

Women's Health & Reproductive Nutrition Report

A Quarterly Newsletter

Spring 2006

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Enteral Nutrition in Hyperemesis Gravidarum

Kathy Weir, RD, CNSD

Introduction

Nausea and vomiting are common during pregnancy, and occur in up to 90% of all pregnancies. Hyperemesis Gravidarum (HG), by contrast, occurs in less than 1 to 2% of pregnancies (1). This seemingly small percentage is significant, considering the estimated medical costs attributable to HG-related hospital admissions. In California alone, this expense totals \$18,000,000 per year (2). While nausea and vomiting in the first trimester is a positive predictor of pregnancy outcomes, hyperemesis has been associated with maternal electrolyte and acid-base disturbances, ketonuria, vitamin and mineral deficiencies, Wernicke's encephalopathy, esophageal perforation, and even death. Fetal complications of HG include lower average birth weights, increased risk of congenital anomalies, and impaired neuropsychological development (1).

The etiology of HG remains controversial, and may be multifactorial. Historically, psychological factors were presumed a likely cause. This is no

longer true. Several reports have suggested that hormones may play a causative role (3). In one study, peak concentrations of human chorionic gonadotropin corresponded with the timing of maximal nausea and vomiting of pregnancy (4). Elevated estrogen levels and suppressed thyrotropin-stimulating hormone levels have also been reported (3). Chronic infection with *Helicobacter pylori* has also been implicated in HG. One study found 61.8 percent of hyperemesis patients tested positive for *H. pylori*, compared with 27.6 percent of women without hyperemesis (3). Other reported risk factors for hyperemesis include multiple pregnancies and high saturated fat intake prior to the pregnancy (5).

Finding effective treatments for HG is often elusive and sometimes controversial. Conservative treatments include antiemetic medications, fluid and electrolyte replacement, pyridoxine supplementation, ginger preparations, acupressure wristbands, and hypnosis; reports of success differ (1). When these measures fail to relieve HG symptoms or to prevent maternal weight loss, nutrition support is often indicated. Enteral nutrition (EN), while not commonly employed in patients with intractable nausea and vomiting, is physiologically superior, more effective, and safer when compared to par-

enteral nutrition (PN). The purpose of this article is to explore current research that examines the utility of EN as a treatment option in the HG population.

Methods

An article search was conducted using Pub Med. Search terms included "hyperemesis in enteral nutrition" and "hyperemesis in parenteral nutrition" Copies were obtained of original case studies cited in review articles focusing on nutrition support in HG. Journal articles published prior to 1990 were excluded.

Results

Gulley et al were the first to report successful treatment of HG using a gastric feeding tube (6). A single successful trial of a 28 year-old woman in her fifth week of gestation led to the development of a protocol which was subsequently employed effectively in 30 patients. All of the patients experienced symptom improvement within 1 to 2 hours after initiation of tube feeding with complete resolution of nausea in 28 of the patients by 20 weeks gestation. One patient discharged home with the feeding tube was able to return to work, replacing the tube nightly for

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From the Chair

Spring has officially sprung and summer is taking over! Along with the welcomed warm weather, this time of year heralds the "changing of the guards" for WHRN leadership. By the time you receive this issue of the WHRN Report, your newly elected officials will have quietly assumed their new roles, and some of those who served this past year will be moving on to new tasks. Before we close out 2005-06, I would like to thank the volunteers who move WHRN forward, and who constantly work to bring women's health and reproductive nutrition issues to the top of our profession's agenda. All of the WHRN leaders are passionate, but it is the marriage of passion with dedication, friendship and knowledge that allows our DPG to remain focused.

My special thanks goes to Theresa Romano, our chair in 2005-06. Her dedication to WHRN will not be forgotten, nor will her New York style! We will all miss Theresa's leadership and wish her the best in her new career.

The Executive Committee (EC) thanks all of the coordinators and committee chairs for the hours spent on WHRN projects this past year. Ginger Carney, RD, LDN, IBCLC, chaired the Nominating Committee and did a fantastic job rallying the troops to put forth a ballot. She is succeeded by Barbara Dubois, DTR, who volunteered to learn the tricks of the election process trade. Selina Mkandawire, EdD, RD led our group in the legislative arena and at PPW. Margarete Williamson, MPH, RD, LD co-chaired the membership committee with Heather Baden, MS, RD, CDN and Lara Englehardt, MS, RD. They've kept new members "in the know," and worked to bolster membership. Laura Couillard, MS, RD, will continue in her role as "Ace RD" FNCE Planner--something that makes the Executive Committee breathe easier! Our publications team of Miri Rotkowitz, MA, RD and Krista Neal, RD were inspired by Kathy Scalzo's incredible organization skills

and leadership. Kathy left WHRN to become a mom to beautiful twin boys last fall. Miri and Krista have been running full speed ever since—except when Krista herself became a second-time mom to a healthy baby girl this spring. Thanks also to Allison Starr for keeping us up to date on the calendar of events and Heather Baden for leading the resource review crusade. Kathleen Pellechia—a woman with a knack for technology and electronic media—has been transforming our website and EML. Watch for an exciting website redesign, including state-of-the-art graphics, professional resources, and DPG documents. Alyce Thomas, RD, our ADA Professional Issues Delegate has served WHRN with the same sense of camaraderie and vision that defined her style in her past role as chair.

I personally could not have functioned this past year without three extremely dedicated, understanding and encouraging women. Darlene Husch, MA, RD, CDE has given more than I can ever describe. Our DPG has made significant strides with Darlene's involvement, including a new sponsorship brochure and professional liaisons. With Theresa's resignation, Darlene graciously volunteered to help with the nominating committee and to become the Awards Chair for 2006-07. Jamillah Hoy-Rosas, MPH, RD, now fluent in her role as treasurer, will continue to provide sound financial advice this year. Finally, I must thank Cathy Fagen MA, RD and express my devout respect for her knowledge of WHRN and commitment to our team. Cathy has been an extraordinary leader, and has held virtually every leadership and volunteer position in WHRN. She is stepping up once again to take a swing at the chair-elect role next year. Cathy has gotten the short end of the stick in some ways, because she has not only served as the secretary these past two years—she has really been my mentor and kept our group focused. I am so grateful that I have had Cathy by my side this past year and only hope that someday I can provide the same level of support to another newcomer!

(Continued on page 3)

(Chair's column, continued)

These are exciting times! We are well underway with our current initiatives including the breastfeeding task force and our website redesign. We are always looking for new ideas and volunteers. If you think you don't have time, you are in good company—but somehow, we seem to make amazing strides when we rally for our dreams and those of the women we serve.

Jeanne Blankenship, MS, RD

(HG continued)

relief of recurrent nausea and vomiting during the day. Successful pregnancy outcomes were reported with a mean birth weight of 7.6 pounds; gestational age ranged from 35 to 40 weeks with no maternal or fetal morbidity identified. The two patients that continued to experience persistent nausea and vomiting and had to be supplemented with PN requested that feeding tubes remain inserted for partial symptom relief. The dramatic results of this prospective interventional study were likely affected by selection bias; subjects selected were likely those who exhibited adverse reactions to food intake. One strength of this study was the standardized treatment of the participants due to use of a protocol (6).

The metabolic support team at Los Angeles' Cedars-Sinai Hospital developed a similar protocol and reported more rapid and effective relief of nausea and vomiting with EN than treatment with traditional measures. Forty-eight hours after admission, small-bore nasogastric (NG) feeding tubes were placed with position confirmation by easy aspiration of stomach contents and auscultation. Iso-osmolar formulas were slowly advanced at full strength until nutrition goals were met. Oral diets were initiated once the patients experienced nausea relief for 24 hours. Feeding tubes were removed once diets were well tolerated. In the three cases reported, the protocol produced rapid and effective relief of nausea and vomiting. This study was small but supports the earlier work done by Gulley (7).

Hsu et al described similar success in 7 hospitalized HG patients with a mean weight loss of 13 pounds (8). Within 24 hours of feeding tube placement, symptoms of nausea and vomiting improved. In some women, symptoms improved with tube placement even before initiation of formula. All 7 women were discharged within 8 days, with a 43-day mean duration of enteral feedings. One patient resisted discontinuance of the feeding tube even though an oral diet was tolerated. Two patients experienced recurrent vomiting when the feeding tubes malfunctioned with resolution once tubes were replaced. Weight gain from start of enteral feedings to end of pregnancy ranged from 15 to 60 pounds. Nutrition was provided at a cost of \$8.00 per day compared to projected cost of PN at \$200.00 per day. All pregnancies were carried to full term (37-41 weeks) with positive outcomes. Though this study was not randomized nor controlled, it supports the use of EN in HG. All patients had meal-related nausea and vomiting which may partially explain the uniform success. This small select group of patients may reflect differences in pathophysiology of HG between patients in whom symptoms are linked to food consumption and those in whom it is not (8).

Enteral feeds have also been attempted in patients not exhibiting meal-related nausea and vomiting. Serrano et al reported two cases of severe hyperemesis in which percutaneous endoscopic gastrojejunostomy (PEG-J) placement was achieved and EN was well tolerated without complication (9). In the first case, PN was initiated then discontinued due to catheter related sepsis. Attempts at NG and nasoduodenal feeding failed due to tube regurgitation. Vomiting progressively decreased after PEG-J placement at 22 weeks gestation though oral intake was not possible throughout the entire pregnancy. A 4000 g male was delivered and 8 days later the tube was removed. In the second case, tube placement occurred at 16 weeks gestation after a 10.3% weight loss. Vomiting decreased progressively and returned only when oral

feeding was attempted. Epigastric pain (present prior to tube placement) continued throughout pregnancy, however adequate weight gain was achieved and a healthy male delivered. Neither patient experienced major complications. The two patients in this report had more severe cases of HG and yet still experienced success with EN (9).

More recently, nasojejunal (NJ) tube feeds have been trialed in HG patients (10). Eleven HG patients found suitable for PN opted for NJ tube placement at a medical center in Israel. The tubes were inserted endoscopically between 2 and 15 days after admission without complication. Symptoms improved as early as 48 hours after initiation of feeds but vomiting ceased completely only after 1 to 13 days. Six patients tolerated oral intake after only 3 to 4 days; the rest started eating later. In 3 patients the tube was dislodged, and one woman had to be readmitted due to recurrent vomiting. All patients experienced a gradual decrease in the intensity of nausea and vomiting, with cessation after 5 days on average. The center had considered conducting a randomized study to compare NJ feeding with other alternatives but the excellent clinical results convinced center practitioners to continue using it as the only mode of feeding HG patients (10).

In another study, Irving described the case of a 32 year-old Somalian woman with refractory hyperemesis. Initially, PN and pregnancy termination were considered; ultimately a percutaneous endoscopic gastrostomy with a jejunal port PEG-J was placed under general anesthesia. Jejunal feedings commenced and aspirated gastric contents replaced with oral rehydration solution. She delivered a healthy male weighing 2.3kg (11).

Because fluoroscopic or x-ray confirmation of tube placement is contraindicated during pregnancy, practitioners may be reluctant to use EN for HG. However, Pearce et al showed that NJ tubes could be utilized without radiation exposure or endoscopic placement. Specialized self-propelling tubes

were constructed to allow transpyloric passage via peristalsis. Feeding goals were met and positive outcomes reported though one of the two cases required enteral feeds throughout the pregnancy (12).

Not all studies have demonstrated EN as an effective treatment for HG. Erick found jejunal tube feeding ineffective in the case of a 20 year-old Haitian woman. Jejunal feeds were trialed after attempts at NG feeds failed and PN was discontinued. Course of pregnancy was complicated by pancreatitis, pneumonia, and continued emesis. Perhaps tube feeding failure could be in part attributed to multiple pre-existing conditions present in this patient. The patient was classified as malnourished with history of her first pregnancy at 15 years of age. Obstetric history revealed previous reliance on PN, preeclampsia, and sexually transmitted disease. Nutrition support failure may have been due more to co-existing conditions rather than delivery method of nutrition support (13).

Discussion

In the past decade, EN has been demonstrated to be an effective and safe treatment of HG, however tube feeding, whether gastric or jejunal, is rarely the clinician's first choice for nutrition support. Perhaps enteral feeding seems counter intuitive. Tube placement is not generally attempted in any patient with intractable nausea and vomiting, as gastric feeds would presumably exacerbate vomiting, rather than treat it. Patient reluctance to try tube feeding may stem from aesthetics or concerns of physical discomfort in securing enteral access. While no one is certain why enteral feeds work during pregnancy, it is thought that bypassing the oral route may decrease gustatory and olfactory cues which induce emesis. The cessation of vomiting independent of the duration of tube feeding suggests that intestinal dysmotility may be altered, allowing the resumption of a normal pattern of the migrating motor complex (10).

Parenteral nutrition, the standard treatment for nausea and vomiting, is less physiologic, more expensive and invasive, and carries greater risk to the patient. Parenteral formulations are limited to basic macro- and micronutrients omitting provision of nutrients available in tube feeding formulas such as fiber, phytochemicals, and omega 3 fatty acids. Enteral feeding costs an estimated \$8,000.00 less per HG patient than parenteral nutrition (14). In addition to increased costs for nutrient formulation itself, more monitoring is required with PN. Parenterally fed patients are at increased risk for infection, metabolic abnormalities including suboptimal blood glucose control, and thrombosis. One review reported a high frequency of maternal complications from centrally inserted intravenous catheters in pregnant as compared to non-pregnant women (15). PN has been associated with complications in up to 50% of cases if given centrally in pregnancy (11).

Thrombolytic and infectious complications may be inherently higher in pregnancy due to the hypercoagulable state and immunologic suppression of pregnancy (15). Pregnancy predisposes women to insulin resistance, further aggravating metabolic abnormalities. There have been some reports in the literature of the lipid component of PN initiating uterine contractions and contributing to preterm labor; the proposed mechanism was thought to be the synthesis of arachidonic acid, a precursor to prostaglandin synthesis (15). The maternal complications in one study of 26 patients included line sepsis (staphylococcus and fungal), pneumothorax, and thrombosis (15). Complications of catheter insertion such as pericardial tamponade and laceration of the subclavian artery have also been described (16). One study showed a 16% complication rate related to central line use (17), while another investigation of 10 PN cases found some alteration of liver function in every patient (18). It is theorized that the high glucose load without daily lipid supply may be related to fatty liver and liver dysfunction (18).

Several limitations exist in the literature supporting the use of EN in HG. No randomized controlled trials were found. The small numbers of HG patients in the general population and selection bias make evidence-based research challenging. Improvement in the clinical and biological status of women with HG following enteral feeding has seldom been reported. Most of the reported study participants were women in their second trimester of pregnancy, after much fetal development has occurred. Small study samples in the articles reviewed make statistical comparison difficult.

Potential drawbacks to EN include possible tube regurgitation, aspiration, and possible exposure to radiation during tube placement confirmation. In general, the current literature reports decreased or resolved symptoms of nausea and vomiting with EN and adequate maternal weight gain and fetal growth. While EN is not always feasible in patients with HG, it should be considered first over PN due to the known physiologic benefits, reported efficacy, and decreased risk to the patient. The safety of nutrition support and preferred method of administration has been well documented; however prejudices regarding preferred treatment modality will need to be overcome. More research is needed regarding the long term effects and optimal timing of nutrition support in HG patients. Data collection will need to be multi-institutional in nature in order to overcome the drawbacks of small sample size.

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Invited Editorial

Enteral Nutrition and Hyperemesis Gravidarum: Another Perspective

Miriam Erick MS RD CDE

Following the dictum “if the gut works, use it,” enteral nutrition is the preferred method of feeding a malnourished person. There are situations, however—including in hyperemetic pregnant women—where enteral support is not universally executed. This group, as a whole, has been previously well and suffers from a rapidly progressing onset of nausea and vomiting. The degree to which HG becomes disabling is often unexpected. The wishes of the client and strong sentiments of highly involved family advocates often influence the decision to implement enteral support. Several points should be considered while advocating for aggressive nutrition intervention in this population.

Research done at the Motherisk Program at the Hospital for Sick Children in Toronto, Canada indicated that approximately 3.3% of women with severe hyperemesis chose to terminate pregnancies in order to end their miseries (1). Although the religious affiliation of the caring institution plays a role in whether the conversation is allowed to surface, the longer a woman is sick, the higher the likelihood she

has considered termination. Some women acknowledge the fact they have had fleeting thoughts about termination but often feel guilty or bad admitting it. Some make random comments like “if I had a miscarriage now, I’d be sad, but ‘this’ would be over.” Women will ask if a naso-gastric tube will relieve them of their nausea and vomiting and will want a guarantee that this new intervention will not add to their current misery. In the hyperemesis patient with refractory emesis, it has been observed that a tube can be dislodged from the stomach and exit through the nares. Adding a feeding tube may “push them over the edge” faster in regards to abortion.

Early intervention with home hydration and electrolyte correction can often help break the vomiting cycle and seems to be far more welcomed than naso-gastric feeding tubes for hydration with nutrition. It should be noted that weight loss and poor dietary intake frequently predispose the woman to “Refeeding Syndrome” (2), especially hypophosphatemia. Some physicians attempt oral repletion of electrolytes without considering the potential impact on accelerating emesis.

Whether nutrition support proceeds via the enteral or parenteral route, it is challenging to assess the caloric needs of the client. The nutrition community has no universally agreed-upon formula for calories/kilogram for the HG population (3). Should we use the patient’s pregravid weight, current weight (by a specific gestational age), or if the client is morbidly obese—an adjusted weight? Are extra calories required to compensate for weight loss? How does this balance with the risk that aggressive over-feeding can increase metabolic complications?

Knowledge and control of all known triggers is primary. Five external triggers seem to be involved in HG: smells, motion, noise, bright lights and adverse climates. Elevated levels of HCG with a “beta” tail, estrogen, progesterone, as well as cytokines have been noted among sicker hyperemesis

patients, as have altered gastric rhythm patterns, but these are rarely evaluated in clinical practice. While the average gestational age at which HG abates has been noted to be 17.3 weeks from a US study, up to 5-10% of hyperemesis women are sick to term. Sleep deprivation is not uncommon secondary to severe nausea and can alter mental status significantly.

There seems to be two types of hyperemetic women: the “24/7 mega-nauseous” variant, who has debilitating nausea, cannot eat, and loses weight, and the “emetic” variant, who retches, salivates constantly and/or gags and vomits frequently. Enteral nutrition may work better in the former vs. latter profile. Nonetheless, nausea is difficult to measure and quantify, and both types of hyperemetics often feel poorly understood, even by the professionals in whom they have entrusted their care.

The client’s perception of options is important. Many hyperemetic women seem to consider total parenteral nutrition (TPN) therapeutic. Naso-gastric tube placement conveys a more punitive approach according to the women I have interviewed.

Anti-anxiety medication is often utilized to relax a (non pregnant) patient before inserting a naso-gastric tube, but is rarely used in early pregnancy because of the concerns about drug effects on fetal development. Women will ask about fetal risk exposure, but medication trials in pregnancy are rare.

Self-knowledge of a naso-gastric feeding tube is helpful. Many professionals advocate for tube feeds, yet few have had the personal experience of just what it truly feels like. I had that experience during a staff education session years ago and it was a valuable exercise. The experience was not pleasant. When I address the topic of enteral nutrition with clients, I share my experience and also add I can not compare it to TPN.

In our experience at the Brigham and Women’s Hospital, by the time a hy-

peremesis patient is referred to our Morning Sickness Nutrition Clinics as early as five weeks—she has often been sick and miserable for at least 2 weeks. Declining the offer for a tube feeding is not uncommon. In a recent case, an informational conversation about the potential benefits of enteral nutrition reduced the client to tears, prompting calls to doctors and care coordinators who felt TPN should be the mode of intervention.

Clients also need to be fully informed about the risks and benefits of all feeding modalities. While TPN generally has more complications, including line infection, and central vein thrombophlebitis, EN complications can include pressure necrosis, as well as metabolic issues such as hypophosphatemia, hyponatremia and hydration concerns (4).

Our goals are to reduce the misery these women endure, and to explore various adjunctive therapeutic options. These may include acupuncture, acupressure, olfactory alteration (i.e. smelling lemons), guided imagery, prayer, and to provide nutrition support in a manner which is agreeable to the entire team and client. If a woman is willing and agreeable to enteral nutrition, that option is certainly also available to her.

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News Brief: New WHO Growth Standards Based on Breastfed Children

GENEVA--New international WHO Child Growth Standards prove that differences in children's growth to age five are more influenced by nutrition, feeding practices, environment, and healthcare than genetics or ethnicity.

WHO and its principal partner, the United Nations University, undertook the intensive Multicentre Growth Reference Study (MGRS), a community-based, multi-country project involving more than eight thousand children from Brazil, Ghana, India, Norway, Oman, and the United States of America to develop the new standards.

Since the late 1970s, the National Center for Health Statistics / WHO growth reference has been used to chart children's growth. This reference was based on data from a limited sample of children from the United States, and contains a number of technical and biological drawbacks that make it less adequate to monitor the rapid and changing rate of early childhood growth.

The new standards are based on the breastfed child as the norm for growth and development. This brings coherence for the first time between the tools used to assess growth, and national and international infant feeding guidelines which recommend breastfeeding as the optimal source of nutrition during infancy. This will now allow accurate assessment, measurement and evaluation of breastfeeding and complementary feeding.

The first of this set of new growth charts to be released includes growth indicators such as weight-for-age, length/height-for-age, and weight-for-length/height. For the first time, there now exists a Body Mass Index (BMI) standard for children up to age five, as well as the Windows of Achievement standard for six key motor development milestones such as sitting, standing and walking.

The WHO Child Growth Standards are available at www.who.int/childgrowth.

Public Policy
Workshop Diary

Selina
Mkandawire
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I'm so thankful to WHRN for the privilege of representing our DPG at ADA's annual Public Policy Workshop (PPW). It's so exciting to help ADA advocate on behalf of its members and our major concerns, like reimbursement for MNT services, and other food and nutrition-related issues. I remember I became interested in nutrition advocacy when I learned that most

health professionals, like nurses for example, are generally promised a salary raise after completing specialized training. This does not seem to be the case in our profession. We have to go to our Congressmen/women to convince them to vote for bills which directly affect our income!

This was my second trip to represent WHRN in DC. One of this year's highlights was meeting the congressman from my area, Donald M. Payne. Three of us visited his office and were pleased that he took the time to discuss the issues presented. He expressed concern about the increasing childhood obesity rate in his Congressional district. We discussed the importance of school children meeting the "5-A-Day" guidelines, and talked about the health of our children in the future. I learned Congressman Payne once visited Malawi, the country where I was born. His staff took a picture of our visit!

At the last moment, WHRN Chair-Elect Jeanne Blankenship, couldn't attend PPW, and asked if I would present research conducted by WHRN. In 2005, at FNCE in St Louis, WHRN members, along with Mary Hager, PhD, RD of ADA's Washington office, began a discussion on revising the weight gain guidelines for pregnant women. (The current standards have not changed for the past fifteen years, since the Institute of Medicine published "Nutrition During Pregnancy!") The idea of revising the guidelines originated from the WHRN's electronic mailing list (EML), and after FNCE, the process continued with numerous discussions on the EML. ADA and WHRN submitted a paper on the topic to the Agency for Healthcare Research and Quality (AHRQ) at the NIH.

I reviewed the presentation on the train trip to Washington, and got familiar with the project. Then, when I arrived in D.C., Mary Hager handed me a new version! Well, now I had to study the new version, which fortunately contained only minor revisions. It so happened that I was the first speaker and after the presentation, there were many questions on the outcome of this research project.

I wish you all could have been there, to witness the number of people who thanked me for presenting the research. Most wanted to know how to undertake this kind of research project. It was a very productive trip!

Reflections on the 2006 ADA Leadership Institute

Jamillah Hoy-Rosas, MPH, RD, CDN

After being elected Treasurer for the WHRN DPG, an unexpected pleasure, I was given the incredible opportunity by the Executive Committee to attend this year's Leadership Institute in San Diego, California. I arrived not knowing what to expect (or what to wear) as this was my first large ADA event, outside of FNCE. Unlike at FNCE, where I usually meet up with friends or colleagues, the only person that I knew for sure would be at the Leadership Institute was Cathy Fagen, WHRN Secretary, also selected by the Executive Committee to attend.

The first night was a whirlwind of activity and early networking, during which I had the opportunity to talk with Dr. Judith Gilbride, President-Elect of ADA and the Chair of the Department of Nutrition, Food Studies & Public Health at New York University, my graduate school alma mater. It was thrilling to see her in her new leadership role. More than anything, the Leadership Institute offers you a glimpse into the leadership roles available in our profession and provides you with a variety of tools to help attain and be successful in those positions. This year's Institute featured engaging and dynamic speakers who shared specific strategies for achieving your highest potential (Leading Beyond Excellence), communicating more effectively (Fierce Conversations) and motivating others to be leaders (Gift of Leadership).

The Institute was also a great opportunity to network with colleagues from all over the world, in positions as different as an Army Dietitian to a Career Coach for RDs. As a result of the Institute, I am more confident in my ability to lead, not just in the ADA, but at home and at work. I have used the strategies presented to handle tough conversations at home, negotiate situations at work and seek out opportunities to become a more active and engaged member of ADA. I am grateful for the opportunity, so early in my career, to meet so many wonderful leaders and be exposed to so many incredible, life-changing ideas. Participating in the Institute is a gift that everyone should get to experience.



Look for Cathy Fagen's reflections on the Leadership Institute in the WHRN Report's summer issue.

About the Authors

Kathy Weir, RD, CNSD works as a clinical dietitian for Kaiser Permanente, and is a student at UC Davis, where she is pursuing a Master's of Applied Science in Maternal and Child Nutrition. When she isn't working or studying, she and her husband enjoy the company of their 5 children and 3 grandchildren.

Selina C. Mkandawire, MS, RD, EdD is an author, researcher, educator, and administrator. She currently works for St. Joseph's Hospital in New Jersey. She served WHRN as Reimbursement/Legislative Coordinator in 2005-2006.

Miriam Erick, MS, RD is a WHRN member and nationally recognized expert on perinatal morning sickness, and has authored several books on the subject. As an educational affiliate of ACOG, she has trained physicians in morning sickness management.

Jamillah Hoy-Rosas, MPH, RD, CDN is a bilingual dietitian, educator, and Certified Lactation Counselor. She is the Director of the WIC Program at Betances Health Center, a holistic community health center in Manhattan. She serves WHRN as the 2005-2007 Treasurer, and is the Diversity Chair for the New York State Dietetic Association. She was recently appointed as an Officer to ADA's Member Value Committee for 2006-2008.

Calendar of Events

June 23-25, 2006. **Association for Size Diversity and Health (ASDAH) Conference.** Case Western Reserve University, Squire Valleevue Farm, Hunting Valley, OH. Contact Miriam Berg ; miriam@cswd.org

July 13-16, 2006. **5th Annual Meeting of the International Society of Behavioral Nutrition and Physical Activity.** The Westin Copley Place, Boston, MA; isbnpa@gwu.edu; <http://www.isbnpa.org/meeting.cfm>

July 15-20, 2006. **Society for Nutrition Education Annual Conference.** Hyatt San Francisco, San Francisco, CA. Contact the SNE Office, 7150 Winton Drive, Suite 300, Indianapolis, IN 46268; 800 235-6690; <http://www.sne.org>

July 26-28, 2006. **National Maternal Nutrition Intensive Course.** (Distance Education Opportunity Available.) Minneapolis, MN. www.publichealthplanet/mnic.html

August 19-22, 2006. **6th Annual CityMatCH Urban Maternal and Child Health Leadership Conference.** Providence, Rhode Island; www.citymatch.org

Resource Spotlight

Founded by Andrea Vincent, seeMOMMYrun.com is a free informational Web portal that allows moms to communicate and make their own arrangements for running or walking together in groups. The site provides interactive schedules, group sign-ups, local race schedules, and advice for active moms of all ages and stages of motherhood. It is the mission of seeMOMMYrun.com to help moms in every community build lifelong friendships, maintain active lifestyles and act as positive role models for their families and friends. Most importantly, the groups demonstrate healthy habits to children starting at a very young age – teaching them dedication, positive body image, and even mind/body balance. Children who watch their mothers' weekly motivation and dedication are much less likely to lead sedentary lives, thus avoiding the nationwide childhood obesity epidemic. Visit online at www.seeMOMMYrun.com for more information about groups in all 50 states in the U.S.



Congratulations to our newly elected officials for the 2006-07 fiscal year!

Chair-Elect:

Cathy Fagen, MA, RD

Secretary:

Egondy Onuoha, MS, RD, CDN, IBCLC, CDE

Nominating Committee Chair-Elect:

Judith E. Brown, PhD, RD

Searching for Talented Volunteers!

Each year members of our DPG Nominating Committee spend time lost in deep thought about the future of the WHRN and who will be entrusted with leadership positions. As you can imagine, without knowing who is interested in serving, we tend to think of our friends and acquaintances, former officers and committee members.



There should be a better way, and this may be it. Let us know if you are interested in joining the group of fun, interesting, and dedicated WHRN members who are the driving force behind our DPG. If you do join in, chances are you'll be rewarded with wonderful, new friendships. Involvement won't take a ton of your time, but it will require your best thoughts and a willingness to contribute to WHRN activities. We are looking for nominations for the following officer and committee positions:

Chair-elect: This Executive Committee (EC) member performs the functions of the Chair in her/his absence, appoints committee chairs, prepares the program of work for the next year's term as Chair; and plans, organizes, and coordinates the next year's educational programs for the ADA Food and Nutrition Conference and Expo. This person takes over the Chair position after a one-year term as Chair-elect, and then assumes the role of Past-chair for a year.

Treasurer: Serves as an EC member, advises the EC on annual budget preparation, approves collection and distribution of all monies, and authorizes contracts and service agreements. This person also reports the financial status of the WHRN DPG to members annually. (2 year term.)

Secretary: As a member of the EC, is responsible for ensuring that the minutes of meetings of the EC and the DPG are recorded, reviewed, and filed at ADA Headquarters. She/he directs distribution of the official ballot to members, notifies candidates of election results, and maintains official documents of the WHRN DPG. (2 year term; next election in 2007.)

Nominating Committee: Three elected committee members identify qualified candidates for WHRN's elected offices. (2 year term.)

The Executive Committee meets at least twice a year, in person or by conference call, and there is a membership meeting annually at FNCE. Our DPG provides financial support for attending FNCE for the chair, chair-elect, past-chair, treasurer, secretary and the newsletter coordinator. Additional appointed and elected positions are supported as the program of work requires and the budget allows.

If you are a WHRN practice group member and would like to nominate yourself or someone else you think would do a great job, or find out more information about roles and responsibilities of the positions (such as full position descriptions), please email Barbara Dubois (rdubios03@snet.net) or Judy Brown (brown_j@epi.umn.edu) before August 1, 2006.

But wait...there's more!

WHRN is preparing for another productive year and we need help in a few key positions!

Assistant Publications Coordinator

This position assists the Publications Coordinator with our quarterly newsletter "The Women's Health and Reproductive Nutrition Report," and with other DPG publications such as membership and sponsor brochures. The assistant serves for one year as an apprentice and then assumes the role of the Publications Coordinator. This is a highly rewarding position, but requires a considerable amount of time and energy! Although our NY gals have had the cornerstone on this project, it is open to those outside NYC as well! During the second year of the appointment (as the Publications Coordinator), hotel and travel expenses for FNCE are provided by the DPG.

Website Redesign Committee

We need a few people to help with the redesign of our website during the next few months. We have a fabulous coordinator and just need volunteers to help get this project completed.

Breastfeeding Task Force

Several members have expressed interest in participating in the Breastfeeding Task Force. We will be teleconferencing in June to outline the activities of 2006-2007. It is not too late to join this group!

Please send me a personal response at jbship@att.net if you are interested in volunteering for any of these positions or if you would like to assist with another activity within the DPG.

Best Regards,

Jeanne Blankenship, MS, RD, CLE
WHRN Chair, 2006-2007

*Get in touch—
WHRN would
love to hear from
you!*





FNCE 2006 Update

Aloha! WHRN is gearing up for its FNCE activities in Hawaii. Here's a preview of what's planned—be sure to look for more details in upcoming issues of the WHRN newsletter, and at www.whrndpg.org.

Saturday, September 16, 2006

7:00 am to 2:30 pm

Executive Committee and Coordinators Meeting

Sunday September 17, 2006

1:30 pm

Priority Session: "Rethinking Perinatal Vitamin D Intake: Is the Current Recommendation from the DRIs Enough?" with Bruce Hollis, PhD.

"Describe key environmental and metabolic factors that contribute to hypovitaminosis D during pregnancy, lactation and early infancy. Define the level of vitamin D supplementation required to improve biochemical nutrition markers. Describe the physiological role of maternal vitamin D in human milk quality and the significance of hypovitaminosis D on maternal and infant health; and evaluate the research evidence behind current recommendations for supplementation." CPE Level 2. Suggested LNCs: 4130, 4150, 2090

5:30 pm to 7:30 pm

Membership Reception

Network with an extraordinary group of people at our reception sponsored by Martek. During the reception, WHRN member Carol J. Lammi-Keefe, Ph.D., R.D., a nutrition professor and research fellow in the University of Connecticut's Department of Nutritional Sciences will present an educational presentation on DHA entitled:

"Smarter, Better Sleeping Babies—Can What the Mother Consumes During Her Pregnancy Make a Difference?"



Monday, September 18, 2006

10:30 am to 1:00 pm

DPG Showcase

Stop by as Margarette Williamson and Jamillah Hoy-Rosas lead the way with a handful of committee members to greet members and recruit new ones.

Mother's Room

Once again, WHRN is helping to sponsor the Mother's Room at FNCE, and we're looking for volunteers to help out for an hour or two. For more information, contact: Cathy Fagen at 562-595-7930 or cfagen@memorialcare.org

or Krista Neal at 512-569-6400 (cell) or kristakaye@hotmail.com.

I hope I get a chance to see you all in Hawaii,

*Laura Couillard, MS, RD,
FNCE Coordinator 2006*

From the Editor

I never imagined when I joined WHRN that I'd have the opportunity to work on the newsletter. In fact, I'd never really given much thought to the inner workings of any of the DPGs I joined. They just seemed an ancillary benefit to my ADA membership, and a way to access specialized information particular to my clinical interests and nutrition passions. I can't even claim I was totally loyal to the groups I'd join—DPG memberships can get pricey, and I'm interested in so many that I've tended to "float" from one to another (I never dropped WHRN, though!)

Then I got a call from WHRN's current Treasurer Jamillah Hoy-Rosas,

a friend and colleague whose leadership savvy and involvement in various nutrition endeavors always amazes me. She knew I had writing and editorial experience, and WHRN, it turned out, needed an Assistant Publications Coordinator. If she warned me that the job was intense, I don't recall—but I do remember she told me I'd be working with a great group of women, including then-Publications Coordinator Kathy Scalzo. Of course, I jumped at the opportunity.

How she did it I have no idea, but Kathy had her masterful newsletter production down to a science, which made assisting her a delight. It's nearly a year since I stepped into the Publications Coordinator role, and I feel I'm only just learning how to turn out a newsletter! This past year has been quite a whirlwind, and it seems there hasn't been a moment that wasn't dedicated to working on the WHRN Report. But despite the intensity, and even the occasional frustrations, I'm grateful for the learning opportunity, and most especially for the chance to be a vital part of WHRN.

As you'll read on page 9, the opportunities abound to get involved with our DPG on a deeper level, and to play a transformative role in the future of women's health. It's an experience I highly recommend, and I hope many of you will join WHRN's efforts.

Incoming Publications Coordinator Krista Neal is already at work on our summer issue, and in the coming year you'll see an even greater balance between women's health and reproductive nutrition topics. And though our catch-up efforts have landed newsletters in your mailboxes in quick succession, you should receive next year's Reports, in a more leisurely, quarterly fashion! I, for one, am looking forward to reading them.

Happy reading,

Miri Rotkovitz, MA, RD

The WOMAN Challenge & National Women's Health Week

While women across the country celebrated Mother's Day, the Department of Health and Human Services launched National Women's Health Week, encouraging women to take a pedometer-aided virtual cross-country trek, and to take time for regular health check-ups.

Every year, Women's Health Week is marked by countless events nationwide, including health screenings, expos, races, fitness classes, and healthy-eating seminars in workplaces, community centers, houses of worship, and homes. Increasingly, the internet plays a role in these events.

This year, to coincide with National Women's Health Week, the Office on Women's Health unveiled a new national walking program for women. Women On the Move Across the Nation (the WOMAN Challenge) invites women to take part in a free eight-week walking and physical activity program that encourages participants to get 10,000 steps or 30 minutes of physical activity a day. Participants can register independently or as teams. All women and girls over the age of nine are eligible to participate. Those who join the WOMAN Challenge need only a pedometer to get started. Participants download a tracking log, pick a virtual route, and set an activity goal. As women update their logs, they can see their progress along the virtual routes--down the Pacific Coast, through the Rocky Mountains or along the Gulf states into the Caribbean, for instance. Participants also enjoy motivational e-mails and progress reports.

"I love the Web site and I really stick to the program. I tried to be physically active on a regular basis before joining this program, and I've found that wearing a pedometer encourages me to do more than I might do otherwise," says Jan Winslow, a walking challenge participant from New Mexico. "I see my efforts and record them. I'll take that evening walk more readily since it will show up on my chart. I've shed pounds without really changing, it's great!"

The Office on Women's Health (OWH) was established in 1991 within HHS. OWH coordinates the efforts of all HHS agencies and offices involved in women's health. OWH works to improve the health and well-being of women and girls in the United States through its innovative programs, by educating health professionals, and motivating behavior change in consumers through the dissemination of health information.

To participate in the WOMAN Challenge log on to www.womenshealth.gov/whw/woman/register.cfm.

NWHRC Challenges Women to "Take 10"

The National Women's Health Resource Center (NWHRC) an independent, non-profit health information source for women, challenged women nationwide to make the following 10 small lifestyle changes for National Women's Health Week (May 14-20). Learn more at www.healthywomen.org.

Walk this way. Take an after dinner walk around the neighborhood. A brisk walk can help in achieving the recommended 30 minutes of moderate-intensity physical activity on most days.

Keep the water flowing. Your body needs plenty of fluids to maintain good health -- for most women that's 2.7 liters (about 11 cups) of water from beverages and foods daily.

Check in for a checkup. Has it been more than a year since your last checkup? Call your health care professional this week and make an appointment for your annual health exam.

Pop on a pedometer. Pedometers count the number of steps you take in a day -- the more, the better.

Lather up with sunscreen. Everyone needs to use sunblock, regardless of race or skin tone. Wear broad-spectrum sunblock (SPF 30 is a good choice), applied liberally to exposed skin up to a half-hour before going outdoors.

Think colorfully when you eat. Think about this easy rule when you're grocery shopping this week or dining out. Foods with bright colors -- red peppers, oranges, green broccoli, blueberries -- are healthier for you than white bread, mashed potatoes or pasta with cream sauce.

Substitute sugar and salt. Sugar tastes good to most of us, so it's easy to consume too much. That can add pounds and limit the intake of healthier foods. Salt not only tastes good, but also enhances other food flavors. Lowering salt in your diet can reduce high blood pressure and lessen overeating.

Last call for alcohol. Say no to that second glass of wine. Limiting your alcohol intake can have substantial health benefits.

Stretch out stress. If you're working this week, take a couple of minutes to get your blood flowing by stretching your back, neck and chest muscles. This will rejuvenate you during the work day and send you home ready for an active evening.

Get a multivitamin boost. Are you getting the vitamins and minerals you need to protect your health? Probably not. Indeed, research shows that most of us don't get all the vitamins we need through diet alone. Taking a daily multivitamin helps close that gap.

2005-2006 Executive Committee

Chair-Elect

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Past Chair and Industry

Relations

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Secretary

Cathy Fagen, MA, RD
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Treasurer

Jamillah Hoy-Rosas, MPH, RD
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Chair-Elect

Barbara Dubois, DTR
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Awards Chair

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FNCE Coordinator

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Reimbursement/Legislative Coordinator

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