

# SPEAKING WITH ONE VOICE



## EARLY CHILDHOOD OBESITY PREVENTION MESSAGES

UNIFIED APPROACHES & METHODS FOR COLORADO FAMILIES



**COLORADO**  
Department of Public  
Health & Environment

# ACKNOWLEDGEMENTS

The Colorado Department of Public Health and Environment (CDPHE) recognizes the following persons for providing extensive technical expertise and guidance in the development of early childhood obesity prevention messages:

## CDPHE Core Project Team:

Tracy Miller, Early Childhood Obesity Prevention Specialist, Prevention Services Division

Allison Hastey, Communications Unit Director, Prevention Services Division

Colleen Kapsimalis, Public Health Prevention Service Fellow

Linda Dowlen, Colorado WIC Communications Coordinator

Jodi Birkofer, Early Childhood Obesity Prevention Projects Coordinator, Prevention Services Division

## Message Development Advisory Group:

Kathleen Baker, CDPHE

Linda Archer, CDPHE

Natalie Gregory, CDPHE

Elise Lubell, Jefferson County Public Health

Eileen Bennett, Colorado Assuring Better Child Health & Development

Sandra Stenmark, Kaiser Permanente

Kodi Bryant, Jefferson County Public Health

Nancy Braden, Jefferson, County Public Health

Katya Mauritson, CDPHE

Elise Lubell, Jefferson County Public Health

## Contractor:

JVA Consulting, LLC

## Message Revision & Dissemination Planning Workgroup:

Ana Williams, University Nurse Midwives

Connie Carroll Hopkins, Colorado Assuring Better Child Health & Development

Eileen Bennett, Colorado Assuring Better Child Health & Development

Jill Kilgore, Sunrise Community Health Center

Joy Clark, El Paso County Public Health

Mary Utsler, El Paso County Public Health

Stacy Sloan, El Paso County Public Health

Anita Walter, El Paso County Public Health

Julie Griffith, CDPHE

Karla Klemm, Mesa County Health Department

Katya Mauritson, CDPHE

Kelly McCracken, CDPHE

Kevin Gilbert, HeartSmartKids

Kimberly Koeltzow, Weld County Department of Public Health & Environment

Linda Ballard, CDPHE

Melissa Broudy, Jefferson County Public Health

Mike Schwan, Weld County Department of Public Health & Environment

Rachel Schiller, SE2

Stephanie Hancock, Kaiser Permanente

Susan Morrissey, SE2

Tanya Tanner, Frontier Nursing University, Aurora Nurse Midwives

## Additional Subject Matter or Communications Experts:

Mandy Bakulski, CDPHE

Susan Motika, CDPHE

Jennifer Dellaport, CDPHE

Maria Ayers, CDPHE

Carsten Baumman, CDPHE

Susan Howk, Tri-County Health Department

Tracy Boyle, LiveWell Colorado

Stacia Lupberger, CDPHE Intern

David Brendsel, CDPHE

## Partner Groups:

CDPHE Early Childhood Obesity Prevention Systems Change Collaborative

CDPHE Early Childhood Obesity Prevention in Early Care and Education Advisory Group

CDPHE WIC Nutrition Unit

Colorado local WIC agencies

# TABLE OF CONTENTS

Introduction .....	1
Messages, Concepts, Health & Behavior Outcomes.....	2-5
Messaging Project Overview .....	6-8
Bringing Messages into Practice.....	9-11
Picking Communication Outlets & Methods .....	12-14
Evaluating Messaging Activities .....	15-16
References .....	17-18
Appendix: Messages & Supporting Content.....	19-24

# INTRODUCTION

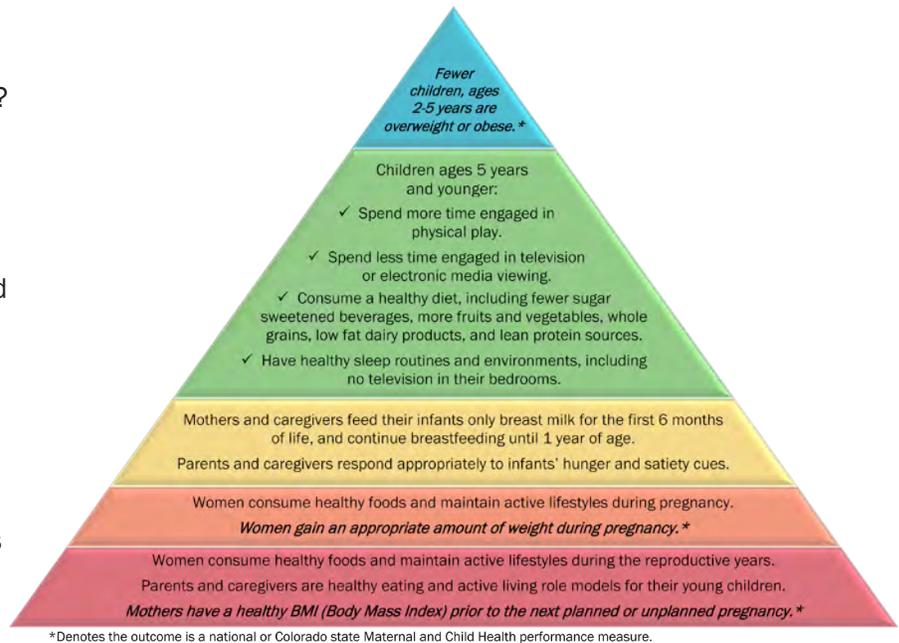
## Unified Approaches & Messages for Colorado Families

People are bombarded by various health messages every day. How can we make sure our messages are heard, remembered and effective in empowering families to take action? We can increase the visibility and repetition of our messages by “speaking with one voice.” We maximize our messaging when all public health programs, health care providers, early care and education professionals, and other partners work together to deliver consistent, accurate and consumer-tested messages. Together, we can make a greater impact.

*Speaking With One Voice* provides you with nine audience-tested early childhood obesity prevention messages and supporting content that address important healthy lifestyle behaviors found most promising in preventing overweight and obesity before it begins among Colorado’s youngest children. The goal of this project is to ensure pregnant women and families with infants and young children hear consistent messages in multiple settings where they spend time and interact with community members that potentially influence health behaviors. The Colorado Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is implementing these messages in practice, and several Colorado local public health agencies are collaborating with local partners to disseminate and promote these messages consistently.

These messages reflect goals and guiding principles of Colorado’s life course approach to preventing obesity in early childhood and, more specifically, the goals of Colorado’s Maternal and Child Health programs. The “Life Course Perspective” proposes that environmental exposures, including biological, physical, social and behavioral factors, as well as life experiences, throughout the lifespan, influence health outcomes in current and future generations.<sup>1</sup> These messaging concepts address eight specific primary maternal and early childhood health and behavioral factors that are most promising in preventing obesity in early childhood. Influencing individual lifestyle behavior change through consistent messaging is one of many strategies necessary to address obesity, in concert with other population-based efforts to improve the environment, social and economic conditions

Coloradans experience that make healthy choices easier. The target maternal and child health outcomes of these messages are described in the figure below:



We invite you to join us in using these messages and supporting content in your counseling, education and community message promotion efforts. This guide presents the messages and supporting content that are specifically designed for the following populations:

- Low-income pregnant women
- Low-income mothers, fathers, and caregivers of infants, toddlers and preschool-age children (birth to 5-year-olds)
- Low-income mothers and fathers who may or may not be planning a future pregnancy

We explain the intent of each message, summarize the scientific evidence supporting the concepts and share insights learned from our target audience focus groups. The guide includes tips for health care providers, public health professionals, and early care and education staff using these messages in practice, and suggestions for community health advocates regarding the best methods to consider in disseminating these messages in the community and evaluating a consistent messaging effort. Collaborating with others in your community to promote the messages can take this effort to “speak with one voice” one step further.

# MESSAGES, CONCEPTS, HEALTH & BEHAVIOR OUTCOMES

This section introduces each of the nine messages. A summary of each message includes the following:

- Target populations
- Overall message intentions
- Brief synopsis of the scientific evidence and supporting documentation validating general concepts
- Message insights and recommendations provided by the target population during focus groups conducted in Colorado ( Methodology described in Project Overview section.)

The appendix of this publication contains supporting content for each message that may be used in the development of written or electronic material or during direct interaction or counseling with the target population.

Focus groups recommendations for message and supporting content revisions followed these themes:<sup>2</sup>

- Take care to not sound punitive; parents may already feel inadequate.
- Give examples of benefits; participants want to be informed, not just told what to do.
- Rewrite messages to focus on the most important part of the message first.
- Avoid cliché terms such as “screens,” which may not say the same thing to everyone; instead, use terms like “technology” which are more universally interpreted.
- Didactic messages do not encourage changes in habits. A more explanatory message, with reasons why it has been proven as healthy, is the best approach to creating a change in habits.
- Simplicity of messages ensures that messages can reach more people and misinterpretation can be avoided.

**Message:** “Gaining the right amount of weight during pregnancy helps you have a healthy baby. Talk to your healthcare provider to find out how much weight gain is best for you and your baby.”

**Target:** Pregnant women

This message brings awareness to the importance of gaining a healthy amount of weight during pregnancy and defines what is considered healthy weight gain. Research consistently identifies excessive maternal gestational weight gain as a risk factor for obesity in the offspring as children or adults.<sup>3,4,5</sup> Additionally, studies consistently show increased risk of macrosomia (birth weight > 4,500 grams) as gestational weight gain increases.<sup>6</sup> Infants who weigh more at birth are more likely to be obese as children and into adolescence and adulthood.<sup>4</sup>

Of equal concern, inadequate maternal weight gain increases risk of low birth weight among infants. Although trends are improving, low birth weight among infants is a public health problem in Colorado. Inadequate maternal weight gain accounts for one in eight low weight births in Colorado and a combination of inadequate weight gain and smoking during pregnancy accounts for one in five low weight births.<sup>7</sup> For this reason, the message focuses on just the right amount of weight women should gain during pregnancy to achieve healthy birth outcomes.

Focus groups of pregnant women and women who recently delivered a baby expressed agreement about the importance of healthy weight during pregnancy and considered the supporting information helpful, specifically the weight gain charts (see Appendix). They recommended revising the supporting content to include reasons appropriate weight gain is important and clarity about how to use the charts.<sup>2</sup>

**Message:** “Healthy eating and staying active while you are pregnant matters for you and your baby’s health.”

**Target audience:** Pregnant women

This message promotes healthy eating and active living for women during pregnancy, which will help them achieve appropriate gestational weight gain. Research demonstrates a relationship between energy intake and gestational weight gain.<sup>6</sup> Adequate nutrition, without excess consumption of calories, is increasingly recognized as a critical component for proper growth and development of the fetus and appropriate maternal weight gain during pregnancy.<sup>7</sup> Additionally, research suggests an inverse relationship between the level of physical activity and gestational weight gain.<sup>6</sup> This message is suitable to use for healthy lifestyles counseling during prenatal care visits.

Focus groups of pregnant women and women who recently delivered a baby agreed that this is a good message. They thought the original message was effective, but suggested additional information to support the message in a positive manner, focusing on what to do rather than what not to do, and describing the good results for mom and baby. In response to this feedback, the supporting content with a positive frame was added (see Appendix).<sup>2</sup>

**Message:** “Give yourself and your baby all the benefits of breastfeeding.”

**Doctor recommendations:**

- Feed your baby only breast milk for the first six months, even if it is offered by bottle
- Continue to breastfeed while offering solid foods until your baby is at least 1 year old or older

**Target audiences:** Pregnant women and mothers

This message promotes exclusive breastfeeding during the first six months of an infant’s life, and longer duration of breastfeeding overall. The Surgeon General’s Call to Action to Support Breastfeeding (2011) states, “In general, exclusive breastfeeding and longer durations of breastfeeding are associated with better health outcomes.” In regard to obesity, a child that was never breastfed has a 32 percent increased risk of childhood obesity than a child that was ever breastfed.<sup>8</sup>

A 2013 systematic review of three studies found a lower risk of overweight or obesity with longer duration of exclusive breastfeeding. The review also identified eight studies that support lower risk of overweight and obesity

with longer breastfeeding duration, one of which found that children who were breastfed less than six months were at greater risk of elevated weight gain at 2 years compared with those exclusively breastfed for six months or longer.<sup>9</sup>

Discussions during focus groups of pregnant women and mothers revealed agreement with the intent of the message to promote breastfeeding. However, the original message was revised according to several focus group recommendations. These revisions intend to reduce possible feelings of guilt among women with a better word choice, eliminate confusion reported over the length of time women should breastfeed, and describe the benefits of exclusive breastfeeding and breastfeeding longer. Supporting content includes potential community support resources for mothers, as suggested by the focus groups.<sup>2</sup>

**Message:** “Rethink your drink - choose water! Extra calories from sugar sweetened beverages may lead to weight gain.”

**Target audiences:** Pregnant women, mothers, fathers, caregivers

This message encourages families (adults and children) to reduce intake of extra calories from beverages with little to no nutritional value, such as carbonated beverages, fruit drinks, sweetened bottled waters, sports drinks and energy drinks. The message encourages drinking water as a low calorie alternative to maintain hydration.

More than half of toddlers and preschoolers consume one or more servings of sugar-sweetened beverages per day.<sup>4</sup> The Institute of Medicine’s Committee on Obesity Prevention Policies for Young Children concludes that there is strong evidence linking the consumption of sugar-sweetened beverages and excess weight gain in children, including young children.<sup>4</sup>

Overall, focus group participants including pregnant women, mothers, fathers and grandparents agreed that the message was simple and to the point. Focus groups suggested revising original supporting content to include suggestions to make water more tasty and guidance on how much water should be consumed daily.<sup>2</sup>

**Message:** “Trust your baby to know how much he needs to eat. Your baby will show you signals of hunger and fullness, and will trust you to respond.”

**Target audiences:** Mothers, fathers, grandparents, other caregivers

This message intends to help parents and caregivers recognize infants’ hunger and satiety cues and respond appropriately to preserve infants’ abilities to regulate their intake. Although research in this area is in the early stages of development and much is yet to be learned, two reviews of preliminary studies show some support for the theory that feeding practices that are non-responsive to infant cues may have a role in the development of overweight.<sup>10,11</sup>

Focus groups of mothers, fathers and grandparents agreed that this message is effective and an important reminder. Since many of the focus group participants were parents or grandparents of children who were no longer infants, discussion took place about what this message meant for toddlers and preschoolers. Overall, participants agreed that this message is clearly for parents and caregivers of infants.<sup>2</sup> This message was left unchanged after hearing from the focus groups.

**Message:** “Give your child nutritious food and active play for a healthy future.”

**Target audiences:** Mothers, fathers, grandparents, other caregivers

This message emphasizes the critical importance of healthy eating and active lifestyles in the earliest years of a child’s life and how this impacts future health. Children establish eating and activity habits early in life, developed by observing the behaviors of adults and exposure to food, activities and the surrounding environment.

Research supports the association between the reduced likelihood of being overweight or obese as a child and the consumption of a diet rich in nutrient-dense whole grains, fruits, vegetables, low-fat or nonfat milk and other dairy products, and low in energy dense, nutrient-poor foods.<sup>4</sup> The Dietary Guidelines for Americans (2010) provides guidance for a healthy diet for children older than 2 years.<sup>12</sup> The American Academy of Pediatrics provides guidance for children younger than 2 years.<sup>13</sup> Unfortunately, children in the United States are not meeting these nutritional guidelines.<sup>4</sup>

The Dietary Guidelines for Americans (2010) states, “Strong evidence supports that regular participation in physical activity also helps people maintain a healthy weight and prevent excess weight gain.”<sup>12</sup> Although the body of evidence is still in development to understand the relationships between weight status, physical activity and sedentary behavior in children younger than 6 years, some research suggests reduced risk of excessive weight gain in this group with higher levels of physical activity.<sup>4</sup>

First impressions of the original message among focus groups of mothers and grandparents were positive. The original message, “Give your child/grandchild gifts for a bright future: Healthy foods and active play,” generated mixed impressions from the focus group of fathers. Mothers and fathers both suggested moving healthy food and active play messages to the beginning of the statement and deemphasizing the word “gifts.” Furthermore, fathers who participated in focus groups noted that a bright future cannot necessarily be guaranteed by a healthy lifestyle, which prompted a revision from “healthy foods” to “nutritious foods”, and “bright future: to “healthy future”.<sup>2</sup>

**Message:** “Turn off the TV and play together as a family.”

**Target audiences:** Mothers, fathers, grandparents, other caregivers

This message encourages parents and caregivers to replace television viewing time with active activities that can be enjoyed together as a family. The desired outcomes include more active lifestyles, less exposure to television advertising of calorie-dense, nutrient-poor foods, and less intake of common foods consumed while viewing television.

Research reveals that young children who view more than two hours per day of television and videos are significantly more likely to be overweight or obese than those who do not.<sup>4</sup> Statistically strong evidence exists that exposure to television advertising of food and beverages is associated with increased body fat in children ages 2-11 years.<sup>14</sup> The Institute of Medicine, Committee on Food Marketing, and the Diets of Child and Youth indicate that, among many factors, food and beverage marketing influences the preferences and purchase requests of children, influences consumption at least in the short term, is a likely contributor to less healthful diets, and may contribute to negative diet-related health outcomes and risks among children and youth.<sup>14</sup>

Focus group participants agreed with the original message, “Take a break from screen time and play together as a family”. However, several were confused the “screen time” reference. To simplify this message, the message revision work group removed the reference to screen time and chose to focus on the television and promote turning it off. As recommended by the focus groups, the revision also included additional supporting content defining the maximum amount of time children should spend viewing television (see Appendix).<sup>2</sup>



**Message:** “Help your child sleep better in a TV-free space.”

**Target audiences:** Mothers, fathers, grandparents, other caregivers

This message and supporting content (see Appendix) brings awareness to the importance of sleep and one of many healthy parenting practices removing televisions from bedrooms or sleeping areas.

A considerable body of evidence supports an inverse association between sleep duration and obesity in children. Specifically, shorter sleep duration is associated with increased obesity risk in children of all ages.<sup>3,4</sup> Some studies also identify television in the bedroom as a marker for overweight and obesity among children of preschool age,<sup>15,16</sup> and as an environmental exposure associated with reduced childhood sleep.<sup>4</sup>

This message generated heated discussion among the focus groups. There was disagreement as to whether or not a TV in the bedroom matters and the conditions that should be present for children to fall asleep. Researchers conducting the focus group concluded that the message is worthy of generating thoughts and feelings, though some may struggle to believe and implement it.<sup>2</sup> Small word

changes resulted from these conclusions to add clarity that removal of the TV may help children sleep better.

**Message:** “There’s no power like Parent Power! Eat well and move more to care for yourself and your family.”

**Target audiences:** Mothers, fathers (primarily mothers during the period between pregnancies, planned or unplanned)

This message empowers parents to invest in their own health during the reproductive years to improve health outcomes for any future planned or unplanned pregnancies and children. The message also promotes healthy role modeling for children and prevention of chronic disease.

The primary intended outcome of this message is a healthy maternal BMI prior to a woman’s planned or unplanned pregnancy. The message intends to inspire a woman to adopt a healthy lifestyle even if she isn’t planning to become pregnant anytime soon. A strong body of evidence links maternal overweight and obesity at the onset of pregnancy with increased likelihood of obesity in the child during the early years of life.<sup>3,4</sup> A 2013 systematic review supports the conclusion that pre-pregnancy overweight or obesity increases the risk of large-for-gestational age births, high birth weight irrespective of gestational age, macrosomia (birth weight > 4,500 grams), and subsequent offsprings who are overweight or obese.<sup>17</sup> Furthermore, maternal obesity is associated with other poor health outcomes for the mother and child, including neural tube defects, preterm delivery, diabetes, Cesarean section, and hypertensive and thromboembolic disease.<sup>18</sup>

The original version of this message referred only to “Mom power” and was explored only in focus groups of mothers. Overall, participants felt it was concise and empowering. However, they recommended the addition of the benefits of and suggestions for taking care of yourself in the supporting content.<sup>2</sup> During the revision process, stakeholders recommended including both parents in the message, rather than just mothers. “Mom power” was changed to “parent power” to encourage healthy role modeling and lifestyles among both parents.

# MESSAGING PROJECT OVERVIEW

The Colorado Department of Public Health and Environment (CDPHE) Early Childhood Obesity Prevention Team completed a multi-phase process involving representatives of several stakeholder groups and the target population.

## Message creation (March 2012-June 2012)

The CDPHE convened an advisory committee consisting of members with subject matter and communications expertise specifically for the purposes of informing the project and identifying messages. The group created original messages, adapted other states' messages or identified those already in use in Colorado's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

## Message feedback survey (June 2012)

More than 230 health care professionals and stakeholders from public health, health care, early child care and education, state and local WIC, and other groups provided feedback to the messages by electronic survey. The CDPHE analyzed this data for emerging themes, and messages were revised once again in preparation for testing in focus groups.

## Message testing project (July 2012-September 2012)

The CDPHE hired JVA Consulting to conduct eight focus groups throughout Colorado consisting of mothers, fathers, pregnant women and grandparents. These focus groups provided feedback on nine early childhood obesity prevention messages. Findings from the research are available in Early Childhood Obesity Prevention, Developmental Screening, & Oral Health Message Testing Report. This research project was funded by Colorado's Maternal and Child Health program.

The focus groups also provided feedback to a small number of child development screening and oral health messages. These messages are not discussed in this publication, but the research results for these messages are included in the above mentioned report.

## Selection and characteristics

JVA Consulting conducted eight focus groups in five Colorado counties as described below:

1. Arapahoe and Denver Counties: Four focus groups, one each of grandparents, mothers, fathers, and pregnant women or women who recently delivered
2. Alamosa County: One focus group of grandparents
3. Prowers County: One focus group of pregnant women or women who recently delivered
4. Weld County: One focus group of mothers
5. Eagle County: One focus group of pregnant women or women who recently delivered

The counties selected for the focus groups were chosen based upon one or more of the following considerations:

- The counties have a high prevalence of overweight and obese individuals among WIC participants who are 2 to 5 years of age.
- Residents of these counties would likely provide rural and urban perspectives.
- Perspectives from focus group participants representing diverse racial and ethnic backgrounds were desired.

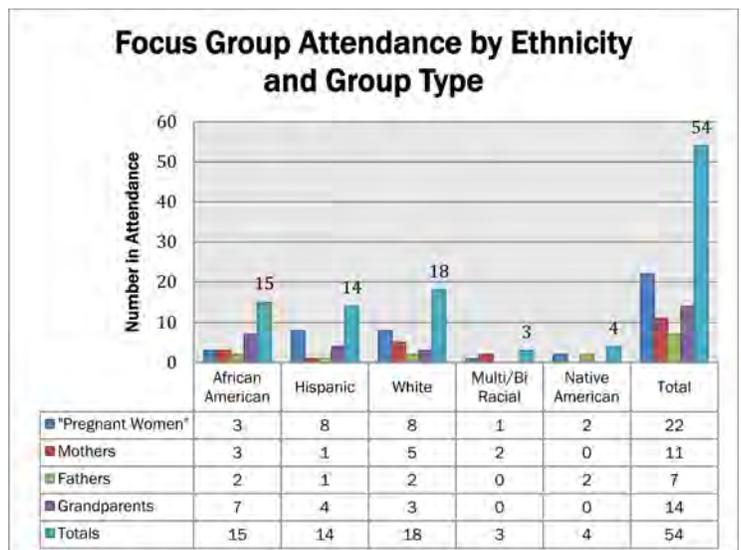


Focus group participants were required to be eligible or have children eligible for WIC benefits and/or have a family income no greater than 200 percent of the federal poverty level. Participants' racial and ethnic demographics were representative of Hispanic/Latino, African American, non-Hispanic White, multiracial and Native American backgrounds. The following table describes the demographics of the focus groups:

	Alamasso	Arapahoe/Denver	Eagle	Prowers	Weld
<b>Group Type</b>	Grandparents	<ul style="list-style-type: none"> <li>• “Pregnant Women” [1]</li> <li>• Fathers</li> <li>• Grandparents</li> <li>• Mothers</li> </ul>	“Pregnant Women”	“Pregnant Women”	Mothers
<b>Ethnicity</b>	~66% Hispanic/Latino	<ul style="list-style-type: none"> <li>• “Pregnant Women” 40% African American</li> <li>• Fathers: diverse</li> <li>• Grandparents: 75% African American</li> <li>• Mothers: 50% African American</li> </ul>	60% Hispanic/Latino	~41% Non-Hispanic White	20% Hispanic/Latino
<b>Income</b>	Under 200% of the poverty level	Under 200% of the poverty level	Under 200% of the poverty level	Under 200% of the poverty level	Under 200% of the poverty level

[1] Due to recruitment realities, the group type of Pregnant Women (In Denver/Arapahoe County, Eagle County, and Prowers County), was expanded to include pregnant women and recently delivered mothers. For this reason, “Pregnant Women” is often in quotations.

Participants represented a variety of racial and ethnic backgrounds, with 53 percent representation of African American or Hispanic/Latino ethnic identification. Thirty-three percent of the participants identified as Non-Hispanic White. Two of the groups had Native American participants and two had participants identified as multi-ethnic or biracial. Approximately 40 percent of the Hispanic/Latino participants were not native English speakers or spoke English as a second language (6 of 14 participants, all of whom were participating in the group with pregnant women). All participants had strong command of the English language.



## Focus group methods

Researchers engaged focus group participants through a participatory methodology that incorporated empowerment techniques.

After a baseline assessment of health knowledge and awareness, participants read each message and wrote their initial responses or first impressions. This ensured discussions were true to individual opinions and group influence was monitored during open discussion.

Next, the group came together to discuss each message individually. Respondents shared their first impressions and feelings about the message, followed by their thoughts regarding effectiveness and ways to improve messages determined “ineffective.” Thoughts shared verbally were summarized in writing and visible to the group. After all messages were reviewed, participants shared what they saw as barriers to receiving the messages, locations in town where they would expect to or want to see the messages and, in some groups, suggestions for additional support or resources to aid message receptiveness.

Analysis included an initial health knowledge review and awareness assessment for each population, followed by a review of individual responses to each of the messages. Researchers used group session summaries to identify additional recommendations that could inform CDPHE in further message development. The detailed results of those analyses and project methodology are shared in CDPHE’s research report, Early Childhood Obesity Prevention, Developmental Screening, & Oral Health Message Testing Report.

## Health care provider key informant interviews (July 2012-September 2012)

JVA Consulting also completed 10 key informant interviews with health care professionals to learn about health communication strategies in low-income populations. These professionals serve in roles ranging from clinical nurses to pediatric physicians. Ten practitioner interviews were conducted with input from nurses or physicians at three key facilities: Denver Health, Kaiser Permanente and WIC clinics. Eight of the 10 participants normally see approximately five to 30 patients per day in a capacity that ranges from emergency pediatric care to maternal postpartum care. Two of the 10 participants are currently in management positions, but they recognize the current realities of their staff and the needs of their communities.

Findings and methodology are available for review in CDPHE’s research report, Early Childhood Obesity Prevention, Developmental Screening, & Oral Health Message Testing Report.

## Message revision workgroup (November 2012-February 2013)

A broad stakeholder group of approximately 20 participants revised the messages according to focus group results and completed several important tasks to advise CDPHE dissemination plans.

## Final message editing (April 2013)

The CDPHE core project team completed final edits to the messages to prepare for dissemination.

## Phase one of message dissemination (May/June 2013)

Messages were released for use among Colorado local public health agencies, Colorado WIC and stakeholders involved throughout the project.

## Phase two of message dissemination (September 2013)

The CDPHE prepared this messaging publication for the statewide dissemination of messages.



# BRINGING MESSAGES INTO PRACTICE

This section suggests ways health care, public health, and early care and education (child care) professionals can integrate the messages and supporting content into counseling and education activities.

Health education uses a variety of approaches, including facilitated participatory group discussions, anticipatory guidance, motivational interviewing, “hands-on” classes, social marketing campaigns, Web-based approaches and others. The early childhood obesity prevention messages targeting pregnant women, parents and other caregivers can be easily infused in these messages with some thoughtful planning.

## Consider Cultural Relevance

Consider cultural relevance when implementing the messages and make adjustments as needed to make them appropriate for the population you serve. It is important to test any modifications with the audience(s) to ensure they are clear and have the intended effect.

The early childhood obesity prevention messages and supporting content were tested with Hispanic, non-Hispanic White, Native American, African American and biracial/multiethnic pregnant women, mothers, fathers and grandparents who speak English. Before using the messages and content with other racial/ethnic groups or in other languages, consider conducting additional formative research to ensure the messages are relevant, understood and motivating to the desired audience. For example, the message that encourages families to “Rethink Your Drink” tested very well with the focus groups in this project. When targeting other populations, especially those who primarily speak a language other than English, we suggest seeking feedback from these groups before using this message with them.

## Health Care and Public Service Program Professionals

### Incorporating the Messages Into Facilitated Group Discussions and Interactive Classes

Early childhood obesity prevention messages and related supporting content can enhance a variety of group education settings.

- Host community mothers’ “support” groups and social connection activities at WIC clinics, early care and education centers, libraries and other places that pregnant women or mothers of young children frequent. Facilitate discussions about the concepts of pertinent messages such as healthy eating, increasing activity, healthy weight gain during pregnancy, breastfeeding benefits and letting baby decide when he/she is full. Ask them about ways they teach their kids to eat healthy foods and enjoy fun activities as a family. Encourage mothers to talk about concepts their children might learn at mealtimes or common struggles they experience. Hearing from others’ experiences and solutions can be empowering and provide less experienced moms confidence to adopt new behaviors. Develop and provide take-home materials featuring the messages and supporting content to reinforce the discussion.
- Provide opportunities for parents to select and taste different fruits and vegetables. Encourage parents to allow kids to select fruits and vegetables to increase their willingness to eat them and build new skills (e.g., kids learn how to grocery shop, identify fruits and vegetables of different colors, etc.). Enhance your event with “Fruit or Vegetable of the Month” activities that focus on a fruit or vegetable that is in season and affordable for low-income families in your community. Suggest fun ways to inspire kids to choose frozen and low-sugar canned fruits and vegetables as well.
- Partner with organizations, such as Share Our Strength’s Cooking Matters, the Expanded Food and Nutrition Education Program (EFNEP) or the Supplemental Nutrition Assistance Program-Education (Snap-Ed) to offer community nutrition education programs for women and families. In partnership with the instructors, determine how related messages can be infused into the events.

## Using the Messages in Counseling Sessions

**Motivational Interviewing** - Motivational interviewing is a counseling method intended to influence motivation to change behavior. The method involves the use of open-ended questions for the client to explore pros and cons of changing behavior and making decisions for themselves. A review of published studies using motivational interviewing for weight loss interventions suggests that motivational interviewing is a useful

intervention in weight management and its effectiveness may be enhanced when applied alongside behavioral weight management programs.<sup>19</sup> This patient-centered approach may also be useful in helping clients achieve healthy lifestyle behaviors in a non-treatment situation intended to prevent obesity before it begins. These early childhood obesity prevention messages and concepts can be included in client-driven conversations. For more information on motivational interviewing, see the WIC Learning Online module on Motivational Interviewing under Counseling Skills at:

[http://www.nal.usda.gov/wicworks/WIC\\_Learning\\_Online/index.html](http://www.nal.usda.gov/wicworks/WIC_Learning_Online/index.html)

**Anticipatory Guidance** - Anticipatory guidance can help parents prepare for expected physical, social and behavioral changes during their children's current and approaching age of development. Early childhood obesity prevention messages and supporting content can help parents identify ways to develop healthy lifestyle habits for their children throughout early childhood. Prepare parents for the next stage of development by identifying strategies and setting goals for good nutrition, active lifestyles and healthy sleep habits.

### Enhancing or Creating a Social Marketing Campaign Featuring the ECOP Messages

Social marketing involves the selection of a narrowly defined target audience and involving them in the formative stages of a messaging campaign. Focus groups conducted for the development of the early childhood obesity prevention messages can contribute to this phase of campaign development. Use messages and supporting content to:

- Refresh current campaigns by incorporating early childhood obesity prevention messages.
- Create a new social marketing campaign around one or more of the messages and use the related message supporting content.
- Collaborate with colleagues in other programs and partnerships to get even better results.

### Collaborating With Others To Maximize Message Impact

State and local public health agencies and public health programs are well-positioned to create and mobilize strategic partnerships in the effort to consistently promote messages. Collaborating with others can increase access to the target audience, create synergy and expand the

credibility of activities. These messages provide an opportunity to work with existing partners and to engage new ones.

- Share the messages with potential partners; explain their purpose, audience and potential uses.
- Provide details on how the messages and content will be used in the community and offer suggestions on how to work together.
- Share the benefits of collaboration and offer specific ways organizations and individuals can participate as full partners or supporters, including:
  - Featuring articles that communicate the messages in community newsletters
  - Including messages in educational activities for pregnant women and families
  - Adding messages and related content to a Web site and/or linking to the CDPHE website where messages are posted.
  - Disseminating materials conveying the messages at events
- Conduct a seminar or training for intermediaries to acquaint them with the messages. After the presentation, discuss the messages and supporting content in small groups and brainstorm ideas for using the messages, including opportunities and barriers. Have the entire group rate and rank ideas and form a workgroup to outline ways to implement the top-ranked idea(s).

Potential community partners to promote the messages include:

- The Expanded Food and Nutrition Education Program (EFNEP)
- Share our Strength's Cooking Matters
- WIC
- Local public health agencies
- Nurse Family Partnership
- Prenatal Plus
- The Supplemental Nutrition Assistance Program-Education (Snap-Ed)

Other intermediaries, or third parties, that have connections to the same target audience can also be valuable partners. Consider collaborating with:

- Coordinators and volunteers of food banks and pantries and soup kitchens
- Pediatricians
- Teachers, principals, nurses, food service staff and school wellness councils who work with schools in which many kids receive free or reduced-priced lunches
- Early care and education and Head Start teachers
- Religious leaders and members of faith-based institutions working with low-income neighborhoods
- Managers of grocery stores and farmers' markets where SNAP and WIC participants shop
- Community garden coordinators
- Grantees and coordinators of programs that are funded to implement environmental changes that make it easier for families to make healthy food choices
- Provide sample menus to parents from a credible website such as <http://myplate.gov/> to teach them what a healthy meal looks like.

### Getting Parents Involved in their Child's Health

- Provide parents with education materials that encourage them to take a role in promoting and supporting good health.
- Involve parents in health-related activities with their children.
- Offer education sessions and materials on healthy lifestyles.
- Encourage parental involvement in the meals served during the day and collaborate with parents on their child's eating, including the introduction of solid foods or dealing with picky eating.
- Early care and education staff can engage kids in a dip-creation activity with samples they can take home and share with their parents. Provide healthy food and some child-friendly dip recipes for the children to sample. Help the older ones prepare their own dip, write their recipe and provide a sample and copy of the recipe for their parents. Parents may recognize how easy recipes are to prepare and how good they taste. Include a discussion about how parents can make vegetables and small containers of dip easy for their children to "reach" for an afternoon snack. Invite parents to suggest fun names for the dips, such as "swamp slime" or one related to a super hero.

## Early Care and Education Professionals

### Build the Messages Into Parent Education

Early care and education staff (child care providers) are often looked to by parents to provide credible information about child development and other issues concerning their children. Use the early childhood obesity prevention messages and related supporting content to reach out to parents. Often parents are not closely involved in their child's early care and education activities because they are unaware of the great things taking place on a day-to-day basis. Educate parents on the lifetime effects and benefits of good nutrition, active lifestyles and healthy parenting practices in the home. Some ways to do this include:

- Provide early childhood obesity prevention related information, tips and ideas for new parents enrolling.
- Email, text or Twitter messages to get the word out to parents.
- Display posters in areas frequently viewed by parents.
- Provide letters to families.
- If parents receive daily reports of how much the child ate and slept, include early childhood obesity prevention messages as "tips of the month or week."
- Add a nutrition and physical activity component to discuss during parent teacher conferences.
- Hold two minute conversations with parents as they are picking up their children.
- Create a center website highlighting daily activities and menus.



# PICKING COMMUNICATION OUTLETS & METHODS

Research indicates that using multiple delivery points, communication tools and approaches to disseminate consistent messages to the individual, family and community increases the likelihood of success.<sup>20</sup> These methods increase the audience's exposure to the messages and the opportunity to engage them at critical decision points.

It is important to know where to reach families and understand communication methods that engage them. Ideally, selected channels should aim to reach a high percentage of the target audiences repeatedly during a given period of time. Use of multiple channels also exposes mothers to messages in a variety of environments and at different times.

## Considerations For the Target Audience/Community

Research to inform this project included key informant interviews of various health care providers and focus groups of low-income pregnant women, fathers, mothers and grandparents. Perspectives from these groups provide important considerations for programs and organizations using these messages and working with community partners to promote them.

Interviews with health care providers captured their perspectives regarding the process and considerations of delivering messages to families. These interviews revealed medical practitioners highly value the skills of listening and empathy when it comes to delivering messages to their patients. Specifically, practitioners interviewed believe the following concepts are integral to communicating with low-income families:<sup>2</sup>

- Trust and relationships are essential to change.
- Flexibility in message delivery is needed due to cultural differences and language barriers.
- All providers should feel comfortable delivering messages on sensitive topics; empathy is most important.
- To create change, providers must know what is going on in someone's life and understand the barriers standing in the way of change.

- Families are integral to creating change, not just individuals.

The barriers to low-income families receiving messages in Colorado were discussed in focus groups and interviews and include:

- Financial reasons: lack of insurance, cost of medicine and healthy food
- Realistic change versus idealistic change: life is busy, mothers and families face exhaustion, depression and long workdays
- Language barriers: misunderstanding from providers and written messages
- Support: lack of support networks and community modeling

## Channels To Communicate the Messages

Educators use an assortment of materials to support and reinforce messages. Focus group and interview participants provided ideas about where messaging might be effective in their communities and how messages should be delivered. Below are a selection of channels by average cost breakdown.

### High Cost

- Television advertising
- Radio advertising
- Promotional items such as diaper boxes, water bottles, band-aid containers, disposable thermometers, etc.
- Messages on bus or mass transit where people are sitting with time to read
- Informational videos in medical offices and waiting rooms
- Billboard advertising
- Poster/pamphlet display
- Changing tables in store and restaurant bathrooms

## Medium Cost

- Messages in stores that specialize in products for children (first and secondhand clothing, grocery stores, schools, libraries, and community centers)
- Text message monthly alerts to families that enroll (important to address applicable rates in promotion)
- Direct mail
- Parent magazine advertising
- Outreach events
- Online advertising

## Low/Free Cost

- Poster/pamphlet display
- Medical waiting rooms, exam rooms
- Day care centers
- County/human service offices
- Article in community or religious bulletins
- Continually updated information/tips on organization's website
- Messages to Hispanic/Latino leadership groups in the community
- Article in email newsletter
- Earned media - press releases, op-eds, guest blog posts

Each approach and communication method has its benefits and constraints. Additional aspects to consider when selecting channels include:

- Make sure resources fit the activities and channels consistently used.
- Make sure costs are affordable and allowable under funding guidelines.
- Use knowledge of the population and what works with them to guide decisions.
- Create and/or use materials that are sustainable and can be adapted in the future as message priorities change.
- Develop messaging consistency across channels and touchpoints for target audience,

When developing new materials, consider working with other programs and stakeholders. Partners bring expertise and resources that can result in a more comprehensive effort to reach families, children and the community in a way that is more likely to get results.

## Using Materials To Reach Families

Brochures, posters, handouts and other print materials are commonly used to reinforce adult counseling and educational sessions. Consider adapting or modifying existing education materials to include the core messages, especially if these materials already focus on one of the behaviors addressed by the core messages. Whether incorporating the core messages into existing communication activities or using them in new materials to support a campaign, it is important to communicate the information in a way that is consistent, accurate, easy to understand, appealing and relevant to the audience. Test the material with the target audience and get input from intermediaries during development.

## Previously Developed Materials

Many state and national programs have created strong materials and tools supportive of the core messages outlined in this report. While the wording may not be exactly the same, take the time to research existing materials and tools prior to designing pieces from scratch. This is especially helpful under a limited budget. The following are a list of recommended resources:

- WIC Works Resource Image Gallery
- ChooseMyPlate.gov Printable Materials
- USDA Food and Nutrition Information Center
- Let's Move Child Care
- 5,2,1,0 Let's Go!
- Get Healthy Together

## Ten Important Tips for Designing Materials for Families:

1. The core messages contain the “emotional hook” for families. Keep it simple; feature a message prominently (e.g., on the front of a brochure) to entice families to read more.
2. Include interactive elements in brochures and handouts such as an area for mothers to record the goal they will strive to achieve.
3. Emphasize information with bolding, arrows, boxes or circles instead of all capital letters.
4. Make material easier to read by using short bulleted lists (as done with the supporting content included in Appendices), short sentences and a serif font.
5. Use left justified and right ragged margins.
6. Limit the amount of content provided. Focus on action-oriented tips and strategies that support and explain the “why” behind the message. Avoid commanding or fear-driven content.
7. Use attractive designs with similar color themes, fonts and image types (e.g., illustrations vs. photographs, etc.) for a consistent look.
8. Use photographs or realistic line drawings that support the message and allow the target audience to “see themselves” practicing the behaviors. Test graphics with the target audience to make sure they are appropriate and motivational.
9. Keep cultural relevance in mind. Test materials with the target audience.
10. Include a source to contact for more information.



The focus groups and interviews conducted during this project resulted in the belief that messages need to be empathetic and understanding of situational barriers that prevent individuals from changing unhealthy habits. This can be done by offering more short-term goals and easy steps, and with the acknowledgment that every family and every child is different.



# EVALUATING MESSAGING ACTIVITIES

Evaluating messaging activities can serve several purposes. For example, evaluation can be used to improve messaging dissemination, demonstrate achievements, gain better understanding of the needs of the target audience, determine effectiveness of the messages, increase support for early childhood obesity prevention and inform decisions about continued use of consistent messages. Incorporating evaluation activities throughout message dissemination will help determine who is sending the messages and how often, whether they are reaching the target audiences and whether they are impacting their health behaviors, including appropriate weight gain during pregnancy, breastfeeding, and response to baby's hunger signals.

Formative evaluation procedures are designed to gather feedback from consumers and health care practitioners to enhance messaging and delivery practices. Early childhood obesity prevention messages and supporting documentation were developed to ensure pregnant women and families with young children hear consistent messages in multiple settings. These messages pertain to healthy lifestyle habits most promising in preventing overweight and obesity before it begins. Focus groups ensured the voice of the intended audience was considered as messages were developed. During implementation of these messages, it may be helpful to gather feedback from key users such as health care providers or WIC staff, especially while they adapt activities to include new messages. To gain additional input, conduct more formative evaluation activities with key users and target audiences to ensure messages resonate with them.

Process evaluation is a useful tool for monitoring and examining project activities to assess whether messages are disseminated as intended. It can also identify needed dissemination improvements. Process evaluation and program monitoring include measures such as tracking the number of people reached by the messages, number of times the messages were delivered to the target audiences, locations and settings where the messages are disseminated, who is delivering the messages, what additional resources and supporting documentation users need, and barriers and facilitators to delivering messages. Process evaluation provides valuable information that may help explain the results of an impact evaluation.

Outcome evaluation is useful for assessing the extent that messages achieve their intended outcomes. Outcome evaluation does not establish cause-and-effect conclusions, but it demonstrates changes that occur as a result of disseminating messages and shows potential ways to make dissemination more effective.

Impact evaluation is a form of outcome evaluation that assesses how effective messages are in changing target audience attitudes, awareness, and/or behaviors by comparing outcomes that occurred with an estimate of what would have happened in the absence of the messages. Although impact evaluation is highly valued, conducting this type of evaluation may be complex and may require specific time and resources.

Choosing which evaluation activities to implement will depend on funding, expertise and staff time available to collect data. Evaluation results can provide you with evidence of messaging activities and their effectiveness in impacting behaviors of the target audience.

Conducting a process evaluation may be more feasible than an outcome or impact evaluation depending on the ability to collect data from the target audience. If your organization staff resources and target audience access, there is an opportunity to assess the impact of the messages, depending on how the messages are disseminated. When conducting an impact evaluation, you may ask of target audience members whether or not they heard the messages from a health care provider, public service program professional or child care provider, and whether the messages prompted them to change their behaviors.

To facilitate process evaluation planning, the table below of evaluation questions, indicators and possible ways to collect data to measure the indicators may be helpful to consider.

Process Evaluation Question	Indicator	Possible Data Collection Source or Tool
How well are the messages disseminated to message deliverers?	Increased number of intended users received ECOP messages and supporting documentation	Use a program monitoring tool to track the number of intended users who receive messages and supporting documentation
	Increased number of settings where ECOP messages were disseminated	Use a program monitoring tool to track the number of settings and locations where messages were disseminated
Are the messages being disseminated as intended?	Increased percentage of intended users who are likely or very likely to use the ECOP messages	Survey intended users. Question: "How likely are you to use the ECOP messages and supporting documents over the next year?" Possible responses: Very unlikely, unlikely, likely, very likely.
What are the barriers and challenges to disseminating the messages?	Improved understanding of barriers and challenges for message deliverers when disseminating messages	Survey intended users. Question: "What barriers or challenges did you face when delivering ECOP messages?" Possible responses: Not enough time to deliver messages; supporting documentation not relevant; target audience did not understand messages; no

The following resources are available to provide additional guidance for developing evaluation plans:

- Evaluating Social Marketing in Nutrition: A Resource Manual <http://www.fns.usda.gov/ora/menu/published/nutritioneducation/Files/evalman-2.PDF>
- A Framework for Program Evaluation <http://www.cdc.gov/eval/framework/index.htm>
- Gateway to Health Communication and Social Marketing Practice: Research/Evaluation: <http://www.cdc.gov/healthcommunication/research/index.html>
- Healthy Foods, Healthy Moves Replication Manual: <http://www.healthyfoodshealthymoves.org/manual/index.html>

# REFERENCES

1. Herman DR, Taylor Baer M, Adams E, Cunningham-Sabo L, Duran N, Johnson DB, Yakes E. 2013. Life Course Perspective: Evidence for the Role of Nutrition. *Maternal and Child Health Journal*.
2. Colorado Department of Public Health & Environment, JVA Consulting, LLC. Early Childhood Obesity Prevention, Developmental Screening, & Oral Health Message Testing Report. September 2012. <https://docs.google.com/file/d/0B2i5XKKGxKn3LU5sQkFleU5HeUE/edit>
3. Colorado Department of Public Health & Environment. 2011. The 2011 Colorado Early Childhood Obesity Prevention Report. <http://mchcolorado.org>.
4. Institute of Medicine (IOM). 2011. Early Childhood Obesity Prevention Policies. Washington, DC: The National Academies Press.
5. Poston, L. 2012. Maternal obesity, gestational weight gain and diet as determinants of offspring long term health. *Best Practice & Research Clinical Endocrinology & Metabolism* 26:627-639.
6. Institute of Medicine (IOM) and National Research Council (NRC). 2009. Weight Gain During Pregnancy: Reexamining the Guidelines. Washington, DC: The National Academies Press.
7. Colorado Department of Public Health & Environment. 2011. Making Progress on Tipping the Scales: Weighing in on Solutions to the Low Birth Weight Problem in Colorado. Update 2011. <http://mchcolorado.org>.
8. U.S. Department of Health and Human Services. The Surgeon General's Call to Action to Support Breastfeeding. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011.
9. Hornell, A., Lagstrom, H., Lande, B., Thorsdottir, I. 2013. Breastfeeding, introduction of other foods and effects on health: a systematic literature review for the 5th Nordic Nutrition Recommendations. *Food and Nutrition Research* 57: 20823.
10. DiSantis, K.I., Hodges, E.A., Johnson, S.L., Fisher, J.O. 2011. The role of responsive feeding in overweight during infancy and toddlerhood: a systematic review. *International Journal of Obesity* 35(4):480-92.
11. Hurley, K.M., Cross, M.B., Hughes, S.O. 2011. A Systematic Review of Responsive Feeding and Child Obesity in High-Income Countries. *The Journal of Nutrition* 141(3):495-501.
12. USDA and HHS. 2010. Dietary Guidelines for Americans 2010. <http://www.health.gov/DietaryGuidelines>.
13. Stettler, N., Van Horn, L., Gilman, M.W., Lichtenstein, A.H., Rattay, K.T., Steinberger, J., Gidding, S.S., Dennison, B.A., Birch, L.L., Daniels, S.R. 2006. Dietary Recommendations for Children and Adolescents: A Guide for Practitioners. *Pediatrics* 117(2):544-559.
14. Institute of Medicine (IOM). 2006. Food Marketing to Children and Youth: Threat or Opportunity? Washington, DC: The National Academies Press.
15. Dennison, B.A., Erb, T.A., Jenkins, P.L. 2002. Television Viewing and Television in Bedroom Associated With Overweight Risk Among Low-Income Preschool Children. *Pediatrics* 109(6):1028-35.
16. Crawford D.A., Ball K., Cleland V.J., Campbell K.J., Timperio A.F., Abbott G., Brug J., Baur L.A., Salmon J.A. 2012. Home and neighbourhood correlates of BMI among children living in socioeconomically disadvantaged neighbourhoods. *British Journal of Nutrition* 107(7):1028-36.
17. Yu Z., Han S., Zhu J., Sun X., Ji C., Guo X. 2013. Pre-pregnancy body mass index in relation to infant birth weight and offspring overweight/obesity: a systematic review and meta-analysis. *PLoS One*. 8(4):e61627.
18. Johnson, K., Posner, S.F., Biermann, J., Cordero, J.F., Atrash, H.K., Parker, C.S., Boulet, S., Curtis, M.G. 2006. Recommendations to Improve Preconception Health and Health Care — United States. A Report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *MMWR Recommendations and Reports* 55(RR06);1-23.

- 
19. Armstrong, M.J., Mottershead, T.A., Ronksley, R.J., Campbell, T.S., Hemmelgarn, B.R. 2011. Motivational interviewing to improve weight loss in overweight and/or obese patients: a systematic review and meta-analysis of randomized controlled trials. *Obesity Reviews*. 12:709-723.
  20. Institute of Medicine (IOM). 2000. *Promoting Health-Intervention Strategies from Social and Behavior Research*. Washington, DC: National Academy Press.

In addition to the above references, the United States Department of Agriculture (USDA), Food and Nutrition granted CDPHE permission to adapt text appearing in several sections of this publication from the following USDA reference:

United States Department of Agriculture(USDA), Food and Nutrition Services (FNS). 2008. *Maximizing the Message: Helping Moms and Kids Make Healthier Food Choices*. <http://www.fns.usda.gov/>

# APPENDIX

## Early Childhood Obesity Prevention Messages & Supporting Content

**Message:** “Healthy eating and staying active while you are pregnant matters for you and your baby’s health.”

**Target audience:** Pregnant women

### Supporting points:

Gaining just the right amount of weight during pregnancy will make it easier to lose weight after your baby is born and reduces risk of disease later in life for you and your baby.

Eating well during pregnancy helps you maintain a healthy weight and gives your baby nutrients to grow and develop.

- Choose a variety of different colored fruits and vegetables for meals and snacks.
- Stay hydrated! Drink 8 glasses of water each day.
- Pick whole grains with the words “whole wheat”, “whole grain”, or “100% whole” on the label.
- Choose fat-free or low-fat milk and milk products, such as yogurt, cheese, or fortified soy beverages.
- Eat lean sources of protein such as chicken, turkey, cooked beans, and fish.

Staying active during pregnancy is good for your muscles and your heart.

- 30 minutes of walking each day is healthy during pregnancy. 10 minutes at a time is fine!
- Enjoy an active routine with family members or friends by taking walks in the neighborhood or to a nearby park.
- Talk to your healthcare provider before starting any exercise plan.

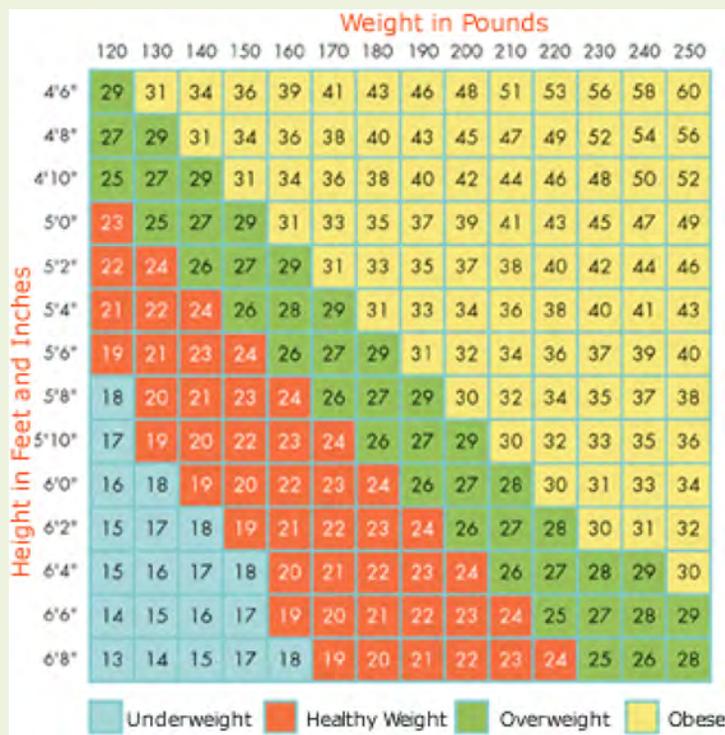


**Message:** “Gaining the right amount of weight during pregnancy helps you have a healthy baby. Talk to your healthcare provider to find out how much weight gain is best for you and your baby.”

**Target audience:** Pregnant women

Figure out how much weight you should gain during your pregnancy in two easy steps:

1. Use the chart below to figure out your BMI (Body Mass Index). Find your height on the left side and pre-pregnancy weight on the top and match the numbers in the middle to find your BMI.



2. Now that you know your BMI from step 1, find your BMI category in the left column on the chart below. Find the appropriate amount of weight gain and rate of weight gain during pregnancy for your BMI category in the middle and right columns.

Pre-Pregnancy BMI Categories	Recommended Pregnancy Weight Gain	Recommended Rate of Weight Gain
Underweight (<18.5)	28-40 pounds	Slightly more than 1 pound per week
Healthy weight (18.5-24.9)	25-35 pounds	Approximately 1 pound per week
Overweight (25.0-29.9)	15-25 pounds	Approximately 2/3 of a pound per week
Obese (> 30.0)	11-20 pounds	Approximately 1/2 pound per week

Example: I am 5'2" and my pre-pregnancy weight was 120 pounds. My BMI is 22, which is in the healthy weight category. 25-35 pounds of weight gain is recommended during my pregnancy.

**Message Continued:** “Gaining the right amount of weight during pregnancy helps you have a healthy baby. Talk to your healthcare provider to find out how much weight gain is best for you and your baby.”

**Supporting points:**

Gaining just the right amount of weight can prevent complications, make your delivery easier, and help you lose weight after your baby is born.

**Too much weight gain can cause...**

early delivery

high blood pressure

swelling

gestational diabetes

cesarean section (C-section)

large for gestational age baby (LGA)

**Too little weight gain can cause...**

early delivery

small for gestational age baby (SGA)

low birth weight

birth defects

**Message:** Give yourself and your baby all the benefits of breastfeeding.

Doctors recommend:

- For the first 6 months, feed your baby only breast milk, even if it is offered by bottle.
- Aim to continue breastfeeding while offering solid foods until your baby is at least 1 year old or older.

**Target audience:** Pregnant women & mothers

**Supporting points:**

Breastfeeding longer has benefits to last a lifetime.

*For you:*

Studies show breastfeeding longer reduces your risk of ovarian and breast cancers.

*For your baby:*

Studies show breastfeeding longer reduces your baby’s risk of childhood obesity, diabetes, ear infections and respiratory illnesses. Offering formula reduces the health benefits of breastfeeding.

How can you meet your breastfeeding goals?

- Find a friend who will be a good support person.
- Know your rights as a nursing mother. Colorado law states that a mother may breastfeed in any place she has a right to be. Laws also protect rights of nursing mothers in the workplace.
- If you are having difficulty breastfeeding talk to your healthcare provider or a staff member at the hospital where you delivered your baby.
- Your community may have breastfeeding resources and support programs. A local hospital, health department or WIC clinic can help you find them.
- Visit [www.cobfc.org](http://www.cobfc.org) to find resources near you.

**Message:** “Rethink your drink - choose water!”

Extra calories from sugar sweetened beverages may lead to weight gain.

**Target audience:** pregnant women, mothers, fathers, grandparents, & other caregivers

**Supporting points:**

- Water is refreshing, calorie-free, cheap and readily available.
- Add a slice of lemon, lime, cucumber or ginger root for flavor.
- How much water you need depends on your size and activity level. Larger, more active people need more fluids. Drink enough for your urine to be mostly colorless and odor-free.

**Message:** “Trust your baby to know how much he needs to eat.”

Your baby will show you signals of hunger and fullness, and will trust you to respond.

**Target audience:** Mothers, fathers, grandparents, & other caregivers

**Supporting points:**

- Hold your baby during feedings and make eye contact.
- When your baby is hungry, he might make suckling sounds, suck on his fist, or move his head toward food.
- When your baby is full, he might seal his lips together, turn his head away, spit out the nipple or pay more attention to surroundings.





**Message:** “Give your child nutritious food and active play for a healthy future.”

**Target audience:** Mothers, fathers, grandparents, & other caregivers

**Supporting points:**

- Offer your family healthy foods for meals and snacks. Let your child choose how much to eat.
- Your child learns from watching you. Enjoy fruits and vegetables and your child will too!
- Serve low-fat or fat free milk to children ages two and older.
- Reward your child with love, time and attention rather than sweets.
- Dance, walk and explore the outdoors with your child.

**Message:** “Turn off the TV and play together as a family.”

**Target audience:** Mothers, fathers, grandparents, & other caregivers

**Supporting points:**

- Taking time away from the TV may help prevent and treat weight problems.
- Limit TV and other media, including video or computer games and handheld technologies, to less than two hours per day for kids age 2 and older. Do not allow television viewing for children younger than 2 years of age.
- Keep TV out of the bedrooms.

**Message:** “Help your child sleep better in a TV-Free Space”

**Target audience:** Mothers, fathers, grandparents & other caregivers

**Supporting points:**

- Studies show children who sleep less are at higher risk of obesity.
- Television in the bedroom may be disruptive to healthy sleep routines.

**Message:** “There’s no power like Parent Power! Eat well and move more to care for yourself and your family.”

**Target audience:** Mothers & fathers (primarily mothers during the period between pregnancies, planned or unplanned)

**Supporting points:**

- Your child learns by watching you. Take frequent walks and eat plenty of fruits and vegetables, and your child will too.
- Good choices today can improve your overall wellness and prevent illness and disease later in life.
- Healthy choices today can even improve the health of your next child.



For more information on Early Childhood Obesity Prevention,  
please visit [www.colorado.gov/cdphe/ecop](http://www.colorado.gov/cdphe/ecop)