Developing Recommendations for Optimal Prenatal Supplements

The Problem: Currently, prenatal supplements are largely unregulated, and there is a great variation between over 70 supplements currently on the market, with some being so limited that they contain little or no essential minerals and often inadequate levels of vitamins. Thus, many women are receiving inadequate nutritional support from their prenatal supplement, leading to pregnancy/birth complications and childhood health problems.

The Solution: The Neurological Health Foundation is currently preparing a set of recommendations on the optimal content of prenatal vitamin/mineral supplements, based on 3 factors:

1) Data from the National Health and Nutrition Examination Survey (NHANES), which has conducted national evaluations of typical daily intake of essential nutrients including vitamins and minerals of people in the US, including women of child-bearing age.

2) Comparison of the NHANES results with recommendations by the FDA for total daily intake of vitamins and minerals. By comparing the two, it is possible to determine which vitamins/minerals are most in need of supplementation, on average.

3) Review of research studies on the effect of vitamin/mineral supplementation on pregnancy, birth, and childhood outcomes.

Project for Mayo Students: We invite Mayo medical students to conduct a review of the research on a particular vitamin or mineral, including a review of the NHANES data on average dietary intake, FDA recommendations on recommended dietary intake during pregnancy, and review research studies on vitamin/mineral supplementation on pregnancy, birth, and childhood outcomes.

The results of the research will be included in a report by the Neurological Health Foundation on "Recommendations and Ranking of Prenatal Supplements." It will include:

1) A recommended level of each vitamins and mineral needed in prenatal supplements to meet what is commonly lacking in the US diet, and

2) A rating for over 70 prenatal supplements as to how well they do or do not meet NHF's recommendation.

This will be the first ranking of prenatal supplements in the US, and will be of great assistance to many women and their physicians as they choose a prenatal supplement.

This project would be most relevant for students with an interest in OB/GYN, pediatrics, and childhood disabilities.

Contact: For further information, contact Prof. James Adams, chair of the Scientific Advisory Board of NHF and a professor at ASU, at jim.adams@asu.edu