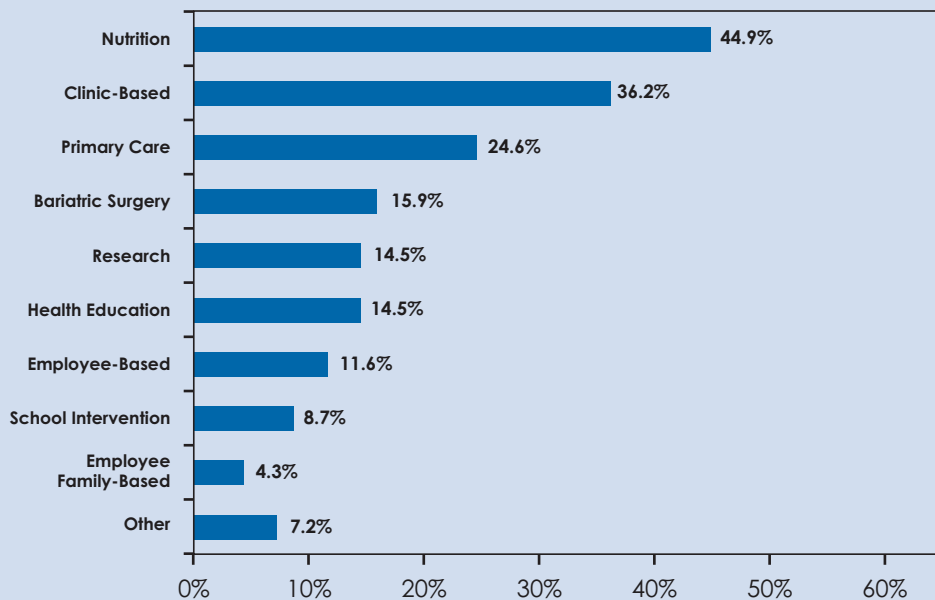
**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

**FIGURE 2****Percent of Public Hospital Obesity Programs (of the 69 Surveyed) that Focus on Each Target Population**

**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*



**FIGURE 3** Types of Obesity Interventions



**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

cent), nutrition (18 percent), and public health or community relations (15 percent). Surgery and endocrinology departments also house obesity treatment interventions. Ten programs (15 percent) are located in “other departments,” which include health education, psychology, diabetes education, outpatient mental health, and outpatient chronic disease departments, as well as a health and fitness center (see Figure 5).

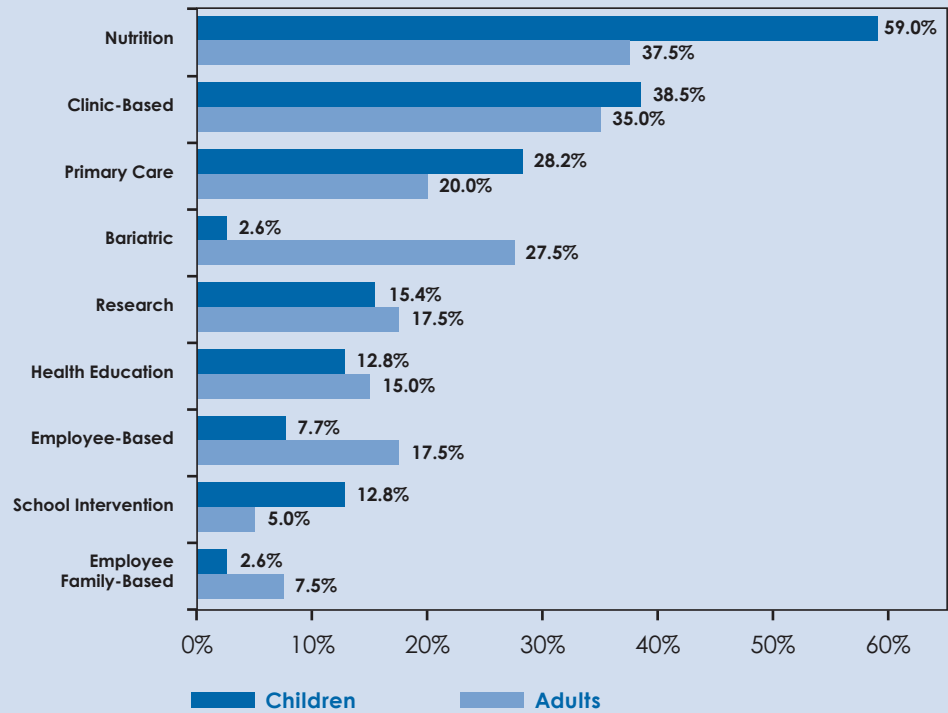
In the survey, NPHHI asked respondents to identify the categories of staff that work in their obesity treatment programs and to classify them as either a “main” or “secondary” provider. Physicians and dietitians are the most com-

mon obesity treatment clinicians—physicians are more likely to be the main provider and dietitians are more often the secondary provider. Clinicians that specialize in mental health care, including social workers, psychologists, and psychiatrists, are typically secondary providers (see Figure 6). More than 46 percent of the 69 programs included in the study involve at least one mental health provider.

### **Program Size, Patient Eligibility, and Measured Outcomes**

The volume of patients participating in the surveyed obesity treatment pro-

**FIGURE 4** Intervention Type by Population Served

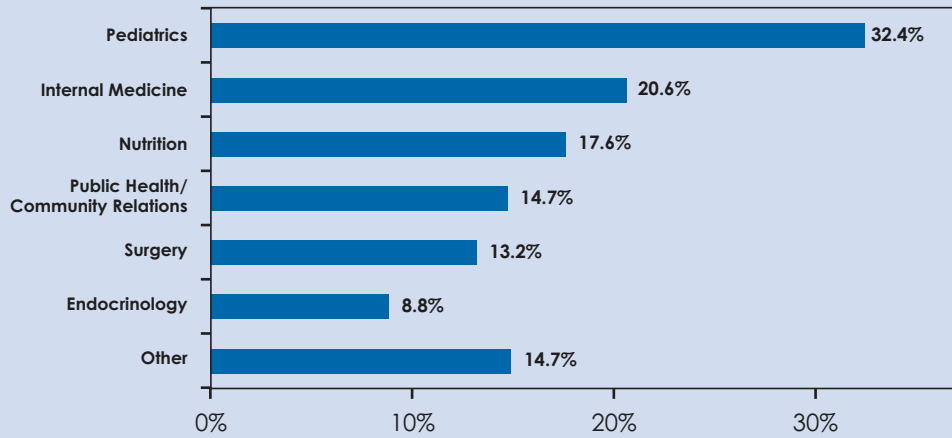


**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007*.

grams varies considerably. The average number of active participants enrolled in the surveyed programs at the time the survey was completed was 378. However, the maximum number of enrolled active participants was 9,900 (this is a school-based program), while the minimum number for a program was six (see Table 1). Some of this variation may be due to the type of program—e.g., school interventions are more likely to reach a greater number of people than a clinic—or to what makes an individual eligible to participate.

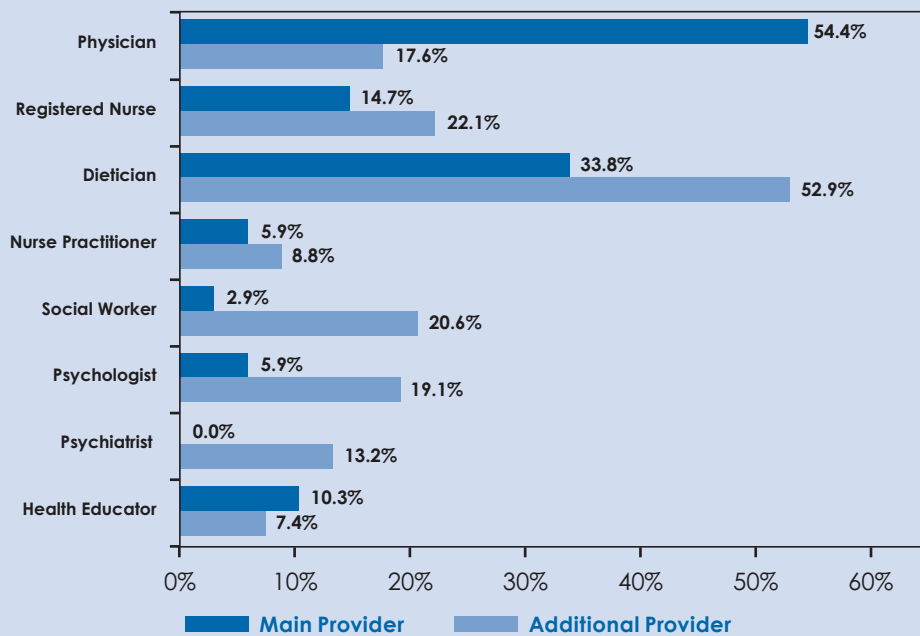
Regarding eligibility, survey respondents specified the requirements patients must meet in order to participate in their program. Thirty programs (43 percent) noted that patients must be above a certain BMI level in order to participate. Six programs (9 percent) indicated that patients must be above a certain BMI level and experience at least one co-morbidity of obesity. Twelve programs (17 percent) require a physician referral in order to be eligible, and nine programs (13 percent) require patients

**FIGURE 5** Program Location by Department



SOURCE National Public Health and Hospital Institute: Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.

**FIGURE 6** Primary and Secondary Providers of Obesity Programs



SOURCE National Public Health and Hospital Institute: Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.

TABLE 1   Number of Participants Actively Enrolled in the Surveyed Program			
	All Programs	Adult Programs	Pediatric Programs
Mean	378	277.9	499.9
Median	50	65	45
Minimum	6	8	6
Maximum	9,900	2,500	9,900

**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

to demonstrate the “willingness” to participate and be motivated.

It is common for NAPH obesity programs to measure patient outcomes throughout and at the completion of the intervention. Forty-six programs (67 percent) measure at least one patient outcome after completing the intervention. The most common outcome measures are changes in BMI, weight, and co-morbidities. Many programs also measure the patient’s ability to make lifestyle changes regarding their nutrition and exercise habits, and how much a patient has learned about healthy foods and physical activity after completing the intervention. Several other programs assess improvements in a patient’s quality of life (e.g., they can climb a set of stairs without being winded).

### Partnering with Community Resources

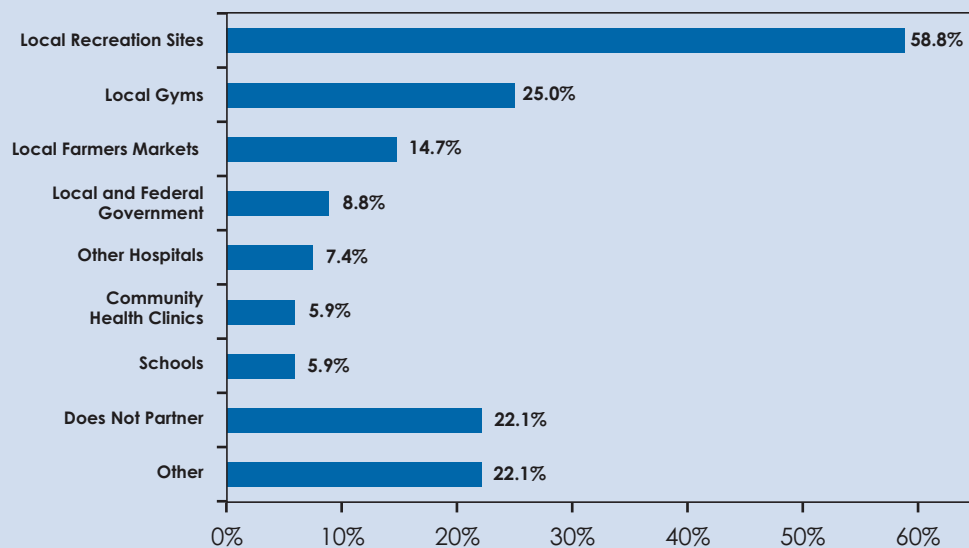
Partnering with community resources is an important technique that hospitals with limited funds use to maximize

their efforts. Examples identified in the study (see Figure 7) include:

- 59 percent of programs provide a list of local recreational sites to its participants;
- 25 percent offer discounts to local gyms;
- 15 percent team up with local farmers markets;
- 7 percent work in partnership with other hospitals.

Nine percent of the programs work with a local or federal government (e.g., one hospital participates in local government by serving on its city’s Health and Wellness Commission and recommending policy level changes for fitness and nutrition). Other hospitals partner with federal government programs, such as Head Start and Women, Infants, and Children (WIC). Six percent of NAPH obesity programs collaborate with community health clinics, which offer chronic care disease programs for diabetes and asthma, as well as literacy and smoking cessation programs, in conjunction with the hospital’s obesity intervention. Six percent partner with area schools. About 22 percent of the

**FIGURE 7** Community Resources that Partner with Obesity Programs



**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

programs do not partner with any community resources.

Approximately 22 percent of the programs collaborate with other kinds of community resources, as specified by the survey respondents (see Table 2). Three programs partner with health task forces in their community, and three other programs team up with area physicians. Two programs provide patients with a card allowing them to order smaller portions or from the children’s menu at area restaurants. Another program worked with a local grocery store to provide interactive tours to patients to demonstrate how to interpret food labels. The case studies included

in the next section further explain how programs partner with other resources.

### Provisions for Vulnerable Populations and Culturally-Tailored Services

Most programs educate public hospital obesity patients about healthy, culturally-specific food options—like reducing rice portions in Asian and Hispanic dishes (91 percent)—and address culturally-specific attitudes about exercise (74 percent). Sixty-five percent provide resources for patients with low literacy; 32 percent provide access to safe areas for physical activity; 25 percent provide coupons for healthy foods and

produce; and 10 percent provide vouchers to patients for transportation to the hospital (see Figure 8). Survey respondents also noted other ways they provide resources for diverse or low-income populations. For instance, two programs provide group visits for patients from the same cultural backgrounds. Another includes a learning module on international foods, food habits, and the cultural significance of foods. One program allows time for patients to share dance music and recipes from their many different cultures, and yet another has access to their hospital’s diversity department that serves as a resource for information and translators. One survey respondent reported that his program supplies free exercise equipment and cookbooks for low-income patients.

Most programs provide language services for non-English speaking patients either by offering interpreters (69 percent), translating materials into Spanish (69 percent), hiring providers who are native speakers of the patients’ languages (58 percent), and translating materials into languages other than English or Spanish (25 percent). Many NAPH

hospitals have access to Cyracom, an automated translating service that offers over-the-phone language interpretation and healthcare document translation, and one obesity program administrator indicated that they use this service. Pediatric programs are more likely to offer language services than adult-targeted programs. For a breakdown of language services by pediatric-versus-adult program type, see Figure 9.

### Funding for Obesity Programs

Obesity treatment programs build their budgets from multiple funding sources. Approximately 44 percent of the surveyed programs receive at least some funding through Medicaid reimbursement, while 42 percent receive at least some funding through private insurance reimbursement. Only 27 percent of programs obtain any Medicare reimbursement. Almost half of the obesity programs receive third-party reimbursement under a fee-for-service funding structure, and about half receive it through a managed care funding structure. Typically, reimbursement for obe-

**TABLE 2** Other Community Entities that Partner with Obesity Programs

Community Resources	
Health Task Forces in the Community	Grocery Stores
Local Nonprofit Organizations/Churches	YMCA
Physicians	Daycare Centers
Restaurants	Local Employers

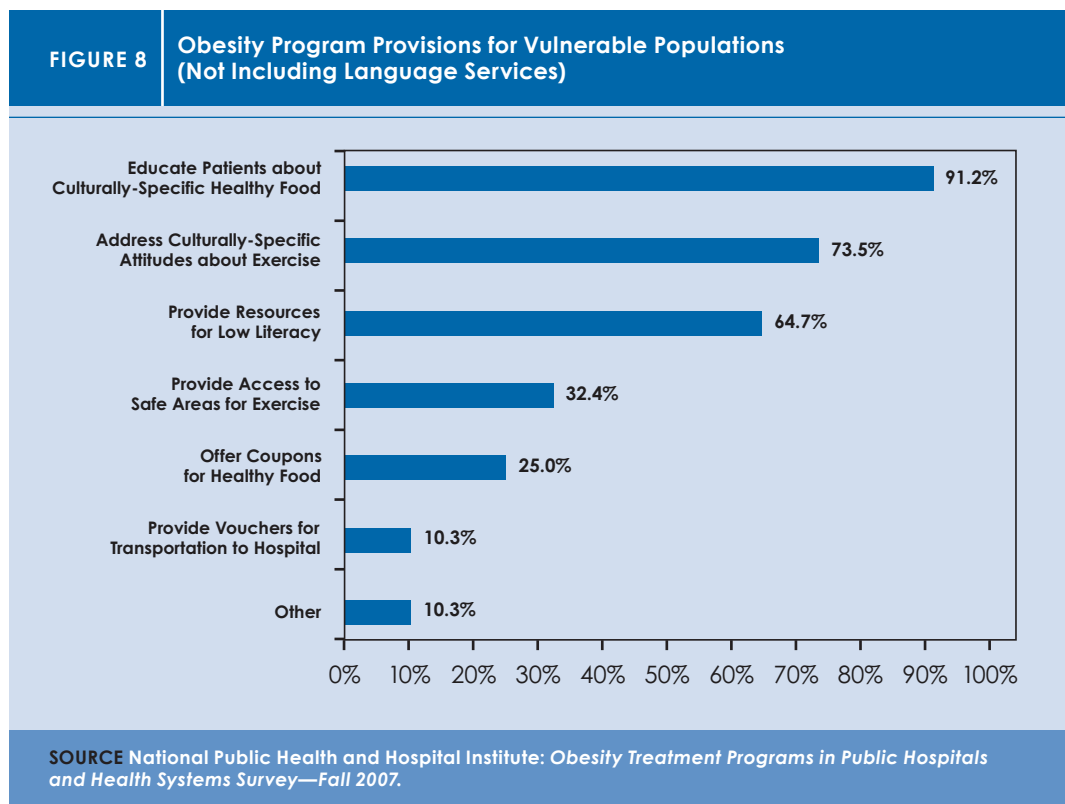
**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

sity programs is low, and supplemental grant funding is common. Indeed, at least 42 percent of programs are funded by some type of grant (specifically, 30 percent of NAPH obesity programs receive grants provided by local government, 7 percent from federal sources, 2 percent from other sources such as state grants, and 3 percent from health care foundations like the Robert Wood Johnson Foundation).

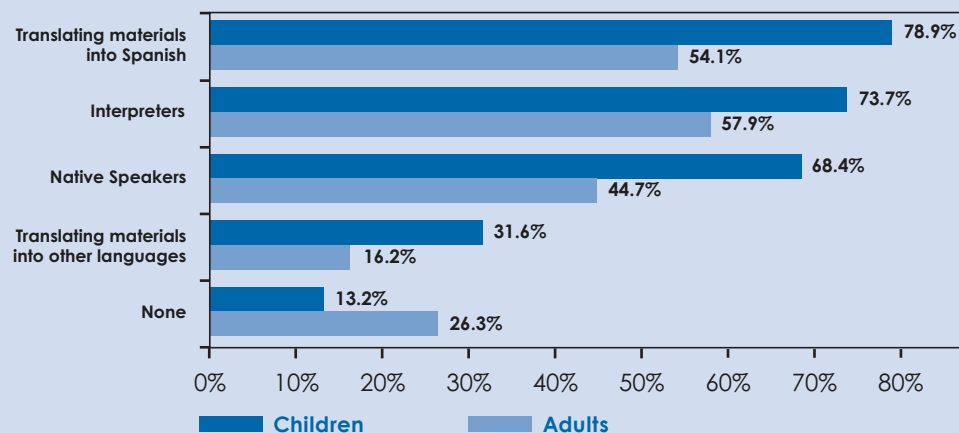
Other than grants, hospital obesity programs are sometimes funded by additional hospital resources and patient self-pay, fundraising, and hospital-sponsored community service. Although public hospital obesity programs struggle financially, over half of the programs

are offered at no charge to participants, and several others have sliding scale fees based on patient income.

Pediatric programs in the survey are much more likely than adult programs to be funded through managed care and with local grant dollars, and are slightly more likely than adult programs to receive Medicaid reimbursement. Indeed, 57 percent of programs for children and adolescents are funded by some type of grant, compared to only 29 percent of adult programs. Adult programs are more likely to receive funding from Medicare, private insurance reimbursement, and federal grant dollars (see Figure 10).



**FIGURE 9** Language Services by Population Served



**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

NPHHI’s study revealed that there are significant financial difficulties involved with providing obesity treatment in public hospitals and health systems. Fifty-four percent of the programs are reimbursed by state Medicaid agencies for conditions that are co-morbidities of obesity. Only 40 percent of respondents specified that the private insurance companies that insure their patients cover enrollees’ participation in obesity programs. Approximately 73 percent of the programs use hospital funds to help cover costs that are not reimbursed by private or government agencies.

### Program Challenges

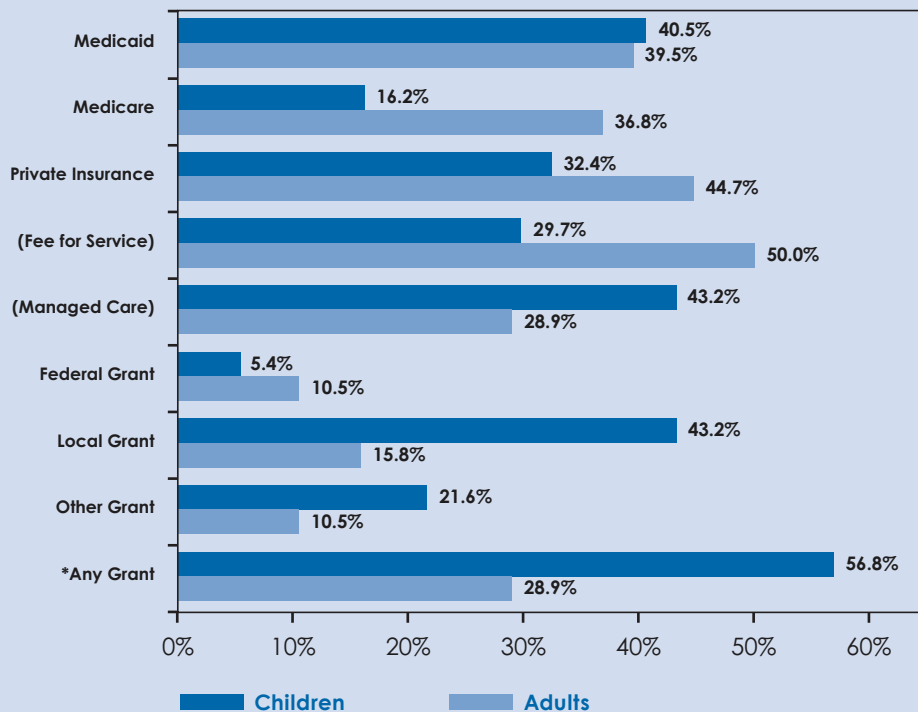
Lack of funding and low (or no) reimbursement for visits are the greatest challenges of running an obesity pro-

gram, as indicated by 71 percent of respondents. The next biggest challenges are participant compliance (66 percent) and participant dropout (60 percent). More than half of the respondents noted a lack of safe and adequate exercise facilities, and many reported that an in-hospital exercise site available to patients would be helpful. Most noted a lack of healthy and appropriate food choices for patients in their communities. Some cited difficulty communicating with patients (22 percent), insufficient staffing (15 percent), and low patient attendance at classes or appointments (15 percent).

Respondents reported further challenges of running obesity interventions (see Table 3). Many asserted that there is a lack of psychiatric support for their patients. Several indicated difficulty in



**FIGURE 10** Funding Mechanisms for Obesity Programs by Population Served



**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007*.

\* All programs funded with grant money

coordinating time for patients with the necessary providers. Two stated that patient low literacy is a challenge, and another said that involving entire families is difficult.

Some respondents noted ways they have tried to address some of the more common problems. One hospital established private pay programs for individuals whose insurance does not cover the obesity program fees, allowing them to pay a small per-month fee instead of one lump sum payment. To address patient attendance, one program requires

patients to pay before they can attend classes, increasing the likelihood that patients return for scheduled appointments. Several respondents found that patient compliance increases when the treatment is administered in a group setting, prompting more multiple-patient meetings and support group activities.

### Conclusion

Obesity is seen as a major public health problem, yet policymakers and pay-

ers are not reimbursing it with an eye toward efficiency in the health care system. The health care system is structured to finance the most costly outcomes of obesity, rather than obesity treatment that could prevent the need for such outlays. This poses particular problems for public hospitals and other health care providers that operate on thin margins.

Findings from this study reveal how, despite having limited funds, public hospitals are emerging as obesity treatment providers for much of the population, especially for minority, uninsured, and low-income patients. Indeed, as the survey indicated, one NAPH hospital school-based intervention is reaching up to 9,900 children in its surrounding communities. Because there is no single approach to treating obesity, there is a great and growing need for culturally-tailored approaches to weight manage-

ment. Most NAPH obesity programs are fulfilling that need by taking into account the cultural and linguistic backgrounds of their patients in order to provide the best possible treatment.

Additionally, notwithstanding significant challenges in providing affordable obesity programs, public hospitals are managing to provide comprehensive care at low (or no) cost to patients who are unable to afford it elsewhere. By utilizing existing resources in the community and continuously inventing creative ways to address the issue of low funding and reimbursement, public hospitals are able to provide these essential services for populations that stand to benefit most from them. In sum, public hospitals are taking important steps in addressing this major health crisis and as such, are doing their part to stem the obesity epidemic.

**TABLE 3** Additional Challenges Reported by Obesity Program Leaders

Lack of Resources	Patient-Related Challenges
No in-hospital exercise sites	Poor patient population
Need more psychiatric support	Low literacy levels
No access to bariatric surgery	Difficult for patient to follow up
Need more support groups	Disruptive children
Program fees too burdensome for patients	Patient population is culturally diverse
Limited space prevents more patients from enrolling	Involving entire families is difficult
Insufficient number of class slots available	Patients require obesity education
Lack of community resources	Low parent involvement
Lack of care available for morbidly obese children	Coordinating patient time
Providers do not have enough time with patients	Finding engaging activities
Lack of culturally appropriate materials	Patients may not accept obesity as a medical condition
Graphing/measuring BMI at well-child visits is difficult	Mentally ill patients (the target of one program) are hard to recruit

**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

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## Examples of Obesity Treatment Programs in NAPH Member Hospitals

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# 3

The following case studies identify innovative obesity programs and explain techniques that public hospitals can use to address barriers to providing effective obesity treatment.

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Several common characteristics emerge from these five model programs:

- All interventions combine nutrition, activity, and behavioral modification, and promote lifestyle change.
- Many offer an orientation for patients to gauge patient motivation and inform patients of what to expect during the intervention.
- Providers tailor the intervention to individual patients, but also provide group sessions to offer more support.
- Motivational interviewing, which more fully involves the patient in setting and meeting personal goals.
- Pediatric programs involve family members and encourage patients to continue follow up after completing the program.

Additionally, each program provides examples of how they address barriers to providing effective obesity treatment in safety net hospitals. These programs are constantly facing financial pressures, and the case studies identify specific ways they deal with them. Specifically, these model programs:

- Recruit privately insured patients so that they can expand their services to more uninsured patients;

- Identify inexpensive or free resources in the community for patient use;
- Partner with private companies that can provide free samples and materials;
- Use their hospital's nonprofit foundation, to apply for grants for their program; and
- Maximize reimbursement by thinking creatively (e.g., scheduling patient visits with a physician certified in nutrition rather than a dietitian when dietitian visits are not reimbursed).

Another common barrier that most obesity programs face is patient attrition. To address this problem, most of the adult-targeted programs incorporate group sessions into the interventions to provide support and a sense of camaraderie among patients. Respondents report that involving entire families in the intervention reduces drop-off in programs for children and adolescents.

Finally, these programs are tailored to diverse populations in various ways, such as recommending specific diets that work well with patients of specific cultures, providing language interpreters for non-English speaking patients, and retaining providers who recognize and understand the various cultural norms and habits of their patients.

## Case Studies

### **Boston Medical Center Center for Weight Management and Nutrition**

Boston, Massachusetts

#### **Background**

After celebrating its 25th anniversary, the Center for Weight Management and Nutrition (CWMN) at Boston Medical Center (BMC) is the longest running clinical weight loss program in Boston. It provides both weight management services and medical nutrition therapy for patients with diabetes, eating disorders, hyperlipidemia or pregnancy-related nutrition issues. The CWMN has evolved into one of the most comprehensive centers for weight management, and its approach has been studied and replicated in other clinics around the country, including other NAPH hospitals. This model program not only provides a range of obesity interventions for patients from many different racial and ethnic backgrounds, but also continuously explores creative ways to address financial issues common to many obesity programs.

#### **How the Program Works**

Prospective patients receive information about the program prior to the orientation class, which meets every Monday. This class outlines different options available to the patient regarding diet, surgery,<sup>1</sup> and medication.<sup>2</sup> Behavioral modification is another core part of the program. Orientation introduces the

idea that the program offers a lifestyle change rather than a “dieting” approach to weight loss.

After orientation, patients individually work with a registered dietitian (RD) and nutrition physician to discuss and select a diet option and determine if the patient is a candidate for surgery or medication. The program also incorporates motivational interviewing, which encourages patients to identify goals and allows staff to create individual definitions of success. At the end of orientation, the patient schedules the first appointment. (Trial and error indicated that patients are more likely to keep their first appointment if they make an appointment immediately after orientation).

**Behavioral Component:** The behavioral component is integral to the CWMN approach. The behavioral component offers weekly support groups and has a 16-week curriculum, allowing for patients to hear a different topic every week for almost four months, at which time the curriculum begins again. Another support group is offered for surgical patients, and the center provides referrals for additional psychological services as needed.

Currently, clinic providers can refer patients to a social worker for assistance with behavioral issues. The CWMN

1. Only those patients with BMI >40 or >35 with co-morbidities qualify for gastric restrictive surgery.

2. The four types of possible medications include: Meridia (a satiety agent), Xenical (a fat inhibitor), Alli (half-strength Xenical, also serves as a fat inhibitor), and Phentermine (an appetite suppressant).

is in the process of hiring a full-time behavioral support person for both the weight management and surgical program to screen patients and to serve as a liaison to other psychological services. Staff report a strong need for obesity-focused behavioral health care workers.

**Choices of Diet, Medication, and Surgery:** Patients can choose which diet to follow, listed in Table 4 from least aggressive to most aggressive.

**First Appointment—Evaluation:** The patient’s first visit to the doctor includes a full patient history and physical exam, including blood work and an electrocardiogram, as well as the selection of diet, exercise, and possibly medication regi-

mens. At this time, the RD also conducts a dietary educational session, and the patient is encouraged to sign up for the weekly group class.

**Post-Program Treatment:** There is no formal discharge from the program and patients are encouraged to come back to the center periodically to reinforce what they have learned. “We like to think they are never really gone,” says Stephanie Spaide, MS, RD, LDN, the center’s Director of Outpatient Nutrition Services.

### Measuring Success

Major indicators of success are any improvements in co-morbidities, such as lower blood pressure, decreased

**TABLE 4** List of Diets, from Least to Most Aggressive

Diet	Description
Balanced Calorie Deficit Diet	This is an exchange-based diet with a similar nutrient breakdown as a diabetic diet. A calorie level is determined to promote weight loss for the patient.
Low Fat, High Fiber	This diet is good for a diverse population because it allows the consumption of rice, a staple of many diets around the world, but in a much-reduced portion (especially helpful with patients of Asian, Portuguese, Creole, Haitian Creole, Nigerian, and Ugandan descent).
DASH Eating Style	In addition to individualized diet counseling and educational materials provided by an RD, CWMN provides patients with six months of free access to the DASH national website, which contains motivational tips and diet advice.
Protein-sparing Modified Diet	Based on 750–1,500 calories per day, the diet allows portions of lean protein and introduces one to two vegetables in the second week.
Food and Formula Diet	A combination of shakes and food, this diet is based on 800–1,600 calories per day. It consists of three shakes and one to two meals per day.
HMR Full Liquid Diet	HMR is a liquid diet based on 800 calories per day. A liquid diet benefits some patients because it reduces decision anxiety and increases compliance; however, there are risks and side effects with all formula diets.

**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

depression, or less fatigue and increased energy. Weight is another key outcome measure: the first weight-related goal is for the patient to lose between five and ten percent of their initial body weight. The CWMN also considers patient-identified measures, such as being able to climb a flight of stairs without getting winded or being able to wear old clothes. The average percent weight loss for those in the 12-to-16-week group is eight percent; the longer they stay in the group, the better the outcome.

### Patient Characteristics and Recruitment

The program advertises in monthly magazines sent by insurance companies to enrollees, but the primary way that patients hear about the CWMN is by referrals from BMC primary care physicians and geriatricians and through

word-of-mouth from successful former patients.

On average, the CWMN treats 250 patients per week. All patients are 18 years and older and come from very diverse backgrounds. About 70 percent are racial and ethnic minorities who speak a wide range of languages, as noted by the following table of interpreter requests at the center (see Table 5).

Most patients are low-income and either uninsured or on Medicaid, but program staff are working to diversify the patient case mix.

### Financing

Because a majority of CWMN patients lack private insurance, financing is often a challenge for all involved. All patients fall into one of five financing categories: the privately insured, those covered by Medicaid, those covered by Medicare,

**TABLE 5** CWMN Interpreter Requests

Language Interpreters	Percent of Total Requests
Spanish	37%
Haitian	19%
Cape Verdean	10%
Portuguese	5%
Vietnamese	5%
Chinese	4%
Polish	4%
Others (including Somali, Arabic, Russian, Albanian, Ethiopian, Kurdish, & Bosnian)	12%
Unknown	4%
Total	100%

**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

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those who have to self-pay, and those eligible for free care.

**Private insurance:** Most private insurance will cover the cost of the center's program.

**Medicaid:** In the past, Medicaid simply did not cover dietitian services, so the CWMN would offer Medicaid patients one free visit with a dietitian and subsequent follow-up with a physician certified in nutrition. Medicaid policy recently changed and it now covers unlimited RD visits with no referrals required. This change is a significant development for the center because, according to its staff, a single dietitian visit is not sufficient for patients who are pregnant, HIV-positive, or have eating disorders.

**Medicare:** Diabetes and chronic renal failure are the only diagnoses reimbursed by Medicare. For Medicare patients seeking weight management, the CWMN schedules them for visits with a nutrition physician and one free visit with an RD.

In order to accommodate all patients who want to participate, clinic staff has learned that they must keep both private insurance and self-pay options. Additionally, in order to keep providing services to uninsured patients, diversifying the payer mix is key. Balancing self-pay, privately-insured, Medicaid-funded, and uninsured patients can be difficult, but is essential so the center can expand its services and meet the needs of all patients.

**Self-Pay:** If a patient self-pays, the total cost for participation is \$598

dollars for RD and physician appointments, but the 16 weekly group meetings are free of charge. (If patients pay their first bill within 30 days, then they are eligible for a 40 percent discount of the total program cost.)

**Free Care:** For patients approved for free care, the costs are reimbursed by the statewide Commonwealth program.

**Community resources:** The CWMN partners with many community resources in order to defray costs. The program also applies for grants and partners with private sector companies who supply samples and materials that the center would otherwise have to purchase. Some of the free or reduced-price resources that the center offers to patients are listed below:

- A list of farmers markets in patients' neighborhoods
- Access to an in-house food pantry and multi-million dollar demo-kitchen at BMC, where a chef provides cooking classes and shows how to prepare ethnic foods with healthier modifications, (The pantry and kitchen are funded through donations made by individuals and corporations. On average, 3,800 patients per month utilize these two resources.)
- Free weekly yoga classes for hospital employees and clinic patients, BMC's Council of Interns and Residents provides a grant that funds the classes
- Local gyms that offer a discounted rate of \$300 dollars per year for patients
- Aquatics classes that are offered through the city of Boston



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- Nutritious food samples. Various companies (e.g., Nestle, General Mills, Slim-Fast) are eager to provide free samples of their products to CWMN
  - “Dollar-a-Bag” sites where patients can receive a bag of healthy and nutritious food for one dollar

The center also tries to expand service to vulnerable patients by referring some of them to research studies, where they can receive free care, for which they otherwise would not be approved. For example, Boston University has a Center for Anxiety and Related Disorders where CWMN can send eating disorder patients, who often struggle to obtain free-care approval. There, eating disorder patients can receive six months of free care if they enroll in the university’s research study. Additionally, at the end of orientation, CWMN informs patients if they are eligible for other research studies, which may provide them with access to medication and treatments that otherwise may not be available.

### **Patient Attendance and Compliance**

The center has tried to address the high drop-off rate typical of most weight loss programs. The staff at the center analyzed clinic data and found that 26 percent of patients dropped out after their first visit. Patients with higher BMI scores were more likely to return than patients with lower BMI scores. There was no correlation between drop-off rates and patient gender, race, or ethnicity.

Program evaluations also indicated that CWMN patients disproportionately dropped out of the group program between weeks eight and ten. This prompted staff to reduce the 16-week group program to eight weeks, with a promise of an additional eight weeks if the patient has attended six out of the first eight weeks. This has helped the center market the second eight weeks as an additional benefit, and attendance has improved.

### **Replicating the Program**

For those public hospitals interested in replicating the CWMN, Ms. Spaide has several pieces of advice. The first step is to thoroughly examine and learn about the community. She notes that “you want to have the right message, (that is, the health benefits of weight management), and the right product—in this case, the right weight management program.” This means that pinpointing the most significant barriers to weight loss for a particular patient community (whether they be environmental, interpersonal or cultural) is crucial. To uncover this information, Ms. Spaide recommends participating in local health fairs, offering complimentary information at grocery stores, and speaking at churches, the YMCA, and school committees.

If a hospital does not have additional funds necessary to start a clinic, she suggests implementing an informal, decentralized weight program instead. This

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can be done by first establishing a network of interested providers, including physicians, dietitians, physical therapists or psychiatric providers who are eager to treat patients with weight-related issues and will accept referrals as needed. For instance, a provider can refer an obese patient experiencing depression to a psychologist who can treat both ailments.

The next step is to talk with local gyms and community recreation centers about providing reduced or free memberships for patients. Combining a network of trained providers and access to local fitness facilities can be a step towards a formal weight loss clinic.

During the start-up time, it is essential to record data on patient volume, average weight loss, and reduction or elimination of co-morbidities. Using this data, a hospital can develop a business plan to illustrate the potential advantages of starting a clinic.

In the early stages of implementing a formal weight loss clinic, there are

options for those who face limited funding. Ms. Spaide advises approaching important businesses in the area, especially professional sports teams, major grocery store chains, or large churches. A well-developed plan may entice them to provide funding, and at the very least it helps get out the message about a new initiative. Local radio or TV stations may be willing to provide free public relations for the program, or to air a story on weight management activities in the community.

Finally, Ms. Spaide recommends taking advantage of small grants, and seeking financial support and free samples from food companies. She notes that organizations in both the private and public sector are often willing to supply supplemental funding and products. To avoid conflict-of-interest concerns with providing product samples, the CWMN offers a range of products from many different organizations, and assures patients that they may purchase similar products from other companies.

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## Case Studies

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### **Harris County Hospital District Employee Wellness and Obesity Treatment Services** Houston, Texas

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#### **Background**

As one of the larger employers in the Houston area, Harris County Hospital District (HCHD) is a leader in providing employee wellness services. HCHD began to develop and implement wellness services for its 7,000 employees in 2002. Four years later, Michelle Galindo, Director of Health Promotion Services at HCHD, received additional funding from the hospital district that she used to expand those services. The fact that employee wellness was included as its own category for the first time in HCHD's 2007 report card on the state of the hospital district indicates its growth and ongoing commitment to employee health. HCHD's employee obesity treatment serves as a model to other hospitals and health systems.

#### **How the Programs Work**

There are multiple employee wellness programs operated by HCHD, including a health risk assessment, nutrition and exercise services, and an obesity treatment pilot program, as described below.

**Health Risk Assessment:** All HCHD employees have health insurance available through Aetna, which offers a comprehensive online health risk assessment test. HCHD recently began a campaign to increase employee awareness

of wellness concerns, which includes a \$20 Target gift card as an incentive to anyone completing the online assessment. As a result, completion of the Aetna assessment increased more than 25-fold. By educating individuals about their personal health risks and referring employees at risk for certain diseases into comprehensive disease management and weight loss programs, the risk assessment is a critical tool in promoting wellness. HCHD also developed an independent online risk assessment for the small number of employees that are not enrolled in Aetna, and over 50 employees have completed it thus far.

#### **Nutrition, Exercise, and Education:**

Another component of employee wellness obesity treatment at HCHD involves exercise and physical activity. HCHD operates 20 community health centers and school-based clinics, all of which have implemented exercise groups, such as walking clubs, and have distributed pedometers to each employee. The hospital district is also working with Sodexo, the company that provides the hospital's food services, to provide healthier food options for employees and to display calorie/fat content information.

The HCHD employee wellness staff regularly lead educational meetings during the lunch hour for employees working in health care sites. During the "Lunch and Learn" sessions, the wellness staff provides advice to employees on how to start walking and exercise regimens, motivates them to become

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more active, and educates staff about healthy eating.

Ms. Galindo's office also publishes an insert, "Wellness Works," in each employee newsletter. "Wellness Works" contains general information on nutrition and physical activity, as well as walking and line dancing class schedules and sign-ups for employee basketball and volleyball leagues. "Wellness Works" occasionally profiles model "wellness" employees who have achieved weight loss or physical activity goals. HCHD has also developed an intranet site where employees can click on links to online BMI calculators, other agencies, and available programs at HCHD.

**Obesity Treatment Pilot Program:** In July 2007, the HCHD completed a three-month research pilot program in which the district selected three clinic locations to help employees lose weight and lower unhealthy risks. One site was selected as the control group, and those employees were instructed to try to lose weight, but did not receive any formal intervention. The other two sites participated in wellness interventions of varying degrees—both sites received written educational materials, but only one was given access to additional hands-on resources such as personal trainers. While the location with the written materials fared better than the control group, the site with the most robust resources reported significantly greater outcomes than either of the others. HCHD plans to use the data from this

pilot site to write a grant proposal so that they can expand it on a larger scale.

### Measuring Success

Each program within HCHD has different measures of success. For example, researchers conducting the employee wellness pilot program measured weight and body circumference of employees in the control group and those receiving the intervention at three different intervals. HCHD keeps records on the walking clubs and exercise groups, such as how often employees attend and how long they work out. HCHD plans to implement a database to store and track this type of information.

### Patient Characteristics and Recruitment

The employees that benefit from wellness services at HCHD are mainly female (62 percent) and come from diverse racial and ethnic backgrounds. The majority of employees at HCHD are African American, Hispanic, and Asian, and the average age is 34 years. The types of employees who participated in the pilot program were mainly RNs, LVNs, and clerical staff, and their demographics were roughly representative of the employee population as a whole.

Recruitment efforts focus on providing incentives to participate, such as the \$20 Target gift cards mentioned above. Ultimately, Ms. Galindo's goal is to provide more incentives (including scheduled time off, eliminating co-pays if employees attend prevention appoint-

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ments, and increasing gift card values) for employees to participate in both wellness activities and appropriate disease management programs.

### **Financing**

Employee wellness services are financed mainly through HCHD. Wellness services were moved from Human Resources to the Health Promotion Department in 2007 where they received an initial budget to cover expenses. Aetna also donated \$15,000 to HCHD, which was used to finance the Target gift cards and pedometers. The research pilot was also funded through the district, and HCHD is hoping to apply for outside grants so they can expand the intervention to all staff.

### **Replicating The Program**

Ms. Galindo's advice on implementing wellness services in other hospitals is

summed up in three words: "Be a presence." She encourages wellness proponents to take the initiative to approach hospital executives about expanding services for employees and to emphasize that improving employee wellness will drive down health care costs in the long run.

Most employee wellness programs are not as difficult to implement as a clinic, and so Ms. Galindo advises that interested hospitals focus on getting the word out to employees about all wellness activities in the hospital and the community. She recommends advertising through newsletters and word of mouth, as well as interacting with employees face-to-face to learn more about employees' wellness concerns. Although daunting to create an entire wellness program from scratch, hospitals and health systems can begin by taking small steps that make it easier for employees to achieve healthy lifestyles.

## Case Studies

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### **MetroHealth Medical Center Weight Management Clinic**

Cleveland, Ohio

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#### **Background**

The Weight Management Clinic at MetroHealth Medical Center in Cleveland, Ohio, was established by Eileen Seeholzer, MD, MS in 2003. Prior to its creation, Dr. Seeholzer visited Boston Medical Center, another NAPH member, to learn more about its long-running weight management clinic (described in the case study above). Dr. Seeholzer modeled the clinic based on the structure and content of BMC's program and over time has expanded and adjusted her program to fit the needs of her patient population. Judging from its outcome data and its ability to take root on a shoestring budget, the MetroHealth Weight Management Clinic has quickly become a model program.

#### **How the Program Works**

The Weight Management Clinic is for patients with a BMI greater than 30 who are ready to commit to lifestyle changes to achieve and maintain weight loss. The clinic provides six main services: medical management of common obesity co-morbidities through lifestyle programs; evaluation and treatment of obesity and eating disorders with medication; evaluation and preparation for gastric bypass surgery; pre-operative gastric bypass evaluation; long-term post-operative gastric bypass follow-

up for medical problems; and nutrition, supplement, and exercise monitoring and recommendations. The clinical team includes Dr. Seeholzer, two endocrinologists, a general internist, and two nurse practitioners. They help adult patients change their diet and activity level and use behavior modification to help patients sustain progress. When appropriate, pharmacological and surgical interventions are recommended.

All patient plans are tailored to patient resources and preferences, and all materials provided to patients are written at low literacy levels. In addition, clinic providers have worked to identify inexpensive and free dietary and activity choices through local resources, and cultural options for traditional foods. To ensure consistent care, Dr. Seeholzer and her colleagues have designed and continue to improve patient assessment forms embedded in a patient's electronic medical record (EMR).

#### **Measuring Success**

A majority of patients completing the intervention have lost a substantial amount of weight. For the 172 patients treated in the clinic between 2005 and 2006 who attended at least four visits in that twelve month period, 61 percent lost weight with an average BMI decrease of 4.5 points. Similar patients in MetroHealth System's medical clinic who did not undergo the intervention had increases in average BMI over the same time period, indicating that the weight management clinic is suc-

cessful for most patients. Furthermore, program evaluations indicate that the longer a patient stays with the intervention, the better the outcome. Researchers at MetroHealth System recorded the amount of weight loss for 358 patients who attended the clinic for a total of three months. After twelve months, researchers again recorded weight loss for the 82 patients from the original group who had not dropped out of the intervention. Table 6 compares patient weight loss for both groups, illustrating that although no patients from the three-month group lost more than 9 percent of their initial body weight, 19 percent of patients in the twelve-month group experienced weight loss of 10 percent or more of their initial weight.

### Patient Characteristics and Recruitment

The clinic has served over 800 patients since its start. Approximately 95 percent of patients are referred to the clinic from MetroHealth System providers. Most patients have low incomes and multiple medical co-morbidities. The median BMI for clinic patients entering the pro-

gram is 44 and median age is 47.5 years. A large majority of participants are female (85 percent). Half of the patients are Caucasian, 45 percent are African-American and 5 percent are Hispanic.

### Financing

Like most NAPH obesity treatment programs, the majority of patients treated at MetroHealth System’s weight management clinic are low-income: 19 percent are uninsured and 34 percent are enrolled in Medicaid. Sixteen percent have Medicare and 30 percent have private insurance. All of the clinic’s funding derives from insurance reimbursement and some supplemental hospital funding. A major barrier for the clinic is that it can only receive reimbursement for patients who have a co-morbid illness of obesity. In addition, most weight loss medications approved for patient use are rarely covered by any type of insurance, making it hard for many patients to be able to afford the out-of-pocket expense. To remedy this problem, providers in the MetroHealth clinic sometimes prescribe “off-label” drugs (i.e., medications primarily meant

**TABLE 6** MetroHealth Weight Management Clinic Outcome Data

Patient Weight Loss	Month 3 of Intervention (N=358) Percent of Patients	Month 12 of Intervention (N=82) Percent of Patients
2 to 5% of Initial Weight	38%	22%
6 to 9% of Initial Weight	19%	24%
10% or More of Initial Weight	0%	19%

**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

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for illnesses other than obesity, but that are also able to help patients lose weight).

### **Patient Attendance and Compliance**

Patient attendance is crucial to program success. Evaluations of MetroHealth System's clinic indicate that patients who attend a greater number of visits are more likely to lose weight. For instance, patients who attended at least four to six clinic visits experienced an average BMI decrease of 1.3 points, whereas patients who attended ten or more clinic visits recorded an average BMI decrease of 4.2 points. Dr. Seeholzer's staff is currently exploring the causes of patient attrition in order to determine how to best address them.

### **Replicating the Program**

As Dr. Seeholzer modeled certain aspects of her clinic based on an existing

clinic at Boston Medical Center, she has specific advice for those wishing to do the same. The first step is to find internal medicine or family practice clinicians within the hospital who are interested in treating the problem, and who are willing to learn the biology, behavioral techniques, and nutritional aspects of treatment since most medical education does not provide sufficient training. Next, she observes that obtaining hospital administrative support is essential. Dr. Seeholzer points out that if a small obesity clinic is located within an existing hospital building, there is little start-up and overhead cost involved. This fact can serve as a key argument for those having to persuade hospital executives concerned about financial issues. When ready to start a program, she urges starting small and putting together a clinical team that has behavioral, nutrition and activity counseling skills.



## Case Studies

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### Santa Clara Valley Medical Center Pediatric Healthy Lifestyle Center

San Jose, California

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#### Background

In 2003, the Santa Clara Valley Medical Center in San Jose, California, was facing a dramatic rise in the number of overweight and obese children and adolescents in the community. In response, Daniel Delgado, MD, FAAP, established the Pediatric Healthy Lifestyle Center (PHLC), a lifestyle change program that would focus exclusively on overweight pediatric and adolescent patients.

The PHLC stands out among other programs because it not only treats overweight children and adolescents, but also teaches them skills so that patients can make lifestyle changes to improve their health for the long-term. The combination of successful leadership, cultural competence (many of its patients are Latino), and patient-centeredness makes this a model program.

#### How The Program Works

The goal of the PHLC program is to guide patients toward making small changes and to build momentum toward long-term healthy lifestyle maintenance. Treatment groups are stratified by age: children aged 2 to 5, 6 to 11, and 11 to 18. Activities and processes for each group are described below.

**Ages 2 to 5 Years:** For children in this age group, the treatment is targeted

toward the parents, and children and parents attend an initial orientation session together. During the orientation, a nutritionist speaks with the parents covering topics such as healthy foods, appropriate calorie intake, and the division of responsibility at mealtimes.

According to Dr. Delgado, it is insufficient to merely educate parents about what foods to feed their child; parents must also be taught how to feed their children, as well as how to get their children the appropriate level of physical activity. The goal of the orientation session is to educate and gauge the family's commitment to the program.

Following the orientation, the child undergoes a medical assessment by a PHLC team, consisting of a registered dietitian and a physician. If comorbidities are present, they are treated as the program progresses. As part of this visit, the team helps the parents set goals regarding nutrition and physical activity practices, and then schedules follow-up appointments. During each follow-up visit, the team assesses the parents' ability to meet these goals and assists them in setting new realistic goals. PHLC has recently secured grant money that has allowed them to establish "Raising a Healthy Eater" classes, which provide parents with strategies on how to properly feed their children. The class curriculum is based on a philosophy that has been recognized by the American Academy of Pediatrics as a "best practice" for feeding children.

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**Ages 6 to 11 Years:** Children aged 6 to 11 attend an orientation session that places greater emphasis on the child’s responsibility for making lifestyle changes. Dr. Delgado explains how diabetes develops and informs participants about how they can diminish their risk. The orientation concludes with a talk about what the clinic can offer and about the importance of patient responsibility and motivation for change. The children then sign-up for individual appointments at the end of the orientation class.

At the first appointment, the child undergoes a physical exam during which the team screens for co-morbidities and considers the family history, nutrition history, and physical activity profile. Through a technique called “motivational interviewing,” the team ascertains relevant aspects of the patient’s current lifestyle, assesses the child’s readiness for change, and helps motivate appropriate change. The give-and-take nature of this process allows the team members to reflect on what the child says and help the child establish realistic objectives, which the child must then agree to in writing. Additionally, the team sets goals with the patient’s parents.

Having the child sign a “contract” detailing his objectives is a critical part of the program because it assigns responsibility for his/her own future health. Indeed, Dr. Delgado emphasizes that assessing a child’s readiness to change is paramount, noting that if the child is not ready, then the program is setting him or her up for failure. If the

team decides that a child is not ready to take on the challenge, they focus on encouraging the patient to consider what he may eventually be willing to do in the future to address lifestyle issues.

Follow-up appointments are scheduled within three or four weeks to maintain momentum. During subsequent visits, the team measures specific indicators such as body weight and blood pressure, and discusses with the child the progress made toward achieving the objectives in the contract. During these visits, the child is given an opportunity to reflect on these successes, and is encouraged to challenge him-or herself with new (and perhaps more ambitious) objectives.

**Ages 11 to 18 Years:** The process for this group is similar to the process for the 6-to-11-year age group, but in this case, the focus is squarely on the patient for decision making in regards to their contract goals. However, family participation is still strongly encouraged. Children and adolescents in this age group are more likely to suffer from common co-morbidities of obesity; therefore, these patients are medically managed more directly and referred to other specialties as needed.

**Post-Program Treatment:** After patients complete the recommended number of visits, they follow up with their primary care physician (PCP). The PHLC has an open-door policy for their patients, and they recommend that patients return if they start to experience any unhealthy lifestyle relapses. If a patient’s parent

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wants to follow-up with the clinic more than six months after their last visit, the parent can call the center, and a staff member will contact their insurance company to authorize subsequent visits.

### Measuring Success

A major part of the program treatment is to evaluate the patient's progress toward meeting the goals set during the intervention. This is done to guide the patient on a path toward making lifestyle changes. For the older children, the program measures more tangible outcomes as well, including change in body mass index (BMI) and improvement in lab results for glucose, lipids, and fatty liver measures. For the younger age group, the PHLC team evaluates parent practices by measuring how and what they feed their children and how much active play time they record for their children before and after referral to the clinic.

Additionally, the PHLC succeeds in meeting the health system's demand for a program that systematically addresses pediatric obesity. Over a three-month period in 2007, the center received a total of 750 referrals from Santa Clara County Health System (SCCHS) physicians and community providers. The "Raising a Healthy Eater" referrals exceeded expectations by producing 300 referrals within the first two months it was implemented.

### Patient Characteristics and Recruitment

There are approximately 7,000 obese children within the SCCHS, and an additional 4,500 that are overweight and at risk of becoming obese. The PHLC is trying to increase the numbers of children under age five that come to the clinic through a campaign called "Health for Youth/Salud Para Juventud." This campaign requires that children aged two-to-five years with a BMI greater than the 95th percentile for age and gender (which is how the hospital defines a patient as "obese") receive an automatic referral to the PHLC from their PCP. Children under age two who are overweight for their age group are referred to the center at the provider's discretion. For children six and older, the PCP first tries to work with the family by recommending diet modifications and offering other advice. The physician also tries to gauge the family's motivation level before referring the child to the clinic.

Most of the center's patients are between the ages of two and eighteen (patients over 18 years of age are ineligible for children's health insurance), and over 70 percent are Latino. PHLC providers make every effort to shape the lifestyle intervention according to a patient's cultural background, and all of the educational materials are printed in English and Spanish. The program's physicians and nutritionists are Latino, which helps limit linguistic barriers. Dr. Delgado notes that the ethnic con-

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cordance helps patients communicate with providers about habits in the community, such as the introduction of soda at a young age, and social norms, including parental prohibitions against playing outdoors.

### **Financing**

PHLC accepts children with Medicaid, SCHIP, and Healthy Kids (i.e., public insurance coverage sponsored by Santa Clara County), as well as those covered by private insurance. No private practice obesity program in the area accepts all of these public insurance programs, further highlighting the importance of the center to low-income populations. Because the center receives reimbursement for each visit, according to a recent PHLC financial analysis, the clinic is typically budget-neutral.

**Partnering with Other Resources:** The center has been very creative about establishing partnerships with community resources, such as “Turning Wheels for Kids,” a nonprofit organization that donates bicycles, helmets, and bike locks to the clinic. Children who demonstrate that having a bicycle would help them meet their physical activity goals are eligible to receive this equipment. The center does not view this as a reward, but as a means to help them further achieve their goals.

PHLC is currently conducting a grant-funded pilot program with the local YMCA, “Cambie Su Vida,” for children over the age of 11 years. A child who regularly achieves his or her

contract goals can receive a “scholarship membership” to the YMCA that allows the patient to take their family along. To maintain the family’s access, however, the youngster must attend activities at the YMCA at least three times per week. This allows program participants to take responsibility for their family’s health as well as their own, encouraging them to make use of the resource more often.

The Valley Medical Center Foundation, which is the nonprofit foundation of Santa Clara Valley Medical Center, is another important resource for the PHLC. Due to the time demands of running a clinic, there is often not enough time for the providers to search for grants or to write proposals. The Foundation searches for and applies for prospective grants for the center. By turning to the Foundation for assistance in this area, PHLC staff members can concentrate on providing care while still taking advantage of any possible funding opportunities.

### **Patient Attendance and Compliance**

Due to limited resources, the center has not aggregated data on patient outcomes or dropout rates. However, Dr. Delgado has treated patients at the clinic since its inception, and he has observed that dropout rates are highest for 6-to-11-year-olds. Children under age six have the best success at maintaining or decreasing their BMI. He adds that teens tend to be more self-

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aware and can be very motivated, perhaps because they are more likely to have co-morbidities and often are interested in learning self-management skills, such as monitoring blood sugar and blood pressure.

### **Replicating the Program**

Dr. Delgado's first piece of advice for hospitals seeking to start a children's obesity treatment program is to identify one person within the hospital system that is considered the "obesity champion" and provide that person with the resources to begin to build a program. He points out that there is expertise within all hospitals that can be brought to bear against the problem of obesity. Combining medical, psychological, and nutritional perspectives can produce a lifestyle change curriculum for patients.

Just as the PHLC takes incremental steps with their patients toward behav-

ioral change, so too can hospitals that are looking to build up to a more comprehensive program. Most hospitals cannot expect to implement a wide-ranging clinic overnight. In fact, the PHLC only acquired dedicated clinic space in its third year of existence. Dr. Delgado emphasizes that it is possible for a program to grow from a small intervention into a comprehensive clinic that offers many resources to patients. He insists that the PHLC is always a "project in the works."

His final take-home message is to get involved in the community. It is important to reach out to the community, not only because it can offer many resources, but also because it is important to change the environmental climate around obesity and lifestyle change. Dr. Delgado asserts that utilization of community resources is fundamental to stemming the tide of obesity in our youth.

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## Case Studies

### University of Kansas Medical Center Healthy Hawks Program

Kansas City, Kansas

#### Background

Healthy Hawks, named for the University of Kansas mascot, an obesity clinic program targeting children and adolescents ages 2 to 18, is located at the University of Kansas Medical Center (KUMC). National obesity rates are increasing for children and adolescents, but in Kansas City, KS, they are rising even more rapidly. As roughly 30 percent of the city's children are clinically overweight (i.e., double the national average), medical leaders at KUMC started the program in 2004 to provide a comprehensive pediatric treatment program.

NPHHI selected Healthy Hawks as a model program because it illustrates how public hospitals can offer an obesity treatment clinic for diverse and low-income children and adolescents on a small budget. Moreover, Healthy Hawks offers impressive outcome data that demonstrates its success, and thus far has experienced relatively low attrition rates for its participants.

#### How the Program Works

Incorporating evidence-based research on obesity treatment, the first three months of this 12-month program provide an intensive intervention that requires participants and their family members to attend 12 weekly educa-

tional meetings. The remaining nine months, the follow-up intervention, is described below.

**Weekly Educational Meetings:** The cornerstone of the program is a two-hour weekly meeting, which continues for the full year of the patient's treatment. During the first hour, all of the parents meet together in one room while the patients gather separately in an adjoining room. Psychologists lead both groups through the same information, with a more instructive curriculum for the parents and an activity-based session for the children and adolescents. Each week covers a different topic relating to either behavior (e.g., "Goal Setting"), nutrition (e.g., "The Importance of Breakfast"), or exercise (e.g., "Decreasing Sedentary Activity"). During each meeting, participants set goals for the following week, where prizes are awarded for families who realized their goals.

For the second hour of the weekly meetings, all participants (children and parents) walk across the street to the KUMC gymnasium. An exercise physiologist leads both groups in activities that both groups can do together at home. The focus is on activities that are enjoyable for the whole family, burn calories, are not overly strenuous, and do not require any equipment.

**Monthly Medical Clinic:** In addition to the weekly sessions, each child and his or her family meet once a month for the full 12-month intervention period (or longer, if desired) with an endocri-

nologist and dietitian for a clinical visit. This allows the medical team to focus on issues relevant to the patient while families can raise issues they may not be comfortable discussing in the group setting. Topics generally raised at the monthly visits include maintaining positive change, dealing with challenging eating situations, and focusing on how developmental issues yet to come may affect weight.

**Follow-Up Intervention:** For the nine months of the program following the intensive three-month introductory period, the families continue to attend weekly group exercise visits at the fitness center. They are taught new exercises and how to change their exercise routines as seasons change. Additionally, each family continues to meet with a member of the medical clinic team once a month, who records the child’s weight, height, and nutrition and exercise information.

### Measuring Success

Ann McGrath Davis, Ph.D., a psychologist and the co-director of the Healthy

Hawks program, notes that success is measured differently for each child. Over the course of treatment, she considers a successful intervention to be when any child is able to maintain his or her current weight while gaining in height.

The Healthy Hawks program also collects and analyzes pre- and post-treatment data on four patient outcomes: change in body mass index (BMI), average daily calorie intake, physical activity as measured by a monitoring device called “Actitrac,” and the homeostasis model assessment (HOMA) to measure insulin resistance (an indicator for diabetes risk). The Actitrac measures all types of activity (with the exception of swimming), along with the level of difficulty based upon the effort exerted. Patients wear the device on their non-dominant hip for one week before starting the treatment and for another week post-treatment. Their activity levels are recorded at both time-points and compared.

Aggregated data on the first 25 patients in the program to complete the first three-month intensive intervention

**TABLE 7** Treatment Data on Four Patient Outcomes

Patient Average	Pre-Treatment	Post-Treatment	Change
BMI Score	28	27	-1
Calorie Intake	1,616	1,553	-63
Physical Activity Units	675	760	+85
HOMA Indicator (higher score indicates higher insulin resistance, putting one at risk for diabetes)	35	30	-5

**SOURCE** National Public Health and Hospital Institute: *Obesity Treatment Programs in Public Hospitals and Health Systems Survey—Fall 2007.*

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indicate improved outcomes in all four areas (see Table 7).

### **Patient Characteristics and Recruitment**

Most Healthy Hawks patients are referred to the program from primary care and family medicine clinics located at KUMC. The program is also advertised at other free clinics in the Kansas City area. A physician referral is not required for patients wishing to participate.

Demographically, approximately 75 percent of patients enrolled in the Healthy Hawks program are African American and 25 percent are Hispanic. Patients are grouped into preferred-language cohorts, some of which are led in Spanish (by Spanish-speaking group leaders), and the others in English. For the Spanish speaking families, translators are provided during the monthly medical visits for the remaining nine months, as well as during all exercise sessions. According to the program director, the dual-language approach works smoothly and it adequately addresses linguistic concerns.

The program caters to children between the ages of 2 and 18, and the average patient is 7.5 years old. Typically, three family members accompany each child throughout the course of the program. At least 75 percent of the parents are also defined as obese.

### **Financing**

Ensuring adequate funding is a serious and ongoing concern. Of the patients in

the first group to complete the program, all but one child (who had private insurance) were covered by Medicaid, which typically reimburses poorly for obesity services. However, Medicaid patients enrolled in Healthy Hawks do not pay out-of-pocket for any part of the program, including transportation expenses to and from all meetings. All transportation costs are covered by the program, which encourages higher attendance rates. Yet ironically, private insurance only reimburses for treatment of medical co-morbidities, and families with private coverage must pay for both the exercise and behavioral program activities out-of-pocket.

To keep the clinic financially stable, Dr. Davis established a contract with the state Medicaid agency that will reimburse KUMC for typical clinical services and that pays a monthly fee of \$150 per enrolled patient to help cover the non-reimbursed expenses (i.e., weekly educational and exercise meeting expenses). Even with this extra funding, however, reimbursement is insufficient to cover clinic expenses, and program leaders plan to apply for grants to help cover non-reimbursed clinic costs. The clinic is also seeking to diversify its payer mix by recruiting additional privately-insured patients in the hope that the additional revenue can be used to offer scholarships for more low-income patients. Dr. Davis echoes many other providers' sentiments that the lack of funding for obesity clinics, especially the behavioral portion, is frustrating.

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## Patient Attendance and Compliance

Healthy Hawks has experienced a relatively low drop-out rate so far. Three out of 28 children dropped out of the first group of patients, reportedly because they found it difficult to attend all of the required weekly meetings. For the 25 patients that completed the intervention, all of them recorded a 100 percent attendance rate and reported that they were “extremely satisfied” with the program. Dr. Davis believes that the low drop-out rate is due to the group component of the intervention. She observed that the families developed a strong bond with one another, which encouraged them to attend all the sessions.

## Replicating the Program

Dr. Davis offers the following advice on establishing a similar pediatric clinic.

The first step is to identify a group of stakeholders, including a multidisciplinary team of health care providers

who are willing to commit the requisite time and effort to create an intervention to fight childhood and adolescent obesity. Team members should include a physician, psychologist, nutritionist, and an exercise physiologist or other professional with training in physical education.

After identifying the key players, the second step is to achieve fiscal sustainability. Dr. Davis cautions that very few institutions, including safety net hospitals, are able to support a program unless it is able to recoup at least some of the costs over the long-term. Due to limited funding in public hospitals and poor reimbursement rates for obesity treatment, implementing and sustaining obesity treatment programs require creativity and out-of-the-box thinking. Finding ways to address childhood obesity is obviously no easy task, especially given the dearth of funding for such programs, but critical to stemming this public health epidemic.

**Nutrition-based programs**

These diet modification programs are generally administered by registered dietitians who give patients recommendations for specific diets, help guide patients in making healthy food choices, teach patients to prepare food in healthy ways, and help participants to read and understand nutrition labels.

**Research programs**

Often funded by grant dollars and offered to patients at minimal cost, research programs administer interventions to overweight or obese individuals, and then measure patient outcomes to test the efficacy of those interventions.

**Primary care-based initiatives**

Because patients interact most frequently with their primary care providers (PCPs), these efforts enlist PCPs in identifying individuals who are at-risk of becoming overweight or obese. The PCPs speak with patients about risk factors and provide counseling and resources on obesity prevention.

**Bariatric surgery programs**

These surgical interventions are meant only for those with clinically severe obesity (i.e., BMI greater than 40 or BMI greater than 35 along with comorbidities). Most bariatric programs provide guidance on diet, physical activity, and psychosocial concerns both before and after surgery.

**School interventions**

These programs seek to educate children about nutrition and physical activity through their school system. Often, they are designed to induce and maintain long-term behavioral change in children regarding eating habits, food choices, and exercise.

**Health education programs**

Similar to nutrition programs, health education programs usually consist of classes that teach individuals how to make healthy choices related to nutrition and physical activity to prevent or help treat obesity.

**Clinic-Based Programs**

Clinics offer multidisciplinary programs with intense treatment plans that combine nutrition, exercise and behavior therapy, pharmacotherapy, and frequently, surgery for patients suffering from severe obesity. Clinics usually combine the expertise of multiple types of providers.

**Family-focused programs**

These interventions target obesity treatment toward all members of a family in order to help them all achieve healthy lifestyles and lose weight. This enables participants to work as a team to achieve their weight-loss goals.

**Employee-targeted programs**

Worksite wellness programs promote smart nutrition and physical activity. These programs focus on preventing obesity in at-risk employees and providing resources for those who may already be overweight or obese.

The following table lists and describes an assortment of NAPH public hospital obesity programs that were represented in the NAPH 2007 Survey “Obesity Treatment Programs in Public Hospitals and Health Systems.” Contact names and e-mail addresses for each program are included.

**Bellevue Hospital  
New York, NY**

**Adult Weight  
Management Clinic**

This clinic offers a multidisciplinary program developed to assist obese patients in weight loss and lifestyle change. Providers include physicians in internal medicine, psychiatry, and bariatric surgery, as well as a medical nutritionist. Patients are generally psychosocially and medically complex, and also culturally diverse. This multidisciplinary program has four goals: (1) To promote weight loss and weight management through intensive counseling on behavior and lifestyle modification; (2) To evaluate patients for secondary causes of obesity, such as medications associated with weight gain, and to screen for co-morbidities associated with obesity; (3) To train medical residents in obesity medicine, nutrition and lifestyle counseling, and motivational interviewing; (4) When appropriate, to refer and prepare patients for bariatric surgery, including preoperative cardiopulmonary, psychological, and nutritional assessments.

**For more information, contact:**

*Michelle McMacken, MD*

*Director, Bellevue Adult Weight Management Clinic*

*michellemcmacken@hotmail.com*

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**Boston Medical Center  
Boston, MA**

**Center for Weight  
Management and  
Nutrition**

BMC's Center for Weight Management and Nutrition provides both weight management services and medical nutrition therapy for patients with diabetes, eating disorders, hyperlipidemia or pregnancy-related nutrition issues. Patients attend an orientation session, after which they work individually with a registered dietitian to discuss and select a diet option and determine if the patient is a candidate for surgery or medication. The program incorporates motivational interviewing, which encourages patients to identify goals and allows staff to create individual definitions of success. (See case study on page 19 for more information.)

**For more information, contact:**

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**Cambridge Health  
Alliance  
Cambridge, MA**

**East Somerville Primary  
Care Pilot**

This primary care program targets overweight adolescent and adult women by linking them with resources in their communities, such as recreational centers and farmers markets. Their primary care provider engages patients by helping them improve their exercise and dietary habits.

**For more information, contact:**

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■ *Claude-Alix Jacob, MPH  
Chief Public Health Officer  
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**Cambridge Health Alliance**  
**Cambridge, MA**

**Latinas Living Better**

Latinas Living Better is a health education program that targets overweight adolescent and adult Latinas, including young mothers. Dietitians and health educators provide regular sessions on nutrition, fitness and body image in both Spanish and English. Chefs and nutrition educators teach cooking classes and lead field trips to local supermarkets.

**For more information, contact:**

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**Cambridge Health Alliance  
Cambridge, MA****Fitness Buddies**

Fitness Buddies is a program for city residents and employees that encourages people to exercise with a buddy. Participants are assigned a “fitness buddy” who agrees to help them work-out, walk, or participate in a physical activity of their choosing. The goal of the program is to combine a more active lifestyle with healthy eating. Participants are given a pedometer to encourage them to walk more, along with water bottles to encourage higher water consumption. Staff has lead workshops on nutrition and increasing physical activity by being more active during the day. The program partners with other employers in surrounding cities, city departments, and area schools.

**For more information, contact:**■ *Karen Hacker, MD, MPH*

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**Children’s Healthcare  
of Atlanta—Subsidiary  
of Grady Health  
System  
Atlanta, GA**

**FitKids**

Fit Kids is a six-week health enhancement program designed specifically for overweight children 6 to 12 years old and their parents. A physician’s permission to participate is required. Children and parents attend 90 minute classes once a week, at which time families meet as a group to review nutritional issues and report on completion of family activities. Parents meet separately with an instructor for a portion of each session to discuss more sensitive issues around the child’s self-esteem; the parent’s job as a role model; and stress and difficulties with making family lifestyle changes. All of the instructional methods for the children are activity-based and highly participatory. The Fit Kids program’s goals include the following major focus areas: (1) To help families make life-style changes which promote healthy living; (2) To help families better understand nutrition and to improve eating patterns without using food restriction as a method of change and to increase consumption of fruits and vegetables and decrease consumption of sweetened beverages; (3) To help families develop increased levels of physical activity together and decrease sedentary behaviors; and (4) To help children develop a higher sense of self-esteem.

**For more information, contact:**

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■ *Alice Smith, MS, MBA, RD*

*Program Manager*

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**Children’s Healthcare  
of Atlanta—Subsidiary  
of Grady Health  
System  
Atlanta, GA**

**TIPPS for Kids**

This is a type 2 diabetes prevention program that consists of a 12-week nutrition and physical activity intervention. It is designed for children and teens ages 10 to 18 that have a BMI above the 85th percentile for their age and have at least one other risk factor for type 2 diabetes. The goal of the program is to decrease risk factors for type 2 diabetes, thus delaying or preventing the onset in children and teens that are at risk. The intervention encourages patients to aim for four key goals: (1) At least 60 minutes of physical activity daily; (2) Increase intake of fruit and vegetables to five to nine servings per day; (3) Decrease television or computer screen time to two hours or less per day; (4) Increase water and decrease sweetened beverages. Patients have the option to enter into a second phase of programming for another 12 weeks after completing the first phase.

**For more information, contact:**

■ *Beth Passehl, MS*

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■ *Alice Smith, MS, MBA, RD*

*Program Manager*

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**Children’s Healthcare  
of Atlanta—Subsidiary  
of Grady Health  
System  
Atlanta, GA**

**Kids on the Move**

“Kids on the Move” is an eight-week after school physical activity and health education program for children in grades three through five. It seeks to reduce cardiovascular risk factors in high-risk children. The intervention teaches a range of health and nutrition topics using interactive games and crafts. A physical activity component includes a variety of games. Program objectives are: (1) Provide 30 minutes of structured, active play three days a week; (2) Increase enjoyment of active play among participants; (3) Increase level of activity outside of the program; (4) Increase intake of water in place of sweetened beverages; and (5) Increase knowledge of healthy lifestyle choices. Begun during the summer of 1999, “Kids on the Move” has been implemented in Dekalb, Decatur, Fulton and Atlanta area schools and community centers.

**For more information, contact:**

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**Coney Island Hospital**  
**Brooklyn, NY****Minimally Invasive**  
**Bariatric Surgery**

The program was developed to treat morbid obesity safely and effectively through both surgical and non-surgical methods. It is staffed by a multidisciplinary team, which includes psychiatrists, dietitians, surgeons, primary care physicians, gastroenterologists, pulmonologists, and cardiologists. A BMI monitoring system allows for identification of patients that are obese and morbidly obese. Based on their BMI, patients are either referred to the medical clinic or to the bariatric clinic for possible surgical intervention. The program offers monthly obesity support groups and yearly walk-a-thons to educate and increase awareness among patients and staff regarding obesity.

**For more information, contact:**

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**Contra Costa Regional  
Medical Center  
Martinez, CA**

**Have Fun and Be Healthy**

“Have Fun and Be Healthy” is a primary care-based program in which clinic staff and providers are trained to identify and counsel overweight children and their families. Primary care clinic staff are provided with BMI wheels, growth charts and counseling tools, which can be attached to the patient’s chart before a well-child exam. Staff are taught to calculate and graph the BMI by age and attach the counseling materials if the child is over the 85th percentile of BMI for their age group. Providers are asked to counsel the family regarding healthier lifestyles, make appropriate referrals to the dietitian or health educator, order appropriate labs, and follow the child in their clinic.

**For more information, contact:**

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*Chairperson, Department of Pediatrics*  
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**Contra Costa Regional  
Medical Center  
Martinez, CA**

**NEW Kids**

“NEW Kids” is a group intervention program for overweight children aged 6 to 11 years. Providers refer children and families who are motivated to learn about healthier lifestyles to the program. In this six week class, both parents and children learn about healthier diets and label reading, participate in physical activity, and discuss television watching habits. The program is bilingual and free to Medicaid patients.

**For more information, contact:**

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**Cumberland  
Diagnostic and  
Treatment Center  
Brooklyn, NY**

**Pediatric Obesity Program**

This program's intent is to manage and prevent obesity from infancy through 21 years of age. A pediatrician, a health educator and a clerical associate are responsible for the clinic, with direct oversight by the associate medical director. BMI is the main determinant for referrals to the clinic, and the obesity clinic refers patients to endocrine or cardiac clinics as needed. Patients receive nutritional counseling and advice on how to increase physical activity to the largest extent possible. Two clinic sessions are held monthly.

**For more information, contact:**

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**Denver Health  
Denver, CO**

**Bariatric Surgery**

Denver Health offers a comprehensive bariatric surgery program that provides counseling, education and surgery for morbidly obese patients (defined as those greater than 100 pounds overweight). All patients receive intensive pre-surgical consultation and post-operative care. The bariatric team assesses and monitors patient weight loss and reductions in medications and co-morbidities associated with obesity.

**For more information, contact:**

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**Denver Health  
Denver, CO**

**Endocrinology Obesity  
Management**

This is research clinical program that counsels, educates and treats obese and overweight patients. A multidisciplinary team consisting of a physician, RN, dietitian, and psychologist administers the treatment. The program measures improvement in patient weight and exercise ability after completing the intervention.

**For more information, contact:**

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**Denver Health  
Denver, CO**

**Healthy Eating in Children**

Healthy Eating in Children is a nutrition and primary care program developed by one of Denver Health's primary care physicians that takes place in Denver Health's community health centers. Once a child or family is identified as being obese, they are invited to participate in small group nutritional classes that encourage reading labels, cooking healthy foods, and buying smart.

**For more information, contact:**

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**Denver Health  
Denver, CO**

**Por Su Salud/Live Well**

This is a community-based effort aiming to increase healthy food choices and physical activity in a large Latino community. It is facilitated by Denver Public Health, but many community members, agencies, leaders, and resources are involved. One of the many components of the program is increasing physical activity options for residents, such as walking clubs and dance classes. The nutritional aspects of the program involve training local businesses to market fresh produce and increasing produce at local farmers markets.

**For more information, contact:**

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**Denver Health  
Denver, CO**

**Worksite Wellness  
Program**

Denver Health has established a worksite wellness program for its employees. It is led by a public health manager, physician, and dietitian. The program is still in its early stages, but is expanding rapidly.

**For more information, contact:**

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**Gouverneur  
Healthcare Services  
New York, NY**

**Gouverneur Weight  
Management Program**

Gouverneur runs a multidisciplinary program targeted at adults that includes physicians, a nutritionist, and a social worker. The social worker runs a group in English and a group in Spanish for patients who are in active treatment and in the maintenance phase. The physicians do medical intakes, set initial goals with patients, and then follow up on their progress. The nutritionist conducts an in-depth assessment of each patient's diet and reinforces goals set by the physician.

**For more information, contact:**

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*New York University School of Medicine*  
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**Harris County Hospital  
District—Ben Taub  
General Hospital  
Houston, TX**

**Adult Weight  
Management Clinic**

Patients are referred to the clinic and enroll in a year-long program. First, they must attend an orientation prior to being booked into the clinic as a new patient. (The orientation was started to minimize the no-show rate which is high in public hospital obesity clinics.)

For the first four visits, patients meet with a nutritionist and health educator every two weeks. They also meet with a physician every three months throughout the year. Patients who continue to make progress can follow up for return appointments every six months after completing the program.

**For more information, contact:**

*Ann Smith Barnes, Ph.D.*  
*smith@bcm.tmc.edu*

**Harris County  
Hospital District  
Houston, TX**

**Adult Weight  
Management Program**

Health educators teach this nine-week exercise and nutrition program aimed at giving adults 18 years and older healthy lifestyle skills. The classes are located in the hospital district's community health centers.

**For more information, contact:**

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**Harris County Hospital District—Lyndon Baines Johnson General Hospital  
Houston, TX**

**LBJ Pediatric and Adolescent Weight Management Program**

This multidisciplinary program provides medical, dietary, physical activity, and psychosocial evaluation and counseling. The medical component offers thorough evaluation for the possible obesity causes and the co-morbidities that the patients may already developed. Appropriate management and referral are provided. The program provides an individualized, culturally-accepted dietary and physical activity plan for each patient according to their need, ability, and available resources. Program staff includes a pediatrician/adolescent medicine specialist, two nurses, a nutritionist, a physical therapist and a social worker. It also offers scheduled support group sessions for patients and their families. The patient population consists mostly of low-income Hispanic and African American patients, most of whom do not have health insurance coverage.

**For more information, contact:**

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**Harris County Hospital District  
Houston, TX**

**Be Fit**

This program is for patients who complete the LBJ Pediatric and Adolescent Weight Management Program. Be Fit provides follow-up and reinforcement of concepts of weight loss. It provides group support, activities, exercise advice, and assistance for home compliance.

**For more information, contact:**

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**Harris County  
Hospital District  
Houston, TX**

**Employee Worksite  
Wellness and Obesity  
Treatment Services**

HCHD offers an array of wellness services for employees seeking to lose weight and develop healthy lifestyle habits. Services include a health risk assessment, nutrition and exercise options, and an obesity treatment pilot program for employees working at community health center sites. (See case study for more information)

**For more information, contact:**

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**Hennepin County  
Medical Center  
Minneapolis, MN**

**Hennepin Bariatric Center**

The Bariatric Center at HCMC first conducts an extensive evaluation of patients wishing to receive bariatric surgery. First, patients must attend a seminar that consists of two components. The first is a medical/surgical component, where the patient learns the details of the disease of obesity, from the way it may affect them, to how they can ultimately beat it and live the healthier life they seek. The other half of the seminar educates patients on the dietary needs they will have during and after obesity surgery, as well as the need for lifetime vitamin supplementation. After a patient attends the seminar and provides their full medical history and a referral from their primary care provider, they meet with a surgeon to complete the evaluation process. If a patient is eligible, they are scheduled to meet for surgery.

**For more information, contact:**

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**Hurley Medical Center  
Flint, MI**

**Hurley Bariatric Center**

Hurley's Bariatric Center offers a comprehensive surgical weight-loss program. Patients must meet NIH guidelines to be considered a candidate for weight loss surgery. Medical records are requested to ensure that the patient has taken steps with diet and exercise to lose weight. A psychological evaluation is required for every patient to ensure that the patient is prepared and has the ability to adhere to exercise and new diet required to be successful with weight loss. Pre-op and post-op exercise, support groups and behavior modification courses are offered. Lifetime post-op visits are required as well as labs.

**For more information, contact:**

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Hurley Bariatric Service Manager  
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**Hurley Medical Center  
Flint, MI**

**Diabetes Exercise and  
Education Program  
(D.E.E.P.)**

Patients are referred to the program by their physician or the Hurley Diabetes Center. A registered nurse performs an initial intake assessment and then an exercise program is prescribed based on the individual's health status and limitations. Exercise activity and duration is recorded upon each session. Blood pressure, heart rate, BMI and glucose are monitored and recorded by a registered nurse.

**For more information, contact:**

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**Hurley Medical Center  
Flint, MI**

**Center for Joint  
Replacement**

The Center for Joint Replacement offers exercise classes for patients who will undergo joint replacement surgery, or who have already done so. Pre- and post-surgical joint replacement patients are referred for a two-week pool exercise program both pre- and post-surgery. Pre-surgical individuals receive clearance from their physician to participate in certified arthritis pool exercise classes. Once surgery and (if necessary) physical therapy are completed, patient is referred for two weeks of pool exercise post-surgery.

**For more information, contact:**

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**Jacobi Medical Center  
Bronx, NY**

**Family Weight  
Management Program**

Jacobi's program evaluates and provides care for children and adolescents with weight problems. Jacobi's bilingual staff includes pediatricians, a nurse practitioner, nutritionist, social worker, psychologist, nursing assistants and a clinic coordinator/recreation instructor. All providers work with each family in a positive, supportive and enjoyable atmosphere and design the program to fit the family's needs. The program promotes general health and long-term weight management through healthy eating habits and increased physical activity. Services include: (1) Access to medical care for both children and parents; (2) Complete medical assessments, including physical examinations and blood tests; (3) Individualized treatment plans; (4) Nutritional counseling for both children and parents; (5) Fitness classes; (6) Psycho-social consultations; (7) Individual and group counseling sessions for both children and parents; and (8) Easy access to appointments and specialists.

**For more information, contact:**

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■ *Adriana Groisman-Perelstein, MD*  
*Director, Family Weight Management Program*  
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**Memorial Healthcare  
System**  
*Hollywood, FL*

**Schools of Wellness  
Initiative**

For the past three years, the Schools of Wellness Initiative (SWI) worked to prevent childhood obesity by teaching fourth and fifth grade students from 48 elementary schools in Broward and Palm Beach Counties healthy habits they can use throughout their lives. Students learned to increase their physical activity level and make wiser nutritional choices, thereby improving their overall health. Schools of Wellness was a model collaborative approach to addressing pediatric obesity. This public-private partnership consists of education, health care, community and children's programs throughout Broward and Palm Beach Counties. Beginning August 2007, the Schools of Wellness Initiative merged with another local program entitled "Commit 2B Fit" and is currently being implemented in 110 elementary schools in Broward County.

**For more information, contact:**

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**MetroHealth System  
Cleveland, OH**

**Weight Management  
Clinic**

This clinic is for obese patients (BMI greater than 30) who are ready to commit to lifestyle changes to maintain weight loss. Weight Management clinic services include: (1) Medical management of co-morbid problems through lifestyle programs; (2) Evaluation and treatment of obesity and eating disorders with medication; (3) Evaluation and preparation for gastric bypass surgery; (4) Pre-operative gastric bypass evaluation; and (5) Long-term post-operative gastric bypass follow-up for medical problems, nutrition, supplement and exercise monitoring and recommendations. (See case study for more information.)

**For more information, contact:**

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**MetroHealth System  
Cleveland, OH**

**Adult Weight  
Management and Healthy  
Lifestyles Initiative**

This primary care program has four components: (1) Annually screens patients for obesity; (2) Screens obese patients for targeted co-morbid medical conditions; (3) Counsels obese patients with the Patient-centered Assessment and Counseling for Exercise + Nutrition (PACE+) program; and (4) Provides a version of PACE+ for patients with low literacy.

**For more information, contact:**

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**MetroHealth System  
Cleveland, OH****STRIDES**

“Steps to Reach Individual Diet and Exercise Solutions” (STRIDES) is being developed by Dr. Seeholzer in collaboration with Dr. James Yokley, a behaviorist and an interdisciplinary team, with support from the St Luke’s Foundation. The program will be an intensive lifestyle management 12-week class that incorporates recommended nutrition, activity, and behavioral changes. The team will develop, test and modify an innovative program promoting sustained weight loss in obese patients that follows the national guidelines for obesity treatment, is designed for low-literacy levels, and is culturally sensitive. The treatment adapts the delivery of information to personal interest and learning styles, provides patients with the skills that allow them to continually improve their lifestyle, and teaches patients how to measure the impact of the changes that they have chosen. The classes will be taught using PC tablets to allow individual planning, learner assessment, and tailored learning objectives. The intervention is scheduled to begin in early 2008.

**For more information, contact:**

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**Ohio State University  
Medical Center  
Columbus, OH**

**Living Well  
(Comprehensive Weight  
Management Program)**

The “Living Well” program is a comprehensive, six-month weight management program that focuses on lifestyle, exercise and nutrition. It begins with an initial wellness consultation that includes paperwork to be completed by the participant prior to the assessment. A registered dietitian, registered nurse or exercise specialist reviews the paperwork and the participant is then scheduled into an orientation class. The first part of this class is an individual session with a nurse who reviews medical conditions and current prescribed medications. This is followed by the individualization of the meal plan. During the orientation visit, all participants are given a fitness evaluation including a 12-minute walk, tests of flexibility and strength and several measurements. The results of the fitness evaluation are used to structure an appropriate exercise plan for each participant. The fitness evaluation is repeated at the midpoint of the program and again at the end. The final portion of the orientation includes an orientation to our fitness facility for those participants who opt to use it. Patients attend weekly one hour classes throughout the six month period, and their weight and blood pressure is monitored prior to every class. The classes are facilitated/taught by a three-member team including a dietitian, exercise specialist and behaviorist. The class topic depends on which team member leads the class each week. Participants are given a notebook with basic program information and a listing of the topics.

**For more information, contact:**

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**Ohio State University  
Medical Center  
Columbus, OH**

**Living Well, Phase Two**

This is a six-month program that is meant to follow Living Well. Participants continue with weekly weight checks at the clinic and weekly classes. In the second six months, more emphasis is placed on the “why am I not changing” side of weight management with a behaviorist leading a majority of the classes. The exercise specialist has the class try different exercises in this phase since most participants have lost some weight at this point. The dietitian also is involved focusing more on menu planning, a different way to look at journaling, and handling plateaus and relapses.

**For more information, contact:**

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**Ohio State University  
Medical Center  
Columbus, OH**

**Express Start**

Express Start uses the same initial assessment as Living Well, but the participants are in the program for only twelve weeks and are not in groups. Like Living Well they are expected to keep food records and exercise logs which are turned in weekly at their weight checks. These logs are returned with comments the following week. Throughout the 12-week period participants are entitled to three 30-minute individual sessions. They all attend the initial session immediately following the wellness assessment and during this session they meet with the registered dietitian who provides them with a food plan. They schedule the remaining two appointments with the provider of their choice.

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**Ohio State University  
Medical Center  
Columbus, OH**

**Lifestyle, Exercise,  
Attitudes, Relationships,  
and Nutrition (LEARN)  
National Program**

OSUMC offers patients the option of following the national LEARN Program for Weight Control.<sup>1</sup> Registered dietitians offer this option on a 12 week basis. The LEARN program is designed for patients seeking lifestyle changes in order to achieve a healthy weight.

**For more information, contact:**

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1. Brownell, Kelly & Wadden, Thomas. (1999). *The LEARN Program for Weight Control*. Dallas, TX: American Health Publishing Company.

**Ohio State University  
Medical Center  
Columbus, OH**

**Bariatric Surgery**

All surgery patients begin the process by applying for surgery. This is followed by required dietary and psychological evaluations. When all information from the referring physician and the evaluations are received, the Comprehensive Obesity Treatment Group (a multidisciplinary team of health professionals) reviews all information to determine if they are an appropriate candidate and whether or not additional weight loss classes are needed. Patients are informed of the decision by phone and by letter. If no additional weight loss classes are needed, patients are enrolled into a 4-week class called Life After Surgery that is led by a dietitian. At the end of the class, patients receive an approved three-day menu for their first three days home following surgery. They also attend two 30-minute sessions with the exercise specialist and one 30-minute session with a nurse from the floor where they will be hospitalized following surgery. Patients are encouraged to bring support people to these classes. Following surgery, patients are encouraged to attend monthly support group meetings.

**For more information, contact:**

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**Olive View—UCLA  
Medical Center  
Sylmar, CA**

**KP Kids**

Children ages 5 to 12 with BMI at or above the 85th percentile for their age are referred to this six-week program composed of two-hour weekly sessions. The sessions include education for children and families about nutrition, medical issues, and behavioral changes. An exercise portion is also included, mainly for the children, emphasizing “fun” movement. Healthy snacks are also distributed each week, along with recipes. Children receive a syllabus, a pedometer, and the opportunity to “earn” small prizes. The program is conducted in both Spanish and English (most parents prefer Spanish while many of the children are more comfortable in English).

**For more information, contact:**

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**San Mateo  
Medical Center  
San Mateo, CA**

**Healthy Lifestyles  
Clinic—San Mateo**

The Healthy Lifestyles Clinic at San Mateo aims to assist children, teens and their families in building healthy dietary and physical activity habits while fostering a positive approach to one’s health and well-being. Their multi-disciplinary team provides risk factor assessments and screening. The team develops individualized plans so patients can achieve health related goals that reflect their personal, familial, cultural and socioeconomic dynamics. The clinic provides interactive individual and group educational services.

**For more information, contact:**

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**San Mateo  
Medical Center  
San Mateo, CA**

**NCHC Weight  
Management  
Support Group**

San Mateo offers an ongoing self-help group for mental health clients interested in weight management. The groups are facilitated by a Family Nurse Practitioner who fosters peer participation from the entire group. The program is based on the change model, which assumes clients are at various levels of change. Each session starts with a few minutes of dance for those who can participate. Change model steps are generally reviewed and then patients focus on one step at a time. The components of the program include: (1) Increasing patient's knowledge base; (2) Identifying motivators; (3) Developing a simple plan; and (4) Evaluating their progress.

**For more information, contact:**

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**Santa Clara Valley  
Medical Center  
San Jose, CA**

**Pediatric Healthy  
Lifestyle Center**

The PHLC is a lifestyle change program targeting children and adolescents. The intervention incorporates motivational interviewing to assess each child's ability to change, sets goals for them to achieve, and monitors their progress along the way toward implementing a healthier lifestyle. (See case study for more information)

**For more information, contact:**

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**Sinai Health System  
Chicago, IL**

**Pediatric Weight  
Management Program**

Sinai Children’s Hospital’s Pediatric Weight Management Program offers a comprehensive approach to weight management, starting with an initial assessment by a pediatrician, registered dietitian and psychotherapist. Patients generally follow up every four to six weeks or per discretion of the Pediatric Weight Management team. For eligible patients ages 7 to 18, Sinai Fit is a group nutrition, exercise and support class offered to patients and their families on a weekly basis for 12 weeks. Upon completion of Sinai Fit, the dietitian will complete a home visit to better assess lifestyle changes.

**For more information, contact:**

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■ *Michael Lotke, MD*

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**Tampa General  
Hospital  
Tampa, FL**

**Healthy and Fit for Life**

This four-week program is designed for children ages 8 to 12 and their parents, and focuses on the importance of making nutritious food choices and getting regular physical activity. Families attend four weekly sessions. During the first session, nurses conduct blood pressure, glucose, and total cholesterol screenings along with height, weight, and BMI measurements. Throughout the other sessions, physical fitness activities are presented by a YMCA fitness expert, a nutritionist teaches both parents and children how to develop healthy eating habits, and a psychologist gives a lecture to parents focusing on their responsibilities for their children’s health.

**For more information, contact:**

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**University Health  
System  
San Antonio, TX**

**Salsa Caliente Program**

“Salsa Caliente” is a no-cost, 16-session/8-week program that focuses on adult (i.e., aged 18 and older) nutrition, exercise, and prevention/maintenance of chronic diseases, such as diabetes, hypertension, or heart disease. Approaching obesity treatment holistically, the program also includes topics like stress management, cooking demos, goal setting, and developing effective communication skills. Each class is divided into a 40-minute education session and a 45 minute aerobic exercise period. The Salsa Caliente program is a bilingual program that seeks to be culturally relevant to patients in the San Antonio area and south central Texas. It has also been shortened into an education-only 12-week program to enable implementation in a community setting.

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-

**University Health  
System**  
**San Antonio, TX**

**Youth in Motion**

“Youth In Motion” is for children and adolescents who can benefit from increased cardiovascular fitness and reduced calorie intake to lose weight and get in shape. The program, which includes three weekly group sessions for a total of 36 class sessions, is offered at the Texas Diabetes Institute. Facilitated by a health educator, each class session is divided into two sessions: 20 to 30 minutes of education and 45 minutes of physical activity. Other teaching activities include a grocery store tour and a cooking class. One parent is required to attend every session with the child. Each family may consult with a registered dietitian, who will assess and recommend nutrition therapy for both the child and family. A registered dietitian conducts follow-up sessions at the end of the 36 sessions.

**For more information, contact:**

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**University of Kansas  
Medical Center**  
**Kansas City, KS**

**Healthy Hawks**

“Healthy Hawks,” named for the University of Kansas Medical Center mascot, is an obesity clinic for children and adolescents that incorporates behavioral issues, nutrition, and physical activity. It provides weekly educational meetings and monthly medical clinics for children and their parents to attend together. (See case study for more information.)

**For more information, contact:**

- Ann McGrath Davis, Ph.D.*  
*Associate Professor*  
*Department of Pediatrics*  
*adavis6@kumc.edu*

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**University of Mississippi  
Medical Center  
Jackson, MS**

**Comprehensive Weight  
Management Program**

This program offers group behavioral classes for weight loss (the national 12-week “LEARN” program), pharmacotherapy provided by a clinical pharmacist and supervised by a physician, weight loss surgery (gastric bypass and laparoscopic banding), and a meal replacement diet. Patients enter the surgical portion of the program either directly or through a free orientation session. Interested patients complete a brief medical evaluation with an internal medicine physician or nurse practitioner, and then begin the 12-week lifestyle classes. Those interested in pharmacotherapy or meal replacement are scheduled for additional appointments as needed. Patients also have the option of individual visits with a dietitian, physical therapist, or psychologist.

**For more information, contact:**

■ *Karen Grothe, Ph.D.*

*Assistant Professor*

*kgrothe@medicine.umsmed.edu*

■ *Annette K. Low, MD*

*alow@medicine.umsmed.edu*

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**University of Mississippi  
Medical Center  
Jackson, MS**

**Bariatric Surgery Program**

As part of a comprehensive treatment approach to obesity, UMMC provides gastric bypass and laparoscopic gastric banding for patients meeting eligibility criteria. They provide monthly support groups and a multidisciplinary team with the necessary expertise to help patients achieve the best possible outcome. Medical weight management assistance within the program can assist patients in pre-surgical weight loss, meeting insurance requirements prior to surgery, and post-surgical follow up.

**For more information, contact:**

- *Karen Grothe, PhD*  
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  - *Annette K. Low, MD*  
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**VCU Health System  
Richmond, VA****TEENS (Teaching,  
Exercise, Education,  
Nutrition, Support)**

The TEENS program treatment team includes medical personnel, psychologists, exercise physiologists, rehabilitation specialists and dietitians, and the program targets children and adolescents 11 to 18 years.

Participants are eligible if their BMI is greater than the 95th percentile for their gender and age and are referred to the program in a number of ways, including self-referral. The program includes three phases (initial six month treatment phase, six month maintenance phase, and six month follow-up phase), and focuses on three major components: nutrition, exercise, and behavioral support, motivation and modification. Goals are individualized for each patient, negotiated among the treatment team, parent, and child, and monitored by a personal notebook in which specific behavioral contracts are written and then reviewed by each of the program providers during follow-up sessions. Behavioral contracts focus on developing and maintaining a healthier lifestyle (e.g., eating a more balanced and healthy diet and exercising regularly). All team members are committed to this lifestyle change approach, and this orientation is communicated to adolescents and their parents.

**For more information, contact:**

*Edmond Wickham, MD*

*Assistant Professor of Medicine and Pediatrics*

*[epwickha@mail2.vcu.edu](mailto:epwickha@mail2.vcu.edu)*

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**Wishard Health  
Services  
Indianapolis, IN**

**IU Surgical Weight  
Management**

This surgical weight management program includes gastric bypass, adjustable gastric banding and sleeve gastrectomy. Patients attend an informal, three-hour seminar about the different types of surgery and life after surgery, and then schedule a consultation with the surgeon. The patient then attends a pre-operative class where a registered dietitian (RD) discusses diet and behavior modifications for after surgery. The RD also sees every patient in the hospital after surgery and writes the patients' discharge instructions and personalized meal plans. Patients follow up at specific intervals, after two years of close monitoring, and every year after for as long as they wish to come. RDs are also available for individual appointments as needed.

**For more information, contact:**

*Elisha London, RD*  
*hila.london@wishard.edu*

**Wishard Health  
Services  
Indianapolis, IN**

**Weight Management**

This nutrition program includes 12 weekly sessions that cover a range of relevant topics. Some focus on behavioral issues, including stress eating or readiness to change, and are taught by a behavioral specialist. Other topics include label reading, determining portion sizes, and dining out. Healthy recipes are also shared at each session.

**For more information, contact:**

*Fryn Schafer*  
*Outpatient Dietitian*  
*freda.schafer@wishard.edu*

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**Wishard Health  
Services  
Indianapolis, IN**

**Take Charge Light**

Similar to the weight management program offered at Wishard, this intervention employs lifestyle coaches to educate patients about nutrition and behavioral topics, as well as exercise and tools to stay motivated.

**For more information, contact:**

*Fryn Schafer*

*Outpatient Dietitian*

*freda.schafer@wishard.edu*

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# NAPH Members

**Alameda County Medical Center** Oakland CA

**Arrowhead Regional Medical Center** Colton CA

**Boston Medical Center** Boston MA

**Broadlawns Medical Center** Des Moines IA

**Broward Health** Fort Lauderdale FL

**Broward General Medical Center** Fort Lauderdale FL

**Broward Health Coral Springs Medical Center**  
Coral Springs FL

**Broward Health Imperial Point Medical Center**  
Imperial Point FL

**Broward Health North Broward Medical Center**  
Deerfield Beach FL

**Cambridge Health Alliance** Cambridge MA

**Carolinas HealthCare System** Charlotte NC

**Central Georgia Health System Inc.** Macon GA

**Community Health Network of San Francisco**  
San Francisco CA

**Laguna Honda Hospital &  
Rehabilitation Center** San Francisco CA

**San Francisco General Hospital Medical Center**  
San Francisco CA

**Contra Costa Regional Medical Center** Martinez CA

**Cook County Bureau of Health Services** Chicago IL

**The John H. Stroger, Jr. Hospital of Cook County**  
Chicago IL

**Oak Forest Hospital** Oak Forest IL

**Provident Hospital of Cook County** Chicago IL

**Cooper Green Mercy Hospital** Birmingham AL

**Denver Health** Denver CO

**Erlanger Health System** Chattanooga TN

**Governor Juan F. Luis Hospital and Medical Center**  
St. Croix VI

**Grady Health System** Atlanta GA

**Halifax Health** Daytona Beach FL

**Harborview Medical Center** Seattle WA

**Harris County Hospital District** Houston TX

**Ben Taub General Hospital** Houston TX

**Lyndon Baines Johnson General Hospital**  
Houston TX

**Hawaii Health Systems Corporation** Honolulu HI

**Hale Ho'ola Hamakua Hospital** Honokaa HI

**Hilo Medical Center** Hilo HI

**Ka'u Hospital** Pahala HI

**Kauai Veterans Memorial Hospital** Waimea HI

**Kohala Hospital** Kapaau HI

**Kona Community Hospital** Kealahou HI

**Kula Hospital** Kula HI

**Lana'i Community Hospital** Lanai City HI

**Leahi Hospital** Honolulu HI

**Maluhia** Honolulu HI

**Maui Memorial Medical Center** Wailuku HI

**Samuel Mahelona Memorial Hospital** Kapaa HI

**Health Care District of Palm Beach County** West  
Palm Beach FL

**Glades General Hospital** Belle Glade FL

**The Health and Hospital Corporation of Marion  
County** Indianapolis IN

**Wishard Health Services** Indianapolis IN

**Hennepin County Medical Center** Minneapolis MN

**Howard University Hospital** Washington DC

**Hurley Medical Center** Flint MI

**Jackson Health System** Miami FL

**JPS Health Network** Fort Worth TX

**Kern Medical Center** Bakersfield CA

**Lee Memorial Health System** Fort Myers FL

**Los Angeles County Department of Health Services**  
Los Angeles CA

**Harbor/UCLA Medical Center** Torrance CA

**Martin Luther King Jr. Multi-Service Ambulatory  
Care Center** Los Angeles CA

**LAC+USC Healthcare Network** Los Angeles CA

**Olive View—UCLA Medical Center** Sylmar CA

**Rancho Los Amigos National**

**Rehabilitation Center** Downey CA

**LSU Health Care Services Division** Baton Rouge LA

**Bogalusa Medical Center** Bogalusa LA

**Earl K. Long Medical Center** Baton Rouge LA

**Lallie Kemp Regional Medical Center**  
Independence LA

**Leonard J. Chabert Medical Center** Houma LA

**LSU Interim Hospital** New Orleans LA

**University Medical Center** Lafayette LA

## NAPH Members

**Dr. Walter O. Moss Regional Medical Center** Lake Charles LA

**Maricopa Integrated Health System** Phoenix AZ

**Memorial Healthcare System** Hollywood FL

**Joe DiMaggio Children's Hospital at Memorial**  
Hollywood FL

**Memorial Hospital Miramar** Miramar FL

**Memorial Hospital Pembroke** Pembroke Pines FL

**Memorial Regional Hospital South** Hollywood FL

**Memorial Hospital West** Pembroke Pines FL

**Memorial Regional Hospital** Hollywood FL

**Memorial Hospital at Gulfport** Gulfport MS

**The MetroHealth System** Cleveland OH

**Nashville General Hospital at Meharry** Nashville TN

**Nassau University Medical Center** East Meadow NY

**Natividad Medical Center** Salinas CA

**New York City Health and Hospitals Corporation**  
New York NY

**Bellevue Hospital Center** New York NY

**Coler-Goldwater Specialty Hospital and Nursing Facility** Roosevelt Island NY

**Coney Island Hospital** Brooklyn NY

**Cumberland Diagnostics & Treatment Center**  
Brooklyn NY

**Dr. Susan Smith McKinney Nursing and Rehabilitation Center** Brooklyn NY

**East New York Diagnostics & Treatment Center**  
Brooklyn NY

**Elmhurst Hospital Center** Elmhurst NY

**Gouverneur Nursing and Diagnostic & Treatment Center** New York NY

**Harlem Hospital Center** New York NY

**Jacobi Medical Center** Bronx NY

**Kings County Hospital** Brooklyn NY

**Lincoln Medical and Mental Health Center** Bronx NY

**Metropolitan Hospital Center** New York NY

**Morrisania Diagnostics & Treatment Center** Bronx NY

**North Central Bronx Hospital** Bronx NY

**Queens Hospital Center** Jamaica NY

**Renaissance Health Care Network Diagnostics & Treatment Center** New York NY

**Sea View Hospital Rehabilitation Center & Home**  
Staten Island NY

**Segundo Ruiz Belvis Neighborhood Family Health**  
Bronx NY

**Woodhull Medical and Mental Health Center**  
Brooklyn NY

**The Ohio State University Hospital** Columbus OH

**Parkland Health & Hospital System** Dallas TX

**Partners in Health Network** Charleston WV

**Regional Medical Center at Memphis** Memphis TN

**Riverside County Regional Medical Center** Moreno Valley CA

**Safety Net Hospital Alliance of Florida** Tallahassee FL

**San Joaquin General Hospital** Stockton CA

**San Mateo Medical Center** San Mateo CA

**Santa Clara Valley Health & Hospital System**  
San Jose CA

**Schneider Regional Medical Center** St. Thomas VI

**Roy Lester Schneider Hospital** St. Thomas VI

**Myrah Keating Smith Community Health Center**  
St. John VI

**Shands HealthCare** Gainesville FL

**Sinai Health System** Chicago IL

**Stony Brook University Medical Center** Stony Brook NY

**Tampa General Hospital** Tampa FL

**Thomason Hospital** El Paso TX

**Truman Medical Centers** Kansas City MO

**TMC Hospital Hill** Kansas City MO

**TMC Lakewood** Kansas City MO

**TMC Behavioral Health** Kansas City MO

**UMass Memorial Health Care System** Worcester MA

**UMDNJ-University Hospital** Newark NJ

**University Health System** San Antonio TX

**University HealthSystem Consortium** Oak Brook IL

**University Hospital, The University of New Mexico Health Sciences Center** Albuquerque NM

**University Medical Center of Southern Nevada**  
Las Vegas NV

## NAPH Members

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**University of Arkansas for Medical Sciences**

Little Rock AR

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**University of California Health System** Oakland CA

**University of California, Davis Medical Center**

Sacramento CA

**University of California, Irvine Medical Center**

Orange CA

**University of California, San Diego Medical Center**

San Diego CA

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**University of Colorado Hospital** Denver CO

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**The University of Kansas Medical Center**

Kansas City KS

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**University of Kentucky, UK HealthCare** Lexington KY

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**University of South Alabama Medical Center** Mobile AL

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**University of Texas System** Austin TX

**The University of Texas Health Center at Tyler** Tyler TX

**The University of Texas M.D. Anderson Cancer Center**

Houston TX

**The University of Texas Medical Branch at Galveston**

Galveston TX

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**University of Utah Hospitals & Clinics** Salt Lake City UT

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**VCU Health System** Richmond VA

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**Westchester Medical Center** Valhalla NY

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