

PART I (Complete Sections I – V):

I. Identifying data (1 point)

- A. First name: Valerie
- B. Description of the individual:
Valarie graduated from college and is a teacher. She and her husband live alone. He is currently attending college.

II. Health history (10 points)

- A. Age: 24
- B. Previous obstetrical history:
No previous pregnancies

Lactation experience:
“Not very much – my mom didn’t breast feed my younger siblings. My sister-in-law does, but I don’t know much about it still. I plan on learning more from my doctor and then considering it for my children – I think I would like to try it, but I am not against formula feeding either.”
- C. Estimated delivery date:
June 10, 2015
- D. Laboratory data, if known - hematocrit, hemoglobin:
Unknown
- E. Any illnesses/sicknesses/chronic conditions:
No
- F. Cigarette, drug, alcohol use:
No
- G. Previous nutritional deficiencies (prior to pregnancy):
None
- H. Use of medications or supplements (prior to pregnancy):
Prenatal vitamins
- I. Exercise/activity (prior to pregnancy and currently):
Regular Jogging/walking, Ultimate Frisbee
- J. Allergies, other food intolerances:
Peanuts

III. Nutritional assessment (10 points)

- A. **SUMMARIZE:**
(1) Your subject’s macronutrient distributions (%) and whether the percentages are appropriate for pregnancy based on macronutrient recommendations

Valerie is within the acceptable macronutrient distribution ranges.

Carbohydrates: 53% (AMDR 45-65%)

Protein: 14% (AMDR 10-35%)

Fat: 34% (AMDR 25-35%)

(2) The number of MyPlate food group equivalents your subject consumed based on her actual intake and how she is meeting (or not meeting) her personalized MyPlate food group recommended levels.

Compared to her MyPlate food group recommended levels, Valerie is over consuming grains and dairy, and under consuming fruits and protein foods. She met the recommendation for vegetables.

	Actual Intake	Recommended Intake	Status
Grains	16 ounces	9 ounces	Over
Vegetables	3½ cups	3½ cups	Ok
Fruits	¼ cup	2 cups	Under
Dairy	¾ cups	3 cups	Over
Protein Foods	1½ ounces	6½ ounces	Under

(3) Your subject's actual vitamin and mineral intake and how it compares to vitamin and mineral DRIs for pregnancy (i.e. is her diet high or low in any vitamins and minerals).

	Met Recommended Intake	Low Intake	High Intake
Vitamins	A, B6, B12, C, K, Folate, Thiamin, Riboflavin, Niacin	D (9µg under recommendation) E (4mg under recommendation) Choline (170mg under recommendation)	
Minerals	Calcium, copper, Magnesium, phosphorus, selenium, Zinc	Potassium (1593mg under recommendation) Iron (8mg under recommendation)	Sodium (1552 mg above recommendation)

B. Use of food assistance programs such as WIC, SNAP, food bank, church resources, etc.:
None

C. Current use of prenatal or vitamin/mineral supplements:
Prenatal Vitamin and a fish oil supplement

D. Estimated percentage of income spent on food:
Valerie did not share the percentage of income, but she said that food costs about \$400 per month for her and her husband.

E. What are your subject's cooking and eating habits?
"We eat out 2-3 times per week, and cook dinner 4-5 times per week. I also eat a frozen lunch meal (smart ones) each day for lunch and have cereal and toast for breakfast every morning."

IV. Weight graphed (4 points)

A. State:
(1) Pre-pregnancy weight: 60 kg
(2) Height: 165 cm

(3) Pre-pregnancy Body Mass Index (BMI): 22

- B. **Plot Weight Gain:** Using the *Baby Your Baby* charts (posted on the *BYU Learning Suite*), plot your subjects weight gain on the graph - **ATTACH PLOTTED WEIGHT GAIN GRAPH TO PROJECT.**
- C. **Interpret Weight Gain:** Compare actual weight gain to expected weight gain according to pre-pregnancy BMI. Is your subject gaining too much weight? Not enough weight? Within the recommended range?
Valerie is gaining too much weight. At 27 weeks, she had gained 23 lbs. This is 3 lbs over the recommended weight gain for her BMI at 27 weeks. The recommendation is 13.5-20 lbs.

V. Nutritional care plan (15 points)

- A. Summarize (1-2 paragraphs) what you think are the most significant nutritional risk factors present in this pregnancy, and explain how the subject could change her diet to reduce this risk.

Valerie's most significant nutritional risk factors are related to gaining too much weight and insufficient iron intake. Gaining too much weight can lead to giving birth for an LGA baby and having to have a C-section. While I think Valerie's risk of having an LGA baby is probably low, it could be a concern. Gaining too much weight can also lead to greater post-partum weight retention and a higher fat composition in the child.

Valerie is also not getting enough iron from her diet. However, she is taking a prenatal supplement, which probably contains the RDA for iron during pregnancy. I think that her risk for being iron deficient is probably low, but since I do not know how much iron is in the supplement, I am listing it here as one of her nutritional risks.

- B. Explain (1-2 paragraphs) any recommendations, suggestions, and education you plan to give this subject and rationale.

To help slow down Valerie's weight gain to eventually be within the recommended range (but without losing weight), I recommend that she decrease her consumption of grains and replace it with more fruits or vegetables. For example, in her 24 hour recall Valerie's lunch consisted of 2 plates of nachos. If she plans on eating nachos again for lunch, I would recommend that she only eat 1 plate plus an apple or some baby carrots. This should help her reduce her caloric intake to the recommended amount and increase the nutrient density of her diet.

I would also recommend that she try to increase her protein food intake. In her 24 hour recall, Valerie says that she only ate about 1.5 protein food equivalents. The recommendation is 6.5 protein food equivalents. Some ways that she could do this include eating an egg for breakfast, or eating a serving (about 4 oz.) of chicken, meat, or fish for dinner. Increasing her consumption of meat, fish, and poultry would also help to increase her iron absorption.

PART II (Complete Section I – II):

- I. **Education (5 points):** Provide your subject with the recommendations/advice you suggested in Part I (*after you review the instructor's comments*). Ideally, this should be done in-person (but email and phone are acceptable too). Summarize (1-2 paragraphs) what you discussed with your subject.

When I talked to Valerie, the first thing I did was reassure her that overall, her eating looked good. I pointed out that she is consuming adequate calories for her baby's growth, and that she is taking a prenatal supplement which can help prevent any nutritional deficiencies. I let her know that her risk for any major problems was low. Then I showed her the areas where she could improve. I told her that her weight gain was a little high. I counselled her that one way she could help slow weight gain is to replace some of the grains that she eats with fruits and vegetables. I chose this because her grain consumption was almost

double the recommendation, and her fruit consumption was low. Then I talked to her about protein foods. I showed her that her protein food consumption was low—five ounces under the recommendation. I let her know that she was getting enough protein from her other foods, but that protein foods would give her other nutrients, such as getting iron from red meat.

II. **Reflection (5 points):** Write 1-2 paragraphs about your overall impressions of how your subject received your advice (e.g., do you think she will follow your advice? Why or why not?). Also describe how you could have improved the education you gave.

Valerie and I corresponded mostly via email, and so it was kind of hard for me to gauge her reactions. From our correspondence, however, she seemed to be very open-minded about the suggestions and advice I gave her. Since this is her first pregnancy, she is very concerned about doing everything right. I think that she will at least try some of my suggestions, even if she doesn't make them into habits.

The best thing I could have done to improve what I taught would have been to teach her in person rather than over email, that way she could ask me more questions and I could better gauge her knowledge and understanding. Looking back, I should have also showed her the pregnancy weight gain chart and her reports from the supertracker. These could have helped her understand my advice better and she could use them on her own in the future.