



Childhood Obesity

Care Coordination

Childhood Obesity Introduction

Care Coordination for children with obesity has the ability to improve the child's clinical outcomes, quality of life and facilitate reduction of health care costs.

As noted by the Robert Wood Johnson Foundation, many times these children are not allowed to play in their own yards because of safety concerns by their parents. The children are then forced to play indoors turning to television, electronic games and computers for entertainment; all of which make the child's lifestyle highly sedentary. In addition, there may be less access to fresh fruits and vegetables and more access to fast food restaurants than other communities. They may have limited or no support systems, finances, and resources to access the health care system.

To be successful, childhood obesity Care Coordination must focus on:

- Establishing age appropriate weight management interventions
 - Establishing a medical home for the child
 - Establishing an interdisciplinary team to address all the issues contributing to the child's obesity
 - Involving the entire family in the weight management process
 - Developing and implementing individualized care plans
 - Weight loss goals established by the child, their caregiver, their physician and the Care Coordination Nurse
 - The use of coaching and behavior modification techniques involving the entire family to create healthy behavior change
 - Health behavior education for the entire family
 - Providing for the social support needs of this population
 - Establishing community partnerships to support the continued success of the child and family
 - Provider education related to discussing overweight and obese status of a child and beginning interventions as soon as a potential problem is recognized.
1. and provider) in meeting the recommended standards of care

These components support the Care Coordination philosophy of integration of clinical treatment guidelines, disease prevention strategies, participant self-care education, and social support services while demonstrating a quantifiable cost savings to the payer.

Clinical Practice Recommendations

Clinical Practice Guidelines are evidence based statements and recommendations written by clinicians and multidisciplinary panels. They are scientifically-based statements to assist physicians with participant assessments and condition management. The Childhood Obesity Care Coordination program is designed around the **American Academy of Pediatrics "Policy Statement on the Prevention of Pediatric Overweight and Obesity."**

Care Coordination Protocols

The Childhood Obesity Care Coordination Program includes: establishment of a medical home, program introduction, in-person and written education for the child and/or caregiver, general nutrition/activity reminders, telephonic/in person health coaching and behavior modification with the entire family unit,

telephonic and/or in person health assessments with a Care Coordinator, including nutritional status, activity level, health history, coping skills, coordination assistance with social/community resources, and the development of individualized plans of care for each participant based on national guidelines..

Background Information

Body mass index (BMI) is a practical measure used to determine overweight and obesity and is a weight in relation to height. BMI is the most widely accepted method used to screen for overweight and obesity in children as the measurements are non-invasive. The calculation is weight (kg)/height² (in meters). For children and adolescents (aged 2–19 years), the BMI value is plotted on the CDC growth charts to determine the corresponding BMI-for-age percentile. Overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile. Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex.

By the age of eight (8), most children are in the BMI percentile they will follow until the end of growth in adolescence (Rolland-Cachera et al, 1988). The most recent national survey data from 2006 estimates that approximately one-fourth of all toddler and pre-school children in the United States are either overweight or at risk to becoming overweight (Ogden et al., 2008). The goals of this obesity management program will be **three-fold**:

1. **Primary Prevention:** Continued healthy weight gain in children who are currently at a healthy weight
2. **Secondary Prevention:** Reduced rate of weight gain in children who are at risk for becoming overweight or obese
3. **Tertiary Prevention:** Weight loss in those children already classified as overweight or obese, preventing further weight gain, and prevention of re-gaining weight after weight loss has occurred.

Objectives

- At the conclusion of the 18 month program, 30% of children would have BMIs of <95%; and another 30% will have BMIs <85%
- To obtain a participation level of 15% of all physicians who provide services through this insurance

Goals

The goals of this program are consistent with those set forth by the American Academy of Pediatrics “Policy Statement on the Prevention of Pediatric Overweight and Obesity.” The program is a comprehensive approach to addressing both the child’s and family/caregiver medical and social needs.

- Decrease the percentage of obese children in a predefined community
- Family/caregiver involvement in creating a healthy home environment
- Increased knowledge related to what is a healthy weight
- Increased knowledge related to how to maintain a healthy weight
- Increase physical activity
- Increase healthy eating and making healthy food choices
- Decrease the amount of tv time
- Engage Medical Home physicians, family practice physicians, and all medical home providers in the prevention process through referrals to the program, physician education related to national guidelines and standards of care and ongoing interaction between Medical Home physicians and the rest of the multidisciplinary team

- Engage school and community partners to participate in the process
- Promote a multidisciplinary approach to care of the high risk population
- Demonstrate cost savings related to the integrated Care Coordination program
- Improve participant quality of life
- Demonstrate maintenance of healthy behavior change and weight loss of program participants

Approach

eQHealth has built the Childhood Obesity initiative around the belief that within the home environment parents have the ability to influence the development of healthy eating, physical activity, and other behavioral influences in early childhood. We will work with parents and the community at large to assist parents in reinforcing and modeling behaviors that are consistent with positive energy balance.

eQHealth will approach the issue of childhood obesity by providing the appropriate health care interventions to children and their families based on the child's age and stage of development. It is important that all involved in the care of the child recognize and understand the developmental needs and differences of children related to their stage of development. We will divide interventions into three separate categories based on age groups:

1. Infant to 6 year olds
2. 7-10 year olds
3. 11-18 year olds

In order to effectively combat childhood obesity, interventions must be targeted to the entire family unit. Interventions will focus on emphasizing the role of home, parents, family and household modifications related to diet, physical activity and sedentary lifestyles. Parental/guardian consent to participate in the plan is integral to the child's success. Therefore, prior to becoming enrolled in the program, parents/guardians must sign consent to actively participate in the program with their child/children. This entails:

- Accompanying children to any educational meetings that may take place
- Providing an appropriate environment for physical activity
- Limiting sedentary time such as TV, computer and video game time
- Tracking the child's dietary intake, physical activity and TV time and reporting them to a designated reviewer at predefined intervals
- Ensuring the home environment adapts to the needs of the child and family to maintain a healthy weight

We will also reach out to community mentors such as physicians, Care Coordinators, day-care providers, Head Start programs, pre-school through high school teachers, and neighborhood and community support systems to promote, educate, and model the healthy balance of energy consumption in relation to energy expenditure.

Operations

With the collaboration of all participants, children and their caregivers can become much more effective in creating the meaningful behavior change that is necessary to maintain a healthy lifestyle and weight management. Key operational elements of the proposed eQHealth Care Coordination program include:

- **Medical Director.** The primary focus of the Medical Director will be to reach out to his peers and local community organizations to create meaningful partnerships for effective collaboration. In addition, the Medical Director supports the Care Coordination staff and reviews all program

documents, assessment and plan of care documents to ensure compliance with national practice guidelines.

- **Registered Nurse Care Coordinators.** Care Coordinators are clinically competent as well as having the ability to establish effective relationships with providers, community partners, and participants. They are skilled in motivational interviewing and health coaching techniques in order to assist with creating meaningful behavior change. They are advocates, participant champions, and mentors helping them navigate the health care system and develop appropriate self-care skills.
- **Community Volunteers.** Care Coordinators and all members of the Care Coordination team can provide participants with the tools needed to remain healthy. In addition to knowledge, participants need support, and this is where community volunteers become an integral part of the model. Care Coordinators will work collaboratively with community volunteers to assist with the development of support groups, educational seminars, and a participant buddy system. Train the Trainer sessions will be conducted with community volunteers to facilitate educational seminars and support groups outside of scheduled evaluations. Care Coordinators empower the local community to effectively create behavioral change and improve the lives of their neighbors.
- **Community Development.** eQHealth will work with individual clients to establish an effective community support system that best meets the needs of that community. eQHealth staff will work to engage local community partners to collaborate in community specific lifestyle change. Some of the innovative partnerships that may be explored include, but are not limited to:
 - Working with local food retailers to establish store incentives related to the purchase of healthy food items
 - Working with local churches and community centers to establish neighborhood gardens where families can grow their own produce for significantly less money.
 - Working with individual schools to create student activities designed to get children moving and become more active
 - Working with individual schools to establish a nutritional curriculum as part of their science classes
 - Working with local organizations such as YMCA to provide free or reduced membership for families with obese/overweight children
 - Working with the local park district to provide affordable child-friendly sports/exercise sessions

Implementation

Care Coordination programs are implemented at the community level. Therefore, when looking at implementation, the operational management team must assess each community or region independently to establish the best course of resources for that area. While one area may need significant assistance with creating community outreach programs, another may already have them established. By looking at each community individually, the Care Coordination program accounts for the unique cultural implications, resources, and general health status of the community and is able to create a more meaningful program that meets the specific needs of the participants and their support systems within their community.

Population Identification

Children eligible for this program will live in a pre-defined County/ Parish.

Medical Home physicians, Family Practice physicians, and other designated medical home providers (here on out to be referred to simply as Medical Home providers) and the local school system are some of a child's biggest advocates and can play an integral role in assisting children to live a healthier, more active life. For this reason, eQHealth will work collaboratively with local Medical Home Providers and schools to identify these high-risk children. A program referral form will be created by eQHealth, and physicians and schools will be educated on the tool and the criteria for referral.

In addition to local Medical Home Providers and schools, eQHealth will also reach out to Head Start programs to assist in the population identification process. Parents will also have the ability to self-refer their families to the program. Information related to self referrals and the program will be available in Medical Home physician offices, schools, and other locations deemed appropriate by local community supporters.

Identification Criteria

To be eligible for the Childhood Obesity Care Coordination program, participants must meet the following criteria:

- All participants will be between the ages of 3 and 18
- All participants must be residents of the pre-defined County/Parish
- All participants must be classified with a BMI in the 95th Percentile or higher
- Participants may/may not have co-morbid medical conditions
- Participants and/or their parent/guardian must be ready to make health behavior change within the next month
- Parent/Guardian must agree in writing to participate in the program with the child
- Must have completed a physical examination within the last month or within a month of program enrollment
- Fitness gram results showing de-conditioning

If a child has already been enrolled in a Care Coordination program and is also obese, the child will be managed under the original Care Coordination program and the diagnosis of obesity will be treated as a co-morbid condition and managed concurrently with the primary condition.

If a child who has been identified as being obese and also has a co-morbid condition that is represented in an existing Care Coordination program, the child will be placed in the co-morbid condition program (Asthma, Diabetes, Hypertension) with obesity being treated concurrently as a co-morbid condition. In the event a child identified with obesity has more than one co-morbid condition, the child will be placed in a Care Coordination program according to the following hierarchy:

- Asthma
- Diabetes
- Hypertension

Regardless of primary program assignment, **all** identified co-morbid conditions will be managed under the designated primary program.

Severity Stratification

Once a child has been referred to the program and it has been established they meet enrollment criteria, they will initially be stratified into one of three levels based on their referral data.

Severity Levels include:

- **High Severity**
 - Must meet the identification criteria
 - In addition to meeting identification criteria, these children have been identified as having **at least one** co-morbid condition in addition to obesity (hypertension, diabetes, asthma, etc)
 - High risk social barriers such as no safe place to exercise(to be assessed on initial program enrollment)
- **Medium Severity**
 - Must meet the identification criteria
 - These children **do not** have identified co-morbid conditions
- **Low Severity**
 - Must meet the identification criteria
 - These children are in the **Maintenance** phase of the program and are focusing on maintaining the weight loss goals they have achieved

Stratification is re-evaluated each time new clinical information is received and each time there is a Care Coordinator-participant encounter.

The severity assigned to a participant determines the type and intensity of interventions that the member will receive as part of Care Coordination.

High and Medium Severity participants must attend all required quarterly medical checks. Any participant and/or parent/guardian who are not willing to commit to the program and all necessary follow up in the program may opt out at any point.

Participant Interventions

Children and their parent/guardian will be enrolled in the Obesity Care Coordination Program for 18 months. The first twelve (12) months of the program will be dedicated to making healthy behavior change and obtaining each child's individual goal. Once the twelve (12) months are completed and the child has reached their individual goals, the child will then be placed in the Low Severity level of the program for Maintenance monitoring. Participants may be transitioned to Low Severity before or after the 12 month designated active change period if goals are met sooner than 12 months or after the 12 month mark. For those children who have not reached their goals within the first 12 months, they will continue to be enrolled in the higher severity level until goals are met or until the end of the Program.

Behavior Change Model

eQHealth utilizes Prochaska's Stage of Change model and motivational interviewing to provide effective, sustainable healthy behavior change in program participants.

participant and parent/guardian's Readiness to Change on the initial program assessment.

Participants enrolled in the program must be ready to begin making positive behavior change within the next month. With the assistance of the Care Coordinator, the child and their parent/guardian will be guided through the stages of change and increasing self-efficacy in order to achieve sustainable behavior change.

Once a child has obtained their goals, the action phase of Change has been completed and the child will then move into the Maintenance Stage of Change. In order to prove effective behavior change, the child and their parent/guardian must be able to demonstrate their healthy behavior and weight maintenance for at least six (6) months. During this Low Severity period, Care Coordinators and the participants will focus on how to address roadblocks to maintaining healthy behaviors and methods to prevent “slips” from healthy behaviors back to unhealthy ones.

Establishment of a Medical Home

All children should have a Medical Home physician directing their health care. Today, all children have access to some form of health coverage and the establishment of a medical home is crucial to the child’s health and success with any medical program. If a child does not currently have an established Medical Home physician, the Care Coordinator will work with the child’s parent/guardian to locate a provider that is easily accessible and qualified to provide appropriate health and wellness needs. In addition to care when the child is sick, children also have a need for annual wellness visits to ensure they are developing appropriately. Care Coordinators will assist families in arranging Medical Home physician appointments and coordinating any transportation needs that may be present. The Care Coordinator will discuss any other potential barriers to Medical Home physician care with the parent/guardian and work to resolve those as well.

Monthly “Healthy Weight” Evaluation

Every month enrolled children and their parent/guardian will be expected to go to the established “Healthy Weight” Center for a Shared Medical Appointment (SMA) to evaluate their progress toward obtaining their individualized weight goals.

During this visit, a Medical Home physician, behaviorist (social worker, psychologist, behavioral health nurse, etc), Care Coordinator, and other pre-defined guest speakers will be present to provide a physical evaluation of the child, review goals and common issues, and receive weight management education from trained experts. These visits are conducted in an open forum allowing all participants to learn from each other. In addition, participants will be provided with private physician and/or Care Coordinator time for more personal issues that participants may not wish to discuss in an open forum.

A triage station will be set up for each child to go through in order to measure height, weight and BMI, blood pressure (I would not advice this for all children. It may act as a deterrent to remaining in the program, and may result in poor compliance) prior to the beginning of SMA. The results will be documented in the Care Coordination system and provided to the child’s parent/guardian for individual review. The medical home physician may choose to reduce or suspend participant’s participation in the exercise component based on illness or new diagnosis (e.g. poorly controlled hypertension).

Care Coordinators will have confidential areas set up to review any new, sensitive clinical data. In addition, the Care Coordinator, Medical Home physician, and Behaviorist will conduct a group session with the participants and/or their parents/guardians to provide counseling, assess the individual’s plan of care and progress to agreed upon goals and adjust/discuss next steps in achieving their plan of care goals.

Focused group education and support will also be an important part of these evaluation meetings to facilitate progression in the program and discuss areas of concern that may be common to the group.

Once the first groups of “graduates” from this program have been established, eQHealth will recruit the graduates and their parents/guardians to be mentors to new children entering the program. Mentors will be assigned to each new participant based on age, gender and other commonalities to share their success stories and discuss some of the “pitfalls” or barriers to staying healthy they

encountered and how they resolved them. Mentors and their families will also be recruited to provide presentations at the quarterly meetings on items that can benefit the entire population.

Organized Exercise Component

Because physical activity is such an integral part of obesity management eQHealth will work with parents, schools and/or local community groups such as the Boys and Girls Club or YMCA to develop an organized, supervised exercise component for all participants. Parents will be expected to assist their children in adhering to this organized, ongoing exercise.

Organized Nutrition Component

Energy balance in the form of diet is the second integral part to an effective obesity management program. eQHealth will work with local market chains, dietician groups, and/or other community contacts to provide nutritional education, sample diet plans, and on-site or virtual grocery shopping strategies.

School Outreach

eQHealth, along with our community partners, will assess the community educational system and its available resources to determine how these public institutions can positively contribute to the achievement of our obesity management goals. Specific institutions we will target for partnerships include Head Start Programs, Daycares, Preschools, Elementary Schools, Middle Schools, and High Schools. Some of the possible items we will target as part of our school outreach include:

- Weekly participant weigh ins
- Monitoring of diet and activity along with reinforced counseling on healthy behaviors with the school nurse
- Participant and family interactions with a school appointed social worker to assist with community barriers
- Participant and family interactions with a school appointed dietician
- Transmission of weekly data to Care Coordination staff, either electronically or telephonically
- Train-the-trainer sessions between health care professionals and school staff related to how to incorporate an age appropriate nutrition curriculum
- Train-the-trainer sessions between health care professionals and school staff related to providing healthy meals and snacks for children
- Train-the-trainer sessions between physical education and sports professionals and teachers to instruct them on how to inspire active play at recess and/or daycare breaks
- Train-the-trainer sessions between physical education and sports professionals and teachers to assist them in designing active breaks so kids get up and moving and are ready to learn

Participant Introductory Visit

All participants will attend an introductory Care Coordination informational session and receive an informational welcome kit containing such tools as weight trackers, food/calorie trackers, activity trackers, pedometers, and any other educational items recommended by the Care Coordinator. During this informational session, an initial health risk assessment (HRA) will be performed on the child including: height, weight, BMI, blood pressure, blood glucose readings, medical history, and possible social barriers to program adherence. In addition, the program welcome kit will provide the participant's

parent/guardian with information about the program; how they can opt-out at any stage of the program if they do not wish to participate; and their rights as a recipient of Care Coordination.

The child's parent/guardian must sign a written Care Coordination Contract/Consent at the time of program initiation stating they agree to participate in the program with their child.

Participant Follow Up Calls/Visits and Disease Specific Assessment

All participants enrolled in a program will receive additional calls/visits in addition to the introductory session. Follow up will consist of a weight assessment, educational session and support group meeting. Based on the assessment, the member may receive further Care Coordinator interactions at scheduled intervals. Care Coordination staff based on participant interactions will provide follow up.

Participant Education

Education information will be available to all participants and their parent/guardian when deemed appropriate by the Care Coordination team. In addition, nutrition and activity reminders will be sent to all program participants quarterly. Some of the educational topics include:

- Diet/Nutritional information
- Increasing physical activity
- Decreasing TV time
- Disease specific education for co-morbid conditions

All information will be appropriate to the child's diagnosis, needs, and age.

Multidisciplinary Team

A multidisciplinary team of healthcare professionals will collaborate to ensure the child and their parent/guardian's needs are met. This is accomplished by addressing clinical, functional, financial, psychosocial, environmental, and support system needs. Team members include, but are not limited to, internal physician advisors, community Medical Home physician advisors, treating Medical Home physicians, registered nurses, pharmacists, behavior health specialists, and community partner representatives. Any or all of these team members may participate in internal team case conferences to coordinate care for individuals who require more intense management.

Individualized Plan of Care

Every child and their parent/guardian enrolled in the program will work collaboratively with the Care Coordinator to develop an individualized plan of care consistent with national guidelines and the physician treatment plan.

James Prochaska noted that in order for behavior change to be successful a person must want to make the change and must be involved in how the change will occur. The Care Coordination system will identify a list of possible participant problems based on answers to the HRA and obesity assessment tools. These problems will be reviewed with the child and/or parent/guardian, with Care Coordinator guidance, and the child and/or parent/guardian will be asked to provide input on resolving the problems and which problem they would like to work on first.

The Care Coordinator will supply the child and their parent/guardian with any/all tools they may need to make informed decisions related to their problems and plan of care such as:

- Medical Home physician treatment plan
- Disease specific information (if a co-morbid condition exists)

- Self-care education (Diet, exercise, etc.)
- Referrals to community resources (Boys and Girls club, WIC, Medical Home physicians, specialists, etc.)
- Medical equipment

Interventions Based on Developmental Age

Three to Six Years Old

Interventions in this age group are focused on educating the adults who influence the child's life. Interventions focused on education of young children and the adults who care for them related to diet, exercise and parenting styles needs to begin early in life, before eating preferences are established. Interventions for this age group include:

- Parenting Skills Classes(Authoritative Parenting Style in which parents maintain close, nurturing relationships with their children while still imposing a reasonable high level of rules of guidelines) and how to be a positive role model
- Parental/Guardian instruction on healthy eating patterns and portion control
- Hands on shopping experiences with a personal dietician (nutritional counselor)
- Parental/Guardian education related to meal preparation
- Parental/Guardian education regarding ways to increase activity while at home
- Train the trainer session between a dietician and Head Start Programs, select preschools and daycare instructors related to appropriate meals/snacks
- Train the trainer sessions between dietitians and Head Start Programs, select preschools and daycare instructors related to an age appropriate nutrition curriculum to be added
- Train the trainer session between a physical education instructor and head start, preschool and daycare instructors on how to incorporate more activity into the daily routine of the children in their care
- Head Start Programs, select preschools and daycare instructors to present age appropriate education to children related to diet, nutrition, and exercise
- Work with local physician groups on how to address diet, nutrition and exercise at all well child visits with parents/guardians for the first 6 years of life that is appropriate to that child's age/developmental level.
- Work with WIC centers to discuss appropriate food choices for healthy weight related to available products on WIC list
- Work with local Boys and Girls club or YMCA to establish a safe place for extracurricular exercise and play
- Work with local church groups to provide train the trainer sessions so that they can take over the care of their community through new mom support and education groups to discuss diet, nutrition and exercise.
- Interventions will focus on obtaining/maintaining healthy weights over time, not on losing weight or a weight loss program which is contra-indicated in this age group
- Provide written educational materials to parents, schools, physicians, community support systems as needed to reinforce in person training.

Seven to 10 Years Old

Children learn eating and exercise patterns from parents and other caretakers. While interventions in this age group may become more interactive with the child, the focus of obesity management remains on the education of parents/guardians. If adults in the home learn good nutrition and exercise habits and

incorporate them into their daily lives, it will positively impact the child. School also become a critical influence during the time.

Dieting and weight loss should not be the initial goal of interventions in this age group. The first goal is to stop weight gain and then by improving eating patterns and exercise children will “grow into” their weight. Strict dieting is contraindicated in this age group. Interventions include:

- Parenting Skills Classes(Authoritative Parenting Style in which parents maintain close, nurturing relationships with their children while still imposing a reasonable high level of rules of guidelines) and how to be a positive role model
- Child and Parental/Guardian instruction on health eating patterns and portion control
- Child and Parental/Guardian hands on shopping experiences with a personal dietician (nutritional counselor)
- Parental/Guardian education related to meal preparation
- Child/ and Parent/Guardian education related to reading food labels
- Child and Parental/Guardian education on ways to increase activity while at home
- Child documentation of dietary log, exercise log and TV time log (Parents/Guardians should sit down and assist children with this activity)
- Train the trainer sessions between dietitians and select schools related to an age appropriate nutrition curriculum to be added
- Train the trainer session between a physical education instructor and select schools on how to incorporate more activity into the daily routine of the children in their care
- Teachers to present age appropriate education to children related to diet, nutrition, and exercise
- Work with local physician groups on how to address weight concerns, diet, nutrition and exercise at all well child visits with parents/guardians
- Work with WIC centers to discuss appropriate food choices for healthy weights related to available products on WIC list
- Work with local Boys and Girls club or YMCA to establish a safe place for extracurricular exercise and play
- Work with local church groups to provide train the trainer sessions so that they can take over the care of their community through new mom support and education groups to discuss diet, nutrition and exercise.
- Provide written educational materials to parents, schools, physicians, community support systems as needed to reinforce in person training.

11 to 18 Years Old

Children in this age group should take a more active role in their own weight management to provide increased autonomy. Interventions include:

- Parenting Skills Classes(Authoritative Parenting Style in which parents maintain close, nurturing relationships with their children while still imposing a reasonable high level of rules of guidelines) and how to be a positive role model
- Child and Parental/Guardian instruction on health eating patterns and portion control
- Child and Parental/Guardian hands on shopping experiences with a personal dietician (nutritional counselor)
- Child and Parental/Guardian education related to meal preparation/food selection
- Child and Parent/Guardian education related to reading food labels
- Child education related to portion control

- Child and Parental/Guardian education on ways to increase activity while at home
- Find out what activities the child likes and incorporate them into the daily activity plan for the child
- Child documentation of dietary log, exercise log and tv time log (Parents/Guardians should review this with their child to verify completion)
- Train the trainer sessions between dieticians and select schools related to an age appropriate nutrition curriculum to be added
- Train the trainer session between a physical education instructor and select schools on how to incorporate more activity into the daily routine of the children in their care
- Teachers to present age appropriate education to children related to diet, nutrition, and exercise
- Work with local physician groups on how to address weight concerns, diet, nutrition and exercise at all well child visits with parents/guardians
- Work with local Boys and Girls club or YMCA to establish a safe place for extracurricular exercise and play
- Work with local church groups to provide train the trainer sessions so that they can take over the care of their community through new mom support and education groups to discuss diet, nutrition and exercise.
- Provide written educational materials to parents, schools, physicians, community support systems as needed to reinforce in person training.
- Assess for body image disturbances
- Assess for depression
- Coping Skills instruction
- Referral to behavioral health specialists (when indicated related to depression, anxiety, etc.)

Low, Medium and High Level Interventions

Interventions are based on severity and children may move up or down in severity levels depending on Care Coordination assessment

Care Coordinator access

- Welcome kit
- Nurse Calls/Visits providing health education, behavior modification and/or health coaching.
 - **High level – At least 12 scheduled calls/visits (*more calls may be completed per the Care Coordinator’s assessment*) in the first 12 months of the program**
 - Call/Visit Schedule – Initial, then months 1, 2, 3, 4, 5, 6, 8, 10, 11, and 12
 - **Medium level – At least 6 scheduled calls/visits (*more calls may be completed per the Care Coordinator’s assessment*) in the first 12 months of the program**
 - Call/Visit Schedule – Initial, then months 1, 3, 6, 9, and 12
 - **Low level- At least 3 scheduled calls/visits (*more calls may be completed per the Care Coordinator’s assessment*) after the initial 12 month period**
 - Call/Visit schedule- month 14, 16, and 18
- Assessment of the child and parent/guardian social environment and psychosocial support system
- Access to community resources to assist with social, family, financial needs.
- Access to behavioral health resources to screen for depression/coping with obesity
- Establishment of a medical home
- Education materials tailored to the participant’s primary language, reading level, and age
- Ongoing collaboration with the Medical Home physician
- Assessment of co-morbidities and development of plan to address them
- Quarterly general activity and nutrition reminders

- Ongoing reassessment and adjustment of the plan of care
- Annual participant satisfaction survey
- Monthly “Healthy Weight” Center Evaluations
- Quarterly “Healthy Weight” Center evaluations for participants who have reached their goals

Physician Interventions

Local Medical Home physician involvement is critical to Care Coordination. The Childhood Obesity Care Coordination program involves physicians/providers in the program by:

- Providing current American Academy of Pediatrics guidelines through a provider web portal
- Ability to directly refer children to the program via a provider portal referral form
- Access to the child’s Care Coordination case to review HRA answers, the plan of care and goals met thus far. The child’s Medical Home physician will have full access to the child’s eQHealth information and will serve as a form of an electronic medical record that can be updated by the provider and/or Care Coordinator as indicated.
- Messaging with a Care Coordinator via the provider portal
- Providing written and/or verbal notification of participant involvement in Care Coordination
- Ongoing communications between the participant’s Care Coordinator and the physician to notify the physician of urgent and emergent health issues and assist with participant adherence.
- Access to an annual physician profile highlighting how that particular physician ranks in standards compliance to their peers
- Annual provider satisfaction survey
- Provider Resource Tools related to childhood obesity

Program Evaluation

Childhood obesity outcomes will be tracked and monitored according to client specific requirements. Outcomes will be tracked in our Care Coordination system.

Outcomes to be Measured

% Change in body weight

% Change in BMI

Blood pressure within normal values (per guidelines)

Improvement of lab values (HbA1c, cholesterol values)

Body Fat distribution (Pre-During-Post)

Increased activity (amount of time performing exercise)

Decreased TV time

Improved self esteem (when depression identified as an issue)

% Change in predicted future costs

% Change in relative risk score