

**A report to identify  
and assess stakeholder  
information needs  
related to childhood  
obesity programs and  
activities**

# Assessment of Childhood Obesity Information Needs:

Findings from  
Stakeholder Interviews



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**August 2006**



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## **Authors**

Carol McPhillips-Tangum, MPH, Principal  
Experion Healthcare Group, LLC

Karen Torghele, MPH, Health Scientist  
Public Health Informatics Institute

Kristin Saarlus, MPH, Deputy Director  
Public Health Informatics Institute

Anita Renahan-White, MPH, Director of Project Management  
Public Health Informatics Institute

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The Institute assists federal, state, and local public health agencies and other public health stakeholders that are grappling with information systems challenges.

Our services provide clarity about the information systems problems to be solved and identify the solutions to those problems.

The Public Health Informatics Institute is a component of The Task Force for Child Survival and Development.

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Public Health Informatics Institute  
Visit [www.phii.org](http://www.phii.org) E-mail [info@phii.org](mailto:info@phii.org)  
Call toll-free (866) 815.9704  
750 Commerce Drive, Suite 400  
Decatur, Georgia 30303



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# EXECUTIVE SUMMARY

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Childhood obesity is a complex problem being addressed in multiple ways by multiple stakeholder groups and individuals. As a result, there are more questions than answers about what information is needed to allow multiple stakeholders to do their work effectively. This project, guided by the Public Health Informatics Institute's collaborative requirements development methodology and supported by the Robert Wood Johnson Foundation, was designed to develop a shared understanding of the information needs for the activities and programs of this diverse group of stakeholders.

To begin this project of identifying information needs and activities, a stakeholder analysis consisting of 37 structured telephone interviews was conducted with individuals representing nine stakeholder categories: federal government; state government; education; parents and families; healthcare professionals and organizations; industry; media; community and nonprofit organizations; and researchers. Highlights of the findings from the telephone interviews include the following main points:

- Stakeholders are engaged in a wide variety of programs related to the prevention and treatment of childhood obesity. These programs include activities related to research, evaluation, education, communication, policy and advocacy.
- The types of activities in which stakeholders participate are related to the mission and strengths of the organizations they represent. For example, federal and state governments are conducting the bulk of activities related to surveillance because an important part of their mission is to provide population-based statistics defining childhood obesity. However, there is a considerable amount of obesity-related research also going on in industry and media organizations where the focus of their research questions tends to be on issues related to marketing, consumer choices, and communication. Schools and businesses are interested in how obesity affects attendance and work and academic performance. Again, the focus of each stakeholder's activities seems to stem from the organization's core mission.
- Across all stakeholder categories, there is a stated need for more information about program effectiveness or "what works." However, stakeholders may define effectiveness in different ways. For example, stakeholders in the education category are very interested in understanding the extent to which increased physical activity and improved nutrition can have a positive effect on academic achievement. Yet stakeholders in other categories rarely mentioned academic achievement as a measure of effectiveness, and tended to focus on health-related measures, such as whether an obesity prevention program effectively reduces body mass index or decreases the risk factors for chronic diseases.

- There seems to be a pattern of stated information needs that tie directly or indirectly to the stakeholders' source of funding. For example, schools that rely on federal funding based on test scores were interested in documenting the influence of obesity and activity levels on academics. State governments were interested in the health impact of obesity on their healthcare systems and on decisions made by businesses on whether to locate in states where obesity might pose workforce problems.
- Many stakeholders talked about the need to have a “clearinghouse” or central site which people across all stakeholder organizations could use to access summaries and interpretations of pertinent information. In part, this need seems to have emerged from a sense that there is “too much” information available. As described by stakeholders, the collection of information should include statistics on prevalence and incidence, information about what other organizations are doing related to childhood obesity, and information about effective programs and approaches to preventing and treating childhood obesity. Even among stakeholders who represented organizations that may be thought to currently offer a type of “clearinghouse,” there was a sense that it could be expanded and built upon to more readily meet the information needs of a diverse group of stakeholders. Based on the large number of stakeholders who brought up the need for a clearinghouse or central resource, as well as the wide variety of roles that stakeholders imagine such a resource playing, it seems that the idea of creating and maintaining such a resource is one that should be given careful consideration.

Overall, the findings from the stakeholder interviews lead us to conclude that there is not yet a clear path to developing an information system to meet the needs of the diverse groups, but that there are some logical next steps that can be taken. We recommend that a comprehensive childhood obesity information strategy be developed for the purpose of guiding the development, collection, and use of information related to the prevention and treatment of childhood overweight and obesity. The strategy should bring together the goals and objectives of the stakeholders, the information needed to support those goals and objectives, and the plans needed for the development and implementation of a system or systems to provide that information.

# INTRODUCTION

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Childhood obesity now ranks among the nation's most significant health problems, and the number of those affected is increasing at an alarming rate. Over the past three decades, the percent of children aged 2-19 that are overweight (above the 85<sup>th</sup> percentile for their age group) has more than doubled, increasing from 15 percent in 1974 to 33.6 percent in 2004. Currently, 17.1 percent of children are classified as obese ( $\geq$  95<sup>th</sup> percentile).<sup>1</sup> One of the more serious consequences of this dramatic increase in obesity and the associated morbidities is that life expectancy in the United States may decline for the first time in history.<sup>2</sup> Such a decline could be attributable to increased prevalence of chronic diseases known to be associated with obesity, such as cardiovascular disease and Type II diabetes. In fact, analysis of the Bogalusa Heart Study found that 60% of overweight 5- to 10-year-old children have one associated cardiovascular disease risk factor, such as hyperlipidemia, elevated blood pressure, or hyperinsulinemia and over 20% have two or more cardiovascular disease risk factors.<sup>3</sup> In addition, the Institute of Medicine reports that for children born in the United States in the year 2000, the lifetime risk of being diagnosed with Type II diabetes at some point in their lives is estimated to be 30% for boys and 40% for girls if the present levels of obesity stay the same.<sup>4</sup>

These startling statistics and findings have led to the development of a cadre of concerned stakeholders in many sectors and disciplines across the country, including government, schools, families, public health, healthcare, research, community groups, industry, media, and others who have identified childhood obesity as a major public health problem in the United States. As one of the most significant threats to our nation's present and future health, building an evidence base of effective solutions for prevention and treatment of obesity and translating these results into effective practices has created a number of strategic information needs. A shared understanding of the information needs of this diverse group of stakeholders is critical to subsequent attempts to design and implement information systems that would support and facilitate the work of multiple stakeholders engaged in efforts to reduce the prevalence of childhood obesity.

As an organization committed to halting the rise in childhood obesity rates by promoting healthy eating and physical activity in schools and communities throughout the nation, the Robert Wood Johnson Foundation (RWJF) has been approached by several national and state-based organizations asking for guidance and leadership in addressing their information needs related to childhood obesity. Because of previously successful collaboration between RWJF and the Public Health Informatics Institute (referred to as "the Institute") around strategic use of information technology, RWJF proposed the application of a similar approach to childhood obesity information needs. Therefore a multi-phased project was initiated to work with various stakeholders in public health, healthcare, education, health research, community organizations, and other stakeholder groups with a focus on childhood obesity prevention and treatment to develop an understanding of the common information needs necessary to support childhood obesity programs, and define the requirements for the information systems that support the work of those stakeholders.

The first phase of this project was designed to use stakeholder analysis as a method for enhancing understanding about the information needs of various stakeholders. A qualitative approach was chosen as a method for collecting detailed and unbiased input from a diverse group of stakeholders. Structured, in-depth telephone interviews with open-ended questions were conducted with key stakeholders for the purpose of gaining new insights regarding the types of activities in which stakeholders are engaged and enhancing understanding of stakeholders' information needs related to childhood obesity programs and activities.

In summary, this multi-phased project is based on these premises:

- A diverse group of stakeholders is working to address the childhood obesity problem.
- These stakeholders have a wide variety of information needs.
- Much of the information needed is the same for all categories of stakeholders.
- No information system presently meets the needs of these diverse stakeholders.

Furthermore, an underlying assumption of this project is that the development of an information system or information systems will enhance the nation's strategic capacity to respond to the childhood obesity health challenge and help stakeholders to achieve programmatic goals while fully supporting those working to solve the problem. Given RWJF's dual interest in addressing childhood obesity and improving the use and application of information systems, this first phase of a proposed multi-phased project was funded to address the information needs of stakeholders interested in the complex problem of childhood obesity. The stakeholder analysis described in this report was undertaken as the first step in an overall plan to assess the information needs of a diverse group of childhood obesity stakeholders and frame a proposal to meet those needs.

# METHODS

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To guide the methodology for conducting the stakeholder interviews, it was agreed that the process should be informed by a conceptual model that clearly illustrates the factors involved in the childhood obesity epidemic. After a review of the literature and internal discussions, it was concluded that one of the best conceptual representations of the childhood obesity problem is depicted in the Institute of Medicine (IOM) report *Preventing Childhood Obesity: Health in the Balance*.<sup>5</sup> In developing its conceptual framework, the IOM adopted an ecological perspective that contends that changes in individual characteristics and behaviors are affected not only by personal factors such as age, gender, and genetic profile, but also by the interactions and influences that occur in various behavioral settings like home, school, and community. According to the IOM model, these behavioral settings are directly or indirectly affected by a variety of environmental and societal factors that constitute potential leverage points for affecting food choice and physical activity. Lastly, the IOM model highlights the importance of social norms and values by depicting them as the influences that encompass and affect all the other factors that contribute to childhood obesity. The IOM model resonates well with the Institute's belief that a full understanding of the childhood obesity problem is dependent on an understanding of the individual, behavioral, environmental, and policy-related factors that influence food choice (energy intake) and physical activity (energy expenditure). As a result, the Institute adopted the IOM conceptual model as a guiding framework to inform several aspects of this project, including the finalization of stakeholder categories and the general structure of the interview guide and questions.

## **Purpose, Objectives, and Questions**

The primary purpose of our stakeholder interviews was to enhance understanding of stakeholders' information needs related to their childhood obesity programs and activities. The objectives of the interviews were to: (a) list, describe and categorize the types of activities in which stakeholders are currently engaged related to childhood obesity; and (b) list, describe and categorize the current and future information needs related to childhood obesity as reported by stakeholders. For each of these two objectives, a series of questions was asked to elicit information about specific types of activities and information needs. A matrix was developed to map the interview objectives with specific interview questions. The purpose of the matrix was not only to ensure that each objective was met through the inclusion of appropriate questions, but also to prevent the inclusion of questions that did not specifically support or "map to" a stated interview objective. An abbreviated version of the matrix is shown as Figure A. In addition to the types of questions indicated in Figure A, interviewees were asked to rank their top three highest priority childhood obesity activities and information needs in descending order, with the highest priority first. They were also asked to reflect on the extent to which a lack of information prevents them or their organization from doing any of the obesity-related activities that they would otherwise like to do.

**Figure A. Matrix of interview objectives and questions**

Objective	Interview Question(s)
<b>1) List, describe, and categorize the types of activities in which stakeholders are currently engaged related to childhood obesity</b>	
1a) List, describe and categorize specific activities in which stakeholders are currently engaged (i.e., research activities, programs/activities aimed at behavioral, environmental, and/or policy changes, and clinical activities such as diagnosis/assessment, treatment and referral) related to childhood obesity.	1a, 1e, 2, 3, 4, 5
1b) Record the current activity objectives related to childhood obesity as identified by the stakeholder.	1b, 1e, 2a, 3a, 4a
1c) Define and describe the target audience(s) for current stakeholder activities related to childhood obesity as reported by the stakeholder.	1c, 1e, 2b, 3b, 4b
1d) Record the frequency with which current childhood obesity activities are conducted (i.e., daily, weekly, monthly, yearly, etc.) as reported by the stakeholder.	1d, 1e, 2c, 3c, 4c
1e) List, categorize and rank the current childhood obesity activities by order of priority as reported by the stakeholder.	6
1f) Record any anticipated changes in prioritization of current childhood obesity activities and list reasons given for the changes as reported by the stakeholder.	7, 7a, 7b
<b>2) List, describe and categorize the current and future information needs related to childhood obesity as reported by stakeholders</b>	
2a) Record the type(s) of information related to childhood obesity activities reported as being needed by the stakeholder to support current activities.	8, 8a-8e
2b) Identify the timeframe(s) during which information related to childhood obesity activities is needed as reported by the stakeholder.	8a-8e
2c) List, categorize and rank the current childhood obesity information needs by order of priority as reported by the stakeholders.	9
2d) Record any anticipated changes in prioritization of current childhood obesity information needs, and list reasons given for the changes as reported by stakeholder.	10, 10a, 10b
2e) Record the extent to which stakeholder reports current information needs related to childhood obesity are being met to support activities. <i>(If information needs are reported as not being fully met, list and categorize stakeholder reported barriers to obtaining information needed.)</i>	11, 11a, 11b, 11c, 12, 13, 14, 14a, 14b

## **Defining Stakeholder Categories**

Because the group of stakeholders interested and involved in preventing childhood obesity is broad and diverse, it would have been logistically impossible and prohibitive from a resource standpoint to conduct interviews with all stakeholders. As a result, the Institute developed an approach to categorize, prioritize, and identify representatives from key stakeholder categories to be interviewed. The first step in defining the approach was to conduct a literature review of other approaches to categorizing or grouping stakeholders around the issue of childhood obesity. The literature review revealed that the seven stakeholder categories used in the IOM report provided a very reasonable starting point for our discussion of stakeholder categories.

The IOM stakeholder categories were presented for discussion at an initial stakeholder meeting convened by the Institute in November, 2005 entitled, "Defining Information Needs for Childhood Obesity." (See Appendix A for a list of participants from the November 2005 stakeholder meeting.) Based on the feedback received from meeting participants and subsequent discussion, the IOM stakeholder categories were used with slight revisions and two additional categories were added.

This project used the following stakeholder categories:

- Federal Government (including organizations such as the Centers for Disease Control and Prevention)
- State Government (including state health departments, state governments, and those that advise them)
- Education (including schools, educational associations and advocacy groups)
- Parents and Families (including parent associations and groups advocating for parents and children)
- Healthcare Professionals and Organizations (including providers, health plans, and professional associations representing providers)
- Industry (including the food, beverage, restaurant, leisure and recreation industries)
- Media (including print and broadcast media)
- Community and Nonprofit Organizations (including advocacy groups and funding organizations)
- Researchers (including those focusing on dietary behaviors, impact of the built environment, and identification of effective policies).

In addition to providing input regarding the stakeholder categories, participants at the initial stakeholder meeting provided input regarding the goals and objectives of the stakeholder interviews and helped in the development of the list of organizations and representatives to be interviewed. By the conclusion of the initial meeting, numerous organization and individuals had been identified as stakeholders within each of the categories. Although there are many possible approaches that can be used to prioritize organizations and individuals and create a more limited number of representative interviewees, this project used a hybrid approach. This approach takes

into account several factors, including level of interest and influence, scope and breadth of expertise, inter-relatedness of activities, and personal and professional affiliations. Using this approach, 42 individuals were invited to participate in a stakeholder interview. Of those individuals, 37 agreed to participate in a stakeholder interview. Among the five individuals who declined to participate in an interview, the most common reasons for declining were lack of time and/or not considering themselves or their organizations to be representative stakeholders in the childhood obesity problem.

In the end, 37 stakeholder interviews were conducted during March and April of 2006. The number of interviews conducted within each of the nine stakeholder categories varied based on the Institute's perception of the amount and scope of childhood obesity activities ongoing in each stakeholder category, the potential to influence entities within specific stakeholder categories, and the anticipated diversity of information needs within each category. Each interview lasted approximately one hour. (See Appendix B for a list of individuals and organizations that participated in a stakeholder interview.)

### **Development of the Interview Guide**

To meet the stated objectives, each stakeholder interview followed a structured format designed to facilitate a logical and standardized approach to conducting the interviews. The first part of each interview was designed to elicit information about types of activities and programs in which stakeholders were engaged to address childhood obesity. The second part of each interview was designed to enhance our understanding of stakeholder information needs. At the November 2005 stakeholder meeting it was proposed that information needs be considered within the context of five broad areas. These areas included: incidence and prevalence; disease burden from childhood obesity; cost data; program effectiveness; and resources. (See Figure B for definitions of these five areas.)

### **Figure B: Definitions of areas of information needs used in stakeholder interviews**

1. **Incidence and prevalence:** the enumeration of how many children are overweight, obese, or at risk for becoming overweight or obese
2. **Disease burden from childhood obesity:** factors related to the medical, psychological, academic and social impact of childhood obesity
3. **Cost data:** direct and indirect costs to individuals, schools, communities, the healthcare system, businesses, and government, and information about cost-benefit and cost-effectiveness of programs and activities
4. **Program effectiveness:** information needs related to outcomes, evaluation methods and tools, and standards and metrics
5. **Resources:** information needs about obesity-related programs, activities and resources that pertain to a specific area

In addition to the actual interview questions, the guide contained the language to be used as the introduction to the interview, definitions of key elements, transition statements, and prompts used as necessary for eliciting further detail from the respondent and/or clarifying questions. The interview guide and questions were pre-tested with three stakeholders and their feedback was used to make refinements to the final version of the interview guide and questions. (See Appendix C for complete interview guide.)

### **Interview Methodology**

All stakeholder interviews were conducted by telephone using the interview guide, and each interview lasted approximately one hour. Although the majority of interviews were conducted with a single interviewee (i.e., 1:1), there were three interviews in which more than one stakeholder from a particular organization participated in the interview (i.e., 1:2 or 1:3). With the permission of the individuals being interviewed, all interviews were audio recorded to ensure that an accurate record of each interview was maintained. After each interview, a verbatim transcript was prepared by an outside contractor and sent to the Institute as a Microsoft® Word document. Each interviewee received a copy of the transcript from his or her interview and was given the opportunity to review the transcript for accuracy and completeness. Any changes or comments returned by interviewees were incorporated into the final interview transcripts.

### **Data Analysis**

The verbatim transcript of each interview was analyzed using standard approaches for the analysis of qualitative data.<sup>6</sup> Each transcript was summarized and coded by two independent reviewers to identify key and emergent themes, trends, similarities and differences in responses within and across stakeholder categories. Preliminary results were shared and discussed with project staff, and subsequent review and analysis was conducted until consensus about the themes and findings was reached.

# RESULTS

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In this report, we present our results organized primarily by stakeholder category. For each category we provide a brief description of the stakeholders interviewed, a description of stakeholders' highest priority activities and programs, and a summary of their highest priority information needs. These priorities were determined by asking stakeholders to rank their priority programs, activities, and information needs during the course of each interview. We also include a subheading to describe those stakeholder comments that are highly relevant to addressing the complex problem of childhood obesity but are not specifically related to activities, programs or information needs. (See Appendix D for a list of activities and programs by stakeholder category and Appendix E for tables of priority information needs by stakeholder category.) In addition to reporting the results by stakeholder category, a summary of comments related to information needs for all interviewed stakeholders was developed to identify common needs within each of the five areas of information need. (See Figures C and D for a summary of stakeholder comments related to information need.)

## Federal Government

Three interviews were conducted with representatives from the federal government stakeholder category. Each of these three interviews was conducted with a representative of the U.S. Centers for Disease Control and Prevention (CDC), each representing different divisions with unique perspectives. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with stakeholders from the federal government include the following:

### Current Activities

Many of the activities described by stakeholders in the federal government category are focused on “building the evidence base” around childhood obesity. The types of activities that are conducted to build the evidence base include surveillance, evaluation, research, synthesis, dissemination, and translation of scientific findings. Stakeholders in the federal government are involved in conducting a number of surveillance activities which include a number of measures related to childhood obesity, including the Youth Risk Behavior Survey (YRBS), the School Health Policies and Programs Study (SHPPS), School Health Profiles (SHP), and the Pediatric Nutrition Surveillance System (PNSS).

In this stakeholder category, another high priority activity for those we interviewed is the evaluation of interventions that have been designed and implemented to reduce the prevalence of childhood obesity. Federal stakeholders support the evaluation of such programs in several ways, including

providing funding, training materials and technical assistance to entities that are working “in the trenches” or “at the grassroots level” to make a positive impact on the childhood obesity epidemic.

### Information Needs

Although stakeholders in this category reported that surveillance activities designed to assess and monitor the prevalence and incidence of overweight, obesity and related risk factors are a priority, they also expressed a need for more detailed surveillance information or a “refinement of existing surveillance tools.” In particular, stakeholders in this category expressed a need for more information on demographics of those affected by childhood overweight and obesity at the state and micro-levels (county, city, school and neighborhood) and more surveillance data on children at the elementary school level. As one stakeholder remarked, *“One of the problems is that there’s no state specific surveillance system that provides data on five to fourteen year olds... That’s the gap between the Pediatric Nutrition Surveillance System and the YRBS.”\**

All of the stakeholders in this category indicated that there is a need for more information about which programs are effective in meeting their stated goals and objectives and which strategies have been shown to be successful. To

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\*Although this was a comment made by one stakeholder in this category, in Arkansas the Arkansas Health Data Initiative Act 1220 provides them with the authority to collect and report BMI’s on all children enrolled in public elementary, middle and high schools in the state.

determine effectiveness, stakeholders in this group suggested that there is also a need for information about program evaluation tools and indicators of program success and failure. One stakeholder in this group also drew a distinction between knowing which programs work when they are tested within the context of a study or trial and which programs work when they are removed from the controlled study environment and implemented in “real life settings.” Although this stakeholder felt that it was possible to identify some programs that could be described as efficacious in a research setting, the stakeholder felt that the extent to which those same programs would be effective in an applied setting, such as a community or school, was largely unknown.

Stakeholders in this group also talked about the need for more cost-related information, such as information about the long-term costs of childhood obesity, cost-effectiveness of various approaches to preventing and treating obesity, and information that could be used to calculate the return-on-investment for childhood obesity interventions. However, stakeholders in this group also noted that there are numerous barriers to acquiring cost-related information. Examples of such barriers included not having economists on staff to conduct economic evaluations, a lack of precision around the assumptions that must be made to calculate economic costs and savings, and insufficient links between childhood obesity and long-term health outcomes.

One stakeholder in this group talked about the need to better understand public perceptions about childhood

obesity and how those perceptions are changing, including perceptions about the role that government should play in preventing obesity. Such information was identified by the stakeholder as being critical to refining the strategies the federal government uses to collect and position scientific evidence about obesity and translate findings about the most effective interventions aimed at preventing childhood obesity and overweight.

***“What are the long-term costs of childhood obesity, and what’s the cost-effectiveness or cost-benefit of various interventions? How can we reliably project costs on childhood onset of obesity? There’s a dearth of information on the natural history and that information is critical to the effort to prevent childhood obesity.”***

*William H. Dietz, MD, PhD  
Director, Division of Nutrition and Physical Activity  
Centers for Disease Control and Prevention*

#### **Additional Comments**

One stakeholder in this category spoke about how states “look to CDC as a resource” for information about obesity and perceive CDC as “a repository” of information about innovative programs and approaches to preventing obesity. This stakeholder wondered how CDC could make such information more systematically available to broader groups of stakeholders and hypothesized that informatics could play an important role in facilitating more broad exchange and sharing of information.

## State Government

Six interviews were conducted with representatives from the state government stakeholder category. Three of the interviews were conducted with representatives from state health departments, two were conducted with representatives from the National Association for Chronic Disease Directors, and one was conducted with a representative from the National Governors Association. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with stakeholders from the state government include the following:

### Current Activities

Among stakeholders representing state health departments, conducting surveillance was identified as an important activity and included the Behavioral Risk Factor Surveillance System (BRFSS) among adults and the Youth Risk Behavior Survey (YRBS) among high school students. They also evaluate and use the results of these surveillance systems for research and advocacy. Two of the stakeholders interviewed were from the State of Arkansas, where the Arkansas Health Data Initiative Act 1220 provides them with the authority to collect and report body mass index (BMI) on all children enrolled in public elementary, middle, and high schools across their state. They estimate that Arkansas collects BMI measurements on approximately 450,000 public school students from 1,300 schools across the state every year as part of a “comprehensive and integrated” child and adolescent obesity initiative.

State government, state health departments, and organizations representing state health departments all spoke about specific programs and initiatives that address childhood obesity in which they are involved. These programs and initiatives include activities ranging from education and public awareness to policy and environmental change. A common foundation for childhood obesity prevention programs is to build activities and messages around a multi-dimensional program recommending daily consumption of five or more servings of fruits and vegetables a day, limiting TV and other screen time to a maximum of two hours a day, and participating in at least one hour of vigorous physical activity.

### Information Needs

In general, state health departments perceive a need for more specific surveillance data to describe the incidence and prevalence of overweight and obesity among grade school-aged children, infants and babies, and in racial, ethnic, economic and other subpopulations. Several of the stakeholders from state government commented that there is a lack of “good surveillance data” for specific populations such as infants, pre-school children, and elementary school children. Several stakeholders also spoke about the need for obesity surveillance data that is “valid at the state level.” One stakeholder commented that it would be powerful to have surveillance data providing information about the prevalence of overweight and obesity (and the associated health risk factors) at county, city, and census tract levels, and that such information could be used to advocate for community-based obesity prevention programs.

Several of the stakeholders in the state government category spoke about the need for more “state-level” information about disease burden (i.e., how obesity impacts a child’s health and well-being over time). One stakeholder talked in detail about how useful it would be to have more information about the extent to which obesity causes not only physical health problems, but also psychosocial problems and those related to mental well-being and academic performance.

All the stakeholders in the state government category indicated a strong need for information about program effectiveness and best practices. One stakeholder noted that it would be especially useful to have a “compendium of effective interventions for physical activity and nutrition,” and went on to say that either such a compendium does not exist or it is not being publicized well if it does exist. An interest in information on policies that have been implemented in states and shown to be effective was expressed as well.

Another stakeholder noted that there are specific critical time periods that some subpopulations appear to be at greatest risk to become overweight, but the stakeholder was not aware of any data source that could be used by researchers or practitioners that documents those periods. This stakeholder thought that such information would be very useful to those who wish to target their interventions with a level of specificity that could optimize the chance of identifying a successful strategy for use during these critical time periods.

Nearly all stakeholders in this category talked about the need to

demonstrate that childhood obesity prevention programs could be not only effective for decreasing obesity and overweight, but are cost-effective and sustainable. One stakeholder explained that information about effectiveness and cost-effectiveness was always needed to justify resources spent on obesity prevention programs. Another stakeholder expressed the opinion that information about cost-effectiveness was important, but it needed to be accompanied by information showing that programs could also be sustained over time. Two stakeholders talked about the need for more information about the costs of obesity from an employer’s perspective (i.e., costs associated with absenteeism, illness, reduced productivity, and increased health insurance claims). In particular, one stakeholder wondered about the extent to which states could use their efforts to prevent obesity and improve health as part of their efforts to make their state more appealing to businesses looking for a “healthy state” in which to relocate or build.

***“To what extent does obesity cause educational problems, psychosocial problems, and medical problems? What would the return on investment be if we could solve obesity on the education side, on the social side, and on the medical side?”***

*Joe Thompson, MD  
Director, Arkansas Center for  
Health Improvement  
Arkansas Department of Health*

**Additional Comments**

One stakeholder in the state government category expressed a concern that obesity programs and efforts are too fragmented and thought it would be beneficial if groups could spend more time working together and developing “one voice” on the issue.

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## Education

Five interviews were conducted with representatives from the education stakeholder category. Two of the interviews were conducted with representatives from national education associations, two were conducted with representatives from a local school district, and one was conducted with a representative from a national non-profit organization focusing on obesity in school-aged children. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with stakeholders from the education stakeholder category include the following:

### Current Activities

Schools are involved in a wide variety of activities primarily aimed at improving dietary behaviors and promoting physical activity. Examples of these activities include: educating parents and families about nutrition and physical activity, modifying school meal choices to include more fruit and vegetable choices, revising cafeteria recipes to include more whole grains and less fat, promoting physical activity through programs such as “Safe Routes to School,” and developing school wellness policies which help regulate and direct physical activity, food service, vending machine issues, and other wellness-related activities. They also participate in research activities that include surveillance (e.g., Youth Risk Behavior Survey) and evaluation of program effectiveness.

### Information Needs

Most interviewees indicated that schools have more than enough information to understand the

general extent of the childhood obesity problem in terms of prevalence and incidence, but felt they lacked information about how those numbers translate into practical applications for them in the schools. Stakeholders in this category also indicated that they would like more information on program effectiveness (i.e., “what works”), and more specifically about how programs that are implemented to impact childhood obesity may affect academic achievement.

One stakeholder expressed the view that “people look to schools to solve all of society’s ills for the next generation,” but noted that schools are “front and center concerned about getting all the kids to do well on the state tests so that schools are not penalized [financially] by the federal government.” This stakeholder went on to note that due to the lack of data linking school-based obesity prevention activities with enhanced academic achievement, such programs are not likely to be funded if they are competing for resources with other activities or programs that have been demonstrated to be effective in enhancing academic achievement.

In related comments, many interviewees from the education stakeholder group spoke about the fact that the primary mission of schools is to educate children in the basics such as reading, writing and math. While preventing childhood obesity is a concern and interest of schools and educators, they felt the resources expended on activities aimed at improving dietary behaviors and promoting physical activity cannot be justified if there is no associated demonstrable improvement in academic achievements. As a result, more

indicators and evaluation methods are needed about how activities aimed at improving nutrition and/or increasing physical activity impact student achievement and test scores.

Education stakeholders also talked about the need for more information about the financial implications of implementing policies and programs related to childhood obesity, such as the impact on revenues of eliminate vending machines or changing the contents of vending machines to sell only nutritious and healthy foods. One stakeholder expressed frustration about how dependent some schools have become on money received from beverage companies in exchange for exclusive “pouring rights” in which beverage companies pay schools for the “right” to be the only company selling its beverages on campus. This stakeholder was concerned that such contracts indicate that “we are allowing money to become more important to us than the health of our children.” Some stakeholders in this category also expressed concern about how schools will manage the increased costs associated with the need to hire more school nurses to care for the increasing number of children with obesity-related health conditions, like Type II diabetes.

In some instances, it was reported that existing school policies are not particularly well-aligned with interest in reducing or preventing childhood obesity. For example, the food services organizations that prepare and serve school meals are commonly required to be financially self-supporting. When items such as fruits and whole grain breads are more expensive and perhaps harder to sell than the less healthy alternatives, it presents a challenge

for the food service organization that is trying to remain profitable or cost-neutral. As a result, one stakeholder expressed the opinion that food service programs should be considered “an educational support activity” rather than a “profit center,” and the primary purpose of food service programs should be to support learning. Stakeholders noted that information that could describe how to align school policies with efforts to reduce childhood obesity while remaining at least cost-neutral would be quite useful.

Two of the interviewees from the education stakeholder group talked about the need for a “central information system” or “infrastructure” to assist schools to respond more efficiently to a variety of health problems, including childhood obesity. One interviewee talked about how the highest priority health-related topics have changed over time (e.g., from HIV prevention to violence prevention and now to obesity), and noted that although the priority health topic may change over time, the need for an information infrastructure that would allow schools to be able to assess and respond to “whatever problem is out there” is not going to change.

***“What we are lacking is information about obesity’s impact on academics. School administrators are not held accountable for whether people have a heart attack in 30 years. They’re being held accountable for how school children are doing on the test scores tomorrow.”***

*Susan Wooley, PhD  
Executive Director,  
American School Health  
Association*

data. This particular stakeholder proposed that the healthcare system would be better positioned to serve that function.

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#### **Additional Comments**

In many instances, schools are lacking not only the information, but also the time and resources to effectively contribute to the effort to prevent childhood obesity. Indeed, there was a shared concern among nearly all the stakeholders in this stakeholder category that schools are “overburdened” and “overwhelmed” by all the current requirements focused on testing and academic performance. As a result, these stakeholders expressed the need to include schools as partners in addressing the childhood obesity problem, but not have the primary responsibility for prevention and treatment of childhood obesity reside in the school system. In addition, one stakeholder noted that body mass index (BMI) is a complex indicator to interpret in children and questioned whether schools are the best vehicle for collecting, interpreting and storing student BMI

## Parents and Families

Two interviews were conducted with representatives from the parents and families stakeholder category. Each of the two interviews was conducted with representatives from national non-profit organizations representing parents. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with stakeholders from the parents and families stakeholder category include the following:

### Current Activities

Stakeholders in organizations representing parents and families described several innovative activities and initiatives designed to prevent childhood obesity – mainly by promoting greater awareness of the issue among parents and by encouraging parents to become advocates for child health. Examples of these activities include media campaigns, public service announcements, special events, policy-related activities, presentations, and dissemination of “toolkits” containing items such as videos and newsletters. One stakeholder described her organization’s efforts to promote the importance of walking or biking to school through her partnership with “Safe Routes to School,” a program which promotes children walking to school on safe routes, and getting physical exercise and “fresh air” every day. Another stakeholder describes some of the activities in which her organization is engaged which attempt to mobilize parents to take action on the issue of childhood obesity. She notes that the way her organization does this is by encouraging parents to write to their senators and representatives in support of legislation such as Tom

Harkin’s School Lunch Regulation Bill and to work with their principals to “make positive changes in the school environment.”

### Information Needs

Stakeholders in this category indicated that they believe parents generally have enough information to realize that childhood obesity is a national problem and generally believe that no further information on prevalence or incidence of childhood obesity is needed to convince parents of the significance of the problem. However, one stakeholder in this category did mention that some continued information on prevalence and incidence is certainly important in helping parents to monitor the impact of childhood obesity prevention activities. Another stakeholder talked about the need to make prevalence and incidence data more “accessible” and “interesting” to parents.

Stakeholders in this category expressed interest in having increased information about which programs are effective in preventing obesity. One stakeholder in this category spoke about the need to have more “research-based” information about which obesity prevention activities are effective in homes and schools. In particular, this stakeholder expressed a need for more information about what “individual parents can do” as well as information about what “parents can collectively do” to address the childhood obesity problem. Another stakeholder felt there was a need for consistent ways to measure physical activity, snack and other food intake, and children’s weights.

Both stakeholders expressed interest in having more information about the costs to schools

associated with “switching from soda machines to healthier alternatives,” noting that there is a genuine need for information that accurately portrays the effect of such changes on school revenues. One stakeholder noted that there is considerable “fear” among schools that healthier food choices in vending machines will result in decreased revenues; however, this stakeholder indicated having some data to suggest that schools that promote healthier choices in vending machines can maintain or actually increase revenues and more such documentation would be very useful. Stakeholders in this category also thought it would be helpful to have more information on alternate “healthy” ways in which money could be raised.

Stakeholders in this category also expressed interest in having more information about the extent to which physical activity and good nutrition can be linked to academic achievement and school attendance. One stakeholder pointed out that parents may not understand or agree that schools should put any focus on the prevention of childhood obesity, so being able to “connect the dots” for them by documenting rates of absenteeism from obesity-related problems was mentioned as important in building support for school-based obesity prevention activities.

Stakeholders in this category also mentioned the need for more information about how to effectively “engage” parents in the childhood obesity issue. One stakeholder mentioned wanting more information in several areas related to parental involvement: information about what parents are thinking and how they are reacting to news alerts about the

various aspects of childhood obesity; ways in which parents are involved in this issue; and the extent to which parental involvement is impacting childhood obesity.

***“Although we do not conduct research on childhood obesity, we would like to be able to find research results that will support that what we are doing to prevent childhood obesity is working.”***

*Anna Marie Weselak  
President,  
National Parent Teacher Association*

#### **Additional Comments**

The stakeholders grouping this category also stated a desire for a central “clearinghouse” with examples of effective programs and “success stories.” Stakeholders described a clearinghouse or central location or website as a place where parents and others could go to find current and reliable information about childhood obesity.

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## Healthcare Professionals and Organizations

Five interviews were conducted with representatives from the healthcare professionals and organizations stakeholder category. Three of the interviews were conducted with representatives from healthcare organizations, one was conducted with a representative of a physician's professional association, and one was conducted with a representative of a national initiative focused on children's healthcare issues. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with stakeholders from the healthcare professionals and organizations category include the following:

### Current Activities

Healthcare professionals and organizations are engaged in efforts that focus very specifically on clinician training, prevention and treatment activities designed to address childhood obesity. Among physicians and other healthcare providers, these activities include routine measurement of BMI, screening for obesity-related co-morbidities, education and counseling. Among healthcare organizations and related associations, activities include working with providers to assure that obesity prevention is "being addressed" in the clinical setting. Healthcare organizations sometimes include obesity-related performance measures in their "pay-for-performance" or similar programs that provide financial incentives to clinicians who meet specific obesity-related clinical objectives (e.g., assessment of BMI, counseling of patients and their families).

Healthcare organizations are also involved in a variety of obesity-related activities that focus on research, identification and dissemination of best practices, and translation of information into clinical tools and resources for healthcare providers. One healthcare organization representative mentioned that recognizing that this epidemic cannot be controlled through the clinical setting alone, they are implementing a multifaceted approach to include population-based healthy eating and physical activity approaches in the multiple settings in which children spend their time.

### Information Needs

Compared to stakeholders in other categories, those in the healthcare professionals and organizations category were much more likely to talk about the need for additional information about effective approaches for treating childhood obesity. All the stakeholders in this group expressed a strong desire for more information that could help them determine "what works." Many in this group talked about the need for better information about how to effectively intervene with patients and their families to prevent a child from becoming overweight or prevent the transition from overweight to obese. Stakeholders also noted a need for evaluation and validation methodologies, along with suggested survey questions, to help them evaluate their own programs. Many of the stakeholders also talked about the importance of having information to describe not only "what was done" in obesity prevention programs, but also detailed information about "exactly how it was done and who did it" so that effective programs could be scrutinized to determine whether

they would be likely to work in different settings. Stakeholders in this group were also quick to point out that information about programs that did *not* work, along with explanation or speculation about why, would be extremely valuable. Finally, the suggestion was made that it would be very useful to have information on the effects of obesity with and without interventions.

Obtaining more information about cost-effectiveness and cost-benefit is also a top priority among most of the stakeholders in this category. Several of the stakeholders commented that in the event that obesity interventions are shown to be effective, the next logical step will be to demonstrate that they are also cost-beneficial and/or cost-effective. While most stakeholders in this category are interested in better cost-related information about obesity prevention and treatment programs, others are more interested in obtaining better data about the direct and indirect costs of childhood obesity. One stakeholder shared a belief that better understanding the indirect costs of childhood obesity was “one of the strongest drivers to short-term change,” because parents of children who are overweight or obese may experience a loss of productivity at their jobs related to absences for medical appointments to treat childhood obesity-related illnesses. One stakeholder also talked specifically about the need for more information that could be used to “make the business case for having pediatricians focus efforts on prevention of childhood obesity.”

Several stakeholders in this category talked about the need for more information related to resources for children and their families. In

particular, stakeholders in this category talked about the need of physicians and other clinicians to provide parents with information about local programs, activities and child-specific resources that may be useful to them and their children. One stakeholder noted that there is a great need for better information about local resources, including mental health resources.

***“As someone who tries to bring about change in physician practices, what would help me very much is evidence that anything works to prevent childhood obesity. I think all pediatricians want to do the right thing and help kids, but they don’t have the time or resources to go on fishing expeditions.”***

*Paul Kurtin, MD  
Chief Quality and Safety Officer  
Rady Children’s Hospital  
San Diego*

#### **Additional Comments**

As in other stakeholder categories, several of the stakeholders in this category expressed an interest in having a “clearinghouse” to provide a “filter” for the vast quantity of information and other elements such as an inventory of resources at all levels, effective strategies for communications, child-specific programs, and lessons learned from other organizations’ work with childhood obesity. As one stakeholder said, “We spend a lot of time trying to look at the evidence

and science about the risk of childhood overweight and obesity, and the different practices, strategies and policies that work...it would be great if there was some type of central clearinghouse that [could help us] to do that.”

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## Industry

Four interviews were conducted with representatives from the industry stakeholder category. Three of the interviews were conducted with representatives from the food and beverage industry, and one was conducted with a representative of the recreation and fitness industry. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with stakeholders from the industry category include the following:

### Current Activities

Representatives of the industry stakeholder category described a range of activities that fall into the broad categories of public relations, education, and research. The public relations activities include a number of grant-making and community-based activities to facilitate childhood obesity work. Grant-making activities underway among representatives of the industry stakeholder group include funding for school and community-based obesity prevention activities, as well as providing funding and resources for improvement of parks and recreational facilities. Stakeholders in this category also mentioned promotional activities such as one-day fitness events (i.e., 5-K runs, walk-a-thons), sponsorship of youth sports teams, and donation of physical education equipment to schools and youth organizations. In addition, stakeholders in this group frequently mentioned their involvement in initiatives aimed at educating children and their families about the importance of physical activity and/or good nutrition (e.g., consuming five or more servings of fruits and vegetables per day).

The research activities described by this group included studies conducted for the purpose of program evaluation, those involving customer responses to their products, and those designed for product improvement. One stakeholder who described the grant-making programs aimed at supporting physical activity interventions in different settings explained that each of their programs is now undergoing a “fairly rigorous” evaluation for the purpose of identifying the extent to which the programs are effective in increasing physical activity among participants. Other stakeholders in this group described research activities that were underway in their organizations to better understand how consumers make purchasing decisions and enhance understanding of consumer preferences for specific foods or products.

### Information Needs

With regard to information needs, many of the stakeholders in this category spoke about the need to better understand consumers so they can support the consumer in making healthy lifestyle choices. Examples of information needs expressed by stakeholders in this category related to consumers included: methods to motivate consumers to make healthy diet choices; ways to improve the taste of healthier foods and beverages; effective strategies for encouraging children to eat more fruits and vegetables; root causes of obesity; relative contributions of physical inactivity and nutrition; and effective ways to communicate with consumers regarding healthy food choices and physical activity.

Stakeholders in this group also talked a great deal about the need for more information about “what works.” For many stakeholders in this category, understanding what works means understanding which strategies are effective in changing children’s eating and physical activity behaviors. Several stakeholders in this group talked about “what works” from a communication perspective and are seeking more information about how to enhance communication strategies for the purpose of “reaching key audiences” and “motivating consumers” to make healthy choices.

In addition, several of the stakeholders in this group talked about the need for more information about what other organizations are doing with regard to obesity prevention. Related to this stated need, some stakeholders expressed interest in having more information about how organizations form collaborative relationships with other groups working on childhood obesity prevention, and how to effectively pick other organizations with which to “align themselves.” One stakeholder talked about the need to better understand what other organizations are doing, not only programmatically but also with regard to communication activities and strategies. Many of these comments underscored a common belief among stakeholders in this group that communication is one of their key strengths, and one that should be leveraged in the effort to prevent childhood obesity.

***“I think one of the things that is really important for the public and government sectors to understand is that they need to take on the responsibility of educating consumers; not legislating - educating. And because the consumer will listen to the right public third party and government groups to gain a better understanding and knowledge [of childhood obesity], they can be educated to make appropriate decisions.”***

*Pamela Mikulec  
Senior Director,  
Balanced Active Lifestyles  
McDonald’s Corporation*

#### **Additional Comments**

One stakeholder in this group spoke about the important role that industry can play in advocacy. In particular, the organization represented by this particular stakeholder has taken on an active role in talking to policymakers about the importance of daily physical education (PE) and encouraging parents to write letters to policymakers in support of daily PE and other opportunities for physical activity among school children.

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## Media

Three interviews were conducted with representatives from the media stakeholder category. Two of the interviews were conducted with representatives from the television media, and one was conducted with a representative of the print media. (See Appendix B for a list of individuals interviewed.) Highlights from the findings from the interviews conducted with stakeholders from the media category include the following:

### Current Activities

Media stakeholders described several initiatives designed to promote physical activity and healthy eating among children. These initiatives include activities such as public service announcements, community outreach and events, advocacy efforts, and development of special programming and educational materials designed to encourage children to lead healthy lives. One stakeholder described learning that “40% of schools had either cut recess or were thinking about cutting recess,” and this fact prompted the media group to develop an entire campaign specifically aimed at “rescuing recess.” The campaign involves the promotion of activities such as writing letters to policymakers in support of recess and encouraging parents to volunteer to be playground or recess supervisors as needed.

All of the stakeholders in the media category described conducting some research activities. For some stakeholders in this group, research activities were largely focused on consumer attitudes and opinions (i.e., determining how consumers

“react” or “respond” to specific messages). Other stakeholders reported being actively engaged in research for the purpose of identifying effective programs and strategies for addressing childhood obesity. For example, the organization that developed the program to advocate for recess reported that a formal evaluation of that effort will begin in 2007. As part of the evaluation, they will collect information to assess the extent to which recess can impact academic performance or behavior. Another stakeholder from this category described the research they are doing to better understand how children make food choices and what they can do to make healthy foods more appealing to children.

One of the stakeholders in this category talked about her organization’s decision to re-evaluate all the agreements that were in place to license their organization’s character images to food companies. The organization’s representatives realized that it did not make sense to be involved in a serious effort to promote healthy eating in children while continuing to have their organization’s character images on foods that are not particularly healthy. As a result, this organization has severed some long-standing and lucrative relationships with food companies and sought new relationships with companies that produce healthier foods.

### Information Needs

Two of the stakeholders in this category expressed interest in having more information about program effectiveness. One stakeholder expressed interest in having a much better understanding of not only which programs are

effective, but also which “components seem to be best” for promoting physical activity or healthy eating. One stakeholder talked specifically about the need for information that could link physical activity to academic performance. When one stakeholder’s organization tried to promote physical activity programs in schools, they found that teachers could be obstacles, unless they could “make the connection” between physical activity and improved academic performance. As a result, the organization has become very interested in obtaining more data related to physical activity and academics. To help identify effective programs, these stakeholders also expressed a need for tools to use in program evaluation.

Two of the stakeholders in this category also described their desire for a “central resource” or “clearinghouse” that could be accessed by all types of stakeholders to learn about what other organizations are doing and what programs are effective. One stakeholder described it as “a website that would contain all the latest statistics, information about effective components and programs, and where you could post information.” The suggestion was also made that this website should be “the first site that pops up when the average person goes to Google™ and types in ‘childhood obesity’.”

Stakeholders in this group are also interested in more information about cost-benefit of various approaches and programs that might prove to be effective in preventing childhood obesity. In addition, one stakeholder in the media category mentioned the

need for “better numbers” about the prevalence and incidence of childhood overweight and obesity, especially in specific geographic locations and among children aged 6 to 11 years old. This particular stakeholder believed that having enhanced prevalence and incidence data would help to “better define the obesity epidemic for their audience.”

***“We need more information that comes from a kid’s perspective. How are kids impacted by overweight and obesity-- in their own words? When we have that information, it helps us to formulate messages to reach them.”***

*Vanessa Foster  
Manager of Community Relations,  
Cartoon Network*

### **Additional Comments**

As with stakeholders in the industry group, the stakeholders in the media category clearly recognize that one of their greatest strengths lies in their ability to communicate to target audiences such as children and adolescents. All stakeholders in this group expressed a strong desire to use their communication skills and expertise to address childhood obesity by using child-specific messages.

## Community and Non-Profit Organizations

Six interviews were conducted with representatives from the community and non-profit organization stakeholder category. Two of the interviews were conducted with representatives from community-based foundations, two were conducted with representatives from advocacy organizations, and two were conducted with representatives from national non-profit organizations. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with stakeholders from the community and non-profit organizations include the following:

### Current Activities

Community and non-profit organizations are involved in activities that include communication, research, advocacy, and other programmatic activities designed to increase physical activity and/or promote healthy eating. Foundations who were interviewed as part of this stakeholder group indicated that they are funding numerous programs designed to address important research questions in areas such as surveillance, program effectiveness, cost-effectiveness of treatment and prevention, and advocacy. In addition, several stakeholders in this group spoke about the activities in which they are engaged to support policy changes. One stakeholder stressed the importance of supporting policy changes that have the potential to “change physical and social environments that influence eating and activity behaviors.”

### Information Needs

Several of the stakeholders in the community and non-profit category spoke about the need to have better information about “who’s doing what” and “what’s going on in the trenches.” Stakeholders in this group are also very interested in having more information about how organizations can collaborate, learn from one another, and build upon one another’s efforts to address childhood obesity. As one stakeholder pointed out, “it is important to know what has been done so that we don’t repeat some of the same mistakes.” One stakeholder expressed a desire to know if the organizational structure change that was made for the purpose of making services more readily accessible, safe and appealing would impact program effectiveness.

As with other stakeholder groups, some stakeholders in this category indicated a belief that more information is needed about program effectiveness in reducing childhood obesity and cost-effectiveness of the programs. Some stakeholders specifically mentioned the need for more information to describe “best practices” and enhanced knowledge about how to develop messages and communication strategies that “really work.” One stakeholder talked about the need to use “experiential learning” to “try out” various policies, environmental changes and strategies and then “see what works, what doesn’t work, and then improve on the strategies that work and disseminate them.” And another expressed a desire for tools to evaluate “end points” of programs, to help support their “proof of concept.”

However, not all the stakeholders in this group agreed that more information is needed to identify or describe effective programs. Two of the stakeholders in this group felt that no additional information about program effectiveness was needed. One of these stakeholders expressed the belief that current knowledge is sufficient, and resources would be better spent “training and mobilizing communities, state organizations, and national organizations to support sensible policies based on what we know now.” A similar perspective was shared by another stakeholder who said, “We don’t have information needs. That’s not where our needs are. We need people to fund local programs so people’s lives can change.”

One stakeholder expressed interest in information that would allow for “quick analysis” of the numerous reports and statistics that are coming out about obesity. The reported purpose of this “quick analysis” would be to sort out any conflicting information and assist in accurately informing policymakers, funders, and the community at large about the actual extent of the obesity problem. Another stakeholder expressed interest in having more information to describe how different ethnic groups respond to marketing and advertising around obesity and other health issues, and stated that we need to be “marketing health and putting health ahead of profit.”

***“People need to know about the different programs that are available to them. If there were a web-based resource that informed people about all the different programs that are offered to deal with childhood obesity, I think that would be extraordinarily valuable.”***

*Penny Kris-Etherton, PhD, RD  
Nutrition Committee  
American Heart Association*

#### **Additional Comments**

The recurring request for a central site or clearinghouse emerged again with this stakeholder group. Stakeholders in this group suggested that such a site or clearinghouse would include a collection of effective programs, strategies and best practices.

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## Researchers

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Three interviews were conducted with representatives from the research stakeholder category. One interview was conducted with a researcher who focuses on nutrition, one was conducted with a researcher who focuses on physical activity and the built environment, and one was conducted with an economist who conducts research on the topic of obesity. (See Appendix B for a list of individuals interviewed.) Highlights of the findings from the interviews conducted with researchers include the following:

### Current Activities

Researchers are engaged in studies designed to address important questions related to the prevention and treatment of childhood obesity. Examples of these activities include studying the effects of environmental and policy changes on activity and dietary behaviors of children, examining the way food is marketed, advertised, priced and promoted, assessing the role that family and community play in preventing obesity among African American adolescent girls, and surveying the landscape to describe and compare current obesity-related policies at the state and national levels.

### Information Needs

By the very nature of their work, researchers identify questions that need to be answered and gather information to answer those questions. As a result, all the researchers we talked with are actively engaged in pursuing their own information needs and readily agreed that there is a need for more

information on a variety of topics related to childhood obesity. In particular, the researchers we spoke with believed that more information is needed to identify and describe environmental, policy and other factors that are effective in promoting physical activity and healthy eating. Indeed, the pursuit of this type of information is at the core of their research activities.

By way of example, one researcher talked specifically about the need for more information to understand the role that family and community play in the prevention of childhood obesity, especially in African American and low-income populations. To help with specific populations that are disproportionately affected by obesity, a need was described for survey questions that are “sensitive to ethnicity.” Determination of whether or not there is a “trickle-down effect” to families in which a child is being treated for obesity would also be of interest to the research community. One researcher talked about the need for more information to better understand how school policies influence the dietary and physical activity behaviors of students. Valid measures of activity levels at all ages were also mentioned as a need that researchers have in order to conduct their research in a way that is consistent and accurate. Another researcher talked about needing more information about how children and their parents perceive parks and other places in the environment that can serve to facilitate physical activity.

Researchers also agreed that there is a need for more information about cost and cost-effectiveness. One researcher noted that more information is needed to describe the financial impact of obesity on the healthcare system, as well as obesity's impact on an individual's earning power and psychological health. One researcher indicated interest in understanding how prices and marketing of food products at the community level affect dietary and physical activity choices. Another researcher noted that data on cost are essential, and speculated that obtaining such data will soon become a priority because "that's really how decisions are made."

***"At this point, there are no good data out there on the range of policies that states are using. If we don't know what those policies are, then we can't say anything about what the impact of those policies is on behavior."***

*Frank Chaloupka, PhD  
Director, ImpacTeen,  
Health Policy Center  
University of Illinois, Chicago*

### **Additional Comments**

One researcher talked about a need to improve the availability of information that organizations need related to childhood obesity. The stakeholder noted that "every local, state, federal or national group is working on a childhood obesity plan and they're all trying to find information about statistics, programs, and best practices," but the information is "scattered everywhere and it is extremely hard to get to." This stakeholder suggested that the needed information should be "packaged" and "readily available" via a website or portal. A suggestion was made to include "short, non-technical summaries" of key research findings on a central website.

The two figures below include summarized information from stakeholder interviews:

**Figure C: Summary of stakeholder requests and comments related to information need, by classification of type of information need**

Information Need	Stakeholder Requests and Comments Related to Information Needs
<b>Incidence and Prevalence</b>	<ul style="list-style-type: none"> <li>• More detailed demographics (age, sex, race, ethnicity, socio-economic group and location)</li> <li>• State and community-specific</li> <li>• Co-morbidities with obesity</li> <li>• Risk factors for obesity</li> <li>• Increased information on children aged 5-14</li> <li>• Increased information on infants and children &lt; 2 years</li> <li>• Effect from interventions</li> </ul>
<b>Disease Burden of Obesity</b>	<ul style="list-style-type: none"> <li>• Effect on academic performance</li> <li>• Effect on school and work attendance</li> <li>• Impact on healthcare system</li> <li>• Effect on psychological health</li> <li>• Impact on earning power of individuals</li> <li>• Disabilities associated with obesity</li> <li>• Long-term health effects</li> <li>• Impact of interventions on disease burden</li> <li>• Disparities by race, ethnicity and socio-economic group</li> </ul>
<b>Cost Data</b>	<ul style="list-style-type: none"> <li>• Treatment cost-effectiveness/cost-benefit</li> <li>• Prevention cost-effectiveness/cost-benefit</li> <li>• Treatment and prevention return on investment</li> <li>• Payment for services related to obesity</li> <li>• Costs to states</li> <li>• Costs to businesses</li> <li>• Long-term costs from obesity</li> <li>• Statistics on selling “healthy foods” for school fund-raisers</li> <li>• Extra costs to schools to deal with obesity-related illnesses</li> <li>• Effect of prices of marketing on healthy food choices</li> </ul>
<b>Program Effectiveness</b>	<ul style="list-style-type: none"> <li>• Examples of program successes</li> <li>• Examples of unsuccessful programs</li> <li>• Best practice recommendations</li> <li>• Marketing effectiveness in high-risk racial and ethnic groups</li> <li>• Evaluation tools and indicators for program success</li> <li>• Consistent metrics and definitions of terms</li> <li>• Programs for multiple levels and settings</li> <li>• Effective, consistent messages</li> <li>• Impact of programs</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• Funding for programs</li> <li>• Programs available</li> <li>• Information on other stakeholders and their activities</li> <li>• State and local activities and resources</li> <li>• Central location with clearinghouse for information</li> <li>• Child-specific treatment centers</li> <li>• Model policies</li> <li>• Training and technical assistance</li> <li>• Safe places to exercise</li> </ul>

Figure D. Compilation of information needs by stakeholder category

Information Need	S t a k e h o l d e r s								
	Federal Government (n=3)	State Government (n=6)	Education (n=5)	Parents and Families (n=2)	Industry (n=4)	Media (n=3)	Healthcare Professionals and Organizations (n=5)	Community and Nonprofit Organizations (n=6)	Researchers (n=3)
<b>Incidence and Prevalence</b>	√ √ √	√ √ √			√	√	√	√	√
<b>Disease Burden of Obesity</b>	√	√ √ √	√ √ √ √	√	√		√		√
<b>Cost Data</b>	√ √	√ √ √ √ √	√ √ √ √		√	√	√ √ √	√ √	√
<b>Program Effectiveness</b>	√ √ √	√ √ √	√ √ √	√ √	√ √ √	√ √	√ √ √ √	√ √ √ √	√
<b>Resources</b>	√ √	√ √ √	√ √ √ √	√ √	√ √	√	√ √	√ √	√ √

√ Indicates the number of interviewees who mentioned one or more of the elements listed in Figure C for each information need classification.

## DISCUSSION

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Healthy People 2010 identified overweight and obesity as one of ten leading health indicators for the country, and set a goal for no more than 5% of children to be overweight or obese by the year 2010.<sup>7</sup> With the most recent rate of childhood overweight topping 34%, the nation is far from meeting the Healthy People 2010 goal. Finding effective solutions to such a substantial and complex health challenge will require the coordinated response of a diverse group of stakeholders, including government, public health authorities, educators, families, healthcare professionals and organizations, industry, media, community and non-profit organizations, and researchers. At a minimum, such a coordinated response is dependent upon shared knowledge among stakeholders about the activities and programs in which each stakeholder group is engaged, as well as enhanced understanding of the types of information each stakeholder group needs to effectively conduct its programs and activities. However, little information currently exists to describe activities and programs by stakeholder category, specific information needs of various stakeholder groups, and where the information needs of various stakeholder groups converge and diverge. There is no widely accepted document that describes the information capacities needed to inform childhood obesity prevention and intervention efforts across diverse stakeholder groups. The nation lacks a strategic vision for information capacity. Consequently, individual stakeholders or groups of stakeholders are struggling to define a piece of the larger strategic information puzzle, knowing that they lack critical information from other stakeholder groups.

With regard to stakeholder activities, our findings indicate that nearly all stakeholder groups are engaged in research, evaluation, education, communication, policy and advocacy. Yet, the specific activities that they undertake within these broad categories is apt to vary based upon the unique perspective and needs of the specific stakeholder group. For example, we were not surprised to learn that research is an important activity among researchers and stakeholders in the federal and state government, community organizations and healthcare organizations; however, we did not anticipate that research would be cited as a high-priority activity for stakeholders in other categories such as education, industry, and media. Among stakeholders in the federal and state governments, community organizations, and healthcare organizations we learned that the research activities in which they are engaged include important but fairly typical projects ranging from surveillance activities designed to quantify the number of children who are obese to trials designed to assess the effectiveness of specific interventions intended to promote physical activity and/or healthy eating. However, among stakeholders in education, industry and media, research activities covered a range of approaches and topics from qualitative studies to enhance understanding of consumer food preferences to quantitative evaluations designed to assess the impact of obesity on academic performance. We were also encouraged by the reported collaborations that have been formed between traditional research entities (e.g., universities and governmental organizations) and less traditional partners (e.g., media and industry).

Our findings indicate that there is considerable overlap among stakeholder categories with regard to their information needs related to incidence and prevalence. While stakeholders in the federal and state government categories were more likely than

stakeholders in other categories to indicate a need for more detailed data within incidence and prevalence surveys, interviews conducted across nearly all the stakeholder categories touched on the need for more granular information. What we found was that stakeholders in some categories (e.g., government and education) expressed interest in more incidence and prevalence data about childhood obesity by state or local geographic area, and stakeholders in other categories (e.g., media, researchers) expressed interest in incidence and prevalence data by specific age categories (e.g., pre-school and elementary school). In addition there is a need to describe incidence and prevalence of childhood obesity by race and ethnicity and in the underserved communities. This particular need is consistent with conclusions reached in recently published articles in the medical literature on the topic.<sup>8,9</sup> Yet as one stakeholder from a community and non-profit organization noted, it is not only information that is needed to solve the complex childhood obesity problem. Rather, information must be translated into effective strategies that address the problem without stigmatizing communities that may already be marginalized.

With the exception of industry and media, stakeholders in all other categories indicated a need for information that could be used to describe the impact of obesity on a child's health and well-being over time (i.e., disease burden). However, the unique perspectives of the stakeholders came into play as they described the aspects of disease burden in which they sought additional information. For example, stakeholders in the categories of state government, education, and parents and families spoke about the importance of having better information to describe the impact of childhood obesity on educational outcomes such as achievement, test scores and school attendance. Yet, stakeholders in other categories were less likely to express a need for information to describe the academic impact and more likely to express a need for additional information to describe the impact of childhood obesity on physical, emotional, social and psychological health. Other stakeholders, such as healthcare organizations and community and non-profit organizations, expressed a need for more information that could be used to understand and communicate about the burden of obesity to employers and businesses.

Across every stakeholder category, there was at least one person we interviewed who talked specifically about the need for more cost-related information. While specific needs for cost-related information varied by stakeholder group, there was a general and cross-cutting agreement on the need for more information to describe the cost-benefit or cost-effectiveness of specific obesity interventions. As with other categories of information needs, the ways in which stakeholders described their cost-related information needs varied by stakeholder category. For example, stakeholders from the categories of education, parents and families, and community and non-profits spoke about the need for information about how schools could improve the nutritional content of cafeteria offerings and vending machine selections without decreasing total school revenues. Yet stakeholders in other categories, such as government and healthcare organizations, expressed a need for more information that could be used to demonstrate a return on investment for various programs and activities.

There was broad agreement among stakeholders across all of the categories that more information is needed to describe the extent to which obesity interventions and programs are effective in meeting their intended goals. With very few exceptions, stakeholders readily agreed that there appears to be an inadequate amount of information and evaluation tools to determine the most promising or effective strategies, approaches and programs for addressing childhood obesity. However, stakeholders defined effectiveness in different ways. For example, stakeholders in the education category are very interested in understanding the extent to which increased physical activity and improved nutrition can have a positive effect on academic achievement. Yet stakeholders in other categories rarely mentioned academic achievement as a measure of effectiveness, and tended to focus on health-related measures, such as whether an obesity prevention program effectively reduces body mass index or decreases the risk factors for chronic diseases. In addition, researchers, parents and families, and stakeholders from the education category expressed interest in information about valid measures to assess physical activity, food intake, and general program effectiveness.

With regard to resources, the findings from the stakeholder interviews indicate a strong need across all stakeholder categories for better information about what other stakeholders are doing to address childhood obesity (e.g., programs and activities). Related to this need, many stakeholders across numerous stakeholder categories talked about the need to have a “clearinghouse” or central site which people across all stakeholder organizations could use to access statistics on prevalence and incidence, information about what other organizations are doing, and information about effective programs and approaches to preventing and treating childhood obesity. Even among stakeholders who represented organizations that may be thought to currently offer a type of “clearinghouse,” there was a sense that it could be expanded and built upon to more readily meet the information needs of a diverse group of stakeholders. Based on the large number of stakeholders who brought up the need for a clearinghouse or central resource, as well as the wide variety of roles that stakeholders imagine such a resource playing, it seems that the idea of creating and maintaining such a resource is one that should be given careful consideration.

While we were able to accomplish much of what we set out to do with this project, there were a few limitations. Limits had to be applied to the number of representatives we were able to interview in each category in order to work within our allotted time and budget. We did not interview an equal number of interviewees in each category, making representation in some categories stronger than in others. Within the federal stakeholder category, we only have representation from one federal agency, the Centers for Disease Control and Prevention. We would have liked to include representatives from the National Institutes of Health and the National Heart, Lung and Blood Institute. We also did not include all the stakeholder groups that may have provided and added perspective, like higher level educators involved in training clinicians and nutritionists who will be on the front lines of prevention and treatment. And of course, the summary of the findings are based on the opinions of just those we interviewed, and may not reflect the stakeholder group as a whole.

In summary, this project is unique in that it emerged from the following series of beliefs: (a) childhood obesity is a complex problem being addressed in a variety of ways by a large number of diverse stakeholders; (b) effective solutions will require current, accurate, reliable, and relevant information to assist in shaping prevention and treatment programs and policies; (c) the specific information needs of this diverse and large group of stakeholders are largely unknown; and (d) a shared understanding of the stakeholder information needs is critical not only to finding effective solutions, but also to subsequent attempts to design and implement sustainable information systems that could support and facilitate the work of multiple stakeholders engaged in efforts to reduce the prevalence of childhood obesity. Based on these beliefs, this project used stakeholder analysis as a method for successfully enhancing understanding about the information needs of various stakeholders.

The major findings to emerge from the stakeholder interviews provide documentation that there is a growing and diverse group of traditional and non-traditional stakeholders who are working to address childhood obesity, and these stakeholders have broad information needs that span across multiple areas. For example, there is no stakeholder group that stated information needs in less than three of the five main areas of information needs and there is no area of information need that was not specified as a priority by seven or more of the nine stakeholder groups. (See Figure D for a compilation of priority information needs.) In addition, there is no currently available information system (or systems) that meet the information needs of current stakeholders or can be expected to meet the needs of future stakeholders. In the absence of an information system or strategic plan for developing such a system to meet their information needs, stakeholders are likely to continue with their efforts to address childhood obesity, but these efforts will be largely uncoordinated, uninformed and unaided by information and resources that may assist stakeholders in implementing the most effective interventions to prevent or treat childhood obesity.

# RECOMMENDATIONS

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We began this project with the assumption that our results would identify clear areas of consensus and priorities around information needs. If that had been the case, the Institute was prepared to apply its requirements methodology process to work with stakeholders on the development of specific information requirements necessary to build a comprehensive and sustainable information system. However, during the course of conducting the stakeholder interviews, we found that stakeholders have a large number of information needs across a broad array of areas (e.g., incidence and prevalence, disease burden, cost data, program effectiveness, resources). In addition, we found that there is no central leadership in the prevention and treatment of childhood obesity and little to no coordination about what information to collect, how to collect and disseminate it, and how it will be used to meet program goals. In addition, stakeholders all expressed a need to be more connected with each other and share information but most organizations were acting largely independently based on their interests, priorities, strengths, and level of resources.

Our interviews and discussions with leaders in this field led us to a single recommendation. We suggest that the nation needs a statement of strategic information capacity that will guide investment in the information infrastructure needed to support action around addressing childhood obesity. In the same way that the 1988 IOM report *The Future of Public Health* guided federal agency action, local and state agency thinking and offered direction to other funders, today we need a similar tome that frames the information needs and places boundaries on where information must be routinely gathered, analyzed and presented such that all stakeholders can be informed and can be held accountable for evaluating programs and policies.

A national childhood obesity information strategy should guide the development, collection, and use of information related to the prevention and treatment of childhood overweight and obesity. A national strategy should also play an important role in fostering a culture of information sharing among childhood obesity stakeholders. Such a culture would allow for information systems to be developed for the purpose of meeting the present and projected child obesity prevention and treatment goals, ensuring that stakeholders have accurate, complete, pertinent, and timely information on the magnitude of the childhood obesity problem, and conveying critical information about program and policy effectiveness so that stakeholders can work together to meet common goals.

The framework for an information strategy on childhood obesity could be organized around three broad categories:

- What is happening? (trends in the scope of the problem: incidence and prevalence broken down by age, race, ethnicity, socio-economic group and location)
- Who is doing what and does it make a difference? (information on programs and program effectiveness)
- What policies guide activity? (information about legislation and administrative policies)

The strategy should describe how information from each of these three categories impacts the other categories and should rationalize data gathering and information dissemination efforts, especially those supported through public funding. As we know from our analysis, within each broad category stakeholders have a desire for consistent information but at varying levels of granularity. As a result, it is essential for our nation to have a strategy that clearly articulates how these various needs can be met to ensure long term goals and objectives are achieved. An information strategy should also define roles and responsibilities related to the collection and dissemination of information among the various stakeholders.

Without an information strategy to address childhood obesity, the nation has no capacity to systematically inform action, monitor and evaluate program impacts, and develop appropriate policies related to childhood obesity. Following the development of the national strategy for childhood obesity, information systems can be developed and used to assist stakeholders to be effective in their respective roles. However, such information systems need to be aligned with an overarching strategy for what information is to be collected, by whom and how. In the absence of an information strategy and logical information systems, information will continue to be collected by those who need it for their individual purposes and information systems will be developed in an ad hoc and uncoordinated manner which may threaten stakeholder attempts to develop, implement and monitor effective programs and approaches for reducing the prevalence of childhood obesity.

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## APPENDICES

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### Appendix A. Participants in November 2005 Meeting: “Taking a First Step in Defining Information Needs for Childhood Obesity”

Participant	Organization
Dennison, Barbara, MD	New York State Department of Health Division of Chronic Disease Prevention and Adult Health
Dietz, William, MD, PhD	Centers for Disease Control and Prevention Division of Nutrition and Physical Activity
Galuska, Deb, MPH, PhD	Centers for Disease Control and Prevention Division of Nutrition and Physical Activity
Howley, Nora, MA	Council of Chief State School Officers
McKenna, Mary, PhD	Centers for Disease Control and Prevention Division of Adolescent and School Health
Pronk, Nico, PhD, FACSM, FAWHP	HealthPartners, Inc.
Raczynski, Jim, PhD	University of Arkansas School for Medical Sciences
Rattay, Karyl, MD, MS, FAAP, FACPM	Nemours Division of Health and Prevention Services
Rogers, Victoria (Tory), MD	Maine Medical Center The Barbara Bush Children's Hospital
Wechsler, Howell, EdD, MPH	Centers for Disease Control and Prevention Division of Adolescent and School Health
Yaroch, Amy Lazarus, PhD	National Cancer Institute Division of Cancer Control and Population Sciences
Bazzare, Terry, PhD	The Robert Wood Johnson Foundation
Brewer, Russell, DrPH, MPH, CHES	The Robert Wood Johnson Foundation
Britt, Valerie MBA	Public Health Informatics Institute
Hastings, Terry, MA	Public Health Informatics Institute
Miller, Rhonda, MEd	Public Health Informatics Institute
Renahan-White, Anita, MPH	Public Health Informatics Institute
Ross, Dave, ScD	Public Health Informatics Institute
Saarlas, Kris, MPH	Public Health Informatics Institute
Torghele, Karen, MPH	Public Health Informatics Institute
McPhillips-Tangum, Carol, MPH	Experion Healthcare Group, LLC (formerly CMT Consulting)

## Appendix B. List of Participants in Childhood Obesity Stakeholder Interviews

Contact Name	Organization	Stakeholder Category
Baptiste, Mark, PhD	New York State Department of Health	State and Local Government
Bogden, James, MPH with Martine Brizius	National Association of State Boards of Education	Education
Chaloupka, Frank, PhD	University of Illinois, Health Policy Center	Researchers
Chang, Debbie, MPH with Karyl Rattay, MD, MS and Linda Bultman, PhD	Nemours Health and Prevention Services	Healthcare Professionals and Organizations
Delgado, Jane, PhD	National Alliance for Hispanic Health	Community and Nonprofit Organizations
Dietz, William, MD, PhD	Centers for Disease Control and Prevention (CDC), Division of Nutrition and Physical Activity (DNPA)	Federal Government
Doctor, Linda Jo, MD	W.K. Kellogg Foundation	Community and Nonprofit Organizations
Flores, George, MD, MPH with Sarah Samuels, PhD	The California Endowment	Community and Nonprofit Organizations
Foster, Vanessa	Cartoon Network	Media
Hassink, Sandra, MD	American Academy of Pediatrics	Healthcare Professionals and Organizations
Heinrich, Patricia, MSN	National Initiative for Children's Healthcare Quality (NICHQ)	Healthcare Professionals and Organizations
Hoy, Kathy, EdD, RD	Produce for Better Health Foundation	Industry
Huang, Sharon, JD	Parents Action for Children (PAC)	Families
Kidd, Joan, MEd	DeKalb County, Georgia Action for Healthy Kids (AFHK)	Education
Kotler, Jennifer, PhD	Sesame Workshop	Media
Kris-Etherton, Penny, PhD, RD	American Heart Association (AHA)	Community and Nonprofit Organizations
Kumanyika, Shiriki, PhD	University of Pennsylvania School of Medicine, Center for Clinical Epidemiology and Biostatistics	Researchers
Kurtin, Paul, MD	Rady Children's Hospital of San Diego	Healthcare Professionals and Organizations
Lever, Jonathan	Young Men's Christian Association (YMCA) of the USA	Community and Nonprofit Organizations
Majestic, Elizabeth, MS, MPH	Centers for Disease Control and Prevention (CDC), National Center for Chronic Health Promotion and Disease Prevention (NCCDPHP)/Obesity Trailblazer Team	Federal Government
Mikulec, Pamela	McDonalds USA	Industry
Moag-Stahlberg, Alicia, MS, RD	National Action for Healthy Kids (AFHK)	Education

Contact Name	Organization	Stakeholder Category
Mulheron, Joyal, MS	National Governors Association, (NGA), Health Division of NGA Center for Best Practices	State and Local Government
Pronk, Nico, PhD	HealthPartners	Healthcare Professionals and Organizations
Sallis, James, PhD	San Diego State University	Researchers
Shaw, Jennifer, MAP, MPH	State of Arkansas, Center for Health Improvement	State and Local Government
Stewart, Kay	Georgia Action for Healthy Kids	Education
Thompson, Joseph, MD, MPH	State of Arkansas, Department of Health and Human Services	State and Local Government
Watt, Dave	Sports Illustrated for Kids	Media
Wechsler, Howell, EdD, MPH	Centers for Disease Control and Prevention (CDC), Division of Adolescent and School Health (DASH)	Federal Government
Weselak, Anna	National Parent Teacher Association (PTA)	Families
White, Molly	Nike GO / US Operations	Industry
Witt, Kirsten	Coca Cola	Industry
Wooley, Susan, PhD	American School Health Association	Education
Wootan, Margo, DSc	Center for Science in the Public Interest	Community and Nonprofit Organizations
Yen, Peggy K., MPH, RD	National Association of Chronic Disease Directors	State and Local Government
Young, Walter, PhD	National Association of Chronic Disease Directors	State and Local Government

## Appendix C. Final Interview Guide

### Preventing Childhood Obesity: Guide for Stakeholder Interviews to Define Information Needs

#### Main Objectives

1. List, describe, and categorize the types of activities in which stakeholders are currently engaged related to childhood obesity.
2. List, describe and categorize the current and future information needs related to childhood obesity as reported by stakeholders.

#### I. Introduction

Thank you for agreeing to participate in a telephone interview. My name is Carol McPhillips-Tangum. I am an independent health services researcher and I have been asked by the Public Health Informatics Institute (“the Institute”) to conduct a telephone interview with you today. (*As appropriate:* Joining me on the call today is/are: state name/role/affiliation of others on the call.)

We would like to begin today by providing you with some background information so that you will better understand why you are being interviewed, how the information will be used, and how the interview fits within the larger context of the project of which it is a part. Does that sound like a reasonable place to start?

As you know, childhood obesity is a complex problem being addressed in multiple ways by multiple stakeholder groups and individuals. As a result, there are more questions than answers about what information is needed to allow multiple stakeholders to do their work effectively. This project, guided by the Public Health Informatics Institute and supported by the Robert Wood Johnson Foundation, will use structured telephone interviews and meetings with key stakeholders to enhance knowledge about the various types of childhood obesity prevention programs and activities in which stakeholders are currently engaged, and to develop a shared understanding of information needs related to childhood obesity prevention programs.

We are very pleased that you have agreed to participate in a stakeholder interview. We anticipate that we will conduct approximately 30 stakeholder interviews. Once the interviews are completed, we will analyze the qualitative data and develop a report that summarizes the findings in an aggregate fashion. We anticipate listing individuals and organizations that participated in an interview as an appendix in the summary report; however, the information you provide during the interview will be kept confidential in that neither you nor your organization will be linked to any specific responses in the report without your explicit permission to do so.

We are audio-taping today’s interview for purposes of writing an accurate summary report.

Do you have any questions before we begin?

## II. Description of Stakeholder Activities

One of our primary objectives for today's call is to learn more about the types of activities in which your organization is engaged to address childhood obesity.

1. Is your organization involved in any research activities related to childhood obesity or overweight? (*If so, please describe – interviewer to refer to the following prompts*). (*If no, interviewer to prompt as follows: By “research activities” we mean any activities that may be done within your organization to help you understand how many children are overweight or obese or at risk for becoming overweight or obese, or any activities that are done to determine whether your obesity programs and activities are working as intended. Given the way we are defining research, would you still say that your organization is not doing any research activities? (If not, interviewer will skip 1a-1e)*)
  - a. Are any of the research activities conducted for the purpose of surveillance?
    - Prompt for Federal, State/Local Government, and Community and Non-Profit stakeholders: By “surveillance” we mean any research that is conducted for the purpose of better understanding or enumerating how many children in a geographic or other defined community are overweight or obese, or at risk for becoming overweight or obese, and/or research for the purpose of understanding or enumerating how many children are engaging in risk factors (i.e., physical inactivity and high fat/high calorie diets) that put them at risk for becoming overweight or obese.
    - Prompt for Education stakeholders: By “surveillance” we mean any research that is conducted for the purpose of better understanding or enumerating how many children in your school, school district, and/or community are overweight or obese, or at risk for becoming overweight or obese, and/or research for the purpose of understanding or enumerating how many children are engaging in risk factors (i.e., physical inactivity and high fat/high calorie diets) that put them at risk for becoming overweight or obese.
    - Prompt for Healthcare Professionals and Organizations: By “surveillance” we mean any research that is conducted for the purpose of better understanding or enumerating how many children in your practice, health plan, and/or community are overweight or obese, or at risk for becoming overweight or obese, and/or research for the purpose of understanding or enumerating how many children are engaging in risk factors (i.e., physical inactivity and high fat/high calorie diets) that put them at risk for becoming overweight or obese.
    - Prompt for Industry and Media stakeholders: By “surveillance” we mean any research that is conducted for the purpose of better understanding or enumerating how many children in your market area, target area, and/or community are overweight or obese, or at risk for becoming overweight or obese, and/or research for the purpose of understanding or enumerating how many children are engaging in risk factors (i.e., physical inactivity and high fat/high calorie diets) that put them at risk for becoming overweight or obese.

- Prompt for Researchers: By “surveillance” we mean any research that is conducted for the purpose of better understanding or enumerating how many children in your target population, intervention area, and/or community are overweight or obese, or at risk for becoming overweight or obese, and/or research for the purpose of understanding or enumerating how many children are engaging in risk factors (i.e., physical inactivity and high fat/high calorie diets) that put them at risk for becoming overweight or obese.
  - Note: We would not ask this question of representatives of the Families stakeholder group.
- b. What are the objectives of these activities?
  - c. What is the target population for these activities?
  - d. With what frequency are these activities conducted?
  - e. Are any of the research activities conducted for the purpose of identifying effective programs or approaches for addressing childhood obesity or overweight (i.e., evaluation research)? (if so, please describe)
    - i) What are the objectives of these activities?
    - ii) What is the target population for these activities?
    - iii) With what frequency are these activities conducted?
2. Is your organization engaged in any activities that are focused on facilitating behavior change related to physical activity and/or nutrition? (if so, please describe)
- Prompt all stakeholders (except Families): By activities that are focused on facilitating “behavior change” we mean any activities that are conducted for the purpose of encouraging children and/or their caregivers to maintain a proper balance between food (energy intake) and physical activity (energy expenditure).
  - Prompt for Families: Is your family engaged in any activities that are conducted for the purpose of encouraging a child (or children) to change their activity level and/or diet.
- a. What are the objectives of these activities?
  - b. What is the target population for these activities?
  - c. With what frequency are these activities conducted?
3. Is your organization engaged in any activities specifically aimed at making changes in the environment for the purpose of decreasing the prevalence of childhood obesity – and by “environment” we mean the built or physical environment (i.e., sidewalks, parks, recreation facilities) and the non-built or social environment (i.e., availability of fruits and vegetables, crime rate).
- a. What are the objectives of these activities?
  - b. What is the target population for these activities?
  - c. With what frequency are these activities conducted?

4. Is your organization engaged in any activities specifically aimed at making or supporting policy changes for the purpose of decreasing the prevalence of childhood obesity – and by “policy changes” we mean any decisions, guidelines, recommendations or requirements that exist within your own organization, setting or community - not just policies at the state or national level.
  - a. What are the objectives of these activities?
  - b. What is the target population for these activities?
  - c. With what frequency are these activities conducted?
5. For Healthcare Providers Only: What types of clinical activities do you engage in for the purpose of preventing or treating childhood obesity (i.e., diagnosis, assessment, treatment, referral, etc.)?
6. Thinking about all the activities that your organization is involved in related to prevention of childhood obesity, please tell me the top three highest priority activities in descending order (highest priority first).
7. How do you anticipate that your organization’s priority activities related to childhood obesity will change over the next few years? (please describe)
  - a. Why do you anticipate such changes?

### **III. Assessment of Information Needs**

**TRANSITION STATEMENT:** We are now going to switch gears slightly, and begin to talk more specifically about your organizations information needs. The Institute is very interested in understanding more about the information needs of various stakeholders. When we say we want to better understand your information needs, we mean that we want to better understand what types of information your organization needs to support or sustain its childhood obesity program(s) and activities, and understand the extent to which you believe your current information needs are being met.

8. Does your organization need information to describe the extent of the childhood obesity problem (i.e., prevalence and incidence)? (If so, please describe – interviewer to refer to the following prompts).
  - i) Prompt for Education stakeholders: For example, does your organization need information about how many children in your school, school district, and/or community are overweight or obese, or at risk for becoming overweight or obese?
    - Can you give me an example or two?
    - Can you tell me about when you typically need such information (i.e., at what point in time)?
  - ii) Prompt for Healthcare Professionals and Organizations: For example, do you (or does your organization) need information about how many children in your practice, health plan, and/or community are overweight or obese, or at risk for becoming overweight or obese?
    - Can you give me an example or two?
    - Can you tell me about when you typically need such information (i.e., at what point in time)?

- iii) Prompt for Industry and Media stakeholders: For example, does your organization need information about how many children in your market area, target area, and/or community are overweight or obese, or at risk for becoming overweight or obese?
      - Can you give me an example or two?
      - Can you tell me about when you typically need such information (i.e., at what point in time)?
    - iv) Prompt for Family stakeholders: For example, do you need information about how many children in your area and/or community are overweight or obese, or at risk for becoming overweight or obese?
      - Can you give me an example or two?
      - Can you tell me about when you typically need such information (i.e., at what point in time)?
- 9. Does your organization need information to describe how obesity impacts a child's health and well-being over time (i.e., disease burden)? (If so, please describe)
  - i) Prompt for all stakeholders: For example, does your organization (or do you – in the case of families/individuals) need information to describe how obesity is associated with other diseases such as heart disease and diabetes, and/or how obesity may impact a child's psychosocial well-being?
    - Can you give me an example or two?
    - Can you tell me about when you typically need such information (i.e., at what point in time)?
- 10. Does your organization (or do you – in the case of families/individuals) need information to understand and/or describe the cost of preventing and/or treating obesity, including information about cost-benefit and/or cost-effectiveness of various obesity programs and activities (i.e., cost and investment)? (If so, please describe)
  - Can you give me an example or two?
  - Can you tell me about when you typically need such information (i.e., at what point in time)?
- 11. Does your organization (or do you – in the case of families/individuals) need information to understand or describe the extent to which obesity prevention programs and treatments are effective (i.e., solutions and effectiveness)? (If so, please describe)
  - Can you give me an example or two?
  - Can you tell me about when you typically need such information (i.e., at what point in time)?
- 12. Does your organization (or do you – in the case of families/individuals) need information about obesity-related programs, activities and resources in your area (i.e., linkages and resources)? (If so, please describe)
  - Can you give me an example or two?
  - Can you tell me about when you typically need such information (i.e., at what point in time)?

13. Thinking about all the information your organization needs to support its childhood obesity activities, please tell me the top three highest priority information needs in descending order (highest priority first).
14. How do you anticipate that your organization's priority information needs related to childhood obesity will change over the next few years? (please describe)
  - a. Why do you anticipate such changes?
15. Does your organization have the type(s) of information that it needs to support current activities and program objectives?
  - a. If not, what are the barriers to obtaining the necessary information?
  - b. Are these barriers related to the development and/or management of the information itself, difficulty in collecting the data necessary, or some other set of factors?
  - c. Are there any problems specifically associated with the timeliness, quantity and/or quality of any information received?
16. Does a lack of information prevent your organization from doing any obesity-related activities that it would otherwise like to do? (if so, please explain)
17. How does your organization determine the effectiveness of its obesity program(s) and/or activities? (In other words, how does your organization know if its programs and activities are working?)
18. Does your organization have the information needed to determine the effectiveness of its program(s) and/or activities?
  - a. If not, what information is the organization lacking?
  - b. Why is the organization lacking the necessary information?

#### **IV. CONCLUSION**

Those are all the questions we have for you today. Are there any other comments you would like to provide related to your organization's childhood obesity activities and/or information needs? On behalf of the Institute, the Robert Wood Johnson Foundation and myself, thank you very much for your time.

## Appendix D. Activities and Programs by Stakeholder Category

Stakeholder Category	Organization	Program/ Activity	Link and Description
Federal Government	CDC, Division of Nutrition and Physical Activity (DNPA)	KidsWalk-to-School	<a href="http://www.cdc.gov/nccdphp/dnpa/kidswalk/">http://www.cdc.gov/nccdphp/dnpa/kidswalk/</a> To support the national goal of better health through physical activity, CDC's Nutrition and Physical Activity Program has developed KidsWalk-to-School. This is a community-based program that aims to increase opportunities for daily physical activity by encouraging children to walk to and from school in groups accompanied by adults. At the same time, the program advocates for communities to build partnerships with the school, PTA, local police department, department of public works, civic associations, local politicians, and businesses to create an environment that is supportive of walking and bicycling to school safely.
Federal Government	CDC Division of Adult and Community Health (DACH)	Behavior Risk Factor Surveillance System (BRFSS)	<a href="ftp://ftp.cdc.gov/pub/Data/Brfss/userguide.pdf">ftp://ftp.cdc.gov/pub/Data/Brfss/userguide.pdf</a> The BRFSS is a cross-sectional telephone survey conducted by state health departments with technical and methodologic assistance provided by CDC. States conduct monthly telephone surveillance using a standardized questionnaire to determine the distribution of risk behaviors and health practices among adults. Responses are forwarded to CDC, where the monthly data are aggregated for each state, returned with standard tabulations, and published at the year's end by each state.
Federal Government	CDC, National Center for Health Statistics (NCHS)	National Health and Nutrition Examination Survey (NHANES)	<a href="http://www.cdc.gov/nchs/data/nhanes/OverviewBrochureEnglish_May05.pdf">http://www.cdc.gov/nchs/data/nhanes/OverviewBrochureEnglish_May05.pdf</a> NHANES is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations. NHANES is a major program of the National Center for Health Statistics (NCHS).
Federal Government	CDC, Division of Nutrition and Physical Activity (DNPA)	Pediatric Nutrition Surveillance System (PedNSS)	<a href="http://www.cdc.gov/pednss/pdfs/PedNSS_2003_Summary.pdf">http://www.cdc.gov/pednss/pdfs/PedNSS_2003_Summary.pdf</a> The Pediatric Nutrition Surveillance System (PedNSS) is a child-based public health surveillance system that monitors the nutritional status of low income children in federally funded maternal and child health programs. Data on birth weight, breastfeeding, anemia, short stature, underweight, and overweight are collected for children who attend public health clinics for routine care, nutrition education, and supplemental food.
Federal Government	CDC Division of Adolescent and School Health (DASH)	Youth Risk Behavior Surveillance System (YRBSS)	<a href="http://www.cdc.gov/HealthyYouth/yrebs/overview.htm">http://www.cdc.gov/HealthyYouth/yrebs/overview.htm</a> The YRBSS was developed in 1990 to monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and adults in the United States. These behaviors, often established during childhood and early adolescence, include unhealthy dietary behaviors and inadequate physical activity.
Federal Government	CDC Division of Adolescent and School Health (DASH)	School Health Policies and Programs Study (SHPPS)	<a href="http://www.cdc.gov/HealthyYouth/shpps/index.htm">http://www.cdc.gov/HealthyYouth/shpps/index.htm</a> The School Health Policies and Programs Study (SHPPS) is a national survey periodically conducted to assess school health policies and programs at the state, district, school, and classroom levels. SHPPS was conducted in 1994 and 2000, and will be conducted again in 2006.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Federal Government	CDC Division of Adolescent and School Health (DASH)	School Health Profiles (SHP) from School Health Index (SHI) tool	<p><a href="http://apps.nccd.cdc.gov/shi/default.aspx">http://apps.nccd.cdc.gov/shi/default.aspx</a> The SHI is a self-assessment and planning tool that schools can use to improve their health and safety policies and programs.</p> <p><a href="http://www.cdc.gov/healthyyouth/profiles/index.htm">http://www.cdc.gov/healthyyouth/profiles/index.htm</a> The School Health Profiles helps state and district education and health agencies monitor the current status of school health education; school health policies related to HIV infection/AIDS, tobacco use prevention, unintentional injuries and violence, physical activity, and food service; physical education; asthma management activities; and family and community involvement in school health programs. State and local education and health agencies conduct the survey biennially at the middle/junior high school and senior high school levels in their states or districts, respectively.</p>
Federal Government	CDC Division of Adolescent and School Health (DASH)	Fit, Healthy and Ready to Learn	(See Education – NASBE)
Federal Government	CDC Division of Adolescent and School Health (DASH)	Making It Happen	<p><a href="http://www.cdc.gov/healthyyouth/nutrition/Making-It-Happen/index.htm">http://www.cdc.gov/healthyyouth/nutrition/Making-It-Happen/index.htm</a></p> <p><i>Making It Happen—School Nutrition Success Stories (MIH)</i> illustrates a wide variety of approaches that schools have taken to improve student nutrition. The most consistent theme emerging from these case studies is that students will buy and consume healthful foods and beverages—and schools can make money from healthful options.</p>
Federal Government	CDC, Taskforce on Community Preventive Services	Community Guide to Preventive Services on Obesity	<p><a href="http://www.thecommunityguide.org/obese/">http://www.thecommunityguide.org/obese/</a></p> <p>This systematic review by the <i>Guide to Community Preventive Services (Community Guide)</i> describes the effectiveness of selected population-based interventions aimed at promoting healthy growth and development in children and adolescents and support healthy weights among adults focused on four strategic areas: school-based interventions, worksite interventions, healthcare system interventions, and community-wide interventions.</p>
State & Local Government	New York State Department of Health	Activ8Kids!	<p><a href="http://www.health.state.ny.us/prevention/obesity/activ8kids/#overview">http://www.health.state.ny.us/prevention/obesity/activ8kids/#overview</a></p> <p>The DOH funds a wide variety of community-based programs for children and adults that have already shown success in combating overweight and obesity by using a variety of techniques and creative approaches. The programs also provide people with tools to understand the problem and the solutions. Activ8Kids! messages and goals are being incorporated into many New York State Department of Health programs. These programs are reaching out to school staff, physicians, health care providers, childcare providers, children and parents to make maintaining a healthy weight a priority for everyone. The program recommends <b>5</b> fruits and vegetables each day, <b>1</b> hour of physical activity each day, and <b>2</b> hours OR LESS of TV or screen time daily.</p>

Stakeholder Category	Organization	Program/ Activity	Link and Description
State & Local Government	New York State Department of Health	Steps to a Healthier US Program	<a href="http://www.healthierus.gov/STEPS/grantees/2004/NY_state.html">http://www.healthierus.gov/STEPS/grantees/2004/NY_state.html</a> The Steps to a Healthier US 5-year cooperative agreement program funds states, cities, and tribal entities to implement chronic disease prevention efforts focused on reducing the burden of diabetes, overweight, obesity, and asthma and addressing three related risk factors: physical inactivity, poor nutrition, and tobacco use.
State & Local Government	National Governors Association (NGA)	Healthy America Initiative	<a href="http://www.nga.org/center/healthyamerica">http://www.nga.org/center/healthyamerica</a> <i>Healthy America</i> is about highlighting the simple yet specific behavioral and lifestyle changes necessary for sustainable long-term health for children, teenagers, adults and seniors. By marshalling the public and private sectors, we can make our communities, workplaces and schools healthier. <i>Healthy America</i> will educate people on the need for lifestyle changes, showing them how to change and offering incentives for implementing those changes in their daily lives.
State & Local Government	Arkansas Center for Health Improvement	Act 1220 BMI Initiative	<a href="http://www.achi.net/BMI_Info/bmi.asp">http://www.achi.net/BMI_Info/bmi.asp</a> Arkansas Act 1220 mandates that parents shall be provided with an annual Body Mass Index (BMI) by age of their child, as well as an explanation of what BMI means and health effects associated with obesity.
State & Local Government	National Association of Chronic Disease Directors (NACDD)	State Success Stories	<a href="http://www.chronicdisease.org/Success_Stories/storiesmain.htm">http://www.chronicdisease.org/Success_Stories/storiesmain.htm</a> State programs are effectively reducing the burden of chronic disease across the U.S. A team of professionals writes and publishes submitted state's stories.
State & Local Government	National Association of Chronic Disease Directors (NACDD)	Environmental Scan for Community Programs	<a href="http://www.chronicdisease.org/NEW/Documents/EnvironmentalScan_ObesityFINAL.pdf">http://www.chronicdisease.org/NEW/Documents/EnvironmentalScan_ObesityFINAL.pdf</a> The objective of this study was to compile and analyze a sample of abstracts on community-based programs that are designed to reduce obesity in children and youth to inform the W.K. Kellogg Foundation and the field at large about innovations in obesity prevention.
Education	National Association of State Boards of Education (NASBE)	Fit, Healthy and Ready to Learn	<a href="http://www.nasbe.org/healthyschools/fithealthy.html">http://www.nasbe.org/healthyschools/fithealthy.html</a> <i>Fit, Healthy, and Ready to Learn</i> was developed to help states, districts, and schools develop policies that would help prevent long-term chronic diseases. It is organized around sample policies that reflect best practice, which can be adapted to fit local circumstances. The sample policies are written as statements of best practice that all states, school districts, public schools, and private schools should endeavor to adopt. The policies can be adapted or revised to fit the needs of individual states, districts, and schools. Also included are explanations of the points addressed in the sample policies, excerpts of actual state and local policies, notable quotations, and other valuable information that supporters can use to justify school health policies. Each section ends with a list of resources and organizations that offer specialized expertise.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Education	Action for Healthy Kids (AFHK)	Game On!	<a href="http://www.actionforhealthykids.org/special_GameOn.php#WhatsGameOn">http://www.actionforhealthykids.org/special_GameOn.php#WhatsGameOn</a> Game On! The Ultimate Wellness Challenge is an all-inclusive, fun event for students, parents, teachers, administrators, and others to celebrate coming back-to-school with a fresh approach. The Game On! event integrates nutrition, physical activity and learning through a series of activity stations that will stimulate minds and bodies.
Education	Action for Healthy Kids (AFHK)	Campaign for School Wellness	<a href="http://www.actionforhealthykids.org/special_CswGameon.php">http://www.actionforhealthykids.org/special_CswGameon.php</a> Through Action for Healthy Kids' Campaign for School Wellness, communities, parents, and professionals can give <i>crucial support</i> to schools' efforts to implement wellness practices. On July 1, 2006 school districts must have Wellness Policies in place with the goal of promoting better nutrition, physical activity, and wellness. This legislation provides schools an extraordinary opportunity to make changes benefiting children's health and learning.
Education	American School Health Association (ASHA)	National Initiative to Improve Adolescent Health (NIAH)	<a href="http://www.cdc.gov/healthyyouth/AdolescentHealth/NationalInitiative/index.htm">http://www.cdc.gov/healthyyouth/AdolescentHealth/NationalInitiative/index.htm</a> ASHA plays an active role in the National Initiative to Improve Adolescent Health (NIAH), a joint initiative of the CDC and the U.S. Department of Health Resources and Services Administration (HRSA). The Steps to a Healthier US initiative of the U.S. Department of Health and Human Services identified 107 objectives as important for improving health outcomes for adolescents out of the 467 outlined in Healthy People 2010. Of these, 21 are considered critical and include: reducing the proportion of children and adolescents who are overweight or obese and increasing the proportion of adolescents who engage in vigorous physical activity that promotes cardio-respiratory fitness 3 or more days per week for 20 or more minutes per occasion.
Parents & Families	National Parent Teacher Association (PTA)	Rescuing Recess	<a href="http://www.rescuingrecess.com/">http://www.rescuingrecess.com/</a> Rescuing Recess is inspiring teachers and parents to join together as advocates to bring back or keep recess as an essential activity to the overall well-being of kids. National PTA is excited to be a part of this program because it brings to light an important issue that will benefit our children.
Parents & Families	National Parent Teacher Association (PTA)	Walk for Healthy Kids	<a href="http://www.pta.org/ne_press_release_detail_11504895914_06.html">http://www.pta.org/ne_press_release_detail_11504895914_06.html</a> Hundreds of PTA members and families will call attention to the need for healthy lifestyles at home and school in the second Annual PTA Walk for Healthy Kids.
Parents & Families	National Parent Teacher Association (PTA)	Healthy Lifestyles Book	<a href="http://www.pta.org/pr_magazine_article_details_112734128_7093.html">http://www.pta.org/pr_magazine_article_details_112734128_7093.html</a> The National PTA produces and distributes a fact sheet about obesity, ideas for healthy fundraisers, and interventions at school level for childhood obesity issues.
Parents and Families	Parents Action for Children (PAC)	Stir-It-Up America	<a href="http://www.stiritupamerica.org/">http://www.stiritupamerica.org/</a> PAC brings together parents across the country who will take action to: tell Congress to get the junk food out of our schools, get students, parents, and school administrators involved in getting junk food out and more physical activity into our schools, and incorporate healthy eating and physical activity into the lives of today's busy families.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Industry	Produce for Better Health Foundation (PBHF)	5-A-Day	<a href="http://www.5aday.com/">http://www.5aday.com/</a> 5- A-Day for Better Health is a national program and partnership that seeks to increase the number of daily servings of fruits and vegetables Americans eat to five or more. The 5-A-Day program provides easy ways to add more fruits and vegetables into daily eating patterns.
Industry	McDonald's	Balanced Lifestyles Program	<a href="http://www.mcdonalds.com/usa/news/2004/conpr_05252004.html">http://www.mcdonalds.com/usa/news/2004/conpr_05252004.html</a> McDonald's Balanced Lifestyles platform for children is focused on food choices, education and physical activity. The platform is designed to educate, assist and engage children in ways that change individual behavior and help them build healthy habits that result in better food/energy balance in their lives.
Industry	McDonald's	Bag-a-McMeal	<a href="http://app.mcdonalds.com/bagamcmeal">http://app.mcdonalds.com/bagamcmeal</a> Bag A McMeal: Create your own McDonald's meal and get the nutrition facts. McDonald's menu provides a wide range of options and serving sizes so you can create a meal to help meet your nutrition needs.
Industry	McDonald's	Go Active America Challenge	<a href="http://www.goactive.com/">http://www.goactive.com/</a> In partnership with the International Olympic Committee, we have developed a global Web site— <a href="#">Go Active</a> —to inspire and support physical activity. Recently revamped, it includes personal fitness assessment tools, a resource library, and advice to help moms guide their children in safe, healthful eating and fitness activities.
Industry	McDonald's	Get Moving with Ronald	<a href="http://www.goactive.com/golearn-1767-3506">http://www.goactive.com/golearn-1767-3506</a> In 2003, we premiered a new Ronald McDonald show—Get Moving with Ronald McDonald—to help provide motivation for starting and maintaining a more physically active lifestyle. Ronald McDonald is now a central figure in the unique fun communications of our global energy balance awareness campaign.
Industry	McDonald's	Passport to Play	<a href="http://www.mcdepk.com/passporttoplay/index.html">http://www.mcdepk.com/passporttoplay/index.html</a> To help motivate and engage children in physical activity, McDonald's has developed a unique physical education curriculum—Passport to Play. The curriculum will be used this fall by PE teachers in 31,000 elementary schools across the country. With the guide and materials we provide, approximately seven million children in grades 3–5 will learn about and play games from 15 countries around the world, including Australia, Congo, France, Mexico, India, and Netherlands.
Industry	Nike	NikeGO Head Start	<a href="http://www.nike.com/nikebiz/nikego/learn_headstart.jsp">http://www.nike.com/nikebiz/nikego/learn_headstart.jsp</a> NikeGO Head Start is a first-of-its-kind physical education curriculum for Head Start students and their families. NikeGO, SPARK (Sports, Play, and Active Recreation for Kids) and the National Head Start Association have joined together to develop and disseminate this quality early childhood physical activity program for the Head Start community. NikeGO Head Start offers custom curriculum, training and equipment kits, as well as individual family lesson components to teach lifelong skills for physical activity and health lifestyle choices for families.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Industry	Nike	NikeGO After School	<a href="http://www.nike.com/nikebiz/nikego/learn_afterschool.jsp">http://www.nike.com/nikebiz/nikego/learn_afterschool.jsp</a> NikeGO Afterschool brings best practice physical activity programs to kids in Boys & Girls Clubs, YMCAs, Parks & Recreation organizations and other after-school programs. NikeGO Afterschool launched in December 2004 in Washington, DC, and is being implemented in Chicago, New York and L.A. and other metro areas.
Industry	Nike	NikeGO Native Lands	<a href="http://www.nike.com/nikebiz/nikego/learn_nativelands.jsp">http://www.nike.com/nikebiz/nikego/learn_nativelands.jsp</a> The NikeGO on Native Lands program is a three-way partnership with Indian Health Services, FirstPic and NikeGO/SPARK to deliver NikeGO After School curriculum to Native American youth. The program includes nutrition, education and diabetes prevention information. NikeGO on Native Lands currently reaches over 3,000 native youth on more than 30 reservations across Indian Country. That number is expected to grow to 100 reservations within several years.
Industry	Nike	NikeGO PE	<a href="http://www.nike.com/nikebiz/nikego/learn_nikegope.jsp">http://www.nike.com/nikebiz/nikego/learn_nikegope.jsp</a> In conjunction with a nonprofit, Sports, Play, and Active Recreation for Kids (SPARK), Nike launched NikeGO PE, a program designed to increase the quality and quantity of physical activity in America's schools. The long-term goal is to get full-time physical education classes, taught by physical education specialists, back in every school.
Industry	Nike	NikeGO Girls	<a href="http://www.nike.com/nikebiz/nikego/learn_girlsgrants.jsp">http://www.nike.com/nikebiz/nikego/learn_girlsgrants.jsp</a> The NikeGO Girls Grants program is designed to offer special assistance to programs serving girls. NikeGO Girls grants provide funding and equipment to girls' physical activity programs in major cities across the US, through a Request for Proposal process issued annually.
Industry	Nike	NikeGO Places	<a href="http://www.nike.com/nikebiz/nikego/learn_places.jsp">http://www.nike.com/nikebiz/nikego/learn_places.jsp</a> Nike created NikeGO Places to take old, worn-out athletic shoes and other footwear materials, grind them up, and turn them into sports and play surfaces. Many of these fields, courts, tracks and playgrounds are already installed in top sports clubs around the world. NikeGO Places is a donations program that brings these surfaces to communities where better facilities are needed and kids can really get active.
Industry	Nike	Positive Coaching Alliance	<a href="http://www.nike.com/nikebiz/nikego/learn_positive_coaching.jsp">http://www.nike.com/nikebiz/nikego/learn_positive_coaching.jsp</a> Positive Coaching Alliance is a Stanford University program that trains coaches and parents to deliver enhanced coaching experiences to kids in sports, with the objective of delivering 'double goal' sports programs for kids. PCA-trained coaches believe in the dual goals of winning and learning life lessons through positive coaching. The Positive Coaching Alliance/NikeGO program provides live, research-based training workshops and practical tools for coaches, parents, and leaders who operate youth sports programs. The NikeGO/PCA program also provides parent workshops to parents of kids in sports. Parent workshops seek to educate parents on the important role they play in their child's sports experience and the need for parents to focus on the life skills component, rather than the competitive component, of youth sports.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Industry	Coca Cola	Live It	<a href="http://www.liveitprogram.com/">http://www.liveitprogram.com/</a> The <i>Live It!</i> campaign takes a fun, student-level approach to 1) being physically active every day and 2) making healthy eating choices at school and home. (Free, non-branded program primarily for middle schools with a focus on nutrition and physical activity)
Industry	Coca Cola	Triple Play	<a href="http://www2.coca-cola.com/ourcompany/hal_active_triple_play.html">http://www2.coca-cola.com/ourcompany/hal_active_triple_play.html</a> Program that focuses on Mind, Body and Soul – Physical activity, behavioral issues, nutrition and other health issues in Boys and Girls Clubs.
Industry	Coca Cola	Copa Coca Cola	<a href="http://www.copacocacola.com">www.copacocacola.com</a> The Copa Coca-Cola was initiated in 1998 as a Mexican youth Fútbol tournament where 13-15 year old boys and girls competed at the local, state and national levels in order to determine the top male and female youth Fútbol teams in Mexico. Five years later, the Copa Coca-Cola occurs in multiple nations around the world and culminates in a World Cup-style international tournament in Mexico City at Azteca Stadium each summer. Today, participation in Mexico alone far exceeds 110,000 players in over 100 markets.
Industry	Coca Cola	Rails to Trails sponsor	<a href="http://www2.coca-cola.com/ourcompany/wn20050708_dasani_donates.html">http://www2.coca-cola.com/ourcompany/wn20050708_dasani_donates.html</a> Dasani [Coca Cola] recently launched a unique community biking program in partnership with Trek bikes and the Rails to Trails Conservancy (RTC), a non-profit organization that helps local municipalities convert abandoned railroad beds to pedestrian trails and paths.
Industry	Coca Cola	Involved with Coalition for a Healthy and Active America	<a href="http://www.google.com/search?hl=en&amp;lr=&amp;q=coca+cola+C HAA&amp;btnG=Search">http://www.google.com/search?hl=en&amp;lr=&amp;q=coca+cola+C HAA&amp;btnG=Search</a> The Coalition for a Healthy and Active America (CHAA) was formed in 2003 by concerned organizations and national leaders to educate parents, children, schools, and communities about the critical roles physical activity and nutrition education play in reversing the alarming trends of childhood obesity.
Media	Cartoon Network	Get Animated	<a href="http://www.cartoonnetwork.com/promos/getanimated/index.html">http://www.cartoonnetwork.com/promos/getanimated/index.html</a> Cartoon Network's Get Animated is the only place where kids can Get Active, Get Healthy and Get Involved with the world's best cartoon characters! Get Animated empowers kids to take action with information and programs on TV, on the web and in the community! From Rescuing Recess to Trick or Treat for UNICEF, it's a broad program that impacts kids' lives. Get Animated is all about kids getting out and making a difference.
Media	Sesame Workshop	Healthy Habits for a Lifetime Initiative	<a href="http://www.sesameworkshop.org/healthyhabits/">http://www.sesameworkshop.org/healthyhabits/</a> Sesame Workshop is a multi-year, content-driven initiative to help young children and their caregivers establish an early foundation of healthy habits that can last a lifetime! We will harness the power and reach of <i>Sesame Street</i> to make overall health and well-being crucial to early development in much the same way we have helped children learn to read and write.
Media	Sports Illustrated for Kids	Tips from the Stars	<a href="http://www.sikids.com/magazine/tips/#">http://www.sikids.com/magazine/tips/#</a> Tips on performance and health from sports pros and stars.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Healthcare Professionals and Organizations	American Academy of Pediatrics (AAP)	Shaping America's Youth	<a href="http://www.shapingamericasyouth.org/Page.aspx?nid=11">http://www.shapingamericasyouth.org/Page.aspx?nid=11</a> Shaping America's Youth (SAY), is a public/private partnership, with the intent of providing a national forum open to all organizations, programs, and individuals committed to improving the physical activity levels and nutrition of our nation's infants, children, and adolescents. In support of that effort, Shaping America's Youth has established a web portal providing open access to a current national database; will promote local, regional and national dialogues and common language that cross all sectors; will guide the creation of a national action plan; and will advocate for collaboration, coordination, and documentation in the application of national standards for programs and initiatives addressing the health crisis posed by physical inactivity and unhealthy eating by our children. The ultimate goal of Shaping America's Youth is to accelerate the processes that are required to reduce the prevalence of excess weight and inadequate physical activity in children and adolescents.
Healthcare Professionals and Organizations	American Academy of Pediatrics (AAP)	Pediatric Research in the Office Setting (PROS)	<a href="http://www.aap.org/pros/">http://www.aap.org/pros/</a> PROS practitioners and researchers work together to generate research questions, design study materials and protocols, obtain research funding, collect study data, analyze collected data, and publish results. This collaboration is accomplished through AAP chapter-based groups of practitioners recruited and maintained by pediatrician chapter coordinators, who in turn meet twice a year with PROS research staff and consultants.
Healthcare Professionals and Organizations	National Initiative for Children's Healthcare Quality (NICHQ)	5-2-1-Almost None	<a href="http://www.nichq.org/NICHQ/Topics/PreventiveCare/Obesity/ObesityHomepage.htm">http://www.nichq.org/NICHQ/Topics/PreventiveCare/Obesity/ObesityHomepage.htm</a> NICHQ proposes clinical practices caring for children adopt a 5 point obesity prevention bundle, BB-210 (breast feeding, body mass index, fewer than 2 hours of screen time (and no TV in rooms where children sleep), greater than 1 hours of physical activity, and 0 sugar sweetened beverages. This builds on the 5-2-1 message developed by Blue Cross Blue Shield of Massachusetts and the 5-2-1-0 campaign used by the Maine Youth Overweight Collaborative.
Healthcare Professionals and Organizations	Rady Children's Hospital of San Diego	Integrated Delivery System Research Network (IDSRN)	<a href="http://www.ahrq.gov/research/childr01.pdf">http://www.ahrq.gov/research/childr01.pdf</a> IDSRN was designed to capitalize on the research capacity of integrated delivery systems. The network creates, supports, and disseminates scientific evidence about what works and what does not work in terms of data and measurement systems and organizational "best practices" related to care delivery and research diffusion. It also provides a cadre of delivery-affiliated researchers and sites to test ways to adapt and apply existing knowledge. It provides materials for primary care prevention for clinicians on topics such as healthy diet and exercise.
Healthcare Professionals and Organizations	Nemours Health and Prevention Services (NHPS)	Healthy Eating and Physical Activity Campaign	Nemours, through its division Nemours Health and Prevention Services (NHPS) is acting as a catalyst to support changes in the social determinants associated with childhood overweight within and beyond the medical care system. We are working to implement best-practices to change policies, practices and programs in the settings where children spend their time (e.g. school, child care, primary care, at home and in the community) <a href="http://www.nemours.org/growuphealthy">www.nemours.org/growuphealthy</a>

Stakeholder Category	Organization	Program/ Activity	Link and Description
Healthcare Professionals and Organizations	Nemours Health and Prevention Services (NHPS)	Medicaid Quality Improvement Initiative	Through a statewide Medicaid Quality Improvement Initiative, Delaware partners with the guidance of NICHQ experts, intend to reach 20-30 primary care practices and school wellness centers to help support practice changes around childhood overweight. The objective of this Initiative is to conduct a Learning Collaborative in which a diverse set of primary care practices undertake science- and expert opinion-based changes to better prevent, identify and manage childhood overweight.
Healthcare Professionals and Organizations	Nemours Health and Prevention Services (NHPS)	HealthyQuest	HealthyQuest is a web-based resource database of healthy eating and physical activity programs and opportunities throughout Delaware communities. This resource is currently being piloted by primary care offices and soon will be made available to the public.
Healthcare Professionals and Organizations	Nemours Health and Prevention Services (NHPS)	Health Navigator	The Health Navigator helps support families in making behavioral changes often through linking them to community resources. She accepts referrals of overweight or at-risk for overweight patients from primary care offices.
Healthcare Professionals and Organizations	Nemours Health and Prevention Services (NHPS)	Growing Healthy Kids Program	The Growing Healthy Kids program is a 10-week family-based behavioral change program. This program is delivered in community settings by a multidisciplinary team including a dietician, exercise specialist and social worker.
Healthcare Professionals and Organizations	Nemours Health and Prevention Services (NHPS)	5-2-1-Almost None	Based on the 5-2-1 theme developed by BCBS of MA, NHPS has adopted 5-2-1-Almost None as the core lifestyle modification theme. The 5-2-1-Almost None recommendations are: 5 or more fruits or vegetables a day, 2 hours or less of screen time per day, 1 hour or more of physical activity per day, and almost no sugar- sweetened beverages. All NHPS programs and activities in multiple settings focus on promoting or supporting these behaviors.
Healthcare Professionals and Organizations	HealthPartners	Pay-for-Performance provider recognition	<a href="http://www.healthpartners.com/portal/3002.html">http://www.healthpartners.com/portal/3002.html</a> To pay for quality health care, we must be able to define what it is. One key advantage of pay-for-performance programs for both doctors and patients is that the quality measures are based on best practice guidelines. Best practice guidelines are written statements that present the best, standard way to treat or care for a specific health problem based on an objective review of the best medical evidence and other knowledge. (Used to encourage providers to collect BMIs, etc).
Healthcare Professionals and Organizations	HealthPartners	Clinical indicator reports	<a href="http://www.healthpartners.com/files/28455.pdf">http://www.healthpartners.com/files/28455.pdf</a> The annual Clinical Indicators Report features comparative provider performance on clinical measures related to preventive and chronic care, behavioral health [including healthy lifestyles measures and BMIs], specialty and hospital care. The primary purpose is to provide valid and reliable information for providers to use in their efforts to improve patient care and outcomes.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Community and Non-Profit Organizations	National Alliance for Hispanic Health (NAHH)	Get Up! Get Moving!	<a href="http://www.hispanichealth.org/getup.lasso">http://www.hispanichealth.org/getup.lasso</a> <i>Vive tu vida! - Get Up! Get Moving!</i> is the Alliance's new national healthy lifestyle initiative. This will be an annual family health celebration promoting physical activity, strengthening families, and community opportunities. Events will take place in communities across the country throughout the year. Local activities will be developed within local resources and may be held in neighborhood schools, downtown areas, parks, malls, stadiums, or even indoor gyms. Each year the activities will emphasize the importance of being active, supporting families, and building community.
Community and Non-Profit Organizations	W. K. Kellogg Foundation (WKKF)	WOW Initiative	<a href="http://www.kelloggfellows.org/default.asp?id=261">http://www.kelloggfellows.org/default.asp?id=261</a> A new WOW Initiative addressing the complex issues of childhood obesity and school meals is in its development phase. We invited potential partners from the W. K. Kellogg Foundation, regional foundations, health insurers, local school districts, and local farmers to build on the dialogue and create collaborations to support communities in developing sustainable systems to improve young people's diets. A team is working now to identify two pilot sites for the Initiative.
Community and Non-Profit Organizations	California Endowment	Healthy Eating, Active Communities (HEAC)	<a href="http://www.calendow.org/program_areas/heac.stm">http://www.calendow.org/program_areas/heac.stm</a> Healthy Eating, Active Communities is The California Endowment's four-year, \$26-million initiative that aims to fight the growing childhood obesity epidemic in California. Partners in the initiative will work toward increasing opportunities for physical activity and healthy eating for children and families, particularly in low-income and rural communities, and developing state policy changes that will reduce the risk factors for diabetes and obesity.
Community and Non-Profit Organizations	American Heart Association (AHA) with the Clinton Foundation	Alliance for a Healthier Generation	<a href="http://www.healthiergeneration.org/">http://www.healthiergeneration.org/</a> The joint goal of the Clinton Foundation–American Heart Association alliance is to stop the increasing prevalence of childhood obesity in the United States by 2010 by fostering an environment that helps all kids pursue a healthy lifestyle.
Community and Non-Profit Organizations	American Heart Association (AHA)	Let's Just Play Go Healthy Challenge	<a href="http://www.healthiergeneration.org/play.html">http://www.healthiergeneration.org/play.html</a> With Nickelodeon we've launched the <i>Let's Just Play Go Healthy Challenge</i> . Follow 4 real kids on their quest to eat better, play harder, and feel better.
Community and Non-Profit Organizations	National Young Men's Christian Association (YMCA)	YMCA Activate America	<a href="http://www.ymca.net/activateamerica/">http://www.ymca.net/activateamerica/</a> YMCA Activate America™ is a national initiative that is rallying YMCAs across the country to further enhance their service and support to kids, adults, and families who want to lead a healthy lifestyle, but struggle to do so. As a part of YMCA Activate America™ YMCAs are also deepening their commitment to community-wide efforts to promote healthy living and intensifying their collaboration with other community partners to magnify their impact. This initiative is the YMCA's response to America's growing obesity, chronic disease and health care crisis.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Community and Non-Profit Organizations	Center for Science in the Public Interest (CSPI)	School Foods Report Card	<a href="http://www.cspinet.org/takeaction/index.html">http://www.cspinet.org/takeaction/index.html</a> To determine the progress states have made in improving the nutritional quality of school foods, CSPI evaluated the school nutrition policies of all 50 states and the District of Columbia regarding foods and beverages sold outside of the school meal programs through vending machines, a la carte (i.e., foods sold individually in the cafeteria), school stores, and fundraisers. Each state policy was graded based on five key considerations: 1) beverage nutrition standards; 2) food nutrition standards; 3) grade level(s) to which policies apply; 4) time during the school day to which policies apply; and 5) location(s) on campus to which policies apply.
Researchers	University of Pennsylvania School of Medicine	Girls [Health] Enrichment Multi-site Study (GEMS)	<a href="http://www.bsc.gwu.edu/bsc/studies/gems.html">http://www.bsc.gwu.edu/bsc/studies/gems.html</a> The Girl's Health Enrichment Multi-site Studies (GEMS) is a collection of studies designed to develop and test interventions to prevent excessive weight gain by African-American girls as they enter and proceed through puberty. The research is being conducted as four inter-dependent, clinical trials. They are "inter-dependent" in the sense that they are considering similar study populations, following similar follow-up schedules and use a "core" set of evaluation procedures. Nonetheless, GEMS is not a "multi-center clinical trial" in the usual sense - each field center is evaluating its own intervention (and corresponding control). As a result, each study will have high internal validity and will be designed and analyzed as a study in its own right.
Researchers	University of Pennsylvania School of Medicine	African-American Collaborative Obesity Research Network (AACORN)	<a href="http://www.obesityresearch.org/cgi/content/abstract/13/12/2037">http://www.obesityresearch.org/cgi/content/abstract/13/12/2037</a> The longstanding high burden of obesity in African American women and the more recent, steeper than average rise in obesity prevalence among African-American children constitute a mandate for an increased focus on obesity prevention and treatment research in African-American communities. The African-American Collaborative Obesity Research Network (AACORN) was formed to stimulate and support greater participation in framing and implementing the obesity research agenda by investigators who have both social and cultural grounding in life experiences and obesity-related scientific expertise.
Researchers	University of Pennsylvania School of Medicine	Studies to Treat or Prevent Pediatric Type II Diabetes (STOPP T2D)	<a href="http://www.med.upenn.edu/weight/research.shtml">http://www.med.upenn.edu/weight/research.shtml</a> Studies to Treat or Prevent Pediatric Type II Diabetes (STOPP T2D) is a study designed to investigate a type 2 diabetes prevention program with 6-8th grade students in 98 schools at 7 sites across the United States. We are working with the middle schools to evaluate a program that changes the physical education program to keep children more active, changes the food and drink choices offered in school to be healthier, and delivers messages and activities to encourage children to make healthier choices in what they do and what they eat.

Stakeholder Category	Organization	Program/ Activity	Link and Description
Researchers	University of Illinois at Chicago (UCI)	Youth Education & Society (YES Study)	<a href="http://www.yesresearch.org/">http://www.yesresearch.org/</a> A central purpose of the YES Study is to assess the importance of various aspects of the school environment-- in particular, programs, policies, and practices--on student alcohol, tobacco, and other drug (ATOD) use, as well as on their dietary and exercise habits. (The emphasis on dietary and exercise issues was added, beginning in 2003, in response to the emerging interest in these important health issues at the Robert Wood Johnson Foundation, the sponsor of the YES study.)
Researchers	San Diego State University (SDSU)	Active Living Research	<a href="http://www.activelivingresearch.org/">http://www.activelivingresearch.org/</a> Active Living Research supports research to examine relationships among characteristics of natural and built environments, public and private policies, and personal levels of physical activity. Rather than addressing obesity as an individual health problem, this new, trans-disciplinary field of active living is focusing on how the built environment — including neighborhoods, transportation systems, buildings, parks and open space — can promote more active lives.

## Appendix E. Tables of Priority Information Needs by Stakeholder Category

Table 1. Priority information needs related to incidence and prevalence of childhood obesity by stakeholder category

Stakeholder category	Priority information needs related to incidence and prevalence of childhood obesity
<b>Federal Government</b>	<ul style="list-style-type: none"> <li>• State-specific surveillance system on 5 to14 year olds</li> <li>• Connection of surveillance at national level with what is going on at state, local, and school levels</li> </ul>
<b>State Government</b>	<ul style="list-style-type: none"> <li>• Surveillance that documents population disparities</li> <li>• State-specific youth and grade-school surveillance data</li> <li>• Surveillance data on infants and babies</li> <li>• Surveillance data down to the census-tract level</li> <li>• Surveillance data with more detailed demographic breakdowns</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>• State-specific data</li> </ul>
<b>Parents and Families</b>	<ul style="list-style-type: none"> <li>• Make the data more accessible and “interesting” to parents</li> </ul>
<b>Industry</b>	None stated
<b>Media</b>	<ul style="list-style-type: none"> <li>• Data on children 6 to11 years old, especially by geographic location</li> </ul>
<b>Healthcare Professionals and Organizations</b>	<ul style="list-style-type: none"> <li>• Current and accessible surveillance data</li> </ul>
<b>Community and Nonprofit Organizations</b>	<ul style="list-style-type: none"> <li>• Data by different demographic groups</li> <li>• More specific demographic data (age, sex, race, ethnicity, socioeconomic group, location)</li> </ul>
<b>Researchers</b>	<ul style="list-style-type: none"> <li>• Data on children younger than high school</li> </ul>

**Table 2. Priority information needs related to disease burden from childhood obesity by stakeholder category**

<b>Stakeholder category</b>	<b>Priority information needs related to disease burden from childhood obesity</b>
<b>Federal Government</b>	<ul style="list-style-type: none"> <li>• Effect on long-term health outcomes</li> <li>• Natural history of obesity</li> </ul>
<b>State Government</b>	<ul style="list-style-type: none"> <li>• Association among obesity, fitness and academic outcomes</li> <li>• Medical and psychological effects of obesity</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>• Association among obesity/weight, fitness and academic outcomes</li> </ul>
<b>Parents and Families</b>	<ul style="list-style-type: none"> <li>• Association between weight and school attendance</li> <li>• Association between increased activity and academics</li> </ul>
<b>Industry</b>	None stated
<b>Media</b>	<ul style="list-style-type: none"> <li>• Association between increased activity and academics</li> </ul>
<b>Healthcare Professionals and Organizations</b>	<ul style="list-style-type: none"> <li>• Effect on businesses from absenteeism and disabilities related to obesity-associated problems</li> </ul>
<b>Community and Nonprofit Organizations</b>	<ul style="list-style-type: none"> <li>• Effect on current employment and future workforce</li> <li>• Effect on lives and health of individuals</li> </ul>
<b>Researchers</b>	<ul style="list-style-type: none"> <li>• Effect on healthcare systems</li> <li>• Effect on psychological health</li> <li>• Effect on individual earning power</li> </ul>

**Table 3. Priority information needs related to cost data for childhood obesity by stakeholder category**

<b>Stakeholder category</b>	<b>Priority information needs related to cost data for childhood obesity</b>
<b>Federal Government</b>	<ul style="list-style-type: none"> <li>• Economic analysis of long-term effects of obesity</li> <li>• Programs that are cost-effective</li> <li>• Return on investment for interventions</li> </ul>
<b>State Government</b>	<ul style="list-style-type: none"> <li>• State-specific information about the economic burden of overweight and obesity</li> <li>• Cost-benefit or cost-effectiveness of programs</li> <li>• Return on investment in social, medical, and educational areas</li> <li>• Costs of treatment and prevention programs</li> <li>• Economic effect of lack of physical activity</li> <li>• Role of obesity in economic development issues</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>• Costs to schools in lost vending machine income</li> <li>• Costs to schools to prepare healthier meals</li> <li>• Costs to schools for care of children with obesity-related illnesses (such as Type II Diabetes, hypertension)</li> <li>• Cost-effectiveness of physical education programs</li> </ul>
<b>Parents and Families</b>	<ul style="list-style-type: none"> <li>• Alternate ways to raise money that don't involve selling unhealthy foods</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>• Return on investment for program dollars invested</li> </ul>
<b>Media</b>	<ul style="list-style-type: none"> <li>• Cost-benefits of programs and activities</li> </ul>
<b>Healthcare Professionals and Organizations</b>	<ul style="list-style-type: none"> <li>• Association between obesity and productivity levels of obese children and adults</li> <li>• Cost, cost-benefit ratios, and return on investment of programs</li> <li>• Business case for treating and preventing childhood obesity</li> <li>• Costs to businesses in productivity, absenteeism, and disability in "workforce of the future" (i.e., children)</li> </ul>
<b>Community and Nonprofit Organizations</b>	<ul style="list-style-type: none"> <li>• Alternate ways to raise money that don't involve selling unhealthy foods</li> <li>• Cost-benefit of programs and activities</li> </ul>
<b>Researchers</b>	<ul style="list-style-type: none"> <li>• Costs to healthcare systems, individual earning power, psychological health</li> <li>• Cost-benefits of installing sidewalks</li> <li>• Effect of prices and marketing of products at the community level on food choices</li> </ul>

**Table 4. Priority information needs related to program effectiveness for childhood obesity by stakeholder category**

<b>Stakeholder category</b>	<b>Priority information needs related to program effectiveness for childhood obesity</b>
<b>Federal Government</b>	<ul style="list-style-type: none"> <li>• Documentation of which interventions and strategies work</li> <li>• Evaluation tools and indicators for programs</li> <li>• Feedback on utility of program tools available</li> </ul>
<b>State Government</b>	<ul style="list-style-type: none"> <li>• Effectiveness of prevention programs</li> <li>• Documentation of effective community-level programs</li> <li>• Effective programs that are also sustainable</li> <li>• Interventions that work at individual as well as group levels</li> <li>• Optimal times for intervention</li> <li>• Ways to target interventions for most effectiveness</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>• Best for use in schools</li> <li>• Consistent measures of success for programs</li> </ul>
<b>Parents and Families</b>	<ul style="list-style-type: none"> <li>• Success stories</li> <li>• Consistent ways to measure physical activity, snack and other food intake, and weight</li> <li>• Central location or website listing effective programs</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>• Incentives that work to motivate people to exercise and make healthy food choices</li> <li>• Success stories</li> <li>• Programs and strategies that work</li> </ul>
<b>Media</b>	<ul style="list-style-type: none"> <li>• Evaluation tools for program components</li> <li>• Effectiveness of physical activity programs</li> </ul>
<b>Healthcare Professionals and Organizations</b>	<ul style="list-style-type: none"> <li>• Program effectiveness and strategies in a variety of settings</li> <li>• Clearinghouse of best practices, programs and promising new programs for treatment and prevention</li> <li>• Clearinghouse for survey questions, evaluation and validation methodologies</li> <li>• Community registry to track children and effects of interventions</li> <li>• Programs that have been tried but been unsuccessful</li> <li>• Programs most effective with parents</li> </ul>
<b>Community and Nonprofit Organizations</b>	<ul style="list-style-type: none"> <li>• Effect of changes in organizational structure on obesity programs</li> <li>• Proof of concept that interventions implemented are effective</li> <li>• Methods to evaluate changes at end-points of programs</li> <li>• Strategies that are effective in stopping increase in obesity</li> <li>• Effective communications and messaging</li> </ul>
<b>Researchers</b>	<ul style="list-style-type: none"> <li>• Valid measures of activity levels at all ages</li> <li>• Programs that are working and not working</li> <li>• Contribution of each stakeholder group in effective solutions</li> <li>• Trickle-down effects on families of children in intervention programs</li> <li>• Survey questions for evaluation that are sensitive to ethnicity</li> </ul>

**Table 5. Priority information needs related to resources for childhood obesity by stakeholder category**

<b>Stakeholder category</b>	<b>Priority information needs related to resources for childhood obesity</b>
<b>Federal Government</b>	<ul style="list-style-type: none"> <li>• State and local health department activities</li> <li>• Central location or website to filter information available</li> <li>• Collection of model policies</li> </ul>
<b>State Government</b>	<ul style="list-style-type: none"> <li>• State-specific program resources available</li> <li>• State and local health department activities</li> <li>• Policies related to nutrition and physical activity</li> <li>• Compendium of best practices and effective interventions</li> <li>• Training, technical assistance to state and local workers</li> <li>• Consistent messages from stakeholders</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>• Link between education research and obesity research</li> <li>• Child-specific treatment centers</li> <li>• Repository of talking points and power point slides for presentations</li> <li>• More resources for the middle and high-school levels</li> <li>• Other stakeholder activities</li> <li>• Safe methods and settings for physical activity</li> <li>• Collection of model policies</li> <li>• Methods, interpretation of BMI measurement in children</li> <li>• Summarization of current pertinent information</li> </ul>
<b>Parents and Families</b>	<ul style="list-style-type: none"> <li>• Activities parents can do to help and results of their involvement</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>• Other stakeholder activities</li> <li>• Collaboration possibilities with other stakeholders</li> <li>• Effective methods and strategies for communication</li> </ul>
<b>Media</b>	<ul style="list-style-type: none"> <li>• Clearinghouse or website with current statistics</li> <li>• Other stakeholder activities</li> <li>• Central resource that lists programs and organizations involved and effective in working with childhood obesity</li> <li>• Child-specific messages</li> </ul>
<b>Healthcare Professionals and Organizations</b>	<ul style="list-style-type: none"> <li>• Inventory of available resources people can access</li> <li>• Effective methods and strategies for communications</li> <li>• Patient and provider sites with “information filters”</li> <li>• Resources available at the local level, (including mental health)</li> <li>• Child-specific solutions to obesity problems</li> <li>• Lessons learned to share with stakeholders</li> </ul>
<b>Community and Nonprofit Organizations</b>	<ul style="list-style-type: none"> <li>• Central location or website containing effective programs and best practices</li> </ul>
<b>Researchers</b>	<ul style="list-style-type: none"> <li>• Central location or website containing effective programs and latest research and statistics</li> <li>• Policy briefs: short, non-technical summaries of key research findings</li> </ul>





Public Health Informatics Institute  
750 Commerce Drive, Suite 400  
Decatur, GA 30030  
TEL: 1.866.815.9704 • FAX: 1.800.765.7520

**[www.phii.org](http://www.phii.org)**

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