Breastfeeding and Diabetes: A Dietitian’s Guide

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The clinical management of gestational diabetes and other forms of diabetes during pregnancy is common knowledge for most dietitians who specialize in treating diabetics. The clinician’s time and energy are often focused on preventing maternal and infant morbidity with less emphasis placed on post-partum recovery and infant feeding plans. Yet, the effects of pregnancy and those of the early post-natal period can define future health and disease risk for both mother and child. Breastfeeding has been shown throughout the literature to benefit women, infants, and the environment. Nonetheless, questions remain about the importance, safety, and clinical management of breastfeeding for women with diabetes. This article will briefly explore the complex relationship of breastfeeding and diabetes.

Importance

The link between breastfeeding and a reduction in risk for both type 1 and type 2 diabetes in offspring has been established. Although data from individual studies has been inconsistent, a recent quantitative meta-analysis reported that overall, infants who were breastfed were less likely to develop type 2 diabetes later in life than those fed artificially (1). Notably, the length of time a woman breastfeeds her infant is an important correlate with diabetes risk. Longer duration of breastfeeding confers more protection. Studies have found that exclusive breastfeeding longer than 3 months is important to risk reduction for not only diabetes, but also for the development of childhood obesity (2). Although common practice for many women, combination feeding and early supplementation may diminish the protective nature of breastfeeding’s immunological properties and subsequently decrease the protective nature of breastfeeding.

Both human and animal modes have found maternal glucose metabolism to be significantly improved during lactation compared to non-lactating controls independent of changes in weight. For those women with GDM, parturition itself can lead to a normalization of blood glucose levels. Those with type 1 and type 2 DM also see improvements in glucose metabolism that can be enhanced by the metabolic demands of lactation, including a lower requirement for exogenous insulin (3).

Is diabetic breast milk safe?

The safety of breastfeeding is a concern for women with any form of DM. *Is my milk safe?* is often asked by diabetic mothers. Some studies have suggested that breast milk from diabetic mothers is compositionally different than that of non-diabetic mothers. Polysaturated fatty acids, elevated glucose and increased insulin concentrations characterize breast milk from diabetic mothers and may lead to an increased risk of overweight
Women’s Health & Reproductive Nutrition Report

From the Chair—Jeanne Blankenship, MS RD

The great thing about women’s health is that there is never a dull moment. We frequently hear members are looking for up to date information on women’s health topics. I hope that many of you are subscribers to Medscape’s Ob/Gyn and Women’s Health, www.medscape.com. I have found this service to be an invaluable tool in keeping up with the latest information in many areas of professional interest. Each week subscribers have access to new research, CME’s and many other resources. Check it out today. My other go-to source is the Kaiser Foundation. We’ve included information about women’s health care coverage in this issue – but visit their website (see the Editor’s Column) to see important facts and information about your state and the nation. I receive a daily e-mail that keeps me in the know about activities related to health policy and political happenings. One more, check out the CDC’s preconception website at http://www.cdc.gov/nchddc/preconception/default.htm. Join me in helping women of all ages develop their reproductive plan – this isn’t just about family planning, it’s about choices that affect all women each and every day.

The spring House of Delegates (HOD) meeting recently convened in Chicago and was one of the many highlights during my year as chair. I hope that our DPG will continue to receive great feedback from members about current issues – our delegate, Alyce Thomas, has done a fabulous job of making our voice heard at the national level. I am hopeful that our strategic planning in April will lead us to even more presence in the national agenda of ADA and of other key agencies and organizations. I am looking forward to working with our past, current and future leadership to help our DPG soar to new heights.

Since this is my last column as chair, I would like to take the opportunity to thank the members of the Executive Committee, the Committee Chairs and Coordinators and the members of WHRN for a truly rewarding experience. I am confident our next chair, Cathy Fagen, will once again serve our team with unparalleled leadership and poise.

It has been a pleasure to serve as the Chair of WHRN this past year, and although they say that all good things must come to an end, I remain “hooked” on volunteering for WHRN and for ADA. And as the governor of my great state has been known to say, “I’ll be back.” Thanks for the ride!

From the Editor—Krista Neal, MS, RD, LD

Greetings! I am really excited about this newsletter! It’s packed full of great information on new issues in diabetes. Since I don’t often work with women with diabetes, I’m thrilled for the update, and the resources for more information. Speaking of resources, while putting this newsletter together, I found two excellent websites. The first is http://www.nutrition.mchtraining.net. This site is full of information about conferences, training programs, even free online sources of continuing education. I plan to visit often. The other site I found is http://www.kaisernetwork.org/Daily_reports/rep_women.cfm. This has daily news articles all about women’s health and public policy. In addition it has links to the daily HIV/AIDS and Health Disparities Reports. I love having one, easy place to start when I want news about public policy. The last thing I’m thrilled to tell you about is the Breast Cancer 3-Day®. The Breast Cancer 3-Day® is a three day walk benefitting Susan G. Komen for the Cure. This year it will be held in several locations across the country, including Philadelphia on October 5-7, 2007. Since we’ll all be in Philadelphia for FNCE September 29-October 2, 2007, doesn’t seem like we should all take a few extra days, and have a WHRN team for the walk? For more information about the walk, see www.The2Day.org or 1-800-996-3DAY. Hopefully, spring is coming to your part of the world, and you can get out there and start walking!

The Mission of WHRN:
"To be an expert resource for accurate and timely nutrition women’s health, along with advocating for the improvement of nutrition across the lifespan."
weaning. In a study of breastfeeding and type 1 diabetes, Stage et al found the most common reason for the introduction of artificial feeding was perceived milk supply (3). Thus anticipatory guidance regarding milk supply is crucial to these mothers as with others. Women should be encouraged to monitor elimination patterns and weight gain as clues to whether the infant is receiving adequate nutrition.

Clinical Management

One expert in the field of lactation suggests that women with type 1 diabetes may have low blood sugars within an hour after feeding. Mothers are encouraged to consume a snack that includes carbohydrates and protein before or while nursing as well as maintaining a supply of "emergency" glucose sources. Caution should be used by women who experiment with herbal nursing lactagogues as they may contribute to fluctuations in blood glucose levels. Since diabetic mothers are more prone to yeast infections, they should be closely monitored as this can be a breastfeeding complication (7).

Dietitians who work with breastfeeding women with diabetes can play an important role in supporting successful lactation. Many women have incorporated self-monitoring skills into their lives during pregnancy which provides an excellent base on which to build. Women should continue to self-monitor their blood sugars as directed by their physician. Assistance with meal plans and timing can help women achieve normal blood glucose levels and provide the nutrition needs for lactation and for post-partum recovery. Since many women with GDM are likely to be obese, the dietitian may also play a role in the decision to breastfeed. Understanding that obese women are less likely to initiate breastfeeding and to continue breastfeeding is important since unique opportunities to provide guidance may occur during prenatal nutrition visits.

Conclusion

Breastfeeding remains the infant feeding method of choice, even for women with diabetes and those diagnosed with GDM. Research has shown that some of the effects of diabetes during pregnancy can be normalized in infants who are breastfed higher volumes of breast milk. Combination feeding is less protective for both mother and infant and may not provide the same benefits as exclusive breastfeeding. Dietitians can play an important role in supporting women with diabetes during pregnancy and lactation by answering questions about infant feeding and maternal diet along with diabetes self-care.

References:


4. Jackson MB, Lammis-Keefe CJ, Jensen RG, Couch SC, Ferris AM: Total lipid and fatty acid composition of milk from women (Continued on page 7)
Emerging Issues in Medical Nutrition Therapy for Gestational Diabetes
Cathy Fagen, MA, RD
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We have seen an emerging change in our U.S. demographics over the last few decades. There is greater racial and ethnic diversity with Hispanics and non-Hispanic Blacks having higher rates of overweight and obesity. Obesity rates have doubled in the last 30 years. Diabetes rates in women have increased 84% in the twenty year span of 1970-1990. Today we see increased rates of type 2 diabetes mellitus (DM) in adolescent girls. Nearly one in 25 pregnant women will have gestational diabetes (1).

Last September Senator Hillary Clinton (D-NY) and Senator Susan Collins (R-ME) introduced Senate Bill 3914, the Gestational Diabetes Act (GEDI). A companion bill, HR 6147 was also introduced by House of Representatives Vito Fossella (R-NY) and Eliot Engel (D-NY). The objective of this bill is to not only lower the incidence of GDM, but also to prevent women and their offspring from developing type 2 DM. The GEDI Act will allow for better data collection in local communities and will expand the resources available to prevent, diagnose and treat gestational diabetes. The bill did not get discussed before the closure of the 109th congressional session. So it will have to be reintroduced in the 110th session, which spans 2007-2008. The GEDI Act is endorsed by the American Diabetes Association, the American Dietetic Association, and 12 other national organizations but individual letters of public support should also be sent to congressional representatives.

In the mean time, the American College of Obstetrics and Gynecology (ACOG) Committee Opinion of 2005 advises OB/GYNs to offer nutrition consultation to all obese women and urge these women to exercise. They also recommend screening obese pregnant women for GDM during their first trimester, and if negative, rescreen at 24-28 weeks gestation (2). One of the screening recommendations presented at the 5th International GDM Workshop/Conference held this last November was to add maternal birthweight to the list of risk factors for early prenatal screening for GDM. A high maternal birthweight is associated with risk for GDM (3).

Weight Gain Recommendations
In December 2005, the Women's Health and Reproductive Nutrition Dietetic Practice Group (WHRN DPG) and the American Dietetic Association Policy Initiatives and Advocacy Team submitted a topic nomination to the Agency for Healthcare Research and Quality (AHRQ) proposing a systematic evidence analysis that would determine whether the 1990 Institute of Medicine weight gain recommendations for pregnancy are still appropriate or require revision. In September 2006 we received word that our topic was selected by the AHRQ. RTI (Research Triangle Institute) International, in a partnership with the University of North Carolina at Chapel Hill (UNC), has been contracted by AHRQ to conduct the ADA-sponsored systematic review of outcomes associated with maternal weight gain.

In May 2006, a workshop/conference was held in Chicago to look at the impact of pregnancy weight gain on maternal and child health. Researchers presented their evidence. Gaps in the research were identified, as well as findings to be related into practice. One study published by Jensen and others concluded that gaining <5-10 kg in an obese pregnancy was more beneficial to the pregnancy outcome and that implementing weight gain restrictions may be useful in working with obese women during pregnancy (4).

Calorie Recommendations
At this time there is no formula supported by research to determine the estimated energy requirement for overweight or obese pregnant women. One study by Dornhorst and others found a 33% caloric restriction in
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obese pregnancies with GDM is considered safe. In this study the 33% caloric restriction amounted to 1800 calories (5). To meet the nutritional requirements of pregnancy an 1800 calorie level is the minimum recommended by the California Department of Health Services, Maternal, Child and Adolescent Health Branch and the California Diabetes and Prenancy Program (6). A sample GDM food pyramid is available on their website at:

www.llu.edu/llumc.sweetsuccess.

Exercise Recommendations
The 2002 ACOG Committee Opinion on Exercise during Pregnancy supports exercise as helpful adjunctive therapy for GDM. The bulletin states that exercise may also be beneficial in primary prevention of GDM and recommends ≥ 30 minutes of moderate daily exercise if there are no medical or obstetric complications present (7).

Dietary Recommendations
The American Dietetic Association (ADA) Nutrition Practice Guidelines (NPG) for GDM (2001) is currently under revision by a working committee who is reviewing the research conducted in the last 5 years. They are evaluating diet composition and the role of fats, antioxidants, micronutrients, and glycemic load (GL). This revision of the NPG is not expected to be ready until 2008. For a copy of the 2001 ADA MNT Evidence Based NPG for GDM go to ADA’s online catalog at www.eatright.org or call ADA’s Member Service Center at 800/877-1600, ext. 5000.

An Australian study on nonpregnant and non-diabetic overweight or obese subjects released in July 2006 concluded that glycemic load, and not just overall energy intake, influences weight loss and postprandial glycemia (8). Subjects were assigned to one of four ad libitum diets for 12 weeks (see Table 1). Diets 1 and 2 were both high in carbohydrate (55% CHO, 15% PRO, 30% FAT). Only the glycemic index varied. Diets 3 and 4 were both high in protein (40% CHO, 25% PRO, 30% FAT) but varied in glycemic index. Results of this study showed Diet 1 (conventional diet) was associated with the highest level of postprandial glycemia as well as slowest rate of weight loss. The higher protein diets maximized cardiovascular risk reduction but subjects on Diet 4 who consumed lower glycemic index foods with high protein diet did even better. Diet 4 (40% CHO, 25% PRO, 30% FAT) which used low glycemic index food was similar to the dietary recommendations for GDM women. The ADA MNT NPG for GDM recommends low glycemic index foods with a dietary pattern of 35-45% CHO, 20-25% PRO, and 30-40% FAT (9).

The American Heart Association Guidelines released in June 2006 provided new recommendations for fat intake. The recommendation is to decrease saturated fat to less than 7% of energy intake with less than 1% trans fat. Approximately 10% of energy should be derived from PUFA and the rest from monounsaturated (10).

<table>
<thead>
<tr>
<th>Table 1. Four Diets of Varying Glycemic Index</th>
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<tbody>
<tr>
<td>1. High GI: Based on common high-GI, high fiber foods</td>
</tr>
<tr>
<td>2. Low GI: Based on low-GI alternatives to Diet 1 foods</td>
</tr>
<tr>
<td>3. HiPro: Protein supplied by lean red meat, incorporating high-GI, fiber-rich foods</td>
</tr>
<tr>
<td>4. HiPro/lowGI: Same as Diet 3 except for incorporating low-GI carbohydrate foods</td>
</tr>
</tbody>
</table>
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(saccharin, aspartame, acesulfame K and sucralose) is considered safe in pregnancy (11).

Monitoring

Daily routine ketone testing is not necessary or recommended any longer since many women will have trace or small ketones in a normal pregnancy. Ketone monitoring may be indicated in a GDM pregnancy if continuous weight loss occurs or if blood glucose values are consistently ≤ 60 or ≥ 180 mg/dL. However, blood tests (ketonemia) are much more reliable than urine tests (ketonuria).

The target values for self blood glucose monitoring (SBGM) have not changed since the 4th International GDM Workshop/Conference of 1997 (see Table 2) but there is still a lack of consensus among providers. Glucose levels have become the main key player for monitoring and aiming treatment during pregnancy. We still need to acquire more knowledge on metabolism of amino acids Lispro (Humalog) in GDM was published in 1999. Since then Aspart (Novolog) also has been shown to be safe and efficacious. These two insulins are more immunogenic than human insulin. Glargine (Lantus) and Detemir have a 7 to 9 fold increase in insulin like growth factor (IGF1) and are not recommended in pregnancy at this time.

Since Langer’s randomized controlled trial comparing insulin to Glyburide for treatment of GDM (12), Glyburide use in pregnancy has become more widespread. The findings from four retrospective assessments are that Glyburide has a 12-19% failure rate if used in women less than 30 weeks gestation who have a fasting blood glucose ≥ 110 and a one hour postprandial ≥ 140 mg/dL (13). These women need insulin. There are many unresolved issues regarding Glyburide treatment in GDM such as quantifying teratogenic risk, determining ideal dosing interval, and risk of use during lactation. We await the results of more research.

What about Postpartum and Interconception Care?

Many women who had GDM in their pregnancy do not receive adequate follow up care in the postpartum and interconception periods. These women are at increased risk of developing GDM in subsequent pregnancies and/or developing type 2 DM later in life. The American Diabetes Association and ACOG recommend all women diagnosed with GDM be tested for type 2 DM and/or prediabetes at 6 – 12 weeks postpartum and annually thereafter. The preferred postpartum screening method is the 2 h 75 g OGTT followed by a yearly fasting blood glucose check and a repeat 2 h 75 g OGTT every 3 years (14, 15)(see Table 3).

Table 2. Whole Blood vs Plasma Values

<table>
<thead>
<tr>
<th>Target BG values*</th>
<th>Whole Blood mg/dL</th>
<th>Plasma mg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting</td>
<td>≤ 95</td>
<td>≤ 105</td>
</tr>
<tr>
<td>1 hr</td>
<td>≤ 140</td>
<td>≤ 155</td>
</tr>
<tr>
<td>2 hr</td>
<td>≤ 120</td>
<td>≤ 130</td>
</tr>
</tbody>
</table>


and lipids as well as other metabolic-nutritional factors.

Medications

Something new in the last few years is the introduction of insulin analogs and oral agents being used in pregnancy. The insulin analogs were developed to improve absorption rates without an increase in anti-insulin antibody titers. The first clinical trial to show efficacy and safety of using

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Breastfeeding and Diabetes: A Dietitian’s Guide
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They should provide their name, mailing address, ADA membership number, phone number and issue missing. We want all members to receive their newsletters!

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WHRN _list-subscribe@yahoogroups.com
Emerging Issues in Medical Nutrition Therapy for Gestational Diabetes

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A recent study published in December 2006 examined the rate of postpartum follow-up for women with GDM. Only 45% of the women in the cohort study received the postpartum screening for diabetes. More than 36% of these women who were tested had persistent abnormal glucose tolerance. The authors concluded: "With the magnitude of the public health problem posed by the rising incidence of diabetes in the United States, further attention needs to be given to these high-risk women, including identifying and eliminating obstacles to postpartum care and glucose testing." (16)

The good news from the National Diabetes Education Program (NDEP) is that It’s Never Too Early to Prevent Diabetes. A tip sheet on A Lifetime of Small Steps for a Healthy Family is available in both English and Spanish from the NDEP at www.ndep.nih.gov or call 1-800-438-5383. This ma-

<table>
<thead>
<tr>
<th>Table 3. Postpartum Diabetes Screening</th>
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<tr>
<td><strong>Normal</strong></td>
</tr>
<tr>
<td>Fasting &lt; 100 mg/dl</td>
</tr>
<tr>
<td>2 h PG*** &lt; 140 mg/dl</td>
</tr>
<tr>
<td><strong>Prediabetes</strong></td>
</tr>
<tr>
<td>FPG ≥ 126 mg/dl</td>
</tr>
<tr>
<td>2h PG ≥ 200 mg/dl</td>
</tr>
<tr>
<td><strong>Diabetes Mellitus</strong>*</td>
</tr>
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* In the absence of unequivocal hyperglycemia and acute metabolic decompensation, these criteria should be confirmed by repeat testing on a different day.

** FPG = Fasting Plasma Glucose

*** 2h PG = 2 hour Post Glucose Load

Note: The FPG is less sensitive than the 2h OGTT when diagnosing abnormal glucose metabolism. Up to half the abnormalities can be missed by using FPG alone (6).


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Emerging Issues in Medical Nutrition Therapy for Gestational Diabetes


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Websites for Diabetes in Pregnancy Information

In today’s world with so much information at our fingertips, it is helpful to know what are the credible sources of information on diabetes in pregnancy. The following websites may be the most helpful.

For Clients:

www.cdc.gov/ncbddd/bd/diabetespregnancyfaqs.htm

www.lifeclinic.com/focus/diabetes/pregnancy_main.asp


For Professionals:

www.llu.edu/llumc/sweetsuccess

www.sweetsuccessexpress.com/guidelines.htm

www.ndep.nih.gov/campaigns/smallsteps/gameplan/gp_booklet.htm

www.diabetes.org/diabetes-research/summaries/pregnancy.jsp

Check out [http://www.nutrition.mchtraining.net](http://www.nutrition.mchtraining.net) for information on training programs in maternal and child health. Included are fellowships, graduate programs, conferences and online training opportunities.

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<table>
<thead>
<tr>
<th>Diagnosis of GDM with 75 and 100-g oral glucose loads</th>
<th>75 g</th>
<th>100 g</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mg/dl</td>
<td>mmol/l</td>
</tr>
<tr>
<td>Fasting</td>
<td>95</td>
<td>5.3</td>
</tr>
<tr>
<td>1 hour</td>
<td>180</td>
<td>10.0</td>
</tr>
<tr>
<td>2 hour</td>
<td>155</td>
<td>8.6</td>
</tr>
<tr>
<td>3 hour</td>
<td>n/a</td>
<td>n/a</td>
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</tbody>
</table>

Two or more of the venous plasma concentrations must be met or exceeded for a positive diagnosis. The test should be done in the morning after an overnight fast of between 8 and 14 h and after at least 3 days of unrestricted diet (150 g carbohydrate per day) and unlimited physical activity. The subject should remain seated and should not smoke throughout the test.

WOMEN'S HEALTH INSURANCE COVERAGE
February 2007

Health insurance coverage is a critical factor in making health care accessible to women. Women with health coverage are more likely to obtain needed preventive, primary, and specialty care services, and have better access to many of the new advances in women's health. The patchwork of different private sector and publicly funded programs in the U.S. leaves nearly one in every five non-elderly women uninsured.

Sources of Health Insurance Coverage
Employer-Sponsored Insurance provides coverage to

![Figure 1: Women's Health Insurance Coverage, 2005](image)

<table>
<thead>
<tr>
<th>Coverage Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Job-Based, Own Name</td>
<td>38%</td>
</tr>
<tr>
<td>Job-Based, Dependent</td>
<td>24%</td>
</tr>
<tr>
<td>Individual/Private</td>
<td>6%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>10%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>19%</td>
</tr>
<tr>
<td>Other Government</td>
<td>3%</td>
</tr>
</tbody>
</table>

Total = 93 Million Women Ages 18 to 64

Note: Other includes Medicare, Champuss, and other sources of coverage. Source: Kaiser Family Foundation/Urban Institute analysis of March 2006 Current Population Survey, Bureau of the Census

almost two-thirds of women between the ages of 18 and 64 (Figure 1). Although women and men have similar rates of job-based coverage overall, women are less likely to be insured through their own job (38% vs. 50%, respectively) and more likely to have dependent coverage (24% vs. 13%).

Medicaid, the health program for the poor, covers 10% of non-elderly women. Typically, only very low-income mothers, pregnant women, and certain women with disabilities qualify.

Individually purchased insurance is used by just 6% of women. This type of insurance can be costly and often provides more limited benefits than job-based coverage, and can leave women more exposed to health care costs.

Other government health insurance covers a small fraction (3%) of women under age 65 because coverage is limited to women who either have a disability (Medicare) or are the spouses or dependents of those in the military (CHAMPUS, TRICARE). Medicare is the primary form of coverage for those 65 and older and many women with long-term disabilities.

Uninsured women account for 19% of the non-elderly population of women. Most of these women either do not qualify for Medicaid, do not have access to employer-sponsored plans, or cannot afford individual policies.

Employer-Sponsored Insurance

Over 57 million non-elderly women in the U.S. get their health coverage from their own or their spouse's employer. Historically, fulltime employment has provided the greatest opportunity for securing job-based coverage. However, even full-time work does not guarantee coverage.

- Women in families who have at least one individual working fulltime are the most likely to have job-based coverage (74%) and much less likely to be uninsured (15%) than women in families that work part-time (32%) or that don't have workers (31%).
- In 2006, annual insurance premiums averaged $4,242 for individuals and $11,480 for families.

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Women’s Health Insurance Coverage Fact Sheet

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Workers typically picked up 16% of the premium costs for individual coverage and 27% for family coverage.²

- Among workers, women are less likely than men to be eligible for and to participate in their employer’s health plan. The overall take-up rate for employer-sponsored coverage is 80% for women workers compared to 89% for men.³ This is in part because women are more likely to work part-time, have lower incomes, and rely more on spousal coverage.

- Women are more vulnerable to losing their insurance should they become divorced or widowed, because they are more likely than men to be covered as dependents. Women are also at greater risk of losing coverage if their spouse loses his job or his employer drops family coverage or increases premium and out-of-pocket costs to unaffordable levels.

- Cost pressures are increasingly acting as a barrier to health care—even for women with private insurance. In 2004, one in six privately insured women reported she postponed or went without needed care because she couldn't afford it, up from 2001.⁴

Medicaid

According to Medicaid program statistics, in 2003 nearly 19 million low-income women (19 to 64 years) were enrolled in Medicaid, the state-federal program for low-income individuals.⁵ Medicaid is only available, however, to low-income women who are parents, pregnant, disabled, or over 65 and who also meet the program’s very restrictive income eligibility criteria.

- Over half of (57%) non-elderly women (18 to 64 years) on Medicaid are considered “poor” under federal guidelines (less than 100% Federal Poverty Level (FPL) and one-quarter (27%) are near-poor (100-199% FPL).

- Medicaid disproportionately carries the weight of covering the sickest groups. One-third (34%) of non-elderly women on Medicaid rate their health as fair or poor, compared to only 11% of low-income women covered by employer-sponsored coverage.¹

Medicaid covers a broad range of services that are important for women including inpatient and outpatient care, prescription drugs, long-term care, prenatal care, family planning, and preventive services such as Pap smears and mammograms.

- Medicaid finances over one-third (37%) of all births in the U.S.,⁶ nearly half (43%) of all nursing home spending,⁷ and accounts for 61% of all publicly funded family planning services.⁸

- In recent years, states have expanded Medicaid eligibility to assist certain low-income uninsured women with the costs of family planning services (24 states)⁹ as well as breast and cervical cancer treatment.

While Medicaid is the backbone of the nation’s health care safety-net, the program has been at the center of a national debate. Recent federal legislation has cut funding for Medicaid by $10 billion over the next ten years, and made policy changes that will give states far more latitude to charge low-income beneficiaries premiums and co-payments than they historically have had.

Uninsured Women

Over 17 million women are uninsured. When women are uninsured, they are more likely to postpone care and to forgo filling prescriptions than their insured counterparts and often delay or go without important preventive care such as mammograms and Pap tests (Figure 2). These individuals lack adequate access to care, get a lower standard of care when they are in the health system, and have poorer health outcomes. An Institute of Medicine report estimates that 18,000 people die unnecessarily each year because they are uninsured.¹⁰

- Women who are younger and low-income are particularly at risk for being uninsured, as are women of color, especially Latinas (Figure 3).

- Nearly eight out of ten (79%) uninsured women are in families with at least one part-time or full-time worker. Almost two-thirds of uninsured women (64%) are in families with at least one adult work-

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ing full-time. Just 21% of uninsured women are in families without workers.

Outlook for the Future

Addressing Affordability: The steady growth in health costs has had a disproportionate effect on women because of their lower incomes and greater need for health care services throughout their lives. While growth in health care spending has slowed, it still doubles the rate of growth for wages. Some policymakers and employers have looked to so-called “consumer-driven” health care models to control spending. These plans encourage consumers to make more economical choices by paying directly for some health services; however, these plans are not widespread and it is not clear what impact they will have on spending and affordability. In the public sector, policymakers have allowed for greater cost-sharing in Medicaid in order to control costs, but this could also expose low-income women to higher out-of-pocket spending and potentially limit their access to care.

Covering the Uninsured: In recent years, there has been bipartisan interest in broadening access to health coverage to the nearly 47 million uninsured Americans, but without consensus on how to achieve this goal. While there has been relatively little activity at the federal level, a handful of states have recently adopted or are considering proposals to expand coverage. States are using a combination of strategies, such as expanding public programs to cover most children in a state, mandating employers to cover all workers or contribute to a public financing pool, and requiring all individuals to carry health insurance, with subsidies for those with lower incomes. Given the importance of health insurance in improving women’s access to care and health status, federal, state, and private sector efforts will be needed to expand coverage to the over 17 million uninsured women.

Endnotes
4 Kaiser Family Foundation, Women and Health Care: A Na-
Women’s Health Insurance Coverage Fact Sheet

(Continued from page 13)

7 Centers for Medicare and Medicaid Services, National Health Accounts, 2006.
9 Alan Guttmacher Institute, State Policies in Brief, December 2006.
10 Institute of Medicine, Care Without Coverage: Too Little, Too Late, 2002.

Newly Elected Officers

WHRN congratulates and welcomes the newly elected 2007-2008 Officers:

Jamillah Hoy-Rosas, MPH, RD, CDN - Chair-Elect
A WHRN member since 2001 Jamillah has held appointed offices within WHRN as 2003-2004 Membership Co-Chair and 2001-2003 Calendar of Events Coordinator. She has been a member of the Executive Committee as Secretary 2005-2007. Currently, Jamillah, is Director for the Betances Health Care WIC Program in New York.

Nancy Turnier-Lamoureux, MS, RD - Treasurer
A WHRN member since 2002, she is currently Outreach Coordinator/Site Supervisor for St. Joseph’s Regional Medical Center WIC Program in New Jersey.

Gina Jarman-Hill, PhD, RD, LD - Nominating Committee - Chair-Elect
A WHRN member since 2005, she has been involved with State and Regional Affiliate Offices from 2001-2006. She is a current member of the Texas Breastfeeding Coalition and is currently Assistant Professor of Nutrition Sciences, Texas Christian University in Texas.

D. Enette Larson-Meyer, PhD, RD - Awards Chair
A WHRN member since 2003, she is involved with the Breastfeeding Task Force. Enette has an impressive history working on a variety of committees on the DPG Level. Enette is Assistant Professor at the University of Wyoming in Wyoming.
Breastfeeding Case Studies—Egondu Onuoha, MS, RD, CDN, IBCLC, RLC, CDE

CASE I
Audrey’s baby Ada is eighteen months old and was exclusively breast-fed until she was six months old. Cereal was introduced at six months and the mother continues to breastfeed (with no formula given nor bottle used). At six months, Ada developed the two upper molar teeth and then two months later, she developed the two lower teeth. Audrey takes the baby to the dentist regularly. Ada nurses throughout the night and the mother realized on cleaning the baby’s teeth, that the upper teeth were brittle. The dentist told her it was the breast milk and that she should start weaning the baby off the breast and onto regular cow’s milk(whole milk).

Nutritional assessment of the mother revealed that her intake of calcium was greater than 100% RDA for lactating women.

Audrey calls you stating that she enjoys breastfeeding and Ada will not be able to sleep without nursing. She is scared that Ada will become sick if she must wean her now.

EXPLANATION
Several studies have shown that breastfed children have less dental decay than bottle-fed children. The likely reason is the mechanical differences between breastfeeding and bottle-feeding. Rampant dental caries occur in bottle-fed children.

- The child is 18 months old and solids have been introduced at 6 months. The child nurses throughout the night. When a child ingests a sugar-rich food and then breastfeeds, the lips are pressed against the teeth, thus restricting flow of saliva and facilitating caries development. Family history of dental enamel problems should be investigated. Tooth susceptibility is genetically programmed. Children with a strong family history of caries may need fluoride supplements while breastfeeding. They are at special risk if they suckle all night after age one.
- Review foods that are given to child. The most cariogenic solutions are soda, fruit juice, sweetened cow milk, chocolate milk and sugar water.
- Mother should not wean. Monitor solid foods and avoid foods that are highly cariogenic. Avoid uninterrupted breastfeeding at night.
- Fluoride supplementation may be indicated depending on family history.
- Brush teeth or wipe teeth and gums two times per day.

CASE II
Natalie is a 23-year-old mother nursing her first baby. Her baby is 7 days old and is exclusively breastfeeding. She has suddenly realized that her baby throws up brownish milk. Upon pumping, she realizes that her left breast is making the brownish milk. She has not noticed any lumps nor does she feel any pain. The baby is nursing well and has gained weight.

She has seen the doctor who has done some laboratory tests and has referred her to the Lactation Consultant/Breastfeeding Specialist, pending the results of the test. Natalie calls you stating that she fears her milk might harm the baby. She believes breastfeeding is best but feels she must stop nursing.

EXPLANATION
- Evaluate baby and mother.
- Check for nipple soreness or cracks.
- If there is no bleeding and no pain, consider rusty pipe syndrome.
- Evaluate pumping of milk.
- Evaluate use of breast shells.

Rusty pipe syndrome occurs more often in primiparous mothers during the early stages of lactogenesis and is not associated with any discomfort. It results from old blood in the ducts, a residual of rapid growth and vascularization during pregnancy. The milk is not harmful and usually clears on its own in 1-2 days. Mother can continue pumping and may choose to discard milk. Breastfeeding does not need to be interrupted.

References


Join the WHRN Breastfeeding Taskforce! Send an email to
WHRN BF Taskforce subscribe@yahoogroups.com
Assess & Learn Online Module

CDR introduced a new Assess & Learn online resource to familiarize dietetics practitioners with the Nutrition Care Process in January 2007. This new module, entitled *Managing Type 2 Diabetes Using the Nutrition Care Process* is designed to assess what knowledge and skills RDs/DTRs currently have in a particular area, within the context of a case scenario.

In addition to self-assessment tools, learning is facilitated through the following:

- Each multiple choice question is followed by feedback that provides an explanation for why each question option is correct or incorrect, current references and web links for additional information.
- Evidence-based nutrition information, current research literature, and existing government disease-specific consensus guidelines and recommendations are used to support various courses of action and care.

The Assess and Learn provides feedback on your performance to assist you in determining your current and future learning needs. After completion, you will be able to use your assessment results to help complete the learning needs assessment and establish your learning action plan for CDR’s *Professional Development Portfolio*.

The module is approved for 5 CPEUs. The cost is $45.99 for ADA members and RDs/DTRs. This is just over $9.00 per CPEU credit. To purchase or obtain more information, please view the CDR Education Director Website at the following link: [http://cdrnet.educationdirector.com](http://cdrnet.educationdirector.com) to purchase or obtain more information, please view the CDR Education Director Website at the following link: [http://cdrnet.educationdirector.com](http://cdrnet.educationdirector.com). Once at the website, for more information or to view the course catalog, please click on “New User” on the left hand side of the screen. Once you enter your information, you will be able to view the site. To view course descriptions or to register for a course, please click on “Catalog”. Please note there is no cost to view the course catalog and there is no obligation to purchase a course.

Coming soon in summer 2007:
Assess and Learn Module for Sports Dietetics

Coming soon in fall 2007:
Assess and Learn Module for Gerontological Nutrition

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**PLAN AHEAD**

American Dietetic Association
2007 Food & Nutrition Conference & Expo
September 29 – October 2, 2007
Philadelphia, Pennsylvania

WHRN and Research DPGs Joint Session:
“Reproductive Obesity: Effects on Maternal and Child Outcomes”

Speakers:
Janet King, PhD, RD
Kathleen Rasmussen, ScD, RD

Session Date and Time:
Sunday, September 30<sup>th</sup>, 2007
8:30 am-10 a.m.
Goals of the Women’s Health and Reproductive Nutrition Dietetic Practice Group

Goals:

WHRN DPG promotes the development of dietetics professionals in the specialty area of nutritional care in women’s health which includes preconception through pregnancy and lactation and expanded to late menopause.

The objectives of the Women’s Health and Reproductive Nutrition DPG are:

To promote nutrition and dietetics as an area of practice in the field of women's health.

To provide technical input to ADA concerning the role of nutrition throughout a woman's lifespan.

To promote increased understanding of perinatal nutrition issues, both normal nutrition, and high-risk management, within the dietetics profession.

To encourage and stimulate research in the area of women's health and perinatal nutrition.

To provide leadership in the specialty area of maternal nutrition needs during pregnancy and lactation. To serve as a resource to the public and professionals providing health care for women.

To provide the ADA membership with a forum and network for exchange of information, issues, and concerns in women’s health. The Food & Nutrition Conference & Expo sessions and a quarterly publication are current methods for communication.

To produce educational materials and standards of care to address both normal nutrition and high-risk conditions requiring medical nutrition therapy during preconception, pregnancy, lactation, and through menopause.

To develop networks with allied health professionals and organizations concerned with the care of women in their reproductive, peri-menopausal and menopausal years.

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