Defining Dairy Consumption in Pregnant Women Living in Central Iowa

Objectives
1. Describe dairy consumption patterns in pregnant women.
2. Determine if dairy recommendations are met by pregnant women in Central Iowa.

Methods
Data was extracted from second trimester three-day diet records of 123 pregnant women in previous Blossom Project studies. Dairy sources and serving sizes were evaluated and quantified according to MyPlate recommendations. Five individuals were excluded from analysis due to a lack of complete data. Women were divided into low, medium, or high intake based on Healthy Eating Index (HEI) Dairy Scores with a maximum potential score of 10.

Definitions
Low Consumption: Dairy HEI=0.0-3.9
Medium Consumption: Dairy HEI=4.0-7.9
High Consumption: Dairy HEI=8.0-10.0

Low/Medium Fat Cheese: feta, mozzarella, fontina, cottage cheese, ricotta
High Fat Cheese: cheddar, Swiss, parmesan, colby jack, queso, provolone, romano, muenster, brie

Takeaways
1. About 18% of dairy is consumed in concert with carbohydrates, which are high in this population.
2. To increase dairy consumption in pregnancy, milk consumption should be encouraged.
3. To avoid excessive carbohydrate intake, women should be encouraged to replace dairy from mixed dishes with milk or yogurt.

Resources and Acknowledgements
Citations available upon request.
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Conclusions
Although there are no dairy consumption guidelines specific to pregnancy, the Dietary Guidelines (DG) state all Americans should consume more dairy. However, the many components that make up dairy (calcium, fat, protein, sodium, sugar) make defining its impact on health complicated. Furthermore, different dairy sources contain varying levels of each component and dairy is defined in different ways. This study seeks to evaluate and describe the current state of dairy intake in pregnant women to aid in answering these questions.

Dairy’s role in providing calcium is vital during pregnancy. Consuming adequate calcium reduces the risk of preeclampsia, hypertension, and preterm delivery. MyPlate (a standard that bases dairy recommendations on calcium intake) suggests adults, including pregnant women, should consume three cups of dairy per day. Sixty-two percent of the women in this sample did not meet this MyPlate recommendation, calling into question their overall calcium status.

Fat intake is also an important consideration when discussing dairy intake. The DG recommend dairy come mainly from low fat sources based on the amount of saturated fat (SF) in whole milk. MyPlate encourages low fat milk and yogurt intake (both lower in fat than cheese). In this study, 40% of dairy consumption came from cheese and 36% of milk intake was 2% or whole, which contradicts the stated recommendations. However, recent research suggests that recommendations for less high fat dairy may not matter. For example, a comprehensive review of dairy’s impact on heart health showed that high fat dairy is not associated with increased risk of cardiovascular disease or Type 2 Diabetes.

Questions for further evaluation:
• What is the definition of low fat or high fat dairy?
• What are appropriate dairy substitutes?
• How does SF from dairy impact total SF consumption and its resulting health impact?
• Does the source of dairy impact its health benefits?