



Case Study Series: Common Nutrition Concerns During Pregnancy

Slide 1- Introduction

Good morning and welcome everyone! We are so glad you are joining us for another case study! Today's topic is Common Nutrition Concerns During Pregnancy.

[Introduce yourself]

If everyone would like to introduce themselves in chat and share a bit about themselves, that would be great. I'll let my teammate introduce herself as well.

Thank you, everyone. This training comes in response to staff asking for more engagement in training, and we truly hope this meets that need. This case study is just one example of a WIC participant experience. We recognize that there are many more challenging circumstances that staff encounter every day in the WIC setting. We hope this example sheds some light on responses and resources and gives you some things to think about in your daily practice with participants. This session will not be recorded. This is your opportunity to work together in a judgment-free zone. We will have time for questions near the end, but we also encourage you to use the chat freely throughout the presentation!

Slide 2- Agenda

Here is our agenda for our time together.

Just to let everyone know, this is a live PowerPoint, so you should be able to click backward on the slides by clicking the arrows if you'd like to review a slide. You would then click the "sync to the presenter" to return to the current slide.

You will also be able to click on many of the links in this presentation, but we will also send them out in a follow-up email.

Slide 3- Learning objectives

Here are the learning objectives for today's session.

- Assess for key nutrition risks in pregnancy.
- Apply critical thinking to weight gain assessment.

- Identify factors contributing to a healthy pregnancy outcome.
- Determine when intervention may be warranted and make appropriate referrals as necessary.
- Practice participant-centered counseling.

Slide 4- Background

Alright, let's get started with our case study. Mackenzie is a 26-year-old pregnant participant. She is approximately 8 weeks pregnant (so, in her first trimester) with her very first child and works part-time at a convenience store. She reports inconsistent eating habits, along with frequent nausea and fatigue. She lives in a suburban area with her partner, Jeff, who works evenings, so they eat most meals separately. Mackenzie has access to a grocery store but often relies on the food available at her workplace.

Mackenzie reports ongoing nausea, particularly in the morning and also when she smells meat cooking. Due to the nausea, she has not been taking her prescribed prenatal vitamin (PNV), and instead, takes a gummy vitamin before bed each evening. Her nausea also contributes to her irregular eating patterns, including skipping some meals, especially if there are dishes with a strong meat smell. She relies on snack foods during the day that she can grab quickly when she feels hungriest.

Slide 5- Poll

Now, with that background in mind, we'll take our first poll question. If the poll is not working for you, go ahead and answer in chat. What immediate concerns do you have about MacKenzie's diet?

- A. Lack of iron
- B. Lack of appropriate PNV
- C. Lack of folate
- D. High intake of processed or convenience foods
- E. All of the above

Slide 6- Healthy pregnancy = Healthy outcomes

Mackenzie's eating habits may raise concerns about nutrient adequacy, particularly for iron, protein, folate, and overall caloric balance. Due to substituting PNV for the gummy vitamin, you may also have red-flagged that as a concern.

A key concept for Mackenzie will be understanding that nutrition and healthy behaviors during pregnancy directly impact birth outcomes.

Adequate nutrition supports:

- Fetal growth and development.

- Reduced risk of complications such as low birth weight or preterm birth.
- And maternal health during and after pregnancy.

Framing conversations around the concept that a “healthy pregnancy = healthy outcomes” can help connect behavior changes to meaningful results.

These are all things you will want to keep in mind as you continue your appointment with this participant, but we don’t want to address any of them just yet. It is helpful to complete the full assessment to understand where it is most important to place your focus and how you can best support participants like Mackenzie with sound education and referrals as needed.

Slide 7- Pregnancy weight gain

Next, let’s take a look at Mackenzie’s reported weight gain for the pregnancy. Mackenzie shared that she doesn’t think she has gained much weight, and her provider has not expressed concern about her weight either. She was not sure of her exact pre-pregnancy weight but guessed it was around 130#, which is what she has on her driver’s license.

The CPA noted a potentially significant weight change based on Mackenzie’s reported pre-pregnancy weight. Today, her height was measured at 60 5/8” and her weight was 152 pounds 4 ounces. Her total weight gain to date, based on her reported pre-pregnancy weight, is 22# pounds.

Staff also checked Mackenzie’s hemoglobin and found it to be 12.0, which is within normal range.

Slide 8- Pregnancy weight status

If Mackenzie was 130# pre-pregnancy at 60 5/8”, she would have had a pre-pregnancy weight status slightly above normal weight.

Slide 9- Recommended weight gain

Her recommended weight gain throughout her pregnancy would be around 35 pounds.

Slide 10- Poll

Now, we’ll take our next poll question. If the poll is not working for you, go ahead and answer in chat. Can we accurately assess weight gain without knowing how much Mackenzie truly weighed pre-pregnancy?

- Yes
- No
- Maybe

Slide 11- Verifying weight gain

The answer to this one is no.

To ensure we are getting the most accurate picture of weight gain, there are a few things to consider.

- **First, we start by verifying and checking the weight:**
Staff should ensure accurate, consistent weight measurements using calibrated equipment. If weight gain appears rapid or inconsistent, rechecking during the visit may be appropriate.
- **Next, understanding true starting weight:**
Since Mackenzie is unsure of her exact pre-pregnancy weight, probing questions can help establish a more accurate baseline.
 - Asking things like:
 - “Do you remember the last time you checked your weight before pregnancy?” or
 - “Have your clothes or pant size changed recently in the last few months?”
- **We may also rely on provider communication:**
Mackenzie states her doctor “wasn’t concerned about her weight.” This presents an opportunity to explore by probing for more information on things like:
 - When was her first prenatal appointment?
 - Was her weight measured at that appointment?
 - Does she have access to check the measurement?
 - What guidance, if any, on healthy weight gain has been provided?
- **If we cannot verify, then we may need to recheck weight gain at a future visit:**
If current weight gain seemed high or low, WIC staff can reweigh at the next appointment and compare trends rather than relying on a single data point from that first visit.
- **Finally, since WIC’s Role is one of support:**
Even if the provider has not raised concerns, WIC can assess weight patterns, explore explanations, and provide education and referrals. We can also encourage Mackenzie to discuss weight trends with her provider as needed.

Knowing all this, you may have decided that at this point in the appointment, it may be helpful to have some more information before moving forward.

Slide 12- Chat response

That brings us to our next question. Please type your response in the chat. What additional questions would you ask this participant?

[Read through the questions typed in chat]

Great. Thank you all for participating. These are great questions! Let's now get a little bit more information.

If needed: Some example questions include:

- How frequently are you eating?
- What measurements were taken during the doctor's appointment?
- Did the doctor share any advice related to weight gain or eating?
- Are you physically active? How regular?
- What beverages are you drinking?
- Are you eating deli meats?
- Are you having any digestive issues other than nausea?
- What snacks are you eating?
- Are there meats that you do find tolerable?
- Are you taking any medications?

Slide 13- Additional information

After probing further, Mackenzie shares that she does try to get a little activity every day. She enjoys taking walks with her dog, Arnold, most days, and bike rides on the weekend if it is nice out. Her doctor told her that it was important that she get at least half an hour of activity each day or up to 150 minutes throughout the week, and she has been working hard to follow that. Because she is so tired sometimes, it helps to have a caffeinated soda or energy drink before her walks.

She also restated that she really could not be sure of her pre-pregnancy weight. She doesn't have a scale at home, and she hasn't weighed herself in more than a year. She doesn't think she has gained 22# since becoming pregnant. She has noticed her pants getting tighter, but she is still wearing her pre-pregnancy clothes.

When Mackenzie was asked to share more about her daily diet, she explained: Money is often tight in the home. She tries to make sure to eat something small every few hours, but sometimes when she is nauseous it is hard to get anything down. The snacks that she leans on most is chips, sweet cakes, and prepared hot foods such as vegetable soup, cheese burritos, grilled cheese, or cheese pizza. She does try to eat at least one serving of fruit or vegetables each day. MacKenzie also shared that she knows she needs to eat meat to make sure she gets iron and protein for her baby, but the smell of cooking meat is just making that so hard.

Mackenzie was asked if she is planning to breastfeed: She shared that she is interested in breastfeeding but is concerned about how it will work with her job. She works long hours and is behind the cash register most of the time. There is a room in the back that the manager usually sits in. Mackenzie shared that the manager recently had a baby, and she uses that room to pump, so she is sure that she would be allowed to as well if she asks.

The CPA was happy to hear MacKenzie is planning to breastfeed. She congratulated her and shared that healthy pregnancy outcomes can translate to healthy pp outcomes and more

success with breastfeeding. This is something that they can talk about as Mackenzie moves on in her pregnancy. For this appointment (and this case study), they chose to keep the focus mainly on Mackenzie's diet.

Slide 14- Poll

Time for our next pool. Again, if the poll is not working for you, go ahead and answer in chat. Now that you have a more complete picture of Mackenzie's situation, for this system-assigned high-risk participant, would you...

- A. Send a referral to her doctor.
- B. Ask her to return to follow up.
- C. Both referral and return for follow-up.
- D. Neither just issue benefits.

Slide 15- Pregnancy risk

For this one, you may have chosen to have Mackenzie return for a high-risk weight follow-up. Risk code 133 High Maternal Weight Gain is considered high risk when assigned to a pregnant participant. If you remember back to the weight gain grid, Mackenzie had shown a significant rate of gain based on her reported pre-pregnancy weight.

The justification for the risk code 133 assignment is:

1. A high rate of weight gain, such that in the 2nd and 3rd trimesters, for singleton pregnancies, there is more weight gain than the recommended for the Pregnancy weight gain chart that is shown here at the top of the slide.
2. Or there is a high weight gain at any point in pregnancy, such that using an Institute of Medicine (IOM)-based weight gain grid (that we showed earlier), a pregnant woman's weight plots at any point above the top line of the appropriate weight gain range for her respective pre-pregnancy weight category.

Now, since Mackenzie explained that she has seen her doctor, who was not concerned about her weight, she doesn't believe she has gained much since becoming pregnant, and knowing that she is still in her first trimester, the CPA decided not to send a high-risk referral and gave her the option to return in 1 month to the clinic to recheck her weight or to set up a phone visit to check in on her weight progress.

Just a note: Other risk factors would apply to this case study; we will just be focusing on the HR factor.

Slide 16- Returning for weight check

WIC CPA's should exercise professional discretion when determining the specific course of high risk follow-up. This includes determining the frequency, type (in-person or remote), and nature of follow-up activities based on the participant's health condition and individual needs.

For frequency of follow-up,

- Some participants may need to be seen monthly; others only bi- or tri-monthly.
- For example, it might be prudent to plan a monthly follow-up for a pregnant woman with a low rate of weight gain, until the expected or desired weight gain is observed.
- At a minimum, follow-up should continue at least quarterly until the condition is resolved or stabilized.

In Mackenzie's case, since we aren't sure what her exact pre-pregnancy weight gain is, we can treat today's weight as a baseline for future visits. We would also encourage her to follow up with her doctor at her next visit to check in on her weight progress.

Before we explain the expectations for her return visit, we want to be sure she is prepared to move forward with a healthy pregnancy by offering some guidance.

Some of the intervention strategies we may discuss include:

- Assist the participant in maintaining healthy eating habits during pregnancy with regular meals and snacks.
- Discuss the nutritional adequacy of the participant's dietary intake.
- Encourage her to check with her provider regarding weight changes for pregnancy.
- And, to identify when additional intervention may be warranted and make appropriate referrals as necessary.

Lastly, it will be important to document the care taken to ensure continuity of care at each follow-up visit.

Slide 17- Risk referrals

Determining when to send a referral can sometimes be tricky. As with other high risk conditions, the CPA should exercise professional discretion in deciding the necessity of sending a referral.

In this case, we did not initially send a referral, but depending on MacKenzie's weight gain at future visits, it may be warranted. As we collect more data and information, that decision can be made on an as-needed basis.

One thing to remember, if the participant is not receiving medical care for the identified high risk condition, a written medical referral should be made.

Now I will hand it off to my teammate while I begin setting up the breakout discussion time for you all.

Slide 18- Breakout discussion

Okay, as shared, we are going to place everyone in breakout rooms. We have a few questions that you can work through together. We encourage each member to participate by taking turns

answering the questions and learning from each other's responses! Then pick one person from the group who is willing to share at least one thing that you all took away from this time together.

First, once you get into your rooms, take a minute to introduce yourself before diving in! If you cannot come off mute or turn on your camera, we encourage you to use the chat to share with others. You'll have about 15 minutes in your rooms to work through the questions. When we come back together, we will talk through each of the questions.

If you are a state staff member and are moved to a breakout room, please return to the main room. We want this to be a safe space for CPAs to practice skills without the pressure of observation.

I'll read through the questions before moving you into rooms.

[Read through the questions before moving into rooms]

1. How would you determine Mackenzie's true pre-pregnancy weight?
2. What would you do to verify current weight gain?
3. How would you respond if the provider is not concerned about weight?
4. What are the top two concerns to address first, and why?
5. How can Mackenzie use the WIC food package to improve eating behaviors?
6. What is ONE realistic, participant-centered goal you would encourage Mackenzie to work on?

You'll be moved into your rooms shortly, and we'll see you back in 15 minutes.

Slide 19- Assessment to education

Welcome back, everyone. We hope you enjoyed your conversations. Next, we will take a few minutes to walk through the questions. But, before we share some suggestions, we would like to hear from you all. Who would like to share something the group found during their time together? You can share in the chat or by raising your hand to share out loud.

Would anyone like to share?

Great, thank you for sharing.

Let's move on to our suggested answers.

Slide 20- Building trust

Question one was about building trust.

How would you start the conversation with Mackenzie to address concerns you may have?

Begin by thanking her for coming in, adding a reflection of what the participant shared with you, and offering affirmation and praise for what is going well.

You may say something like, “Thank you for coming in today and being open to sharing how much pregnancy has already changed how you eat. It is challenging to eat healthy when you are not feeling well, and I can hear that navigating that is important to you. I love that you are making exercise a priority!”

We can offer affirmations to recognize the value of desired change and show our support. Praising someone before education also helps to build positive relationships, boosts confidence, and encourages a growth mindset. By validating their effort and fostering belief in their ability to improve, we can help participants be more receptive to learning and open to the education that WIC offers.

Slide 21- Accuracy in assessment

Question two focused on barriers and solutions.

The first part of the question: How would you determine Mackenzie’s true pre-pregnancy weight?

We shared earlier that there are probing questions you can ask to try to get a more realistic starting point for pre-pregnancy weight gain. Some of the things we can probe for include:

- Ask what the last weight remembered is.
- Can we use the weight from the first pregnancy appointment?
- Can we check electronic records for the last recorded weight?

Another option is to

- Use current weight in early pregnancy to calculate gain in the future.
- If later in pregnancy, trace current weight backwards to the first week to see the estimated gain over time.

The second part of the question here:

How would you respond if the provider is not concerned about weight?

First, affirm the doctor's report that things are going well, then pivot the conversation to how she feels about the changes to her body.

You might say: "It is fantastic news that your doctor says the pregnancy is progressing exactly as it should. Our main focus here at WIC is making sure your body feels strong and comfortable, too. Rapid weight gain can sometimes make each trimester a bit harder on your back and joints. How are you feeling about the way your body has begun to change?"

We want to focus on healthy pregnancy behaviors, not over-stressing the weight. While it is important not to have rapid or excessive weight gain, it is also imperative that the participant understands that we are not judging them or shaming them. Encouraging healthy behaviors will support the participant’s goal of eating well and being active as tolerated,

Lastly, we can also encourage the participant to self-advocate for concerns she may have at her next doctor's appointment. Building a relationship with her provider is an important part of her care. And by reinforcing the doctor's recommendations, WIC staff can provide consistency in messaging that will further build trust and confidence that mom and baby have the support they need to succeed.

Slide 22- Providing nutrition education

Question three focused on Nutrition Education.

What are the top two concerns to address first? Why?

Possible topics you could have chosen might include education around soda or energy drink intake before exercising, dealing with nausea, focusing on foods available at the convenience store where Mackenzie works that she can choose to eat, or you may have chosen improving iron intake and gummy vitamins.

We are going to focus on the last two: iron and prenatal vitamins.

Depending on the topics we have chosen for focus, we want to begin by offering participants evidence-based education. To be most supportive, we want to stick to the facts and offer guidance on what it means for them.

- With gummy PNV, you could share that:
 - While most gummy prenatal vitamins contain the recommended amounts of folic acid and iodine required for pregnancy, very few contain added iron.
 - Additionally, the nutrients in the gummy vitamins may come from artificial sources, which can affect their bioavailability

Participants should be made aware of the recommendations for supplementation, but it is not our role to prescribe or endorse a particular product. We can

discuss concerns, offer suggestions for healthy eating, tips to alleviate nausea, and advise them to consult with their health care provider for specific vitamin recommendations.

Participants need to know that the increased need for specific vitamins and minerals during pregnancy can help to ensure a healthy outcome for mom and baby. You may offer the suggestion to break the pill in half to take a smaller amount at a time or to try taking the vitamin with a full meal, which may help. Let the participant know that as the pregnancy progresses, they may be better able to tolerate taking the vitamin as intended.

- With iron intake, we could share that
 - A lack of iron during pregnancy can create a risk of iron deficiency anemia.
 - Iron deficiency anemia can cause health problems for both the pregnant woman and her child.
 - The impact deficiencies have on pregnant women can be long-lasting and persist throughout subsequent pregnancies.

We can share a bit about the iron-rich foods WIC offers and how the participant can incorporate these into her current diet. Offering substitutions and recipes can help. We will go over more about this in the next slide too.

Slide 23- Exploring the food package

Question four was about exploring the WIC food package.

- How can the WIC food package improve eating behaviors?

The WIC food package supports a pregnant woman by providing a tailored, monthly benefit of essential, nutrient-dense foods specifically chosen to promote healthy fetal development, manage healthy weight gain, and meet the unique nutritional demands of pregnancy.

Looking at the pregnant woman's food package, you can point out specifically which food can help support iron intake for Mackenzie. She already shared that she likes to eat food with cheese added. You may also encourage her to try eggs at breakfast or even as a snack. She could try the tuna or salmon in a cheese melt. Beans are also an excellent substitute for meat in any meal and would provide her with an extra source of iron when combined with a vitamin C source to boost absorption.

You might say something like: "Sometimes our bodies crave quick energy, which makes us want sweet or salty snacks, but those don't keep us full for very long. WIC offers foods, like iron-rich cereal, tuna or salmon, eggs, beans or peanut butter, that you could use to help you feel full for longer stretches and get more iron into your diet."

There are many options to explore, and sharing with MacKenzie the WIC Food Tips or Recipes section on the Minnesota WIC webpage or app will give her some inspiration as well.

Slide 24- Goal setting

The last question got you thinking about goal-setting.

One important role of a CPA is to support positive health outcomes for participants. This is done by guiding the participant toward improved health outcomes through goal setting. Once you have moved past the assessment and education, you will probably have some ideas of the participant's desired behavior changes. Asking additional open-ended questions will clarify their interest and readiness to adopt new healthy behaviors. Setting goals is the first step to help participants bridge the gap between their wishes and reality, and the most effective goal is one that the participant sets for themselves. CPAs can help guide goal setting and may offer ideas, while leaving the final decision up to the participant.

Participants are more likely to take action when it is their idea, and they determine their goals and action steps. We can encourage them to focus on just one area for change for this first visit.

One realistic goal that MacKenzie might be open to is increasing her intake of iron-rich foods. If you remember, MacKenzie shared that she knows she should be eating more meat to get the

iron and protein in for the baby. However, the smell of cooking meat has been making her nauseous.

Mackenzie may be open to a few ideas. One may be adding beans to at least one daily meal.

You may say something like, "We want you to feel your best as your pregnancy progresses. You mentioned that you wanted to get more iron and protein in your daily diet. You also shared that meats have been harder to eat because of the smell. Some of the foods that are in your WIC food package may help you. For example, using beans, eggs, or tuna. You might swap out meat for beans in one of your meals each day or add in an iron-rich snack like a hard-boiled egg, tuna and crackers, or some dry WIC cereal. What are your thoughts about trying one of those ideas?"

If she shared that trying beans is doable, you could ask, "Looking at your daily routine, what is one small change that you feel would be manageable?" This will help you get to an actionable goal that the participant feels comfortable implementing.

Slide 25- Key takeaways

Okay, we are going to start the wrap-up with some takeaways for you all, and also open our remaining time up for questions.

First thought, healthy behaviors, including eating well and being active, will lead to healthy outcomes for mom and baby.

Second thought: using probing questions and timely follow-up can help us determine the most appropriate steps for care. Determining how to support families is individualized and may change with subsequent visits.

Third thought, approaching education and guidance with empathy and cultural humility will help to build trust and ensure better health outcomes. It is best practice to tailor education to reflect the family's perspectives and offer guidance that builds on their chosen goals.

Final thought, between the nutrition assessment, education and counseling, referrals, and the foods we offer, WIC makes a significant impact on the lives of our participants. You should all be very proud of the work you are doing every day to support the families across Minnesota.

Now, we want to open up time for questions, or if you have a story to share about how you may have handled an appointment where pregnancy weight gain was a concern or another pregnancy-related nutritional risk, we welcome that as well.

You can place any questions you have in the chat, or you can raise your hand to share a story or questions. Just a note...If we don't get to your question today, we will answer it in the follow-up email.

Slide 26- Resources for participants

Okay, and here we have a list of possible resources that you may offer a family in Mackenzie's circumstance.

We have a few nutrition education cards, a link to information about staying healthy during pregnancy, and wichealth.org offers numerous lessons to support participants in building healthy eating behaviors- we have offered a few suggested topics here.

Slide 27- Resources for staff

Here we have a few resources for you all to explore and learn more about the topic discussed today. We will be sending these and the resources for families out in a follow-up email.

Slide 28- Thank you for joining us

Finally, we want to thank you for taking the time to join us today as we learned together while practicing real-life skills. This case study will be repeated one more time next month. At the end of this series, a PowerPoint with resources will be posted on our Case Study webpage.

We encourage you to return for our next case study series to continue learning with us in October, November, and December on picky childhood eating behaviors.

Please take the time to fill out the evaluation.

Have a great day, everyone!

Minnesota Department of Health - WIC Program, 625 Robert St N, PO BOX 64975, ST PAUL MN 55164-0975; 1-800-657-3942, health.wic@state.mn.us, www.health.state.mn.us; to obtain this information in a different format, call: 1-800-657-3942.

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