



POSITION PAPER
National WIC Association

The Role of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) in the Prevention of Maternal and Childhood Overweight and Obesity

Introduction

It has been well documented that the United States is in the midst of an obesity epidemic. For three decades, the prevalence of obesity has increased dramatically in all segments of the U.S. population regardless of age, gender, or ethnicity (1, 2, 3). Among women of childbearing ages (20-39 years), the percentage of obesity more than doubled from 12.3 percent in 1980 to 30.5 percent in 2006. (4, 5). In children, the prevalence of overweight among two to five year olds almost tripled between 1980 and 2004, increasing from 5.0 percent to 13.9 percent (6, 7). Of particular concern is that 26.2 percent of children in this age group are at risk of being overweight (4). Researchers have predicted that if the rate of overweight and obesity continues to rise at the current pace, 75 percent of adults and approximately 24 percent of children will be overweight or obese by 2015 (8). As a result of this dramatic rise in overweight and obesity, especially among young people and minorities, it is anticipated that there will be a decline in life expectancy for the average American by as much as five years over the next few decades. Children may have a shorter life expectancy than their parents (9).

In the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) population, rates of maternal overweight and obesity and childhood overweight were similar to the national trends (10, 11). While there is no evidence that women and children in the WIC program are more likely to be overweight compared to the general U.S. population (12), there is a concern that rising obesity rates disproportionately affect ethnic minority groups and low-income populations (1, 13, 14).

The most recent National Health and Nutrition Examination Survey (NHANES) data indicated that the prevalence of overweight and obesity was highest among non-Hispanic black (81.6 percent) and Mexican American women (75.4 percent) compared to non-Hispanic white women (58.0 percent) (4). Moreover, women with incomes below the poverty level were more than twice as likely to be obese as compared to women with the highest incomes (15). In WIC, Hispanics and blacks make up the majority of the WIC caseload (60.8 percent), followed by whites (32.2 percent), Asian/Pacific Islanders (3.4 percent), and American Indian/Alaskan Natives (1.6 percent) (10).

The increasing prevalence of childhood obesity has been especially pervasive among different minority groups. According to the 2006 Pediatric Nutrition Surveillance System report, the prevalence of overweight in children two to five years old was the highest among American Indian/Alaska Native (20.1 percent), and Hispanic children (17.8 percent) compared to white children (15.9 percent) (16).

In addition to ethnic disparities, childhood overweight has been linked to maternal obesity. In a study of low-income families participating in the WIC program, children whose mothers were obese during early pregnancy were 2.5 times more likely to be overweight during their preschool years (17). This is especially disconcerting since it is estimated that 70 percent of overweight children will likely become overweight adults (18, 19).

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The increasing trend of obesity in the United States is a serious public health concern. Among adults, obesity has been associated with an increased risk for coronary heart disease, hypertension, certain cancers, and type 2 diabetes (14, 20). In obese pregnant women, the risk of developing gestational diabetes mellitus (GDM) is significant (21). The presence of GDM is associated with pregnancy and perinatal risks, such as spontaneous abortion, neonatal hypoglycemia, respiratory distress syndrome, and stillbirth (22, 23, 24). For women with a history of GDM, their chance of developing diabetes is 20 to 50 percent (25).

Although mortality and morbidity are not usually associated with obesity during childhood, there are detrimental psychosocial consequences (e.g., low self-esteem) of being overweight during this period (26, 27). Furthermore, type 2 diabetes, which used to be uncommon in children, is now increasing at an alarming rate, especially among ethnic minority children (28, 29, 30). The obesity epidemic has also led to a significant increase in economic cost. According to the Institute of Medicine (IOM) (31), obesity related medical costs have been estimated to range from \$98 billion to \$129 billion each year. It is highly likely that this figure will continue to rise.

Purpose

The purpose of this position paper is to provide guidance to WIC staff at the state and local levels regarding prevention of maternal and childhood overweight and obesity in the WIC Program.

Mission Statement

To provide leadership in the promotion of healthy lifestyle practices that support the prevention of overweight and obesity among WIC families.

Definitions

In this document, overweight for adults is defined as a Body Mass Index (BMI) of 25.0 to 29.9 and obesity is defined as a BMI of 30.0 or higher. For children, overweight is defined as at or above the 95th percentile of the sex-specific BMI-for-age (32).

Note: At this writing, the American Medical Association's Expert Committee recommendation on weight classifications has not been adopted for use by the United States Department of Agriculture Food and Nutrition Service since the Centers for Disease Control and Prevention has not incorporated these recommendations into its growth charts.

Recommendations for the Prevention of Maternal and Childhood Overweight and Obesity

The following recommendations are developed to assist state and local WIC agencies in initiating and enhancing policies and programs that promote breastfeeding, healthy eating, and physical activity in the prevention of maternal and childhood overweight and obesity. They address employee wellness, staff training, participant education, clinic environment, collaboration efforts, program evaluation, and policy changes. Additional resources for these recommendations can be found in Appendix 3.

- Recommendation 1** Provide worksite wellness opportunities for all WIC staff so they can be effective educators by modeling healthy eating and physical activity behaviors.
- Recommendation 2** Provide and promote evidence-based nutrition education to encourage breastfeeding and healthy eating as the norm for WIC families.
- Recommendation 3** Provide and promote participant education on regular physical activity as the norm for WIC families.
- Recommendation 4** Collaborate with public and private partners at the local, state, and national levels to promote consistent nutrition and physical activity messages using community-based approaches.
- Recommendation 5** Utilize mass media markets to advocate breastfeeding, healthy eating, and physical activity behaviors.
- Recommendation 6** Promote obesity-related research and evaluation to enable implementation of effective interventions in the WIC population.
- Recommendation 7** Support and/or develop public policies that promote sound consumer nutrition information, access to healthy food choices, and increased opportunities for physical activity.

Recommendations, Rationales, and Strategies for Implementation

Recommendation 1

Provide worksite wellness opportunities for all WIC staff so they can be effective educators by modeling healthy eating and physical activity behaviors.

Rationale

WIC staff who gain positive experiences from a worksite wellness program will be more able to model healthy lifestyle behaviors for WIC participants. Successful wellness programs may lead to reductions in employer and employee healthcare costs by reducing preventable health care claims. Other benefits may include: decreased employee absenteeism, increased employee morale, and increased productivity. The Centers for Disease Control and Prevention (CDC) has stated that the most successful wellness approaches are those that include both nutrition and physical activity components.

Support from administration and providing staff flexibility to participate are essential to establishing a successful worksite wellness program. Once established, wellness activities can easily be incorporated into daily work routines, helping employees recognize that healthy lifestyle choices are achievable. Supporting staff participation and success may be done in a variety of ways to accommodate all learning styles. Successful initiatives can be shared and duplicated, minimizing planning time.

Strategies for Implementation

1. Secure administrative support for a worksite wellness program by establishing:
 - a) A business proposal for a worksite wellness program that includes:
 - Health, economic, and social benefits to agency goals and objectives;
 - Specific worksite wellness program goals and objectives;
 - An implementation plan; and
 - Evaluation strategies to assess program effectiveness and opportunities for improvement.
 - b) A worksite wellness team to promote activities throughout the agency.
 - c) A wellness champion for the team who may set and articulate program goals as they relate to the agency's mission.
 - d) Links with other agency programs and/or community organizations to facilitate wellness coordination and collaboration.
 - e) Regular updates to administration of program progress.
2. Establish policies and guidelines for worksite wellness program activities including:
 - a) Flexible work hours that support physical activity.
 - b) Flexible work hours and private and/or appropriate space for lactating employees to nurse their baby or express breast milk.
 - c) A liability waiver for agency-supported wellness activities. Publish disclaimers as necessary.
 - d) Policies and provisions that support physical activity, such as:
 - Stairwell access and walking paths and associated number of steps and/or miles in and around agency building or campus; and
 - Adequate space and physical activity equipments (e.g. treadmills, basketball courts).
 - e) Policies and provisions that support healthy eating such as:
 - Healthy food guidelines for use in planning meeting meals and snacks; and
 - Healthy food and beverage choices in employee cafeterias, vending machines, and snack bars.

3. Promote worksite wellness activities as an employment benefit by:
 - a) Incorporating wellness information during employee orientation and provide on-going trainings, including description of WIC's role in obesity prevention.
 - b) Displaying posters marketing breastfeeding, healthy foods, and physical activity ideas in employee work and break areas.
 - c) Encouraging wellness activities during the work day and especially at meetings to include stretching and walking breaks, and providing healthy food and beverages.
 - d) Hosting staff events with healthy eating and physical activity themes.
 - e) Encouraging employees to share their wellness activity efforts and successes with each other.
 - f) Recognizing worksite wellness leaders as a component of ongoing staff award programs.
4. Evaluate the effectiveness of the worksite wellness program by:
 - a) Developing and implementing evaluation strategies included in the business proposal (see Recommendation 1, Strategy 1).
 - b) Submitting evaluation results and recommendations to administration for future planning.
5. Share successful wellness interventions and lessons learned through various communication channels such as:
 - a) WIC-Talk e-mail discussion groups and newsletters;
 - b) WIC Works Resource System;
 - c) Education Conferences; and
 - d) Newsletters.

Recommendation 2

Provide and promote evidence-based nutrition education to encourage breastfeeding and healthy eating as the norm for WIC families.

Rationale

Obesity and diet-related chronic diseases in the United States affect low-income and minority populations disproportionately. WIC families may lack the knowledge and/or resources to have a healthy diet. As the leading public health nutrition program, WIC is in the unique position to promote healthy eating as the norm for WIC families. It is critical for WIC staff to provide effective evidenced-based nutrition education to help parents and caretakers to develop life-long healthy eating habits for themselves and their families.

Strategies for Implementation

1. Provide comprehensive on-going training to WIC staff to support participant-focused group and individual nutrition education emphasizing the importance of breastfeeding and healthy eating to include:
 - a) Current, research-based nutrition information on maternal and childhood overweight and obesity and the health implications for this population.
 - b) Nutrition education and counseling strategies, including:
 - Open-ended questions and active listening;
 - Requesting permission when providing information;
 - A summary of discussion;
 - Participant engagement;
 - Visual, auditory, and kinesthetic activities;
 - Respectful and affirming interactions; and
 - The identification of options.

- c) The six competency areas identified in Value Enhanced Nutrition Assessment (VENA):
 - Principles of life-cycle nutrition;
 - Nutrition assessment process;
 - Anthropometric and hematological data collection technique;
 - Communication;
 - Multicultural awareness; and
 - Critical thinking.
 - d) Elements of effective delivery of nutrition education contacts/interventions, such as:
 - Reviewing of WIC nutrition assessment to identify participant's nutritional risk factors, needs, and concerns;
 - Providing messages that engage WIC participants in setting individual and attainable goals, and offering clear and relevant guidance to accomplish those goals;
 - Utilizing counseling methods and teaching strategies that are relevant to the participant's nutritional risk and her comprehension level;
 - Using a delivery medium that creates opportunities for participant interaction and feedback;
 - Offering continuous support through appropriate reinforcements; and
 - Developing follow-up strategies to assess behavior change and determine intervention effectiveness.
2. Implement effective and culturally-sensitive nutrition education strategies for WIC participants including:
- a) Nutrition education consistent with current U.S. Dietary Guidelines for Americans.
 - b) Practical and culturally-relevant information and activities, such as:
 - Selection and purchase of WIC and other healthy foods on a budget;
 - Cooking demonstrations for healthy eating; and
 - Healthy food choices when eating away from home.
 - c) Assistance with identifying barriers to healthy eating and setting practical and realistic goals to acquire healthy eating behaviors.
 - d) Peer support activities and initiatives that encourage healthy eating behaviors.
3. Promote healthy eating at all stages of life, beginning with breastfeeding and appropriate infant and toddler feeding practices (see Appendix 1). Agencies may create:
- a) Clinic environments that physically and visually reinforce nutrition education messages, such as:
 - A comfortable and appropriate breastfeeding space;
 - Posters and other displays that market breastfeeding, healthy food choices, family cooking and eating together; and
 - Activity areas such as kiosks and reading/art project corners for children and adults in the clinic waiting room.
 - b) Messages about infant feeding that are consistent with those from the maternal and child health authorities – specifically exclusive breastfeeding for the first six months of life, and breastfeeding along with complementary foods for the second six months.
 - c) Appropriate education materials and other tools that promote healthy eating behaviors.
 - d) Strategies that encourage WIC families to practice healthy feeding relationships, such as:
 - Recognizing developmental readiness for introduction of solids;
 - Recognizing hunger and satiety cues;
 - Offering a variety of healthy foods at regular meals and snacks;
 - Providing a pleasant environment for mealtime;
 - Following the division of feeding responsibilities between caregivers and children; and
 - Cooking and eating together as a family.

Recommendation 3

Provide and promote participant education on regular physical activity as the norm for WIC families.

Rationale

WIC staff training has traditionally focused on nutrition education. Recognizing the importance of physical activity, the United States Department of Agriculture (USDA) approved physical activity education as an allowable WIC cost. WIC participants frequently experience barriers to physical activity in their homes and communities. Barriers include financial and time constraints, certain cultural practices, and access to physical activity opportunities both inside and outside the home. In addition, many children have easy access to televisions, electronic games, and computers that competes with physical activities and active play. Research indicates that the risk for being overweight in preschool children is strongly linked to television-watching, especially when a television is located in the child's bedroom. WIC staff need training to help participants overcome these barriers through education and the promotion of a community environment that offers affordable physical activity access.

Strategies for Implementation

1. Provide on-going training to WIC staff to support participant-focused education emphasizing the importance of physical activity, including:
 - a) Current research and recommendations on physical activity related to overweight and obesity and the health implications in the maternal and child health populations, such as:
 - The benefits of regular physical activity for WIC families;
 - The recommended frequency and duration of physical activity;
 - The reduction of leisure multi-media screen time; and
 - Strategies to overcome economic, cultural, geographic, and other barriers to physical activity.
 - b) The components of participant-focused group and individual education/counseling (see Recommendation 2).
2. Implement effective and culturally-sensitive education strategies for physical activity for WIC participants, including:
 - a) Recommendations consistent with current guidelines from the Centers for Disease Control and Prevention (CDC), the American College of Obstetrics and Gynecology (ACOG), and the National Association for Sport and Physical Education (NASPE).
 - b) Practical and culturally-relevant information and activities that are incorporated into all aspects of education, such as:
 - Encouraging household activities, like gardening and vacuuming, as a means to increase physical activity;
 - Providing a resource guide of economical community opportunities for families to be active (e.g. YMCA/YWCA, city parks, community centers); and
 - Identifying creative and inexpensive ways to encourage physical activity, such as dancing around the house or jumping rope.
 - c) Strategies to identify barriers to physical activity at the community level.
 - d) Assisting WIC participants in setting practical and realistic goals.
 - e) Peer support activities and initiatives that encourage physical activity.

3. Promote physical activity at all stages of life (see Appendix 1). Agencies may provide:
 - a) A clinic setup that physically and visually reinforces physical activity messages, such as:
 - Posters and displays that demonstrate practical ideas for making physical activities a family-fun time; and
 - Play areas in the clinic waiting room.
 - b) Appropriate education materials/tools that promote regular physical activity for WIC participants and their families.
 - c) WIC participant messages, such as:
 - Benefits of making physical activity a routine part of family life;
 - Parent's role in engaging their children in physical activity, active play, and being active together as a family;
 - Recommended levels of physical activity for adults and children; and
 - Importance of limiting television watching and computer/video play time and removing televisions and computers from children's primary sleeping areas.

Recommendation 4

Collaborate with public and private partners at the local, state, and national levels to promote consistent nutrition and physical activity messages using community-based approaches.

Rationale

The development and dissemination of consistent nutrition and physical activity messages at the local, state, and national levels is critical in addressing the complexity of the obesity epidemic and achieving mutual goals. The use of consistent messages by all programs ensures clear direction at the individual and community levels and the efficient use of limited resources. Repetition of messages by multiple programs will increase the likelihood of desired behavioral changes among WIC participants.

Strategies for Implementation

1. Establish breastfeeding, nutrition and physical activity collaborations or partnerships at the local, state and national levels (see Appendix 2) by:
 - a) Identifying existing resources, coalitions, and partnerships.
 - b) Conducting a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to identify the interest, value, and readiness of the collaborations and partnerships in developing consistent nutrition and physical activity messages.
 - c) Developing a plan to promote consistent nutrition and physical activity messages across all programs, such as the State Nutrition Action Plan (SNAP), using the information collected from the SWOT analysis.
2. Promote consistent, evidence-based nutrition, physical activity, and related health messages among partners (see Appendix 1).

Recommendation 5

Utilize mass media markets to advocate breastfeeding, healthy eating, and physical activity behaviors.

Rationale

Strategic product placement in television advertisements and on the Internet strongly influences adults' and children's preference for high-calorie, low-nutrient foods and beverages. Studies by the IOM, CDC, and others have reviewed the influence of food and beverage marketing on children's food choices. These studies have found strong evidence that food and beverage advertising has a direct influence on children's food preferences, especially those that are high in calories and low in nutrients. Recommendations included a need for active leadership from both the public and private sectors to reverse these harmful marketing trends. WIC can join with other organizations to advocate for healthier food and beverage marketing strategies.

The association between television viewing and the risk for overweight in children has been well documented. Apart from the negative impact of unhealthy food marketing on television, the increased amount of time spent by children on TV-watching and video games decreases the amount of time spent on physical activities. Changing physical activity behaviors requires an approach not only at the individual level but also at a broader social ecological level. It is critical that WIC works with other partners to advocate for messages that better enable individuals and communities to engage in increased physical activity.

Strategies for Implementation

1. Collaborate with child advocacy organizations and coalitions to develop media marketing strategies that encourage healthy eating and physical activity behaviors and that counter negative media marketing (e.g. advertising of high-sugar cereals during children television programs).
2. Partner with public television and radio networks to develop programs that promote action by parents and children in adopting healthy eating and physical activity behaviors.
3. Employ media opportunities such as local television, print, and electronic media to reinforce healthy eating and physical activity education messages for WIC participants. These include:
 - a) Media campaigns;
 - b) News events; and
 - c) Health event promotions, (e.g. National Nutrition Month, World Breastfeeding Week, Steps to a Healthier US, Walk to School Month and TV Turn-off Week).
4. Work with businesses, public health agencies, and other nutrition and physical activity programs at the state and local levels to promote breastfeeding, healthy eating and physical activity via broadcast, print, and electronic media.
5. Use celebrities, including cartoon characters, to champion breastfeeding, healthy eating, and physical activity messages.

Recommendation 6

Promote obesity-related research and evaluation to enable implementation of effective interventions in the WIC population.

Rationale

Many national health organizations are focusing efforts on the prevention of maternal and childhood overweight and obesity. The Institutes of Medicine (IOM), the Centers for Disease Control and Prevention (CDC), the Surgeon General, the American Medical Association (AMA), the American Academy of Pediatrics (AAP), and other organizations have recommendations to address this epidemic.

WIC is the premier public health nutrition program that focuses on the needs of low income children and women who are shown to be at increased risk for overweight and obesity. This population of more than 8.5 millions provides significant opportunities for research, intervention projects, and evaluation. Therefore, WIC is in a unique position to partner with other organizations in research on overweight and obesity in the population it serves. Meanwhile, WIC programs should continue to implement and evaluate obesity prevention efforts based upon the best available data.

Strategies for Implementation

National Level

1. Advocate for increased funding to support research that evaluate the impact of obesity prevention initiatives in the WIC Program.
2. Provide support to organizations that further WIC's efforts in the prevention of overweight and obesity. This may include signing on to position papers and participating on local, state, and national committees.
3. Advocate and support research and evaluation that target health disparities in high-risk populations.
4. Promote the development and evaluation of pilot projects within WIC that focus on healthy eating and regular physical activity.
5. Support the implementation and ongoing evaluation of successful obesity prevention pilot projects and interventions in the WIC Program.

State and Local Levels

1. Pilot and evaluate obesity prevention projects and interventions in WIC programs.
2. Serve as the nutrition resource for research and evaluation studies and pilot projects targeting the WIC population.
3. Participate in the CDC Pregnancy Nutrition Surveillance System and the Pediatric Nutrition Surveillance System and contribute to a nationwide resource of reliable data for evaluation efforts.
4. Share WIC data with other programs and research entities to further WIC research and evaluation efforts.
5. Collaborate with the CDC Nutrition and Physical Activity Programs and other public health programs to develop research and evaluation projects and to implement interventions targeting the WIC population.

Recommendation 7

Support and/or develop public policies that promote sound consumer nutrition information, access to healthy food choices, and increased community opportunities for physical activity.

Rationale

Successful behavioral modifications often require support and policy changes at the institutional and systems levels. The WIC Program plays a critical role in assisting WIC families to achieve a healthy lifestyle by providing healthy foods and nutrition/health education. By garnering partnerships and fostering collaborations with its stakeholders, WIC can provide leadership in developing policies that can change the environment in which WIC families live, learn, work, and play.

Strategies for Implementation

1. Advocate for legislation which supports breastfeeding-friendly workplaces.
2. Advocate for full funding of and make permanent the USDA Breastfeeding Peer Counseling Program and other appropriate breastfeeding support services.
3. Advocate for USDA to champion WIC's obesity prevention initiatives through promulgation of guidance and regulations that support this goal.
4. Advocate for adequate levels of WIC funding (not tied to caseload) to support childhood obesity initiatives.
5. Encourage full implementation of the Baby-Friendly Hospital Initiative to ensure that WIC prenatal breastfeeding promotion efforts are supported through birth and the immediate postpartum period.
6. Encourage collaboration between USDA and the Food and Drug Administration (FDA) to simplify and make consistent food product labeling, including descriptive and visual information about recommended portion sizes.
7. Support implementation of the IOM recommendations for WIC food package changes.
8. Support the implementation of the American Medical Association's Expert Committee recommendations on the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity.
9. Engage local leaders to advocate for community resources that support increased opportunities for safe physical activity and access to healthy food choices, including:
 - a) Increasing capacity in small urban and rural grocery stores to sell fruits and vegetables.
 - b) Advocating for policies that support healthy eating environments within communities that include nutrition labeling and banning of cooking with trans fats in restaurants, disallowing competitive foods in vending machines in schools, and supporting the USDA school fresh fruit and vegetable projects and the utilization of local farmers markets.
 - c) Promoting after-hour community access to school gymnasiums, running tracks, and other facilities.
 - d) Building public and private partnerships to increase community physical activity access that is affordable and developmentally appropriate for children of all ages.
 - e) Promoting policies that support healthy environments within communities that include:
 - walking trails;
 - biking paths;

- parks;
 - recreation centers; and
 - overall safe neighborhoods.
- f) Participating in community level coalitions addressing on-going efforts to improve healthy eating and physical activity.

Conclusion

WIC is the leading public health nutrition program and the largest provider of nutrition and breastfeeding services to pregnant and postpartum women, infants, and children. The WIC Program is in a unique position to impact the disproportionate effect that the obesity and overweight epidemic has on the low-income, ethnic and culturally diverse populations it serves.

The effectiveness of obesity prevention/intervention programs offered by WIC is often affected by the lack of funds, overburdened local infrastructures, cultural barriers, or other competing priorities. Furthermore, individual behavior change, encouraged by WIC, is unlikely to dramatically alter the rising obesity epidemic. Rather, WIC's efforts to reverse the obesity trend and yield successful and life-changing behaviors for WIC families will only be successful when combined with the efforts of other agencies and organizations as a part of a comprehensive strategy. It is through building partnerships, coordinating programs, and pooling resources that the obesity epidemic can be addressed in the most comprehensive way.

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Appendix 1: Key Education Messages at WIC

	General Message (for the public)	Specific Message (for delivery by WIC educators)
Nutrition	Serve beverages in a cup, not a bottle. Limit the use of sippy cups.	Discontinue the bottle at 1 year of age. Sippy cups should <u>only</u> be used as a transition between bottle and regular
	Eat more fruits and vegetables.	Eat more fruits and vegetables every day based on individual needs. (Fruits & Veggies – More Matters™)
	Drink 1 % fat milk or fat free milk.	Give whole milk to children ages 1 to 2 years. Start 1 % fat milk or fat free milk at 2 years of age.
	Eat more whole grains.	Eat 6 to 11 servings of breads/grains/cereals. At least half of those servings should be whole grain.
	Limit intake of sweetened beverages.	Drink no more than 1 serving of a sweetened beverage per day.
	Choose lower fat food options when available.	Limit fat intake to no more than 30 to 35 % of caloric intake.
	Choose healthy snacks.	Limit intake of chips, cakes, cookies, candy, and other high sugar, high salt, and high fat snack foods.
	Limit eating out, particularly at fast food restaurants.	Eat fast food no more than several times a month.
	Control portion sizes.	Follow the portion size recommendations from <i>MyPyramid</i> .
	Limit juice intake.	Limit juice intake to no more than 4 to 6 ounces per day.
	Limit milk intake. (children 1-5 years)	Limit milk intake to no more than 16 ounces per day.
	Drink plenty of water.	Drink water to satisfy thirst. Offer water several times a day beginning at six months (when solids are introduced).
Eat breakfast every day.	Take time to plan and make breakfast every day. A healthy breakfast provides energy for active play and gets children ready to learn.	
Breast-feeding	Breastfeed.	Breastfeed exclusively for 6 months, then add complementary foods, and continue breastfeeding until 1 year or longer. The longer breastfeeding continues, the less likely the child will be

	General Message (for the public)	Specific Message (for delivery by WIC educators)
	Continue to breastfeed when returning to work.	Seek support from employer and WIC breastfeeding counselor to continue to breastfeed when returning to work.
Physical Activity	Limit TV and other screen time.	Limit screen time to 1 or 2 hours per day and remove television and computer screens from children's primary sleeping
	Participate in physical activities.	Children should engage in at least a total of 60 minutes of moderate physical activities each day.
Parenting	Know the division of responsibilities of parent and child for mealtimes.	Parents are responsible for selecting and preparing food and offering regular meals and snacks. Children are responsible for if and how much they
	Continue to offer new foods.	Offer new foods to children even if they are foods that a child has refused in the past. It may take many attempts before children learn to like the new food.
	Avoid using food as a reward or punishment.	Use other methods rather than food to reward or punish children.
	Make nutritious foods available at home.	Offer a variety of healthy foods and limit the purchase of high calorie, low nutrient foods.
	Grocery shop and cook with children.	Let children help with food shopping and preparation.
	Eat together as a family.	Eat together as a family for as many meals (at least 5-6 times a week) and
	Model healthy eating and physical activity behaviors.	Let children see parents choose healthy foods and be physically active.
	Make small behavioral changes to achieve health goals.	Small changes instead of big ones are more likely to become habits over time.
Love and accept children.	Praise children for positive behaviors.	

Appendix 2: Partnership Organizations for WIC

The following organizations have been identified as key partners in the prevention of overweight and obesity in the WIC population. The list is not intended to be all inclusive. While the organization name may be national, state or local, it is intended that partnerships occur at the national, state, and local levels including organization affiliates.

- American Academy of Pediatrics
- American Diabetes Association
- American Dietetic Association
- American Heart Association
- American Medical Association
- American Public Health Association
- Association of State and Territorial Public Health Nutrition Directors (ASTHPND)
- Centers for Disease Control (CDC) Nutrition and Physical Activity Programs
- Child care programs and providers
- City Parks and Recreation
- Cooperative Extension Services
- County Health Departments
- Department of Education
- Department of Health and Human Services
- Faith-based health and nutrition initiatives
- Food Stamp Program
- Food Stamp Nutrition Education Program
- Emergency food assistance programs such as America's Second Harvest, food banks, food pantries, etc.
- Head Start Programs
- Indian Health Services
- International Lactation Consultant Association
- La Leche League International
- Local and state physician and nurse associations
- Local and state WIC agencies
- Local and state nurses associations
- Local pediatricians, and physicians in family practice, and obstetrics and gynecology
- Local public service organizations such as Kiwanis, Habitat for Humanity, sororities, fraternities, etc.
- March of Dimes
- National Association for Sport and Physical Education (NASPE)
- Nationally recognized academic institutions
- National WIC Association (NWA)
- Preschool programs
- Public and private elementary schools
- State health departments (lower case?)
- United States Department of Agriculture (USDA), Food and Nutrition Service
- WIC vendors

Appendix 3. Resources for Recommendations

Recommendation 1

Provide worksite wellness opportunities for all WIC staff so they can be effective educators by modeling healthy eating and physical activity behaviors.

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- [Employee Interest Survey.](http://www.welcoa.org/freeresources/index.php?category=11) <http://www.welcoa.org/freeresources/index.php?category=11>
- Reports on Worksite Health Programming and Promotion. <http://welcoa.org/freeresources/index.php?category=8>.

Recommendation 2

Provide and promote evidence-based nutrition education to encourage breastfeeding and healthy eating as the norm for WIC families.

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Promote obesity-related research and evaluation to enable implementation of effective interventions in the WIC population.

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Support and/or develop public policies that promote sound consumer nutrition information, access to healthy food choices, and increased opportunities for physical activity.

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