

**EARLY CHILDHOOD OVERWEIGHT
PREVENTION DEDICATED
GRANT PROJECT**

Iowa Medical Society
1001 Grand Avenue
West Des Moines, Iowa 50265
(515) 223-1401
(800) 747-3070

Final Report

Submitted By:

Becky Edmondson, MS, RD, LD
Early Childhood Overweight Prevention
Grant Coordinator

Grantee Number: 2004-01-41

Table of Contents

Narrative Report

- Appendix A** Pre-test Form
- Appendix B** Educational Training Session PowerPoint
- Appendix C** Infant Lifestyle Questionnaire
- Appendix D** Toddler Lifestyle Questionnaire
- Appendix E** Infant Talking Points Sheet
- Appendix F** Toddler Talking Points Sheet
- Appendix G** Post-test Form
- Appendix H** Media Release of Grant Results

History of the Grant and Statement of Need

The Iowa Medical Society (IMS), located in West Des Moines, Iowa, received a \$48,000 grant from the Wellmark Foundation in June of 2004 to address early childhood obesity in the state of Iowa. IMS received an additional grant of \$1,000 from the American Medical Association to expand the project outcomes to physician offices across the state. The foundation and guidelines for the grant's activities were developed and documented in a white paper that contained Iowa-specific and age-appropriate recommendations developed by a consensus panel of Iowa experts. The white paper guidelines, which were based on lifestyle change, were incorporated into a physician education program and used as the basis for the development of relevant materials that were used in the clinic-based pilot initiative. The project's goal was to empower physicians to address the important issues of nutrition and physical activity in their interactions with families of young patients – primarily during well-child checkups. The Committee felt that the age group infants to five-year-olds needed to be targeted because research shows that 80% of overweight children become obese as adults and that eating and activity/fitness habits start at birth. Caregivers also have the greatest influence over the habits of a child in this age range.

Specific goals of the project included:

- Understand the extent of the problem of childhood overweight.
- Identify key behaviors associated with childhood overweight and its prevention.
- Learn an effective way to communicate behavior change efficiently.

Physician involvement was centered on the prevention of overweight rather than the treatment. In order to do that, physicians and staff need to be provided with knowledge and age-appropriate tools to communicate these messages. One form of communication that has been found to be very useful in giving constructive and non-threatening messages uses motivational interviewing techniques. Physicians and their staffs were instructed on the importance of asking questions and providing feedback using motivational interviewing techniques during their educational sessions. The providers explained the benefits of activity and balanced nutrition and the consequences of low activity and poor nutrition. Infant and toddler/child questionnaires and talking point sheets were also designed to identify and address high-risk feeding and activity behaviors. Specific guidelines and interventions were included in each tool so that physicians or their professional staff could focus the parents on two to three needed lifestyle changes per visit. It was felt by the Advisory Committee that parents can usually only attempt a few major lifestyle changes every few months. It was intended that these tools would not only provide parents with valuable educational information but that the tools would focus the physician on a few relevant topics to discuss with the parents at each well-child visit. Hopefully, these techniques inspired families to commit to change their risky behaviors.

Program Planning and Logistics

After the Advisory Committee had developed the questionnaires and talking points sheets (*see Appendixes C, D, E, F*), the pilot sites in Dubuque and Des Moines were contacted to schedule physician and staff education sessions. The education sessions were each an hour and a half long and used a PowerPoint teaching format. Kavitha Bhat Schelbert, MD, one of the Advisory and Consensus Committee members, and Michael Tansey, MD, taught the session in Dubuque at Medical Associates; later, Dr. Bhat Schelbert taught the family practice residents and staff at Mercy Mayo Family Practice. CME credits were provided for the physicians.

Each education session began with a pre-test (*see Appendix A*) to the physicians to determine current practicing procedures, current tools used to address nutrition and activity, and opinions regarding the most optimal education format to use with families. At the completion of the pilot site trial, a post-test (*see Appendix G*) was also administered to query opinions on the usefulness of the developed tools and questionnaires, change in practice behaviors as influenced by the grant tools, whether or not the tools increased efficiency in discussing nutrition and activity during the well-child visit, and the physicians' overall perceptions of how the intervention impacted their practice, patients, families and future behaviors.

Trial Site Process

Both sites were asked to run the trials for a total of two months, which was thought to be adequate time to impact the physicians', residents' and professional staff's practice behavior and allow adequate time for these individuals to assess the effectiveness of the developed tools. The staffs were given a clinic algorithm to follow to ensure a standardized procedure for check in.

The clinic algorithm follows:

1. Check in at desk and complete registration process.
2. Registration personnel provides a copy of age-appropriate lifestyle questionnaire to accompanying parent/guardian to complete while in waiting area.
3. Staff personnel who accompanies child to room briefly reviews questionnaire and identifies two to three areas of high-risk eating or activity behavior from lifestyle questionnaire form.
4. Staff personnel checks off two to three areas on the talking points sheet to give to provider to use to discuss high-risk behaviors and places talking points sheet on the top of chart.

5. Provider addresses these behaviors with accompanying parent/guardian to stress the importance of a healthy lifestyle for the child. Provider may use the poster-size talking points sheet hanging on wall to further enhance education.

For future use and follow-up, it is suggested that the provider keep the lifestyle questionnaire in the patient's chart for reference and education regarding other identified high-risk behaviors at subsequent clinic visits.

Program Evaluation

The overall results of the study showed that the clinic at Site A was a well-organized system having only physicians and nurse practitioners administering the project. This site had an Advisory Committee member as the clinic manager who was committed to supporting and achieving the grant's goals. Clinic Site B was less organized with only residents administering the project and no dedicated champion to ensure the success of the project at the site. The Committee felt that this was evident in the number of questionnaires returned to the investigators. Clinic Site A returned 1,000 questionnaires and Site B returned 50. Both sites were large pediatric or family practice facilities seeing many children daily. As with the success of any project, the staff must be motivated to administer a change in practice behavior with an assigned individual to enforce compliance with the procedures.

The analysis of the pre- and post-tests at both sites combined showed the following:

Questionnaire Use: 80% reported using the questionnaire and 71% felt the questionnaire increased efficiency.

Talking Points Sheets: 70% reported using the flyers and 62% felt the sheets increased efficiency.

Talking Points Sheet Poster: 45% used the poster and 38% stated that the poster increased efficiency.

Plotting Growth Charts: 100% of practitioners plotted growth charts before and after the trial but only 19% plotted the body mass index (BMI) – and only if they felt the child appeared overweight.

Competency with Discussing Balanced Nutrition and Physical Activity and Electronics: Most practitioners felt comfortable with discussing physical activity and play and the use of sugar-based beverages. In contrast, the providers were just fairly comfortable with discussing disproportionate growth and BMI, location of electronics in the child's bedroom, portion sizes, diseases related to overweight, balanced eating, eating out and healthy snacks. The practitioners were least comfortable in discussing time for exercise and family-centered exercise. It was noted that the nurse practitioners reported feeling comfortable with almost all topics except eating out (60%) and family-centered exercise (60%).

Overall results showed that the questionnaire was useful and efficient in its present form and that it obtained valuable information about the eating, activity and electronics use in the patient's home. The questionnaire was also a good guide for the practitioners to narrow down the topics that needed to be discussed regarding these occasionally overlooked areas in the well-child visit.

The summary of practitioners' comments from the talking points sheets indicated that the professionals were most comfortable with discussing physical activity and play and the use of sugar-based beverages and least comfortable with addressing time for exercise and initiating family-centered exercise programs. Although these areas are frequently discussed in the media, practicing professionals rarely are educated in depth about these issues during training, which may lead them to feel the need for further ideas and suggestions regarding available resources and programs for their patients.

Lessons Learned

Since this grant was a continually evolving project that spanned a 15-month time period, many lessons and corrections occurred as the grant developed. The entire Advisory and Consensus Committee included greater than 30 medical, public health and educational professionals. While the variety of opinions and suggestions these individuals offered was invaluable in the creation of a meaningful, creative and useful program, the co-chairs and grant coordinator realized that a smaller, core group of individual members was needed to actually put together the ideas and develop the materials. This smaller work group met via conference calls or in person to write the materials and coordinate presentations. We found that this small group was able to get a large amount of work accomplished, before going back to the entire Committee for suggestions and approval. This increased the efficiency of our efforts, and we were able to meet the program timeline prior to the trial site initiations.

Other lessons learned included the following:

- During the entire grant administration period, it was essential to continue to remind the Committee members that this project was focusing on changing or enhancing physicians' practice behavior, not on the actual task of achieving weight loss in infants and young children. The goals were clearly identified in the white paper; but because there is such an emphasis on weight reduction in the country at present, individuals and outside interested entities thought this was a weight reduction program for children.
- The Advisory Committee solicited participation from two clinics in Iowa: one clinic being a pediatrician-based practice and the other a family practice-based clinic. In each of these clinics, the managers were asked to be a part of the Advisory Committee so their opinions and suggestions could be considered in the formulation of a pilot site program. Having these managers present at the meetings was invaluable since their insight into the workings of their clinics could dictate the

success of the pilot. Unfortunately, three days before the physician education session at the family practice site, the manager communicated that her clinic would not be able to participate due to the physicians' reluctance to take on this program. In the future, we feel that it would be prudent to ensure that the medical director of the trial site be fully engaged in having a trial conducted at his/her facility and that the program be discussed fully with his/her entire professional staff for their buy-in before firm plans and distribution of materials occurs.

- After the last-minute cancellation, another family practice residency program/clinic was found as the second site. The medical director of this facility was fully informed of the program and the expected time and staff commitments. This physician and the grant coordinator presented the program to the faculty and staff of the residency program and it was decided that they would participate starting the next month. This only made the grant run slightly behind on the timeline. The education session and material distribution was completed within the next month.
- Due to the last-minute changes in pilot sites, a staff member of the family practice site was never involved in the planning and development of the program; therefore, we feel that we did not have a “champion” on site to ensure that all details of the trial were attended to, including strict adherence to completing the sheets and turning them in to the appropriate area for tabulation. We feel that this directly correlates to the lower number of returned questionnaires as compared to the larger number received from the pediatric site.
- The participating physicians and staff provided feedback to the grant work group that the posters were attractive but were not a valuable teaching tool. They felt that the talking points sheet was an adequate teaching tool. This had been discussed in the preliminary Advisory Committee meetings and ICN Conference that few thought the cost of the poster would justify its limited use in the exam rooms. The posters were quite costly to produce and, with their limited use, would not be recommended for future use.
- Other feedback from the physicians and staff included that the lifestyle questionnaires lent themselves to being time efficient, which shows that it is possible for physicians to include addressing nutrition and activity in the well-child clinic visits without making the visit excessively long. Some physicians on the Advisory Committee feared that any additional documentation or lengthy discussions during the visits would make the providers less likely to use the tools. In fact, though, many providers stated that the talking points sheet helped them to focus on important topics for each individual family and was a helpful reminder of other topics such as TV/computer/hand-held games not being allowed in the child's bedroom, to be addressed during the visit.

Public Relations and Media Coverage

It was the goal of the Wellmark Foundation, the Iowa Medical Society and the entire grant committee to make the results of the pilot site interventions, lifestyle questionnaire and educational materials available to the physicians and other health care professionals throughout the state of Iowa. The educational materials and questionnaires will be available upon request for any Iowa physician wanting to adopt this program. Physicians will need to contact the Iowa Medical Society for the templates of these materials, which then may be reproduced for their use.

The Early Childhood Overweight Prevention Dedicated Grant Project was presented at the Governor's Barn Raising Conference on July 28, 2005 as a breakout session for participants. The grant and its goals, objectives and results were presented in a PowerPoint program. This conference not only highlighted the efforts of physicians and their staffs to address childhood overweight issues at the pilot sites, it announced that the materials would be available for all health care professionals throughout the state to use in their practices.

The Iowa Medical Society will be drafting an op-ed piece about the grant for submission to the *Des Moines Register*. The piece will be sent to the newspaper sometime during the month of October, hopefully coinciding with the World Food Prize event that will be held in Des Moines.

Conclusions and Summary

- Studies show that parents and childcare workers have the single greatest influence on younger children's eating and activity levels. Well-child care visits at the physician's office provide a nonjudgmental environment and opportunity for physicians to address important issues, such as obesity and inactivity, with their families.
- It is recognized that discussing weight is not an issue that can be constructively handled in one visit to the doctor's office. Doctors are hesitant to address obesity issues because it may be time-consuming and they do not have the educational resources readily available to provide to the families. Physicians are success oriented and prefer to address issues that will have quick, desired results. Obesity issues, when organized into a questionnaire and eye catching educational materials, are much more likely to be addressed when tools are readily accessible.
- It is known that the overall role of the physician in preventing the incidence of overweight and physical inactivity is in communicating with the family what the expectations are for balanced nutrition and adequate physical activity. The physician must identify patients at risk, explain the benefits of activity and nutrition and use general messages, such as limiting sweet drinks and encouraging water consumption, limiting screen time, encouraging family meals around the table, limiting portion sizes, and stressing the importance of consuming fruits and vegetables.

- This grant's goal was to provide the physician with the information and materials to efficiently and effectively perform these functions. In reaching this goal, the lifestyle questionnaire completed by the families identified high-risk behaviors that may place the child at risk for developing overweight. The talking points sheets were then used to guide the practitioner to easily and quickly address these behaviors using evidence-based information. The talking points sheets were also designed to be colorful, easily understood teaching tools that caregivers could take home as a reference guide in their food and activity choices. These teaching tools served to remind physicians during the well-child visit to address the importance of balanced nutrition, physical activity and to avoid the placement of electronic devices in children's rooms.

The Advisory Committee found the project met the objectives of the grant by providing comprehensive, efficient, evidenced-based tools for the practitioners to use in their well-child clinics for the screening and intervention of childhood overweight and inactivity.

The findings of this report will be shared with the Iowa Chapter of the American Academy of Pediatrics and the Iowa Academy of Family Physicians. The Committee members would like to express our appreciation to the Iowa Academy of Pediatrics, the Iowa Academy of Family Physicians and the Iowa Department of Public Health for their support of this initiative.

The members of the Advisory and Consensus Committees, the Iowa Medical Society and the two pilot sites wish to thank the Wellmark Foundation for the opportunity to undertake this exciting grant initiative. The funding support provided by the Foundation contributed greatly to the ever-evolving prevention and intervention of childhood overweight issues in this country.