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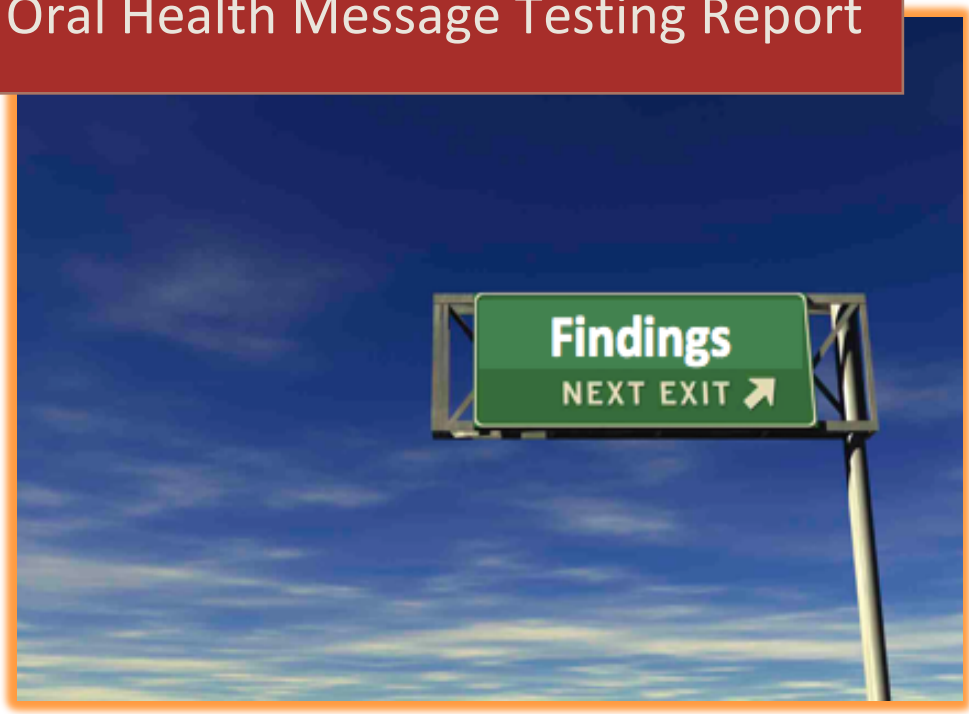
Early Childhood Obesity Prevention, Developmental Screening, & Oral Health Message Testing Report



Report to COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT
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SEPTEMBER 2012

Table of Contents

Executive Summary

The Colorado Department of Public Health and Environment (CDPHE) contracted with JVA Consulting, LLC (JVA) to gather feedback from consumers and health care practitioners to better develop messaging and delivery practices, specifically for 15 public health messages designed for pregnant women and caregivers of children from under the age of five years. To assist CDPHE in informing message development and delivery, eight focus groups with consumers and ten interviews with practitioners were facilitated by JVA.

Focus groups were held across the state of Colorado to ensure the voice of those living in both urban and rural locations was obtained. Interviews were gathered with medical professionals whose roles ranged from clinical nurses to pediatric physicians, in order to get multiple levels of health communication experience with lower-income women and families. In sum, the data provided from each group offers guidance and direction to CDPHE for specific message tailoring and message distribution, as well as how to address common barriers through messaging if change in habits is to occur.

The focus groups gathered feedback from pregnant women, grandparents and parents of children ages five years and younger from five counties across the state (Arapahoe/Denver, Alamosa, Eagle, Prowers and Weld). The focus group participants were either required to have children eligible for the Women, Infants and Children program (WIC) and/or have a family income no greater than 200% of the poverty level. Participants' racial and ethnic demographics were representative of Hispanic/Latino, African American, non-Hispanic white, multiracial, and Native American backgrounds. WIC agency partners provided recruitment assistance in their local areas, and participants received a small honorarium of $25 to $40 for their time attending the one-and-a-half-hour focus group discussion.

Of the 15 messages reviewed, only one was accepted without changes. While the 14 other messages were generally perceived as helpful, additions, clarifications or suggested rewrites were shared for each. Common suggestions for message adjustment were:

- 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
- Be careful not to present comparative examples that may represent controversial concepts, such as "shots," which could cause the audience to miss the real message

- 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

The 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–30 patients per day, in the 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.

Interviews revealed that 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 ideas to be integral to communicating with lower income patients:

- 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," although 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 message reception for lower income families in Colorado were discussed in both the focus groups and the interviews. A few barriers both groups commonly referred to are as follows:

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

Focus group and interview participants also provided ideas on where messaging might be effective in their communities and how messages should be delivered. Feedback included poster/pamphlet display at traditional outlets such as doctors' and social services' offices, as well as billboards, television and other media. Some creative methods brainstormed included:

- Fliers above the changing table in store and restaurant bathrooms
- Messages on the bus or mass transit where people are sitting with time to read
- Messages in stores that specialize in products for children (first and secondhand clothing, grocery stores, schools, libraries, and community centers)
- Messages to Hispanic/Latino leadership groups in the community
- Demo videos in medical offices and waiting rooms

Overall, the focus group and interview data have shown that while the parenting public and the health care practitioners interviewed are receptive towards consistent health messaging, there are a number of factors that need to be considered if aiming to create healthy lifestyle changes. First, it was found that didactic messages do not encourage change in habits. The more explanatory message, with reasons why it has been proven as healthy, is the best approach to creating a change in habits. At the same time, simplicity of messages ensures that messages can reach more people and misinterpretation can be avoided. Lastly, both focus groups and interviews 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 mother and every child is different.

Please refer to the full report for a more descriptive measure of how these results were compiled and to individual reactions towards the 15 messages evaluated.

Introduction and Background

Purpose

The Colorado Department of Public Health and Environment (CDPHE) contracted with JVA Consulting, LLC (JVA) to provide research services toward the formal evaluation of consumer health messaging developed for pregnant women and caregivers of young children. Research was conducted throughout five counties in Colorado, with both rural and urban representation, in order to address the diverse needs and barriers in a statewide messaging campaign.

Over the past few years, consistent messaging has been identified among a wide range of early childhood health stakeholders as a priority strategy to improve the health of Colorado's youngest children. The messages tested in this collaborative project relate to three Colorado Maternal and Child Health Priorities:
1) Prevent obesity among all children ages birth to five years, which includes focus on healthy weight during the preconception period, prenatal period and during the first five years of a child's life.
2) Improve developmental and social emotional screening and referral rates for all children ages birth to five years.
3) Prevent development of dental caries among all children ages birth to five years.

The oral health messages tested in the focus groups were provided by the partners of Colorado's Oral Health Winnable Battle Collaborative. The developmental screening messages were provided by partners of Colorado's Assuring Better Child Health and Development Project, also known as ABCD. The prenatal, preconception and early childhood obesity prevention messages originated from the previously existing Early Childhood Task Force of the Colorado Physical Activity and Nutrition Program, otherwise known as COPAN.

For this project specifically, an advisory committee consisting of members with subject matter and communications expertise, was convened specifically for the purposes of informing the project. This group guided the revision and preparation of the messages for broader input from the public health and medical community. Over 230 various staff members of local WIC clinics, health care professionals, various public health program staff and other early childhood partners provided responses and/or comments in an online survey regarding the oral health and early childhood obesity prevention messages. This data was analyzed for emerging themes, and messages were revised once again in preparation for testing in the focus groups. The following report outlines the findings from eight focus groups with caregivers and ten interviews with health care practitioners.

Organization of Report

Two distinct sets of data were gathered to assist CDPHE with message formation, development and delivery: focus groups with consumers and interviews with practitioners. Because both the methodologies and the populations are different, this report is separated into a focus groups section (*see Focus Groups with Health Care Consumers* section) and an interview section (see *Interviews with Practitioners* section). The two sections are united again when discussing barriers to message effectiveness and possible distribution ideas for messages, as there was significant overlap here between the two data sets.

Within each section, methodologies and recruitment strategies are discussed, followed by findings and recommendations. Given the diverse findings relative to each of the 15 messages reviewed in the focus groups, there is a findings section and a recommendations section for each separate message. According to the guidelines of the CDPHE messages, not all group types (Mothers, Pregnant Women, Fathers and Grandparents) evaluated every message. To avoid duplication of message analysis, messages are numbered 1 through 15 and each section lists the populations consulted for that message (See Table 3).

Focus Groups with Health Care Consumers

Methodology for Focus Groups

Researchers[1] sought to engage focus group participants through a participatory focus group methodology that incorporated empowerment techniques (see Appendix A for script). This method is rooted in the belief that the deepest understanding of data lies within the participants themselves. Thus, efforts were made to engage participants by reminding them that their input was important in determining how the final messages would read and where they would be distributed.

To assess a baseline of health knowledge and awareness, each participant was asked to respond in writing to two questions before seeing any of the messages. These two questions varied slightly depending on the population, but generally, participants were asked, "What does healthy mean to you?" and "What do you do to stay healthy and keep your family healthy?" These questions where asked to establish a standardized baseline of topic understanding.

After introductions and sharing of guidelines, with special emphasis placed on the importance of honesty and confidentiality, each participant was given a stack of half sheets of paper, each with a number that corresponded to the messages posted around

[1] The term "researchers" is used throughout this report to refer to JVA staff or JVA sub-contract research personnel

[2] Due to recruitment realities, the group type of Pregnant Women (In Denver/Arapahoe County, Eagle County, and Prowers County), was expanded to included pregnant women and

the room. Participants were then asked to read the messages and spend only a couple minutes on each to write their initial response or first impressions. This process was helpful during the data analysis to ensure that discussions were true to individual opinions, or to determine if there was any degree of group influence occurring during the open discussion.

Next, the group came together to discuss each message individually. The message was posted in front of the group and read aloud by the facilitator. Respondents then were asked to share their first impressions and feelings on the message, followed by their thoughts on effectiveness. If the perception was one of "ineffective," additional discussion ensued to obtain feedback on ways to improve the message. Each of these thoughts was summarized on an easel pad and posted around the room to remind everyone of what had already been said, and to make sure everyone had a chance to have their perspectives represented. When all messages were reviewed, participants were then asked to share 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 in message receptiveness.

Analysis included an initial review of the individual question responses for each population, followed by a review of the individual responses to each of the messages. Each message was considered one at a time, allowing for theme emergence. A summary of the notes taken during the group sessions was used to look for any additional thoughts that could serve to inform CDPHE in further message development. The results of those analyses are shared in the *Findings and Recommendations* sections in this report.

Message Testing Locations

In order to receive feedback from a diverse group of lower-income pregnant women and caregivers of young children (parents and grandparents) throughout the state of Colorado, particular regions were chosen for focus group participation. The counties selected for the focus groups were chosen based upon one or more of the following considerations:

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

To address the large lower-income urban population in the metro Denver area, participants from Arapahoe County and Denver County were recruited for focus group participation. In these counties (which were recruited together), researchers met with a group of mothers, fathers and grandparents of children five and younger, as well as a group of pregnant women for a total of four focus groups.

To obtain feedback from more rural counties in Colorado, groups were also held in Alamosa County, Lamar County, and Weld County. In the city of Alamosa, a focus group for grandparents was held. The focus group in the city of Lamar was for Pregnant Women. The focus group in Greeley (Weld County) was for Mothers. It was critical to have rural representation in this study, as differences in access affected the reception of certain messages, and resulted in unique barriers.

To gain perspectives from lower-income individuals in the mountain region, a focus group was held in Eagle County. Researchers met with pregnant women in the city of Avon. Similar discrepancies in message reception were found with this population as with the rural population, due to medical accessibility.

Recruitment Strategies for Focus Groups

The research strategy for the focus groups was to start outreach through key contacts in the early childhood and maternal health communities in Colorado, specifically through the Women, Infants, and Children (WIC) clinics in the requested geographic locations. Through reaching out to WIC offices in Denver, Arapahoe, Alamosa, Lamar and Eagle counties, some or all of the focus group participants were found. In the cases that WIC contacts could not recruit the required number of participants, researchers, a) posted flyers in key health-related facilities in the target county based on demographic knowledge, and b) reached out to professional contacts that work with the target communities for their help in displaying flyers, emailing staff or recruiting interested participants. An incentive of $25–$40 was offered for participation, as well as healthy snacks and water bottles.

Once the focus group script and guidelines were developed and recruitment outreach had begun, group locations, dates and times were set as tentative placeholders. Dates and times were confirmed after a methodologically appropriate group of participants was recruited. This allowed for any shifting of time, date or location to better accommodate a more inclusive approach (i.e., more participants). These dates and times changed as necessary, due to slower recruitment periods or new knowledge of locations better suited for the needs of the project. Overall, the focus groups were held in the neighborhoods most convenient to the participants and at locations that would be easy to access and already known by most. For this reason, libraries and recreation centers became the main locations of the focus groups. Additionally, the times that worked best for the majority of interested participants was taken into consideration, and focus group start times were altered, if necessary.

The demographic requirements for focus groups were different per county; however, the income requirements were the same. See Table 1 for CDPHE goal for recruitment.

Table 1. Demographic recruitment goals

County:	Alamosa	Arapahoe/Denver	Eagle	Prowers	Weld
Group Type:	Grandparents	Pregnant Women Fathers Grandparents Mothers	Pregnant Women	Pregnant Women	Mothers
Ethnicity:	Hispanic/Latino (English speaking)	African American Except for: Fathers (can be of diverse race/ethnicity)	Hispanic/Latino (English speaking)	Non-Hispanic White	Hispanic/Latino (English speaking)
Income:	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

The largest challenge in recruitment for the focus groups was finding the desired ethnic makeups in the particular group type. There were a number of factors that played into this difficulty. WIC contacts in local communities can easily recruit mothers, which was useful in Arapahoe County. It was not as easy in Weld County, with language as one barrier in recruiting Hispanic/Latino women. In the search for pregnant women in Eagle County, language was also a barrier, as was the fact that the women who WIC could recruit had already delivered their child, and there were few women pregnant at the time (in the income bracket). In Prowers, issues of commitment were greater than issues of finding current or recently pregnant mothers.

Another challenge in recruitment was finding pregnant women in the rural and mountain locations. In Prowers County, it was difficult to find women who were currently pregnant and interested in sitting through a focus group, even with a modest cash incentive. Due to a long period of no response to the same efforts made in other counties for recruitment, researchers incorporated a few alternate tactics. Through increasing the incentive to $40, and expanding the participant requirement to include mothers who had recently delivered a child (in the previous 3 months), recruitment was more successful. In Eagle County, a similar issue developed, with no interest from pregnant women that met the income requirements. The same tactic of expanding the requirement to include mothers who had recently delivered proved successful.

Fathers were also a challenge to recruit and a last-minute recruitment approach adjustment was needed. Also, because the interested participants were identified so close to the scheduled focus group date, the incentive was increased to $40 to help encourage attendance. The result was a blend of ethnic groups, successfully representing close to the majority (not 100%) of the original CDPHE goal, and adding input from ethnicities not originally defined (Native American and biracial/multiethnic).

It was essential to have the assistance of local community health professionals, through the WIC offices, to help outside researchers find ways to better reach the lower income families in the community. Often, if one key person was identified (whether a community member planning to attend the focus group or a community leader), this was enough to spread focus group interest by word-of-mouth.

Participant Demographics

The goal of CDPHE was to get feedback from individuals in a lower income bracket, defined as below 200% (approximate) of the poverty level in the state of Colorado (as determined by a screener question inquiring about the receipt of government assistance). Those who qualified, through either WIC participation for the child or through family income, had an annual salary under $40,100 for a family of four.

Participants needed to either be pregnant or be actively engaged in the life of their child or grandchild (who was five years old or younger). The four populations engaged were: Pregnant Women (which expanded to also include women who recently delivered a child), Mothers, Fathers, and Grandparents. Table 2 highlights the actual demographics obtained for focus groups across the six-county study area.

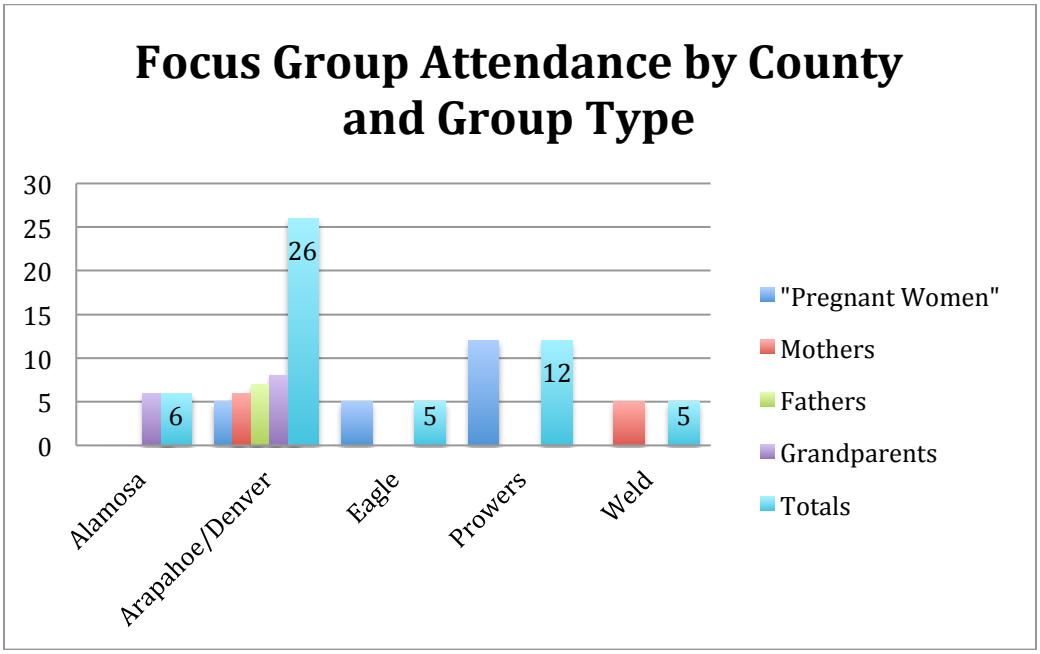
Table 2. Actual Demographics

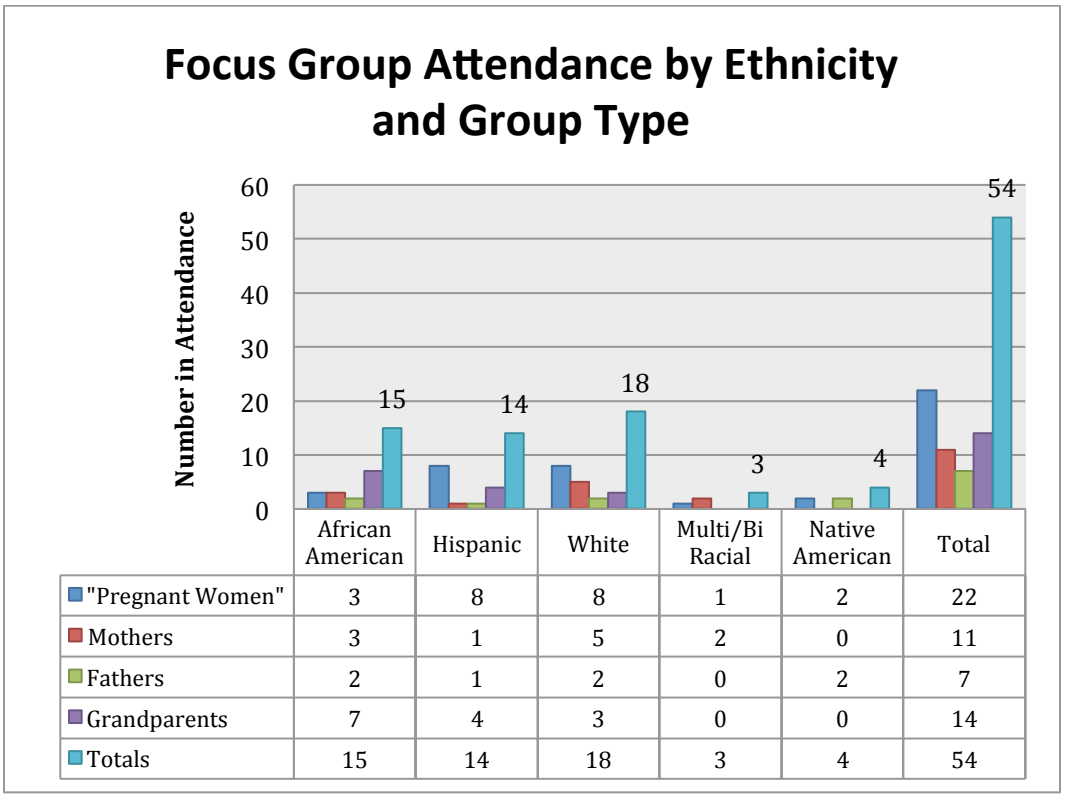
County:	Alamosa	Arapahoe/Denver	Eagle	Prowers	Weld
Group Type:	Grandparents	"Pregnant Women"[2] Fathers Grandparents Mothers	"Pregnant Women"	"Pregnant Women"	Mothers
Ethnicity:	~66% Hispanic/Latino	"Pregnant Women": 40% African American Fathers: diverse Grandparents: 75% African American Mothers: 50% African American	60% Hispanic/ Latino	~41% Non-Hispanic White	20% Hispanic/ Latino
Income:	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

Participants represented a variety of racial and ethnic backgrounds with 53% 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, two groups had participants that identified as multiethnic or biracial, and approximately 40% of the Hispanic/Latino participants were not native

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

English speakers or spoke English as a second language (6 of the 14 participants, all of whom were participating in the group with pregnant women). Please note, all participants had strong command of the English language.





	African American	Hispanic	White	Multi/Bi Racial	Native American	Total
"Pregnant Women"	3	8	8	1	2	22
Mothers	3	1	5	2	0	11
Fathers	2	1	2	0	2	7
Grandparents	7	4	3	0	0	14
Totals	15	14	18	3	4	54

Participant Baseline of Understanding

To get a sense of whether the populations engaged were well informed on the health topics prior to the focus groups, or if this was new information for them, a two-question open-ended survey was provided to each participant upon arrival at the session. The responses are recorded here to assist in understanding the findings and recommendations for each group. Pregnant Women's Baseline of Understanding Pregnant participant responses to the question: ***"What does 'healthy' mean to you?"*** were extremely consistent. All participants mentioned eating healthy, over half mentioned drinking water or staying hydrated, and over half mentioned exercise and mental health as components of overall health. These data indicate that the population of participants was likely well informed about basic health issues prior to attending the group.

> *"Exercise constantly, eating right, drinking plenty of water to stay hydrated."*
>
> *"Health to me means choosing a better lifestyle, smarter choices, eating healthy, drinking more water, exercising/staying active."*

To the question ***"As a pregnant woman, what do you do to stay healthy during pregnancy? What do you do to stay healthy between pregnancies? If you have children already, what do you do to make sure your children are healthy?"*** Responses again showed a high degree of awareness of health issues. One respondent indicated that she had quit smoking, and one indicated the benefits of breastfeeding to stay healthy. All were in agreement that they try to eat healthy. Many mentioned increasing their intake of fruits and vegetables, and over half mentioned regular exercise or walking and drinking water. Those with children indicated these same things for their children as well.

> *"I make sure to walk places if I can, and to drink as much water as I can stand. Watching what I eat and how much sugar I eat is also important to me. Between pregnancies, I ran a lot and stayed away from McDonalds! Fruit, Fruit, Fruit!"*
>
> *"During pregnancy to stay healthy I have increased my fruit intake, water intake, veggie intake…"*
>
> *"… I try to eat plenty of fruit & veggies, drink plenty of water & exercise."*

Mothers' Baseline of Understanding

Mothers group participant responses to the question, ***"What does 'healthy' mean to you?"*** added new language not shared by other groups, such as: "organic," "balanced," "[for] oneself and one's family," "choosing things without a lot of preservatives and artificial colors," and "making informed choices." The mothers in the focus groups described health from a more "whole family" perspective rather than from an individual or activity-based perspective. One quote summarized all of these women's responses and reflects their feeling that they must be able to be all and do all.

"Healthy means being in a good stable place physically, mentally, spiritually and emotionally:
Physically: Regular check-ups, in shape, eating healthy
Mentally: knowing when you are burnt out and/or stressed and what to do to rejuvenate yourself
Emotionally: having someone to lean on when in need
Spiritually: right with your higher power or staying true to your beliefs."

To the question **"*As a mother, what do you do to make sure your children are healthy? What do you do to stay healthy between pregnancies?"*** Outliers mentioned, "don't smoke in the house/car," "prenatals," and several mentioned exercise and healthy eating.

"As a mother, to make sure my children are healthy, I am sure that they spend plenty of time outside, I limit junk food and even the television. I let them see me eating healthy and not spending too much time on the computer or watching TV. If I am active, they copy me."

Fathers' Baseline of Understanding

Fathers group participant responses to the question: ***"What does 'healthy' mean to you?"*** were extremely diverse. While three of the seven mentioned something about healthy eating, and three mentioned either exercise or physical health, there is no summary of the group's responses. Each mentioned one aspect of health that none of the others mentioned, and those seven different aspects are shared here to draw a picture of the diversity of participants.

1. *Stress free*
2. *Always be productive*
3. *Happy in life, happy with self and spouse*
4. *Playing at least 60 minutes a day*
5. *Not always sick*
6. *Being fit…financially*
7. *Physical and mental stability…and…proper hygiene.*

To the question: ***"As a father, what do you do to make sure your children are healthy?"*** Responses were almost as diverse, but there was a consistent message of encouraging active play and healthy eating. One mentioned not going outside without a jacket on, and one said he makes sure that they have a *"safe environment and see the doctor regularly."* The most common message from fathers was that they provide for them and they try to give them attention.

"…Pay attention to them & love & hug them."

" I work and we take them to the park, or for walks, give them quality time."

"I make sure they drink plenty of water, eat the vegetables needed for a balanced meal, incorporate proteins, calcium and plenty of exercise. I do my best to keep them away from junk food. Teach them how to incorporate good, proper hygiene."

Grandparents' Baseline of Understanding

Grandparent group participant responses to the question***: "What does 'healthy' mean to you?"*** can be summarized by a desire to maintain balance between physical and mental health. Seven of the eight grandparents in Denver mentioned at least two of three general categories of wellness: mind, body and spirit, and four of the six in Alamosa responded the same way. Several of them went on to explain that physical health included exercise and eating fruits and vegetables.

" Healthy means happy, physically healthy, emotionally responsive, having good food to eat, warm bed, water to wash & drink and clothes to wear."

"Good stamina—total complete bodily function mentally—physically."

To the question: ***"As a grandparent, what do you do to make sure your grandchildren are healthy?"*** While some grandparents mentioned taking them for shots, giving them water to drink or taking them to the park, most responses can be summarized by 'giving them healthy foods and a lot of love.'

" I feed them homemade food, lots of fruits and vegetables, spend a lot of time outside, take them to sports classes and other classes."

"I am an active grandma, take the kids to the park, healthy snacks like fruits & veggies and water to drink at my house!"

Findings and Recommendations by Message

Each group was asked their feelings and impressions of each message, their belief related to whether the message was effective or not, and barriers to effectiveness. Then, time permitting, the groups were asked to brainstorm places they thought would be good to distribute the messages. The distribution responses are shared in the final summary of the recommendation section. A grid documenting the perceived effectiveness of each message by the four main types of groups convened is shared in Table 3 (next page) with each message numbered in correspondence to the message numbering in the findings section. When a message was reviewed by more than one demographic, the summaries reflect all the feedback provided on that message. Only when a dichotomous difference occurs in the findings that could have implications for distribution or message development in that region of the state or when reaching a specific audience (such as pregnant women) are the impressions and recommendations separated out to reflect these differences.

Table 3. Grid of Perceived Message Effectiveness

Message/ Population	Pregnant (and Recently Delivered) Women	Fathers (of 5 and Under)	Mothers (of 5 and Under)	Grandparents (of 5 and Under)
M #1: Healthy eating and active living while you are pregnant matters for you and your baby's future.	Y-with examples			
M #2: Putting on the right amount of weight with healthy foods helps your baby have a healthy start in life. Talk to your health care provider to find out how much weight gain is best for you and your baby.	Y			
M #3: Give yourself and your baby all the benefits of breastfeeding.	Y-with reasons and exceptions		Y-with reasons and exceptions	
M #4: Rethink your drink! Choose water!	Y- with exceptions and amounts needed	Confusion--depends on the location the message is displayed.	Y	Y
M #5: Continue dental check-ups and treatment during pregnancy.	Y-if locally accessible, self-care information may be more useful. Change "treatment" to "care"			
M #6: Watch for your child's developmental cues such as taking a first step, smiling for the first time and waving bye-bye.	Y-with some trepidation-benefits with help			
M #7: When choosing a doctor for your baby, pick one who performs developmental screenings. These short questionnaires help see if your baby is meeting their developmental milestones.	Y-if locally accessible, checklists to take to the doctor are helpful if choice of care is limited			
M #8: Trust your baby/grandbaby to know how much he wants to eat		Y-except for veggies	Y-add age appropriate notes	Y

M #9: Give your child/grandchild gifts for a bright future: Healthy Foods and Active Play		Only with re-write. "Gifts" implies for special events	Y-with rewrite: put food and play first	Y-with rewrite: put food and play first
M #10: Take a break from screen time and play together as a family.		Change "screens" to "technology"	Change "screens" to "technology"	Change "screens" to "technology"
M #11: Create a TV-free space for your child to sleep.		Y-If for bedtime is noted, not for naps	Y- If bedtime is noted, Concern that too quiet makes them wake at every noise	Y
M #12: There's no power like Mom power! Eat well and move more to care for yourself and your family.			Y-add examples of benefits	
M #13:Two is too late! Visit the dentist by age 1!		Confusion--consider re-write. More encouraging with reasons, rather than demanding	Split-1/2 Yes, 1/2 too punitive, threatening to those who missed "deadline." Add reasons/ benefits	Y- "if that is correct" some reasons would help. Some dentists say age 3
M #14: Watch for your child/grandchild's developmental cues such as taking a first step, smiling for the first time and waving bye-bye. If you are concerned your child/grandchild is not reaching developmental milestones, ask your doctor for a referral to a specialist who can do a more-in-depth evaluation.		Y-but too long. Ok for a brochure.	Y-but too long. Some concern over example of milestones	Y-but too long. Why note about the specialist, just send to doctor.
M #15: Monitoring your child/grandchild's developmental milestones in the first five years is just as important as getting your child/grandchild's shots, and monitoring their vision and hearing.		Y-shots example really resonated as important	Maybe-concerns about pushing shots and formal hearing checks at an early age	Y

Message #1 (Pregnant women)

Healthy eating and active living while you are pregnant matters for you and your baby's future.

- 30 minutes of walking each day is healthy during pregnancy. 10 minutes at a time is fine.
- Choose a variety of fruits and vegetables of different colors for meals and snacks.

Talk with your health care provider before starting any exercise plan.

The following is supplemental information:

- Pick whole grains with the words "whole wheat", "whole grain", or "100% whole" on the label.
- Stay hydrated! Drink 8 glasses of water each day!
- Choose fat-free or low-fat varieties of milk, yogurt, and cheeses.
- Eat lean sources of protein such as chicken, turkey, cooked beans, and fish.

Findings for Message #1

A common theme on the individual initial response sheets was one of agreement with the message. One indicated that the message was encouraging, two indicated it was helpful, and only one began making an excuse for non-compliance when she noted, *"It is good to eat healthy but hard at the same time because you eat what you crave…it's not always easy to eat healthy…and exercise is the best way to make yourself and the baby feel better."* Another noted, *"I love food too much to be picky ☺."* Representative quotes include:

> *"Healthy eating and activity during pregnancy: 30 minutes of walking and fruit of different colors."*
>
> *"Easy to understand and straight forward."*

Group discussion summary of first impressions/feelings began with all participants agreeing this is a good message. Some concern was raised over specialized diets when pregnant, specifically a concern that fish may not be a good thing to list due to tuna being the easiest fish to access and the potential for heavy metals.

Effectiveness of the message was a resounding "yes-but." The "but" had more to do with the potential for additional information to be shared. Discussion indicated that the message could be an opening; however, it should be followed up with bullet points or items to discuss with one's care provider.

Recommendations from Participants for Message #1

Group recommendations related to special dietary concerns of some participants due to being hypoglycemic, early term risk, or having gestational diabetes. All agreed that

additional bullet points could help the message if it were shared in a brochure or in a location where people had time to read.

Suggestions focused on framing information in the positive and explaining how actions will help you and help the baby. Focus on what to do, rather than what not to do. Suggestions included:

- Benefits could be listed rather than just listing "orders":
  - *Walking helps with back pain.*
  - *Pay attention to healthy cravings that may indicate a deficiency.*
  - *List items that are good for the baby…things to do, rather than to avoid.*

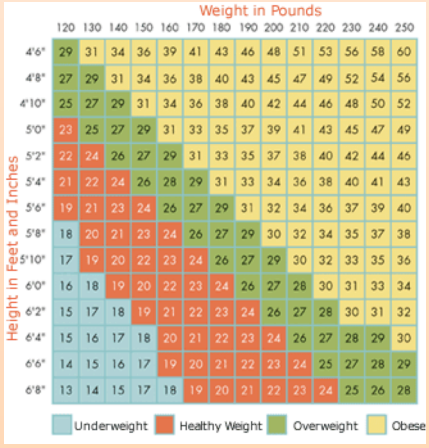
Message #2 (Pregnant Women)

Putting on the right amount of weight with healthy foods helps your baby have a healthy start in life. Talk to your health care provider to find out how much weight gain is best for you and your baby.

The following is supplemental information:

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) Find your BMI range on the chart below to figure out the appropriate amount of weight gain during your pregnancy.

Pre-Pregnancy BMI	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 ½ pound per week

Findings for Message #2

The individual written responses reflected a range of thoughts and feelings. Some participants shared about healthy eating, some about weight concerns, and some on their personal battles with weight. None indicated that the message was not helpful, and based on the variety and length of responses, the message initiated thoughts on the subject. The urban participants all reflected on their thoughts about the message and later shared that most of them had seen the BMI chart before. The rural participants

overwhelmingly reflected on the chart and the benefits of the chart, indicating that they may not have seen it before.

Rural representative quotes:

> *"[This is a] useful chart,[it] comes in handy."*

> *"Very important to know how much to gain…[figured own BMI]… Approximately one pound per week."*

Urban representative quotes:

> *"I think weight issues are very important. They not only can cause health problems for the mother but for the baby as well."*

> *"I think eating healthy foods gives the right amount of weight gain- If you eat a wide range of fruit/veggies. If you eat all fruits all day it might not be so healthy."*

Group discussion summaries of first impressions and feelings:

- It is good to gain weight and the BMI chart helps, but can be frightening.
- Do it for the baby.
- Message is a reminder, but it feels more like a goal.
- Need permission to cheat every now and then.
- More important for first pregnancy.

Recommendations from Participants for Message #2
The group agreed that all women are different but could help all of them, and that it is important to get this information out to them early in the pregnancy. Specific suggestions for improvement (summarized) were:

- Shorten message: "Talk to provider about a healthy weight for your situation."
- Examples of what is too much or too little would help.
- Add more explanation of how to use chart…it can be confusing to some.
- Explain why you should gain more than the baby's weight.

Message #3 (Pregnant Women and Mothers)

Give yourself and your baby all the benefits of breastfeeding.

- Breastfeed for at least one year.
- Aim to feed your baby *only* breast milk for the first 6 months of life.

Findings for Message #3

The majority of participants indicated that they had breastfed or planned to. One indicated that she did not and felt that it was fine as long as she provided the infant with more vitamins. One stated the message could lead to a feeling of guilt for not being able to produce enough milk or for not getting enough support. Several indicated that the message seemed rather demanding and that it might be more effective if it were stated as "try to" rather than "do." There were also concerns about length of time. Some thought three months was the minimum and some indicated six. One individual also shared that it can be difficult to stop breastfeeding after doing it for a whole year. Sample quotes include:

> *"[This] kind of scares me but helps me know it will be a good choice for her."*
>
> *"I agree with breastfeeding, but maybe they should aim for smaller periods of time."*
>
> *"[I] agree with the message. Very to the point and clear. [It] may leave people curious about why they should - 'what are all the benefits.'"*
>
> *"This is the healthiest option for a baby as well as a great way for mom-baby to bond. To go for a full year a mother has to keep herself healthy and eat properly to keep producing milk."*

Group discussion of first impressions was a reminder that it is not always easy to initiate and sustain healthy habits. While some felt it was good because it left you wondering what the benefits were, others felt it would be good to list the benefits and the reasons that one year was a good length of time. Some confusion erupted about the implication that a child should have only breast milk for the first year.

- *Some doctors recommend cereal at 4 months*
- *Implies you can't pump, which means others can't help or be involved*

Other discussion summary points included:

- Has to do with comfort level
- Can produce guilt for not being able to breastfeed
- Depends on production
- Need to offer support and resources
- Share the benefits: calorie burn, improved immune system of baby, etc.
- It is important to note that breast milk can also wrought teeth
- Scary without more information
- Docs should be telling you this already
- Difficult with work, but is it still good encouragement

Recommendations from Participants for Message #3
Many of the pregnant women were not first time mothers so some comments are duplicative from the Pregnant group to the Mothers group. A summary of their recommendations are shared here:

- Offer support and resources along with the message.
- Offer alternate options to only breastfeeding, such as pumping.
- Educate care providers to give consistent advice.
- Add sources of proof and cite studies that show a year is important and why.
- Increase awareness of lactation coaches.
- Share benefits: cheaper, gives anti-bodies, colostrum, bonding.

In addition to recommendations for improving messaging, many women suggested ways to improve the potential for success in reaching that one-year mark.

- Because breasts are sexual, it is important to educate the public that feeding in public is not only allowed but necessary for the health of the baby and the mother.
- Provide women with cards to hand to people that state that the law allows it, and why it is important.
- Support the development of nursing and pumping rooms in workplaces.

Message #4 (Pregnant Women, Mothers, Fathers and Grandparents)

Rethink your drink! Choose water!

Findings for Message #4
All four populations who reviewed this message found it to be on point, and they agreed with it. Some outliers expressed concerns that it was unrealistic, some felt that if it were on a highway billboard it may be confused with a drinking and driving message, and some argued that juice is just as good as long if does not have added sugar or high fructose corn syrup. Others argued that watering down juice for your children can get them to drink it and still provide the benefits of water. One individual summarized by saying, "*It is simple and to the point. Anyone who does not speak English or does not understand grammar can still understand.*"

It was suggested that some people do not have easy access to good water, and that bottled water is often more expensive than soda. The Pregnant Mothers group wanted some guidelines on how much water is needed during pregnancy and when breastfeeding. Several participants reminded the group that if we ask our children to drink water, we need to mirror that message and drink water ourselves.

Father: "Water is the liquid of life."
Pregnant: "Water is best, I think, because it makes an easier labor and helps you not gain as much weight."
Mother: "[Water is] my favorite beverage. [I] probably need to get my kids into drinking more plain water. I get grumpy and tired when I don't drink enough water."
Grandparent: "Agree- water can sometimes be dull-not tasty. I believe juice is a good alternate as long as it is 4 oz. or less daily or diluted. Milk is good too-no more than 3-8 oz./day."

Recommendations from Participants for Message #4

- Add bullets about healthy alternatives when water is not available, such as herbal teas or electrolyte drinks.
- Note the positive effects-you feel better, "better" weight gain when pregnant.
- Consider adding suggestions to make water more tasty, such as adding ginger root, lemon or lime.
- Add a bullet of data on how much water should be consumed daily (for pregnant women and others).
- Add a bullet that fresh fruit can infuse water into the system. *"Apple slices quench thirst too and provide fiber and nutrients for children."*
- Add a note that "juice is a treat" [and] remind [them] that it is high in sugar even if [it's] "expensive" juice that [doesn't] have sugar added.

Message #5 (Pregnant Women)

Continue dental check-ups and treatment during pregnancy.

Findings for Message #5
In the individual response phase participants all shared that they agreed with the message for a variety of reasons from "*why not*" to "*the baby takes nutrients from you.*"

However, during the group discussion, participants raised concerns that the word "treatment" may imply non-essential surgeries that would require medications that may harm the baby. They suggested changing "treatment" to "care." There was some confusion about the purpose of the message. One group felt that IF it was telling you to visit your dentist, then it was effective even though many people don't have insurance and could not afford to go anyway. They also felt that IF the message was intended to inform expectant mothers about the dental risks during pregnancy, then it missed the mark.

One group shared a communal distrust of the accessible dental practitioner, repeating multiple times that *"they just keep you coming back."*

Recommendations from Participants for Message #5

In spite of their initial first impressions, which implied that the message was effective, participants agreed that a more effective message would:

- List the benefits of dental care during pregnancy,
- Emphasize good self-care techniques

Message #6 (Pregnant Women)

> **Watch for your child's developmental cues such as taking a first step, smiling for the first time and waving bye-bye.**

Findings for Message #6

Individual first impressions of this message were positive, with each participant listing why it is helpful, and the joy it brings to see them reach those milestones.

"[It] makes me feel proud and confident that my child is developing."

The group discussion reminded everyone that single mothers and mothers who are primary providers struggle to catch all of these things and to keep track of them. It was also suggested that having others measure their progress is not always effective because the child may have performance anxiety and over-reactions could scare people. It was suggested that it would be more effective and less intimidating if the word "watch" were changed to something more active like "help."

Recommendations from Participants for Message #6

- Change "watch" to encourage or "take part."
- Provide a list of key developmental milestones with a range of ages, and remind people that all children go through different stages.
- Share benefits of identifying a deficiency early.
- Add steps or activities to do when pregnant, such as reading to them in utero.

Message #7 (Pregnant Women)

Findings for Message #7

> **When choosing a doctor for your baby, pick one who performs developmental screenings. These short questionnaires help see if your baby is meeting their developmental milestones.**

Individual first-impressions were varied. About half of participants agreed, although some with the caveat "if you can choose your doctor." Others felt this was a nice idea,

but that there were other more important factors to consider when choosing a health care provider.

> *"Good advice. Also, docs offer tips for encouraging growth & solutions for developmental delays."*
>
> *"Developmental screenings are important not imperative."*
>
> *"It's best to pick a doctor that you trust and can feel comfortable asking questions."*

Group discussion grew into a session of encouraging and empowering one another.

> *"It's ok to question your doctor."*
>
> *" You are your own best advocate."*
>
> *"Some doctors make moms feel bad or inadequate."*

They went on to share that good messaging would point you to a list to follow your child, and that if you can follow a checklist at home and then share it with your doctor, your visits will be more productive.

Recommendations from Participants for Message #7

- Make it known that each child goes through stages differently.
- Saying "choose a doctor" is not applicable in rural areas, so providing checklists to use at home would be more helpful.

Message #8 (Mothers, Fathers and Grandparents)

Trust your baby/grandbaby to know how much he wants to eat

- Your baby/grandbaby will show you signals of hunger and fullness, and will learn to trust that you will respond.
  - Hold your baby/grandbaby during feedings, and make eye contact.
  - When your baby/grandbaby is hungry, she might make suckling sounds, suck on her fist, or move her head toward food.
  - When your baby/grandbaby is full, he might seal his lips together, turn his head away, spit out the nipple, or pay more attention to surroundings.

Findings for Message #8

Participants in all groups agreed that this message is effective and that it is an important reminder to not force an infant to keep eating *"just to finish a bottle."* Concerns were raised that this may not apply under alternate conditions, such as if a child is ill. They also agreed that this really only works for babies. It may require more information for

toddlers and older, such as a chart of how much a child needs at each age. Concern was expressed by some mothers that *"it is hard to trust the process when the baby drops weight."*

Mother: "I feel as kids get older it's hard to gauge their hunger & fullness cues – easier with babies."
Grandparent: "Usually this situation is true with possible exceptions, i.e., being sick with fever, earache, etc. Baby may not associate feeling of being 'full' with other discomfort."
Father: "All the above [are] great signs of hungry in a child under 18 mos."

Group discussions paralleled this sentiment. Suggestions were made for additional information that could go into a brochure. One group suggested adding pictures of infants being fed to the message to make sure people understood that *"it is still ok to make your child eat their veggies."*

Recommendations from Participants for Message #8
The group recommended additional information or pictures be used to clarify the age being addressed. There may have been some confusion with this message because participants had to have a child five or under to participate, and many of them no longer had infants, which may have biased their interpretation of the message. Participants agreed that listing the specific age would help eliminate this confusion.

Suggestions for new or additional messages related to this topic for older children included:

- Give smaller portions: *"Smaller plate[s] can help them measure for themselves."*
- Provide portion guidelines: *"one tablespoon per year of age."*
- Schedule meals as child ages: *"when younger-let them eat when they want, but as they age – set more of a schedule."*

Message #9 (Mothers, Fathers and Grandparents)

Give your child/grandchild gifts for a bright future: Healthy Foods and Active Play

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

Findings for Message #9

Individual first impressions were positive. Mothers and grandparents were all in agreement on this front. However, fathers were split, with half expressing concern that it sets up false hopes. *"No gifts can guarantee a bright future."*

Mother: "[I] agree, [it is] very important to let them choose how much to eat of what you give them. When kids don't want to, using smaller plates and portions helps them not to feel overwhelmed. Sometimes that's the problem, plus not telling them they have to eat everything."
Grandparent: "Agree. You are training and teaching them about what's good for them at an early age & starting good eating habits."
Grandparent: "If you start a child out with healthy eating habits as they grow, they may continue to eat/make healthy choices in the future."
Father: "Be active and live a healthy life style so your children will do the same."

Group discussions addressed these same concepts, sharing that it is a good reminder. However, the Fathers group and one of the Mothers groups felt it could be more effective with some rewording. They proposed moving the "healthy foods and active play" to the beginning of the message to get your point across early and to de-emphasize the word "gifts." This would also help eliminate the confusion that arose on what types of "gifts" the message was trying to talk about.

Groups also concurred, "modeling with what you eat is essential." One of the grandparents noted in the individual feedback session, "monkey see, monkey do: everyone should have the same snacks."

Recommendations from Participants for Message #9

The Fathers group worked together to provide this suggested rewording of the message: "Give your child healthy foods and active play for a bright future." The elimination of the word "gifts" eliminates misinterpretation.

The Mothers group would like to have some notes added to remind mothers *"whole milk is OK if your child is underweight."* They also mentioned that one-on-one time is

hard when you are working, so providing ideas for turning daily tasks into one-on-one time might be helpful. The suggestion was *"bath time can be play time."*

Message #10 (Mothers, Fathers and Grandparents)

> **Take a break from screen time and play together as a family.**

Findings for Message #10

Individual feedback about first impressions shows that while everyone agrees with the message, there is definitely some confusion around the term "screen" which could hinder its effectiveness. Of those who mentioned a specific device and what they assumed "screen" referred to, eight people brought up the T.V., two people referenced "technology," and one person mentioned the T.V and computer.

Grandparent: "What is 'screen time'?"
Mother: "I would define 'screen time.' Not everyone will know what that means."

Group discussion was brief. Everyone agreed with the message, but when the facilitator asked if everyone was thinking about T.V. or all screens, there were a lot of blank stares, followed by dialogue around how to make it easier to understand. Suggestions ranged from adding images of telephones, iPads and GameBoys to the message, to changing the word to "technology."

Discussion also arose around whether or not "music" also counted. Some expressed concern that *"youth tend to shut themselves off from the world by putting ear buds in."* This was followed by confusion about whether that meant that family movie night was bad. This indicated that a clause about moderation might be useful, and/or a rubric that says how much screen time is appropriate.

Recommendations from Participants for Message #10

Change "screen time" to "technology time" and add images of different screens for clarification.

Message #11 (Mothers, Fathers and Grandparents)

> **Create a TV-free space for your child to sleep.**

Findings for Message #11

In general, this message invoked a lot of controversy. People do not want to give up T.V. in the bedroom, and after discussing modeling in previous messages, this one became a battle of why it should not matter if there is a T.V. in the bedroom. The discussion then moved to reasons why children need to learn to sleep with noise, which

led to agreement that infants need to learn to sleep with noise, but children should have a silent space to go at nighttime.

There were several people who individually and in a group brought up the importance of reading your child to sleep with a night light on rather than letting them fall asleep to the sound and light of the television. Generally, the males felt that this was going too far, and the females felt it was a good idea.

Mother: "Reading to or having them read to you before bed makes a huge difference."
Mother: "I think that will be a very good idea and [I] hope to go with that."
Father: "I don't think it makes a lot of sense."
Father: "My child is not [allowed] a TV 'till age 12."
Grandparent (female): "Agree. TV time should be limited. Sleeping space should be tranquil & peaceful."
Grandparent (female): "That would be wonderful but doesn't happen."
Grandparent (male): "Don't really think [no TV in room is] necessary for a child to get a good night sleep."
Grandparent (male): "No need! You tell your child when they may watch TV or not. When it is time to go to bed that is what your child should be doing."

Given the level of heated discussion, the message is hitting home, although some may struggle to believe it, and some may struggle to implement it. In general, there was agreement that sleeping in quiet at nighttime is a good idea.

Recommendations from Participants for Message #11
Focus messaging toward men, and add reasons why this is necessary, to aid in shifting the perception.

Message #12 (Mothers)

> **There's no power like Mom power! Eat well and move more to care for yourself and your family.**

Findings for Message #12
All agreed that this message is a good one. It is concise and to the point and leaves people with things to consider. Participants also agreed that it was empowering—that it challenged them to take care of themselves.

> *"I agree 100%. Setting a good example by taking care of yourself is so important (heart)."*

> *"It is important but easier said than done. Sometimes I am so tired I don't move as much as I should. [It is] empowering."*

The group discussion in both sessions determined that it would be helpful to add the positive benefits of taking care of yourself as well as the potential negative outcomes for not. Adding some positive, reassuring examples would help.

There were a few individuals who shared that this made them feel like they were not as good as those moms with more energy. Discussions following these comments indicated that it may be helpful to remind people that it is essential to avoid depression, noting that *"depression is common because it is like a job without the money."*

Recommendations from Participants for Message #12
The message is good and catchy for a billboard, but if in a brochure, it should be accompanied with a list of the benefits to doing so. Adding some suggestions and tips for how to do this when you are pulled in multiple directions and are limited on time would make the message more realistic.

Message #13 (Mothers, Fathers and Grandparents)

> **Two is too late! Visit the dentist by age 1!**

Findings for Message #13
Individual responses to this message were mixed. While all heard it and seemed to understand it, some disagreed with the message.

Mother: "Want to take soon to dentist, but mom works at one…they don't see kids at 1…where do I take him?"
Mother: "Two isn't "too" late in my mind. Anytime you can get a child to the dentist is better than not at all. However, this statement gets the point across and helps the parent understand the urgency of going to the dentist."
Mother: "Getting them use to the whole idea and prevention."
Grandparent: "I think as soon as they start getting teeth."
Grandparent: "Dental health is very important but 1 is pretty early. Most dentists will make families wait until 3 years is what I am told."
Father: "Take your child to the dentist at two years so the dentist can catch anything negative early."
Father: "Two is not too late, could be too soon."

Group discussion helped to clarify some of this dichotomy of responses. While the consensus on this one was that while catchy and potentially true, the "!" following "two is too late" was threatening. Framing it as an absolute also may alienate those whose children are already three. In one group, a woman who works with individuals in fear of losing their children to the state shared that this could make them not take their children at all if they had missed the two-year deadline for fear that it would be

documented against them. Several other groups agreed that the message may be discouraging if one's child is older.

Access to care was also a concern raised in Weld and Alamosa counties. In Alamosa County, the group concurred that local dentists won't see a child until age three.

The Mothers groups in particular shared that they would have an easier time believing it if there was a source for research, or a statistic that shared the percentage of children that end up with dental issues before age two. The consensus in those groups was that they don't like it when they are told to do something without being given the proper reasons and documentation. There was also a mistrust of dentists expressed by several mothers in multiple counties, based on stories of unnecessary child dental treatments.

Recommendations from Participants for Message #13

- Do address access-to-care concerns, as sharing this message in rural and small town communities may be a struggle. It may be helpful to include a list of resources or dentists who specialize in small children.
- Add some documentation, a citation or reputable source to the statement, such as "the CDC recommends…"
- If sharing the message in a brochure or on a poster where it can be read in its entirety, add a list of reasons why it is important and a reminder that it is "never too late."
- Share a list of ideas for home-care to help care for children's new teeth, such as not allowing the pacifier for too long, not allowing them to sleep with a bottle, awareness of thumb sucking, etc.
- Consider reframing the message to a positive rather than punitive perspective. "It is never too early. Visit the dentist when teeth first come in."

Message #14 (Mothers, Fathers and Grandparents)

> **Watch for your child/grandchild's developmental cues such as taking a first step, smiling for the first time and waving bye-bye. If you are concerned your child/grandchild is not reaching developmental milestones, ask your doctor for a referral to a specialist who can do a more-in-depth evaluation.**

Findings for Message #14

While all parties consulted agreed with this message, they felt it would be more effective if it were shortened. *"It is a long statement. Perhaps it would be better explained by a pediatrician, but [it] is still important for every parent to know."*

Individual comments focused on personal application of the content, which implies that it is effective at getting people to think about their own situation.

Mother: "As child development is very essential, I will ask for a referral to a specialist if I'm concerned."
Grandparent: "I had one grandson that would not walk so he was referred to a specialist. Now he is fine."
Father: "True, Must watch All development cues both good and bad, and reach out for help from specialist if needed."

Group discussion revolved around how to shorten the message or turn it into a brochure. Everyone agreed that this message would not be good on a billboard or on anything that was moving, although it could be shared on a T.V. ad or on a poster in a waiting room. The mothers all agreed with one mother who wrote, *"I love developmental packets you fill out at the docs that help you with what they should be doing."* They expressed a desire to be actively engaged in the process:

- *Get on the floor and play with them, you may notice things sooner.*
- *Stop the message at "…see your doctor". Let the doctor decide if they need a specialist.*
- *Good reminder, but would want to keep hearing it.*
- *Kids are different, don't compare yours to other children.*
- *Good to catch mental illness or developmental delays early on.*
- *Mom is the child's advocate, speak up when you are concerned and ask questions, ask for a referral to a specialist if you feel you need one.*
- *Let kids move/develop at their own pace.*

Recommendations from Participants for Message #14

- Make message more concise.
- The Father's group brainstormed having this message on three consecutive billboards with a portion of the message on each if it cannot be made any shorter.
- Develop into a brochure that shares more information and resources.

Message #15 (Mothers, Fathers and Grandparents)

Monitoring your child/grandchild's developmental milestones in the first five years is just as important as getting your child/grandchild's shots, and monitoring their vision and hearing.

Findings for Message #15

Individual feedback showed consensus among individuals in regard to the root message of developmental milestones. Some individuals were concerned with the reference to shots, due to their personal opposition to them.

> *"I absolutely don't believe in vaccinations considering the outbreak of autism and numerous other problems that come from the shots!"*

> *"Strongly agree but think they combine a lot of shots together & it wouldn't hurt to spread it out."*

Others felt it was effective with no changes:
Mother: "Pay attention to your kids in all aspects of life. Get help for them if they need it."
Grandparent: "Good message for people to know since sometimes people don't think about these things."
Father: "Its good to keep track of when the first steps were, talking, eating solids, etc."

In the group discussion, the resolute voices of the few who heard "shots" and then lost focus made others question these as well. During the discussion with one Mothers group, they determined that the reference to shots was probably out of place and another milestone that would be accepted by the general population might allow the message to stay on task. *"It felt like shots was snuck into the message,"* making people feel deceived or manipulated.

Another group felt like it confused them into thinking they should be getting their children's hearing checked professionally before school. In this same group, they felt like the term shots was okay to include and definitely gave them a firm reminder that this is an important milestone.

Recommendations from Participants for Message #15

Consider rewording and running an additional mixed consumer group for feedback. If 'shots' is left out, it would need to be replaced by something equally memorable. However if 'shots' is left in, the message may not have the desired impact due to the potential for controversy.

Interviews With Practitioners

Methodology for Interviews

The phone interviews took a different angle from the focus group methodology in order to gain results from a different perspective. The goal with the interviews was to learn how to reach lower-income populations with health messages, rather than have the practitioners evaluate the messages themselves. This approach was used in order to take advantage of the broad expertise they carry through experience with multiple families and through the education and training they are involved in.

To start, confidentiality and an introduction to the project goals were established. To understand backgrounds and job realities, all practitioners were asked about their position and experience working with lower-income populations in Colorado. First they were asked to explain their day-to-day routines in their positions, as well as what percentage of their time is spent working with lower-income populations. They were also asked, "is there a racial/ethnic group that you spend more time working with than others," and if they were an acting physician or nurse, they were asked, "how many patients do you meet with on a typical day, and how much time do you generally spend with a patient?"

The interviewees were then familiarized with the ongoing focus groups and their goals. They were asked, "where do you believe most of your patients currently get their background information on such topics [of childhood health or maternal health]?" This established the main sources of either correct or incorrect information that lower-income patients tell their providers about or question with their provider. When asked what sources of information their patients "trust or don't trust" and whether the background information people hold with them "makes it easier or harder to communicate their own messages," a clear direction on how CDPHE messaging might be delivered was established.

Researchers then asked for general "best practices" in "effectively communicating health messages." The question was divided first into best communication methods and techniques, then into approaches taken with different family members (fathers, grandparents, mothers), as well as particular struggles in communication. Barriers to message impact were extrapolated through asking, "what often gets in the way of lower-income patients actually making healthy changes during pregnancy/early childhood development after learning new information" and whether those barriers "influence the communication approaches taken."

To understand the comfort level of practitioners in delivering "sensitive" messages, the research asked of their comfort level and provided an example message related to either breastfeeding or healthy living.

Finally, interview participants were asked if there was anything else that they wanted to share, and responses here often led to a topic that the particular practitioner found most important or integral in their experiences.

Analysis included an initial review of the individual responses, followed by comparative review of all interviews, allowing for theme emergence. The results of those analyses are shared in the Findings section and the Recommendations section of this report.

Recruitment Strategies for Interviews

The recruitment strategy for the key informant interviews was to start outreach to physicians and nurses via four main networks: Kaiser Permanente, Denver Health, Colorado Community Network and WIC. An outreach email was sent to key leaders and managers at Kaiser Permanente, Denver Health, and Colorado Community Network. If willing, those key contacts passed on the interview opportunity to their staff and other key contacts in their internal networks. Interested participants contacted the researcher to set up an interview day and time. WIC interview contacts were recruited for an interview after their assistance in recruitment for focus groups had been completed.

The interview participants met the following guides: currently work (or have extensive experience) as a pediatrician, pediatric nurse, obstetrician, obstetric nurse, or family medicine practitioner, and have significant experience working with lower-income populations in this field. If participants met these requirements, a phone interview was conducted at a time convenient to their schedule.

The 10 interviews were collected via one telephone conversation, and followed a script that CDPHE approved prior to beginning the interviews. The interviewer called all participants individually at their workplace or their home, depending on their availability and preference. Conversations lasted approximately 30 minutes. Phone calls were conducted on speakerphone in order to ease the facilitator in taking digital notes of the conversation.

Once all of the interviews were completed, thematic analysis was completed. This involved compiling answers into a single electronic file to identify themes and sub-themes. Common themes were extracted from the interview responses, with the most reoccurring ideas highlighted as the main points for CDPHE to consider.

Demographics

The goal of CDPHE was to get input from key informants on the topics of early childhood or maternal health. Out of the 10 interviews conducted, five participants are currently employed by Denver Health, three are employed at a Kaiser Permanente facility in the Denver-metro area, and two are employed at WIC clinics outside of the Denver area (one in the western mountain region and one in the eastern rural region). Eight of the 10 participants see approximately five–30 patients a day, in the capacity that ranges from emergency pediatric care to postpartum care. Two of the 10 participants are currently in management positions that do not allow them to see clients or patients on a regular basis, but they know the current realities of their staff and the needs of their communities. Nine of the 10 are female, and one is male.

Eight participants estimated that between 85 and 100% of their work time is spent with “lower income” populations. Two of the practitioners believe it is closer to 10–20% of

their time, though both have extensive former experience in working with lower-income populations.

Eight professionals interviewed reported that of the low-income population they work with, the majority is Hispanic/Latino. One participant reported working with majority white communities, and one reported a 50/50 divide between Latino and white. One Denver nurse reported that while the majority of her patients are Hispanic/Latino, there are also a large percentage of African (Somali) patients, as well as smaller numbers of Nepali and Vietnamese patients. While some other practitioners in Denver also reported working with less-represented minority populations from Africa or Asia, their answers to this interview more often than not were drawn from experiences with the Latino communities.

Findings from Interviews

The interviews varied in the specific barriers and distribution suggestions for effective health messaging for their communities. For this reason, the topics of "barriers" and "message distribution ideas" will be shared in the following sections and have been combined with the opinions gathered from the focus groups.

The main points of consensus from the interviews with healthcare professionals are the following: a) the need for trust between patients and their physicians despite the struggle of maintaining consistent relationships; b) the need to recognize cultural and language barriers and work within them; c) an agreed-upon, strong comfort level in delivering sensitive messages on weight or breastfeeding; and d) an agreed upon need for less didactic messages to create change in habits.

Trust and Relationships

The need for trust and relationships between medical providers and patients was consistently repeated in the interviews as an integral part of helping lower-income patients initiate healthy changes in lifestyle. 100% of the practitioners interviewed believe that their patients trust medical providers to give them the correct information, and this was the same whether referring to a physician, a hospital nurse or WIC.

> *"I think there is a huge value in long term relationships. I think [a patient] would really trust me [if they were] a 2nd generation patient or long-term patients (even 5-7 years), as with rapport, they trust their provider."*

> *"Personal relationships with [a patient] is crucial to what I do… I give [a woman who is working on breastfeeding] my card; if she wants to work personally with me on breastfeeding later, she can."*

Additionally, there is a repeated understanding that patients often come in with background health information received from a former health care provider. Three of the 10 practitioners specifically stated that a patient's background health information has been obtained from handouts and pamphlets received at medical offices. When

taken with the statements of multiple providers that "relationships are essential," it is legitimate to view health care providers as main conduits for message distribution.

In addition to expressing a belief that patients trust their care providers, practitioners also believe there is a trust in family (elders, sisters, mothers, grandmothers). However, five out of 10 practitioners interviewed stated that the information gained from these sources is not always in line with the provider's advice, especially with the example of breastfeeding. When asked where patients seem to get their background health information, six out of 10 interviewed directly stated "family" as a source of information.

> *"From [cellphone] texts from their friends or [from] word of mouth, a lot [of information] has to be dispelled."*

> *"Often, a woman's "support group" is her family. If her mom and her grandma are telling her to not bother with breastfeeding, she is most likely going to not listen to us."*

Cultural and Language Flexibility

In all of the interviews that reported working with language-minority populations, there was a consistent report of communication barriers and cultural barriers between patients and providers. While 100% of those who reported needing interpreters had access to them (on the phone or in person), there were hesitations on how successful translators were in communicating exactly what the doctor or nurse expressed. Multiple people referred to what one physician called "missing in translation," in reference to the emotions and empathy that are lost when using a translator. Also common was the reality that many medical terms are not easily translated, or translators are not knowledgeable of these technical terms.

> *"If there is a language barrier, I will get a translator before we discharge patients, because [although] many of us [at Denver Health] speak some Spanish, we aren't always answering their questions and they don't feel like their needs are being met."*

> *"If I am in [a patient's room] for hours to help with breastfeeding, I can form a bond with that mom. But it's hard to communicate when I can't be understood. Even with an interpreter, things come up later on the phone with breastfeeding, positions, etc., and I can't be of the same help."*

Another limitation in language and cultural barriers for medical practitioners is in needing to reach the non-Latino minorities, though the populations are much smaller:

> *"[We] do relatively well with Spanish speakers, with in-house translation, on-the-phone translation (although there is a lot lost in translation). We do a better job with [Latinos] than other minorities from Asia or Africa, as [they] don't have an interpreter on the phone. We are also less familiar with their culture."*

Language barriers aside, all providers interviewed do recognize the need to understand cultural realities of their patients if they wish to help create healthy changes in their lifestyle. A common idea was the need to address the whole family, not just the individual.

> *"[Hispanic/Latino families] spend a lot of time together, share a lot", if "one sister decide she is going to start walking and buy healthier food for her kids, the aunt and cousins will see and they will often do these things together, support each other in healthy habits."*

One nurse also has observed cultural realities of pregnancy and childcare that can have a huge impact on whose voice is really trusted and which situations are difficult to influence:

> *"There are a lot of cultural things that go into it too; for many Somalis, when they deliver, the mom is "sick", so the baby will be in the nursery the whole time, then will leave to bottle feed but is soon sent right back. While for many Nepali's, the in-laws will come and stay for a few months to show the new mom how to take care of the baby."*

Comfort Level of Practitioners in Delivering Messages

When practitioners were asked about their comfort level in delivering what are often considered more "sensitive" (the example of questions on obesity or messages on breast feeding was given), all practitioners asked stated their full comfort in doing so. One nurse believed that this would be easier if there were more ability to speak to parents without their young children in the room, in regards to a child being overweight. Another nurse stated that the difficulty is not in discussing the benefits of breastfeeding with her patients, but it is in the point of "pushing" it on their patients that nurses divide on comfort level.

> *" As a floor nurse, I see that moms are our patients too- if they want a bottle, because they are not comfortable after trying to breast feed or have not slept, I'm not going to tell them no, because I have to take care of them [as my patient] too"*

When asked if they believed this level of comfort was common to their coworkers or if it was something acquired with experience, there was mixed response. Some believed that *"all physicians should feel comfortable at all times,"* but others acknowledged that:

> *" It can be offensive to talk about weight with families who have children who are worried, and others just want to know."*

Another nurse believed that experience helps create comfort, but more so than experience is the desire to do so, and to put the effort in. Lastly, one practitioner believed her staff would be more comfortable if more updated and consistent statewide information were easily accessible:

"I think if they have the background education, rationale, and evidence behind the message, and they know that the state has provided it, [they] know the rationale [and can more easily share messages]."

Communication Techniques

One of the most common ideas expressed by physicians and nurses on effective communication was the need to understand the whole reason of why a patient is either resistant to a change or skeptical of a message. This can be done through short-term goals with positive rewards modeled daily (in one case, directly modeled at the WIC office through giving children a book at every appointment. For long-term goals, however, messages must be realistic:

"If you want a long term goal, don't make it overwhelming. Make it simple and easy. Many [women] come from domestic violence, are living with a parent, no boyfriend…are already overwhelmed. Make it simple and easy and show they have support; that you are not here to push or judge, but to help."

"You get tunnel vision on how [change] should look, and what people should do, but it's not always textbook. You have to adjust to what works. Don't push what should be done, but ask what are you capable of doing now."

"Lactation nurses really push breastfeeding although some moms aren't comfortable with it. Some [moms] know they have to go back to work in two weeks so ..[we should] give them another option [so they don't feel guilty]."

Additionally, communication must involve everyone that has interaction with patients in their visits, ensuring that everyone is on the same page about messages and why a message is important, as well as the need to give that message to *everyone* involved in the child's care (family):

"[We] need to have people in the hospital on the same page- say the same thing. All nurses and doctors have different opinions, but try to keep on same page."

"Patients may speak to many people in their visit, but when nurses do the final discharge, they are the primary person to make sure the patient is understand what is going on. If there is a language barrier, I get a translator, because even though a lot of us speak some Spanish, we aren't always answering their questions and they will go home feeling as if their needs haven't been met."

"We probably aren't focused enough on [addressing] the whole family as much (in patient instructions), so I think often, what influences the care the most is other family members and social norms… [need] more of a family engagement strategy."

Recommendations From Interviews

Overall, the themes highlighted above show that everyone a patient sees on their medical visit is integral in communicating and modeling healthy habits and messages. For this reason, messages must be delivered through everyone, and everyone must be able to understand the message's validity and feel that it is realistic for the lower-income populations it is aimed to reach.

> "*Simple change… earns trust. Encourage them to talk to family members if they breastfeed, everyone experiences it differently, they just need someone to clarify they are just doing it right.*"

Also, written and verbal messages together are essential, which is why personal relationships make a difference in the opinions of the providers. Television, radio and Internet were rarely mentioned as a source of background information that patients arrive with, but in cases of language barriers with Spanish, were suggested as possible solutions to reaching those communities. Other options include more written information in other languages:

> *"Print out the discharge information and instructions in their language. They need to see it in writing and in their language, to understand what virus you are talking about, and why medication needs to be taken for so long."*

Lastly, the physicians all implicitly (and some explicitly) understand the challenges of working with the lower-income populations, many of whom do not speak English. With this, messages should also acknowledge that, although the reality of some health changes are complicated and require explanations, they are reaching a receptive audience.

> *"I think it's a mistake to think that the parents aren't changing because they don't want to. They don't have the means to do it or don't understand how it good for their child. Put a positive message with a rationale on how it is good for you child. Need to understand why they should. Not just a flash bulletin. Heads nod when we explain things more in depth."*

> *"Just make messages simple but with rationale behind it. And repeat them. Some things need to be repeated over and over again."*

Barriers to Message Adoption

All of the focus group participants and all of the interview participants were probed or asked directly about what holds individuals back from making positive changes once a message is conveyed about their health. Focus group participants were asked more subtly, through a wider discussion on whether messages were realistic for them or not. Some focus group participants suggested that there were specific barriers to certain

messages that could come up depending on the way they were displayed or written. Practitioners in interviews were asked directly for their opinions of possible barriers that keep their patients from making positive healthy changes.

Despite the different approach, focus group participants and interview participants agreed on the following barriers to message acceptance:

- Lack of insurance (especially dental insurance)
- High cost of care (medicine, healthy foods)
- Messages often are more of an "ideal goal" and are not realistic for everyone
- Life gets in the way of making some messages realistic (emotional/physical exhaustion, depression, busy days)
- Language barriers keep people from gaining knowledge
- Language barriers can lead to misunderstood terminology, in the doctor's office, or in a message
- Financial/Employment concerns: individuals not always able to take maternity leave for more than two weeks and unable to pump breast milk at work
- Messages that are too didactic turn people away: don't command something without sharing why; encourage and empower through more details
- Lack of knowledge or time on how to change habits easily and effectively (how to use WIC vouchers, food stamps wisely; how to cook healthy, shop healthy)
- Lack of culturally competent support networks, e.g., need for breastfeeding support groups, healthy cooking groups
- Lack of community role modeling, e.g., a feeling that public breastfeeding is still stigmatized

Focus Group-Only Barriers

Lack of Empowerment to Utilize Services

- In small towns everyone is involved in your life; no privacy
- Fear of Child Protective Services prevalent; concern in making a "wrong step" as a parent
- Views in some smaller communities that any information on pregnancy is encouraging youth sex
- "Stigma" against breastfeeding in public; need reminders of benefits of breastfeeding posted in public spaces

- Locations for breastfeeding are limited; may have to use a bathroom stall at work
- Need free breastfeeding cover ups at the hospital (like the state of Hawaii did for one participant)
- Lack of doctors in smaller rural towns leads to no choice for care without travel to a larger city (without money)
- Lack of options for medical care in general

Usability/Readability of Messages

- Need easily understood language, words that translate well (i.e., avoid "developmental milestones" or "markers," but use "growth stages"); difficult for ESL participants and possibly for less educated individuals to understand at all
- Reword messages that can have multiple interpretations (e.g., "rethink your drink").
- If it is too long, it can be ignored; must be practical and memorable
- Need to highlight the important points and add bullet points to the explanations
- Don't assume that people will be okay with change if there are no facts to back up claims; need proof of "why"
- Need "eye catching" visual images to clarify messages

Practitioner-Only Barriers

Socioeconomic and Cultural Factors

- Children often with family for childcare, especially with Latinos families, so need to reach out to them too
- Multiple families residing in one location leads to "quick fixes" for childcare (baby bottles to quiet a baby at night)
- Need to care for "whole child" and "whole family," especially with Latino families, but is not easy
- Education gaps make gaps in medical knowledge difficult to communicate
- Low comprehension levels (due to language or education) impact medicine usage and home care
- Patients can have unease with new places and procedures; need one-stop-shops
- Misinformation or traditional habits that patients hold may not be in line with medical practice (preconceived notions and fears)

- Physicians have a familiarity with Hispanic/Latino cultures but not with other minority cultures (Asian, African); leads to some patients not being understood culturally
- Poor behavior modeled within families; difficult to correct without community efforts

Situational Factors

- Not all patients are ready to accept change; lack of willingness to change habits
- Interpreters don't always know medical terminology
- Interpreters still result in loss of communication for relationship building (emotion)
- Common use of ER for care leads to short visit time
- Lack of long-term physician relationships with patients
- Lack of insurance (undocumented immigrants or recent refugees) so they don't know if they can get care, where they can go, and harmful for the baby (unborn or not)
- Nurses not always able to follow up with patients to make sure change is happening (post partum)
- Transportation issues: limited hours, costly and tedious
- Pamphlets and info not always translated
- Lack of places to go to keep up with healthy habits or get support for change
- TV often sensationalizes issues
- Distance from care (rural)
- Postal service missing entire families due to local regulations on delivery to "one name" (mountain)

Message Distribution Brainstorming

Both focus group participants and interview participants were asked to share their ideas on how to best reach the target groups with childhood and maternal health messages. At the end of each focus group, participants were asked to share some ideas for where they would see these messages and also to think about the people they know that need to hear these messages and where they might see them. Practitioners were asked less directly, but were asked to share their thoughts on how to best reach their patients, given the barriers they had previously stated.

Focus group participants and interview participants agreed on the following places/ techniques for message distribution:

- Waiting room information, posters, and pamphlets in doctors' offices/pediatricians' offices/OBGYN offices/WIC offices
- Head Start, Early Head Start
- Exam room flyers and pamphlets
- Peer support groups with medical guidance (especially for pregnant women) and family support groups
- Long messages should go in pamphlets or be on posters in waiting rooms as more explanations are needed
- Distribute bilingual messages in Spanish and English
- Radio and TV commercials (Spanish and English language stations)

Focus Group-Only Distribution Ideas

- Billboards
- Schools
- Resource services offices
- Library
- Church
- Safeway message board
- Thriftway
- Wal-Mart
- Dentist
- Senior Center
- Daycare
- Grocery (near produce or milk): post benefits, and encourage to choose variety
- Hospitals
- Facebook
- Parent Magazines
- DMV
- Celebrity Gossip Magazines
- Cases of formula
- Diaper boxes
- Water bottles
- Toddler's shirt
- Rubber bracelets
- Bus/light-rail inside and out
- County buildings/human services
- Airplane banners
- Ballparks
- Baby tables and toys
- Restaurant changing tables
- Thrift stores
- Bus stop ads
- Direct mail
- Email
- A "First Timers" Guide to Pregnancy packet (like the ones Rose Medical gives)
- Congrats You're Pregnant –packets (that are good enough quality to keep)
- Develop an information packet for grandparents only
- Have a physical location to go for multiple resources

Practitioner-Only Distribution Ideas

- All practitioners receive the same information and messages to transmit to patients (example of "5210 program" in Prowers County that unites schools, the recreation center, providers, daycare centers, LiveWell)
- Head Start Policy Councils (made up of parents and community leaders)
- Distribute to Hispanic/Latino Leadership groups in community
- Text messages via Text4Baby (Prowers County starting up for their area)
- Get information and messages from practitioners at NFP conference; need statewide training on the messages along with their backup data and how to distribute them
- Encourage message delivery in person, verbally and written
- Use messages to set goals with patients and set personalized advice
- Posters directed to children (with cartoons) so they can take it to their families
- Cooking Matters classes, free community classes
- Word of mouth: encourage information to spread among families
- Bilingual TV messages in waiting rooms
- Entertainment marketing
- Videos for new moms on how to breastfeed can contain new messages
- Videos to take home on parenting techniques during dinnertime, and how to promote child's development

Summary Of Recommendations & Lessons Learned

The focus group and interview data have shown that, while the general public and the health care practitioners interviewed are receptive towards consistent health messaging in early childhood and maternal health, there are a number of factors that need to be considered if messages are to create a healthy change in habits.

Suggestions for Effective Messaging

Avoid Didactic Messages

The results from the focus groups and the interviews both stressed a need to avoid commanding a task, especially without examples of how to implement that habit into busy lives.

Focus group participants used the word "guilt" if a message was stated bluntly and if it was received as something that was not so easy to accomplish. Whether that activity was eating healthy and being active as a pregnant woman, breastfeeding, or taking their baby to the dentist, there was a consistent fear of "doing something wrong" as a parent that strongly-worded messages can emit.

Interviews with practitioners note that involving the whole family into the picture is one way to make messaging more effective and to avoid demanding too many things of one person (when it in reality takes the entire group involved in the child's life to create change). Additionally, the emphasis on relationships with patients was an integral part of successful messaging. Having less didactic messages will aid in ensuring a patient-physician relationship can be used for change.

Include Rationale Behind the Messaging

The focus group participants often, after reading a message, asked "why," establishing the need for more explanation. Even mothers, fathers and grandparents that hold greater background knowledge of personal and family health were often resistant to being told to do something without more "proof" of why it should be done.

The interview participants consistently noted the need for their staff or coworkers to hold different opinions when it comes to early childhood and maternal health practices. The solution to some was to create repetitive and effective messages that would be spread to everyone. To others, the solution was providing staff with the reasoning behind the message and the data that brought about the message in order to establish a common base for everyone promoting the message.

Keep it Simple

The focus groups and the interviews both established that complicated language or long sentences could lead to misinterpretation by some, decreasing the value of the message.

In focus groups, a number of messages were misunderstood in one way or another (Message 4; Message 15), or certain secondary topics in a message were taken out and discussed as if they were the primary topic at hand (*gifts* in Message 9; *shots* in Message 15). Additionally, some focus group participants noted that certain words are hard to translate for those that have never seen them before, in English or otherwise (*screen time* in Message 10; *developmental cues* in Message 14). Overall, a similar suggestion in every message evaluation was to make a message shorter and simpler, but to add the explanations beneath for those that wanted more proof.

The interviewees all stated that language barriers are a daily concern in their practices. While interpreters are available, there is also a consistent acknowledgment that much is "lost in translation." Message simplicity can aid doctors in getting the correct message across to patients and can also aid interpreters in getting the right message across (if multilingual messages cannot be developed).

Keep Options Realistic and Empathetic

All patients come in with different levels of health knowledge and also carry different cultural or familial norms that influence their behavior as a pregnant woman or as a

mother. Short-term goals, easy fixes and flexible options are good ways to handle this concern.

Focus groups consistently remarked, “yes, but every child is different” or “yes, but every mother is different” in regards to the ability to recognize developmental cues according to a timeline, appropriate weight gain during pregnancy, or the length of time a woman is capable of breastfeeding. This view that some of the messages are “nice goals but are not realistic” (Message 1; Message 3; Message 8) was common. Additionally, certain regional limitations make some messages less relevant due to lack of medical care options (Message 7; Message 13) or financial/insurance issues make messages less realistic (Message 5).

Practitioners interviewed did not often cite messages as being too unrealistic, but for those that did, it was a clear barrier in reaching their patients (especially in the realm of breastfeeding). Whether the barrier to a message’s feasibility is from cultural norms, from “every mother being different,” or from the reality that not all mothers can take maternity leave or pump breast milk at work, physicians and nurses noted that flexibility, reassurance and empathy are universally needed.

Lessons Learned for Future Research

The lessons learned in the focus group recruitment will be useful for future projects conducted in rural and mountain areas. One lesson learned is that pregnant women and parents of young children, especially in less-populated areas, desire more details on recruitment flyers or sign-up sheets in order for them to respond at all. Also, one major reason for lack of or delayed interest, reported from the assisting WIC offices in all counties, is that people want to know “when and where.” This runs contrary to general recruitment techniques that resist placing too much information on a flyer in order to avoid people dropping in without first being screened. However, in this case it was rare for participants to drop in without being screened, perhaps due to the targeted flyer distribution at key health-related locations.

In addition, the incentive amount of $25 was helpful to gain some interest in focus groups, but not always enough to guarantee commitment. In 75% of the focus groups, there were no-show participants who provided no notice. While this is always expected to some extent, in the two groups that offered $40, attendance was better or participants gave notice that they would not be able to attend (Pregnant Women group in Prowers and Fathers group in Denver/Arapahoe). For the Pregnant Women group in Prowers, there was 100% attendance. For the Fathers group in Arapahoe/Denver, all of those who could not attend called to give notice and asked to see if there was any chance they could participate later. This did not happen with the $25 incentive no-show participants.

Another lesson learned from key informant interviews is the need to express to practitioners that interviews are informal, can be anecdotal and are based on opinions. The anonymity of this research should also be repeated when looking for participants. To create more open and honest interviewing, researchers should ensure that the interview style allows enough space to ask directly for "stories" or "examples" in order to get real opinions.

Lastly, it should be noted that an additional benefit or result of this study is the identification of key individuals with children and grandchildren who could help spread the word about this and future studies in their respective communities. Should this study need to be repeated to test refined messages, many willing and helpful individual and community leaders have been identified through this process and could be leveraged in future efforts.

Final Thoughts

Overall, the diverse barriers that lower-income families and pregnant women are facing in Colorado impact the feasibility of health messages on different levels. Barriers may change by culture, language or geographic location, but the need to have health messages with realistic and flexible goals appears to be far-reaching. Additionally, it is generally helpful to provide simple but proven explanations and small steps to healthy habits to increase the message validity for target populations. This flexible yet explanatory approach in message development also appears to be needed by medical practitioners who are attempting to promote comprehensive advice despite their own differing opinions and experiences.

While the 15 messages evaluated in this study generally produced positive feedback, they may need adjustments to account for the specific concerns raised in this report and then later retested with diverse groups of consumers. What remains constant is that these health messages can be essential tools to ensure that all practitioners across Colorado are promoting the same messages and that all caretakers of young children are provided with the same level of understanding, for the wellbeing of everyone involved.

> *"One of the things that hit home now [that my own daughter just had a baby] is that sometimes the bar is set too high for people. It may be we need to make the messages one day at a time: if you are saying to breastfeed for 6 months, and a certain mother can only [be confident they can] do it for a month, she may not even start. Show benefits of every bit they do, that they can do a good job breastfeeding for 3 weeks. Really important to be happy with whatever they can do; we expect too much sometimes and [need to] put on their shoes for awhile"*
> *- Interview participant/medical provider*