



WOMEN'S FACULTY COMMITTEE NEWSLETTER February 2008

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<http://www.umassmed.edu/deoo/wfc>
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WHAT'S HAPPENING AT UMASS

Women's Faculty Committee Interim Report:

Fall 2007 was a busy and productive time for the Women's Faculty Committee. In collaboration with the Women's Leadership Work Group, the WFC co-chairs refined and presented three recommendations to UMMS Dean Flotte, UMMHC President Walter Ettinger, and to the UMMS/UMMHC Leadership Council. All enthusiastically supported our efforts. The recommendations describe three strategies to attract, retain, and promote women faculty into senior academic ranks (Professor) and leadership positions in both the school and clinical system. You can read more about these recommended strategies, both here and at other organizations, in this newsletter. In addition, with the Office of Work-life Balance, the members of the WFC and other women faculty will participate in career discussions at the spring MD-PhD retreat and at to-be-planned events for medical students, residents, and graduate students.

The WFC is planning the following spring events and we look forward to your participation:

- Women's History Month presentation in March
- 8th Annual Awards Program in May
- Women's health research lecture in June

We hope you enjoy this issue of the Newsletter. We thank our new Editors: Sybil Crawford, Qionglin Zhou, and Anne Bateman for their efforts to maintain the comprehensive content that we have come to appreciate.

Please feel free to contact us if you have questions or interest in participating in the WFC events.

Respectfully submitted, **Rosemary Theroux, RNC, PhD** and **Patricia Franklin, MD**, Co-Chairs of the WFC.



Congratulations to:

Zheng Z. Bao, PhD was promoted to Associate Professor of Medicine and Cell Biology
Maryann Davis, PhD was promoted to Research Associate Professor of Psychiatry
Manisha S. Desai, MBBS, was promoted to clinical associate professor of anesthesiology
Marci Jones, MD was promoted to Clinical Associate Professor of Orthopedics & Physical Rehabilitation
Shubjeet Kaur, MBBS, was promoted to clinical professor of anesthesiology
Jean A. King, PhD was promoted to Professor of Psychiatry
Leslie M. Shaw, PhD was promoted to Associate Professor of Cancer Biology

Susan B. Gagliardi, PhD, Professor of Cell Biology and Neurology, was awarded the Master Teacher Award from the International Association of Medical Science Educators.

JeanMarie Houghton, MD, PhD, Associate Professor of Medicine, was a recipient of the Presidential Early Career Award for Scientists and Engineers, the highest honor given by the US government to scientists and engineers beginning independent careers.

Heidi Tissenbaum, PhD and **Marian Walhout, PhD**, as well as **Stephen Doxsey, PhD** and **Hong Zhang, PhD**, are recipients of the Ellison Foundation's Senior Scholar Award in Aging.

UPCOMING EVENTS OF INTEREST:



One-Woman Play: On Wednesday, March 19, 2008, in the Faculty Conference Room from 11:30 to 1pm, the Women's Faculty Committee, in collaboration with the Library's Office of Medical History and Archives, will present the play, "Yours for Humanity – Abby," a production of the Worcester Women's History Project. This one-woman play was written to honor one of American's earliest and most courageous abolitionists, the advocate for women's rights and Worcester native, Abby Kelley Foster. It was first performed at the "Worcester Women—2000" conference held to honor the first national women's rights conference of 1850. Since its debut, the play has been performed by actress Lynne McKenney Lydick in New York City and throughout Massachusetts.

Lunch will be available, starting at 11:30. RSVP required. Please contact Nellie Toney at nellie.toney@umassmed.edu

Women's History Month Program: On Wednesday, March 26, 2008, 12:00-1:00pm in Amphitheater I at the University Campus, Evelyn Murphy, former lieutenant governor of Massachusetts and President of The WAGE Project, Inc., will present "Getting Even – Why Women Don't Get Paid Like Men and What to Do About It."

8th Annual Women's Faculty Committee Awards Program: The annual Women Faculty Awards Program to honor outstanding achievements of our women faculty will be held on Thursday, May 15, 2008, at noon in the Faculty Conference Room. The call for award nominations will be distributed soon, including details regarding specific awards and criteria. Please plan to join us at the luncheon to honor your colleagues.

June 2008 Women's Health Lecture: JoAnn Manson, MD, DrPH, Chief, Division of Preventive Medicine at Brigham and Women's Hospital and Professor of Medicine and the Elizabeth Fay Brigham Professor of Women's Health at Harvard Medical School, will be speaking about the latest research in women's health on Wednesday,

June 4, 2008 from noon to 1pm in the Faculty Conference Room. Her talk is titled "Controversies in Women's Health: Making Sense of Recent Clinical Trials." Dr. Manson is a leading researcher in women's health, with a focus on the role of lifestyle factors such as diet and physical activity in cardiovascular disease. She is a lead investigator in a number of key studies, including the Women's Health Initiative and the Nurses' Health Study, and is an author or co-author of more than 400 scientific articles.

Professional Development Seminar: Applications are now open for the Association of American Medical College's (AAMC) Early Career Women Faculty Professional Development Seminar, scheduled for July 12-15, 2008 at the Ritz Carlton Hotel, Washington, DC. Designed for women assistant professors, the program focuses on academic medicine career building and skills in CV development and basic management. The full program and application materials are available on the AAMC meetings website:

<http://www.aamc.org/meetings/specmtgs/ewim08/start.htm>. Applications are asked to submit a CV along with their online application. Full details are included on the meetings website. Applicants are encouraged to apply early, and applications will not be accepted past the deadline of Friday, March 7, 2008. Questions should be directed to Jenn Leadley, Staff Associate for Faculty Development and Leadership Programs, jleadley@aamc.org or Rachael Bradshaw, Meetings Planner, rbradshaw@aamc.org.

Flexible Work Options Policy (for UMMS staff): The new Flexible Work Options Policy will be implemented on March 3, 2008. Over 240 managers have attended training regarding this policy, and several additional trainings are in place for employees before the policy is launched. A schedule of trainings can be found on the Human Resources website. If you have questions or comments, please contact Janet Hirsch, 508-856-2958.

MD/PhD Annual Retreat: The third MD/PhD Annual Retreat will be held March 28, 2008. One of the Small Group offerings will be on Work-Life. Leslie Harrold, MD, MPH and Linda Sagor, MD will lead a roundtable discussion on Work-Life issues.

eScholarship: eScholarship@UMMS (<http://escholarship.umassmed.edu>) is a centralized and searchable repository of scholarly works by the UMass Worcester community, including published articles, conference proceedings, posters, white papers, and dissertations. The project is funded and supported by the Lamar Soutter Library. Sally Gore, MS, LIS, librarian and project coordinator, is working with a subcommittee of the Women's Faculty Committee to include works by UMass women faculty. To date, the project includes information from 16 colleagues representing faculty, researchers, and clinicians. The project will facilitate collaboration across departments and disciplines – and the higher the participation, the more useful this resource will be, so please consider joining by sending your CV to Sally Gore (Sally.Gore@umassmed.edu).

Mother's Rooms: UMMS has opened a new Mother's Room in the University Campus Medical School (S6-100B), equipped with a hospital grade Medela Symphony breast pump. To arrange pass-card access, please contact Janet Hirsch (508-856-2958). There is also a refurbished Mother's Room in the South Street building, second floor of Building 1 (SHR 1-2), also equipped with a hospital grade Medela Symphony breast pump. Employees can pick up the room key at the Service Window of the Security Control Room in the Main Lobby, and there will be sign-up sheets posted in the mother's room to indicate your schedule and planned usage. For questions or comments, please contact Janet Hirsch, Work-Life Manager, at 508-856-2958 or janet.hirsch@umassmed.edu.



WHAT'S HAPPENING ELSEWHERE

Births and deaths: Recent US trends in both births and deaths diverge from those in other industrialized nations. The almost 4.3 million births in 2006 was the highest since 1961, and the US fertility rate at 2.1 children per woman is higher than in all of continental Europe, Australia, Canada, and Japan, most of which have declining fertility rates. Birth rates rose in most age and racial/ethnic groups, including teens. Contributing factors include decreases in contraception and access to abortion, low socioeconomic status, and a higher than average

fertility rate – 3 per woman – in Hispanics, who make up an increasing proportion of the population. Conversely, according to a recent study published in Health Affairs, the US came in last among 19 industrialized nations in terms of preventable deaths, with 101,000 preventable deaths annually. Between 1997-98 and 2002-03, other countries experienced an average decline of 16%, in contrast to only a 4% decline in the US.

[Excerpted from: 'Against the trend, U.S. births way up,' Associated Press, Jan. 16, 2008; 'U.S. last in preventable death rate,' UPI, Jan 8, 2008].

Increased racial disparity in infant mortality: In the US, the overall infant mortality rate declined by about 45% between 1980 and 2000, even as the percentage of low-birthweight infants increased by almost 12%. Despite the fact that these trends occurred in both non-Hispanic whites and African Americans, however, the racial disparity in infant mortality actually increased. In 1980, an African American baby was 2.04 times more likely to die before the age of 12 months than a non-Hispanic white baby. In 2000, this ratio rose to 2.46. Among low-birthweight infants, African Americans' higher survival rates have been decreasing, while among normal-birthweight infants, the advantage in survival for non-Hispanic white infants has increased over time. The racial disparity appears to be due in large part to greater improvements in survival for non-Hispanic white infants than for African American infants.

[Excerpted from: Alexander et al., Am J Obstet Gyn 2008;198:451.e1-51.e9]

Emergency department wait times: A study of 90,000+ emergency department visits published in Health Affairs found that patient waiting time increased by 36% on average from 1997 to 2004, with an increase of 40% for patients with the most severe problems such as heart attack. Increases were larger for African American and Hispanic patients than for non-Hispanic white patients, and larger for females than for males. Dr. David Himmelstein, senior author, noted that emergency departments do not always receive sufficient resources because they are not highly profitable for the hospital. A 12% decrease in the number of 24-hour emergency departments between 1994 and 2004 also has contributed to the problem.

[Excerpted from 'Study: emergency room wait times increase,' Chelsea L. Shover, The Harvard Crimson, Jan. 16, 2008]

Health care spending and access: In 2006, US spending on health care was \$2.1 trillion – \$7,026 per capita – comprising 16.1% of the economy, and reflecting a 6.7% increase from the prior year. The rise was fueled in part by spending on pharmaceuticals, which in turn was due in part to the new Medicare benefit for seniors. The expansion of Medicare increased access to drug coverage among those previously uninsured, and increased costs for those beneficiaries transferred from Medicaid – administered by states – to Medicare, administered by private plans typically with negotiated discounts smaller than those obtained by states. Prescription drug spending increased 8.5% over the previous year, compared with a prior 5.8% annual increase.

In other news regarding medications, a study by researchers at Cambridge Health Alliance and Harvard Medical School found that wealthy and insured patients are more likely than poorer or uninsured patients to receive free prescription medication samples, which have been viewed as an aid for low-income patients. One possible reason is that patients with better access to health care are more likely to receive care in a physician's office than in a hospital emergency department or clinic.

Also related to health care access, an article in JAMA reports that rural patients are 10-20% less likely to receive an organ transplant than are residents of major urban areas, in addition to previously identified disparities related to female gender, poverty, and minority race. And among US women aged 18+, recent immigrants are least likely to have ever had a Pap test -- 18.6% compared with established immigrants (9.9%) and US-born (5.8%).

[Excerpted from 'Healthcare spending rises 6.7%: Drug purchases up as Medicare plan eases access,' Associated Press, Jan. 8, 2008; 'Drug sample distribution system faulted: Study finds most of free products to the insured, Elizabeth Cooney, Boston Globe, Jan. 3, 2008; 'Disparities: rural residents less likely to get organ transplants,' Eric Nagourney, NYT, Jan. 15, 2008; Tsui et al., J Women's Health 2007;16:1447-57]

Universal health insurance in Massachusetts: In 2006, Massachusetts enacted landmark legislation, mandating that by the end of 2007, all adults aged 18+ buy health insurance if affordable coverage is available, or pay a penalty. By November 2007, of 500,000+ residents who were previously uninsured – including low-income residents as well as those who were self-insured or otherwise unable to purchase group insurance – approximately 200,000 had enrolled in one of the state's affordable/subsidized programs. Subsidized coverage is available for those with an annual income less than three times the federal poverty level. However, as noted by Nancy Turnbull, a member of the board of the Commonwealth Health Insurance Connector Authority involved in putting the law into practice, even the subsidized plans may be difficult to afford for some; balancing a plan's affordability with comprehensiveness of coverage

is challenging. The individual and small-employer markets have been combined, with a goal of obtaining a larger pool with greater purchasing power and thus lower premiums. State funding of subsidized coverage is reliant on redirecting monies previously spent on free care, \$400 million per year from general funds, and federal contributions to Medicaid. To contain costs, the law created the Massachusetts Health Care Quality and Cost Council, to oversee improvements in quality of care, control costs, and reduce income- and race/ethnic-related disparities. The new program is unable to provide coverage of undocumented immigrants, however.

[Excerpted from 'Health coverage for almost everyone: The Massachusetts experiment,' Ellen Barlow, Harvard Public Health Review, Winter 2008]

Poverty and lack of healthy diets: Recent data from the US Department of Agriculture show that 11% of US households – 12.6 million – experienced food insecurity in 2005. In turn, food insecurity has been linked to lower diet quality, in terms of key nutrients such as Vitamin A. In particular, cost is a barrier in low-income households for fruit and vegetable consumption. Fewer than 10% Americans overall meet the USDA recommendations, with even lower rates in low-income households. In a Johns Hopkins study of African American women in public housing in Washington, DC, most met only one or none of five dietary goals suggested to reduce the risk of developing cancer.

[Excerpted from Moshfegh A. J Am Diet Assoc 2007;107:1882-5; Champagne C, et al. J Am Diet Assoc 2007;107:1886-94; 'Cancer risks for urban African-American women grow as healthy diets become more difficult to maintain,' <http://www.newswise.com/p/articles/view/535491/>.]

Mortality & lifestyle: A United Kingdom study found that, among 20,244 men and women aged 45-79 in 1993-97, all-cause mortality was strongly related to the combination of four lifestyle behaviors: current non-smoking, being physically active, moderate alcohol intake, and 5+ daily fruit/vegetable servings (using serum Vitamin C as an indicator). Compared with those with all 4 behaviors, the relative risk of dying in the 11 years of followup ranged from 1.39 for those with 3 out of 4 behaviors to 4.04 for those with none of the 4 behaviors. The 4-fold risk was equivalent to a difference in chronologic age of 14 years. The trend was strongest for cardiovascular-related mortality.

[Excerpted from Khaw et al., PLoS Med 5(1):e12. doi:10.1371/journal.pmed.0050012]

Obesity: Secular trends and genetics: The prevalence of adult obesity in the US – while still high at over 30%, or more than 72 million adults – may be leveling off, particularly in women, based on recent data from the National Health and Nutrition Examination Survey (NHANES). Racial/ethnic disparities among women remain, however, with obesity prevalences of 53% in non-Hispanic black women and 51% in Mexican-American women aged 40 to 59, compared with 39% of non-Hispanic white women of the same age. Moreover, childhood obesity rates continue to rise.

In the meantime, findings from researchers from the Monell Center in Philadelphia working with mice suggest that in humans, as many as 6,000 genes may be related to weight. Mice have 10 times as many genes related to weight increases than to weight decreases; if a similar imbalance applies to humans, it might help explain why weight gain is more common than weight loss.

[Excerpted from 'Obesity epidemic in America shows signs of plateauing,' Rob Stein, Washington Post, Nov. 29, 2007, and from 'Body weight influenced by some 6,000 genes, UPI, Jan. 15, 2008. Also see Reed DR et al., BMC Genet 2008;9(1):4 [Epub].]

Reporting of drug-related information: In 1998 the Food and Drug Administration (FDA) initiated the Adverse Event Reporting System, which collects voluntary reports of adverse events and medication errors from physicians or drug manufacturers. The period 1998-2005 saw a tripling of reports of drug-related serious injuries and deaths, an increase that is four times greater than the increase in outpatient prescriptions in the same interval. Drugs most commonly linked to deaths were pain medications and treatments of the immune system. It is unclear, however, whether the increase reflects a rise in the number of events or a rise in the reporting of events, and current data cannot distinguish the two scenarios. As noted by Dr. Steven Goldstein of the New York University School of Medicine, standardized reporting is needed to improve the process.

A study in the New England Journal of Medicine also suggests the importance of thorough drug-related reporting, finding in a review of 74 trials of antidepressants submitted to the FDA that 94% of published trials reported positive results (i.e., the active treatment outperformed the placebo), compared with 51% of all of the 74 trials. Moreover, the effect size – a standardized difference between active and placebo treatment in the study outcome – for the unpublished studies was less than half that of the published studies (0.15 versus 0.37). Consequently, the published literature suggests an effect size almost one-third larger than that indicated by the entire set of trials.

[Excerpted from Moore et al., Arch Intern Med 2007;167:1752-9; Comment, Steven Goldstein, First to Know e-newsletter, North American Menopause Society, Oct. 23, 2007; Turner et al., N Engl J Med 2008;358:252-60; ‘Antidepressant studies unpublished,; Benedict Carey, NYT, Jan. 17, 2008]

Surgery for recently-diagnosed diabetes? A randomized clinical trial of 60 obese patients diagnosed with Type 2 diabetes in the previous 2 years compared bariatric surgery with usual diabetes-related care. The body mass index (BMI) of participants at study entry ranged from 30 to 40 kg/m², with an average of 37.5 kg/m², which is lower than the typical cutoff of 40 kg/m² recommended for bariatric surgery. Of those randomized to surgery, 73% had remission of their diabetes, compared with only 4% in the usual-therapy group. This difference was explained largely by greater weight loss for the surgery group – 20.0% of initial weight for the surgery group versus 1.7% for the usual-therapy group. The surgery group also saw greater 2-year improvements in glycated hemoglobin (HbA1c), insulin resistance, triglycerides, and HDL cholesterol. Larger studies of more diverse patient populations with longer followup times are needed to confirm these results.

[Excerpted from Dixon et al., JAMA 2008;299(3):316-23.]

Sex education associated with delayed teen intercourse: Results of a survey of 2,019 teens aged 15-19 conducted by the CDC show that sex education is related to a delay in teen intercourse. Among teens who received sex education in school, males were 71% less likely and females were 59% less likely – with African American females 91% less likely – to have sexual intercourse before the age of 15 than were those not receiving school-based sex education. Sex education also was associated with greater use of birth control among males but not among females. The study did not compare results for classes providing contraception information versus abstinence-only programs.

[Excerpted from <http://www.sciencedaily.com/releases/2007/12/071220231428.htm>; Mueller et al., J Adolesc Health 2008;42(1)]

Vaccination link to autism not found: Researchers from the California Department of Public Health found that during the period 1995-2007, there was a continuous increase in the autism rate in children, rather than a decline after the discontinuation of the preservative thimerosal in childhood vaccines beginning in 2001. If thimerosal had played a role in autism, there should have been a decrease in the autism rate between 2004 and 2007. According to Dr. Daniel Geschwind, a neurologist at the University of California, Los Angeles who is unconnected with the study, researchers need to turn their focus to causes of autism, e.g., genetics. The research appears in the January issue of Archives of General Psychiatry.

[Excerpted from ‘Autism rate in Calif. Increases: Fact undermines vaccination link,’ Alicia Chang, Associated Press, Jan. 8, 2008]

Creation of synthetic bacterium genome: A team led by Dr. J. Craig Venter announced that they had produced the entire genome of a bacterium by DNA synthesis, a feat much more complicated than the previous synthesis of DNA of viruses. The synthesized genome had 582,970 base pairs, compared with the longest previously-published length of 32,000 bases. The genome was a slightly modified copy of the genetic sequence of an existing bacterium, rather than a genome designed from scratch. The next step would be to demonstrate that the synthesized genome is biologically active, by inserting it into a living organism and having it control the organism’s functioning. The long-term goal is to be able to design organisms for tasks such as production of biofuels. Some scientists have already begun to make biofuels, however, using genetic engineering to modify existing organisms. Dr. Venter points out that genome synthesis would permit other goals such as scientific experimentation.

[Excerpted from ‘Scientists take new step toward man-made life,’ Andrew Pollock, NYT, Jan. 24, 2008]



WOMEN’S HEALTH

Employment, social support, & depression in women with coronary artery disease:

A study of 105 women with coronary artery disease aged < 65 found that women currently employed had higher levels of social support and lower depression-related symptoms than non-working women, regardless of the reason for non-employment. In contrast, marital status was unrelated to either social support or depression. Stress-related behaviors did not vary by either employment or marital status. The study’s

authors suggest that future interventions should consider that non-working women may be at greater risk after a cardiac event for depression and social isolation, leading to poorer clinical outcomes.

[Excerpted from Blom et al., *J Women's Health* 2007;16:1305-16.]

Another reason to excel at math – timing one's pregnancy: A mathematical model from Duke University's Fuqua School of Business was developed to help a woman decide the optimal time to have children, balancing her professional, social, and family objectives and their relative importance to her. The researchers' goal was to provide a rational alternative to an entirely emotion-based decision and to help a woman consider the multiple aspects of the decision simultaneously and logically. For a doctoral student who wishes to remain in academia, for example, the model would suggest that she begin her family after receiving tenure. For women for whom family goals are more important, the model might suggest pregnancy at an earlier age. A limitation, however, is that women would need to use the model prior to conceiving, but according to the Centers for Disease Control and Prevention, roughly half of pregnancies in the US are unintended.

In other news, for those multi-tasking women looking to avoid pregnancy and freshen their breath at the same time(!), a chewable spearmint-flavored contraceptive pill is now available...

[Excerpted from 'Mommyhood by the numbers: mathematical model could help women pick best time to have kids,'

<http://www.msnbc.msn.com/id/21756304/>; and 'Birth control pills now chewable; spearmint-flavored contraceptive has hit pharmacy shelves. The Associated Press, Dec. 11, 2006]

Health-related effects (or lack thereof) of oral contraceptives (OC): Swedish researchers have found that modern formulations of OCs (e.g., low-dose estrogen and second- or third-generation progestins) are not associated with either fatal or nonfatal myocardial infarction (MI); among women aged 30-49 in 1991, with follow-up through 2002, neither former users nor current users at enrollment had an increased risk of MI compared with never users at enrollment. US researchers have found that among women previously diagnosed with breast cancer at ages 20-54 in December 1980-December 1982, subsequent mortality over a 15-year follow-up did not vary by patterns of prior OC use, including duration of use, time since first use, age at first use, and specific formulations. A second US study also found little impact of OC use patterns on subsequent survival in women aged 20-54 with a first diagnosis of primary invasive breast cancer in 1990-92, although there was limited evidence that OC use just prior to diagnosis – particularly high-estrogen formulations or those with the progestin levonorgestrel – was linked to higher all-cause mortality.

[See: Margolis et al., *Fertil Steril* 2007;88:310-6; Wingo et al., *Obstet Gynecol* 2007;110:793-800; Trivers et al., *Cancer Epidemiol Biomarkers Prev* 2007;16:182207.]

Preventing pre-eclampsia: Pre-eclampsia, defined as hypertension and proteinuria (excess urinary protein) occurring in pregnancy, is a leading cause of maternal and neonatal morbidity and mortality, occurring in approximately 5% of pregnancies. Two recent meta-analyses have found that calcium supplementation and antiplatelet agents (e.g., low-dose aspirin) were associated with a reduced risk of pre-eclampsia and other serious outcomes such as maternal death. Also, a Canadian observational cohort study found that pregnant women who took supplements containing folic acid in their second trimester had a reduced risk of pre-eclampsia. Another meta-analysis of antioxidants, however, concluded that antioxidant supplements did not reduce the risk of pre-eclampsia.

[Excerpted from: Wen et al., *Am J Obstet Gyn* 2008;198:45.e1-45.e7; Hofmeyr et al., *BJOG* 2007;114:933-943; Askie et al.; *Lancet* 2007;369:1791-8; Rumbold et al., *The Cochrane Database of Systematic Reviews* 2007, Issue 4, doi: 10.1002/14651858.CD004227.pub3]

Predictors of pregnancy outcomes: Several recent studies have examined the association of pre-pregnancy body mass index (BMI) with pregnancy outcomes. A study of Scottish women found that morbidly obese women – a pre-pregnancy BMI > 35 kg/m² – had the highest incidence of pre-eclampsia, induced labor, emergency Caesarean section, and birth weights > 4,000 g. Interestingly, in this study underweight women – a pre-pregnancy BMI < 20 kg/m² – had better pregnancy outcomes than women with normal (20 – 24.9 kg/m²) BMI. In contrast, another study in the United Kingdom found that underweight women (pre-pregnancy BMI < 18.5 kg/m²) were more likely than normal-weight women to have a first-trimester miscarriage. A racial/ethnic comparison of patients with Medicaid insurance receiving care at a tertiary care center found that with the exception of diabetes mellitus, Hispanic women were less likely than African American women to experience any adverse pregnancy outcome, and were less likely than non-Hispanic white women to have a preterm birth. These differences were not explained by either poverty or insurance status. In a

New England Journal of Medicine study, use of selective serotonin reuptake inhibitors (SSRIs) in early pregnancy was not related to a significant increase in the risk of most types of birth defects or congenital heart defects, but risk was increased slightly for anencephaly, craniosynostosis, and omphalocele.

[Excerpted from Bhattacharya et al., BMC Public Health 2007;7:168; Maconochie et al., BJOG 2007;2007;114:170-86; Brown et al., Am J Obstet Gynecol 2007;197:197.e1-7.; Alwan et al., N Engl J Med 2007;356:2684-92.]

Depression, mental illness, and pregnancy: A study conducted by researchers at Kaiser Permanente found that of 4,398 women giving birth between 1998 and 2001, more than 15% were depressed at some time during the interval beginning nine months before pregnancy through nine months after delivery, ranging from 8.7% prior to pregnancy, 6.9% during pregnancy, and 10.4% after delivery. Among those diagnosed with depression prior to pregnancy, over half had another depression diagnosis during pregnancy. Moreover, among women with depression after delivery, over half had a depression diagnosis prior to or during pregnancy. As noted by the study's senior investigator, "Women with a history of depression should be closely monitored for depressive symptoms during prenatal and postpartum care. And, given recent evidence showing that relapse of depression is twice as common in pregnant women with major depression who stop taking antidepressants after becoming pregnant as women who continue treatment, a choice of effective and safe treatment options for depressed pregnant women is very important." Of those with a depression diagnosis, the percentages who received an antidepressant were 77% before pregnancy, 67% during pregnancy, and 82% after delivery.

Danish researchers found that per 1000 first births, 1.03 mothers were hospitalized for mental illness, including schizophrenia, bipolar disorder, and depression. The hospitalization rate for first-time mothers was approximately seven times higher than for women who had already given birth, and four times higher than for women with no children. The hospitalization rate for first-time fathers (0.37 per 1000), however, was similar to that in the overall male population. The study's senior author, Dr. Trine Munk-Olsen, suggested that "This may indicate that the causes of postpartum mental disorders are more strongly linked to an altered physiological process related to pregnancy and childbirth than psychosocial aspects of motherhood."

Regarding treatment of depression during pregnancy, however, a third group of researchers found that women with prenatal use of antidepressants for major depressive disorder had a higher rate of preterm birth and lower gestational age at birth compared with healthy controls, while women with major depressive disorder who were untreated or had limited prenatal exposure did not differ from healthy controls.

[Excerpted from Dietz et al., Am J Psychiatry 2007;164:1515-20; <http://www.medicalnewstoday.com/articles/58359.php>; Suri et al., Am J Psychiatry 2007; 2007;164:1206-13.]

Caffeine – to drink or not to drink? Recent findings from the Nurses' Health Study indicate an inverse association between caffeine consumption and ovarian cancer. Women in the highest quintile of caffeine intake had a 20% lower incidence of ovarian cancer than women in the lowest quintile, with a larger difference in the subgroups who had never used oral contraceptives or postmenopausal hormone therapy. Researchers in California, however, found that women consuming at least 200 milligrams of caffeine daily – e.g., 10 ounces of coffee or 25 ounces of tea – had approximately twice the rate of miscarriage (24.5%) than women with no caffeine consumption (12.5%). The association persisted after accounting for nausea and morning sickness, which are associated with a lower risk of miscarriage as well as possible reduction of caffeine consumption.

[Excerpted from Tworoger et al., Cancer 2008 Jan 22 (epub ahead of print). Weng et al., Am J Obstet Gyn 2008 Jan 24 (epub ahead of print)]

Factors behind the decline in breast cancer incidence: The causes of the recent decline in US breast cancer incidence are unclear. Candidates include the drop in menopausal hormone therapy (HT) occurring after the July 2002 release of the Women's Health Initiative findings as well as a decrease in mammography screening. A study by the National Cancer Institute-sponsored Breast Cancer Surveillance Consortium found a statistically significant drop in estrogen receptor-positive invasive breast cancer in women receiving mammography screening, indicating that the decrease in mammography screening does not account entirely for the decline in breast cancer incidence. Two other studies, however, suggest a role for mammography screening, as changes in US breast cancer incidence also occurred in women less likely to have used HT, and HT discontinuation rates in the United Kingdom paralleled those in the US but with no concurrent decrease in breast cancer incidence. Both factors may be affecting observed breast cancer incidence in the US.

[Excerpted from National Cancer Institute-sponsored Breast Cancer Surveillance Consortium, J Natl Cancer Inst 2007;99:1335-9; Glass et al., J Natl Cancer Inst 2007;99:1152-61; Comment on Glass et al., Leon Speroff, First to Know e-newsletter, North American Menopause Society, Aug. 28, 2007]

Lifestyle factors and breast cancer incidence/recurrence: A Swedish study that followed 11,699 women aged 50+ at study entry for an average of 9.5 years found that women in the highest quintile of folate consumption – whether from dietary sources or from diet and supplements combined – had much lower incidence of invasive breast cancer than women in the lowest quintile. The authors of a JAMA-published study which found that a high-fiber/fruit/vegetable and low-fat diet did not prevent recurrence of breast cancer (see the October 2007 newsletter) subsequently found that the subgroup of participants who ate 5+ daily servings of fruits/vegetables and had levels of physical activity equivalent to walking 30 minutes/day 6 days/week had an approximate 50% reduction in mortality. In a study of 16,118 younger, predominantly premenopausal women aged 29-46, after accounting for breast cancer risk factors, the incidence of breast cancer was unrelated to either spontaneous or induced abortion.

[Excerpted from Ericson et al., Am J Clin Nutr 2007;86:434-43; Pierce et al., J Clin Oncol 2007;25:2345-51;Michels et al., Arch Int Med 2007;167:814-20.]

Lack of caution in prescriptions for potentially teratogenic medications: Among 488,175 patients aged 15-44 in a large California HMO in 2001, approximately 15% filled a class D or X prescription, identified by the FDA as linked to a higher risk of birth defects with prenatal use. Comparing these women with those who filled a safer prescription, the former group was no more likely to receive contraception counseling, to have filled a prescription for contraception, or to have been sterilized, and had a similar rate of documented pregnancy within 3 months.

[Excerpted from Schwarz et al., Ann Intern Med 2007;147:370-6.]

Safer treatments for menopausal hot flashes: After the release of the WHI findings in 2002, research on the effectiveness of low-dose hormone therapy for treating hot flashes has increased. A recent study found that a patch-delivered microdose of 17 β -estradiol (0.014 mg/d) was effective at reducing hot flash frequency compared with placebo, with an average reduction of 70% at 4 weeks and 90% at 8 weeks. This is the lowest dose to date that has been demonstrated to be effective for hot flashes, and also has been found to be helpful for preserving bone density as well. Current recommendations by organizations such as the North American Menopause Society are to use the lowest dose possible, for the shortest duration needed.

For those not wishing to take exogenous hormone therapy, a small pilot study at the Mayo Clinic of 28 women experiencing at least 14 hot flashes per day suggests that 40 grams of flaxseed per day may be effective in reducing hot flashes. The median decrease in number of hot flashes per day was 50%, which is a somewhat larger decline that would be expected with a placebo (~35%). Common side effects included abdominal distension and mild diarrhea/flatulence. [Excerpted from Bachmann et al., Obstet Gynecol 2007;110:771-9; Comment on Bachmann et al., Michelle Warren, First to Know e-newsletter, North American Menopause Society, Nov. 27, 2007; Pruthi et al., J Soc Integr Oncol 2007;5:106-12]



Vermeer, detail
Berlin, Gemäldegalerie

WOMEN AND MEN:

Gender inequity in wages: According to a recent report by the Massachusetts Commission on the Status of Women, on average women in Massachusetts statewide still earn less than men, ranging from 69 cents per dollar in Plymouth County to 91 cents per dollar in Suffolk County, with little change in the earnings gap over the past 10 years. Depending on a woman's educational level, this gap represents between \$400,000 to \$1.2 million in lost income over a lifetime of working.

[Excerpted from The Status Report, January 2008, Volume 4, Issue 1, The Massachusetts Commission on the Status of Women.]

Double-blinded reviewing raises percentage of journal articles by female authors: A recent study examined the percentage of

articles first-authored by females in two similar ecology/evolution journals, comparing a journal that had recently initiated double-blind peer review – where both author and reviewer identity are not revealed – with a similar journal that did not have this policy. The first journal saw an absolute increase of almost 8% (a relative increase of 33%) in female first authors after beginning double-blind reviewing, while the second journal did not exhibit this pattern in the same timeframe.

[Excerpted from: Budden et al., Trends in Ecology and Evolution, 2007;23(1):4-6.]

Perceptions of effort required at work: In five different surveys of employees in Britain and the US, conducted from 1977 through 2001, women were consistently more likely than men to agree that “My job requires that I work very hard.” In analyses of these data by Drs. Elizabeth Gorman and Julie Kmec, this gender difference persisted even upon accounting for factors such as characteristics of a person’s job or his/her qualifications, as well as household and child care responsibilities. A remaining possible explanation is that women are held to higher performance standards than men for the same job. This interpretation is consistent with prior experimental studies showing that the same performance is rated more highly if it is done by a man than if it is done by a woman.

[Excerpted from: Gorman & Kmec, Gender & Society 2007;21:828-56. <http://www.newswise.com/p/articles/view/535725/>]

Disproportionate departure of women from the sciences: Women receive close to 50% of the doctoral degrees awarded in science- and medicine-related fields, but are proportionately under-represented in academic positions, with greater under-representation at more senior levels. As an example, women receive approximately 45% of postdoctoral fellowships in biomedical sciences, but at the National Institutes of Health (NIH), women hold only 29% of tenure-track investigator positions and 19% of tenured senior investigator positions. Similarly, only 20% of senior faculty at prestigious US medical schools are women, and fewer than 15% of full professorships in Europe are held by women. As a result, the educational investment made in these researchers is not fully realized.

The transition from a postdoctoral fellow to a tenure track position occurs at a time when both male and female researchers are likely to be starting families. As a recent survey of NIH postdoctoral fellows found, however, family-related factors were a much larger issue in future career decisions for women than for men. For instance, plans to have children were perceived as important by 57% of married childless women, 29% of married childless men, 36% of single women, and 21% of single men. Travel requirements/demanding schedules and spending time with family also were rated as more important by women than by men. Among married postdoctoral fellows, women were much more likely than men to have a spouse working outside the home, and among those with children, women were less likely to have a spouse or relative caring for their children. Married women were more likely than married men to change their job to accommodate a spouse – 31% versus 21% – but only 15% of married women expected a spouse to make such changes, compared with 30% of married men. Self-rated preparation was similar for men and women, but only 40% of women were confident that they could advance to a Principal Investigator, compared with 59% of men. The relative lack of self-confidence may be explained in part by a lack of female role models; for 77% of women, both the current and past mentor/supervisor were men.

Regarding the transition from assistant professor to a tenured position, although women and men have similar success rates for first NIH RO1 applications, women’s subsequent success rate is lower, perhaps due to a lower number of publications on average. As Dr. Phoebe Leboy points out in her report in *The Scientist*, possible reasons for the lower number of publications include more time spent on teaching and mentoring by women than by men, but also less access to resources. According to a 2007 report by the National Academy of Sciences, women scientists are perceived as less prestigious. Moreover, women tend to receive grants with smaller dollar awards, being less likely to lead projects such as Center grants. Consequently, they attract fewer students and postdoctoral fellows, and in turn have less productive laboratories, starting the cycle over again.

Recommendations made by Dr. Leboy include: reduce teaching and administrative responsibilities for researchers who are primary caregivers, as in the highly-utilized “reduced duties” program at UC Berkeley; increase women faculty’s visibility to students; recruit women to be principal investigators on large grants; evaluate candidates for promotion based on quality of research, rather than the quantity of publications or dollars brought in; include adequate representation of women on faculty search committees and conference organizing committees; recruit women for leadership roles.

[Excerpted from: Phoebe Leboy, *The Scientist* 2007;22(1):67-72. Martinez et al., *EMBO Reports* 2007;8:977-81. Ledin et al., *EMBO Reports* 2007;8:982-7.]

Gender differences in responses to stress: Recent research at the University of Pennsylvania using functional MRI scanning suggests that men and women have different neural responses to psychological stress. In women performing a stressful task (a difficult arithmetic problem), the limbic system – a part of the brain linked to emotion – was activated. In contrast, men’s response to the same task yielded higher levels of cortisol, part of the “fight-or-flight” response. Stress-related brain activation also lasted longer in women than in men. According to the study’s main author, Dr. J.J. Wang, “Knowing that women respond to stress by increasing activity in brain regions involved with emotion, and that these changes last longer than in men, may help us begin to explain the gender differences in the incidence of mood disorders.”

[Excerpted from University of Pennsylvania School of Medicine (2007, November 20). Brain imaging shows how men and women cope differently under stress. *ScienceDaily*. Retrieved January 16, 2008, from <http://www.sciencedaily.com/releases/2007/11/071119170133.htm>]

A rethinking of the preference for sons: South Korea is bucking the general preference in Asia for baby boys over baby girls. Last year’s sex ratio at birth was 107.4 boys to 100 girls, still above the norm of 105, but the ratio has been declining since 2002. In contrast, the corresponding numbers were 120 versus 100 for China, and 110 versus 100 for Vietnam. In a 1991 survey of married South Korean women younger than 45, 40% responded that they should have boys, compared with only 10% in last year’s survey. In the past, sons were expected to provide for their parents in old age, but now more South Korean retirees depend on savings or receive help from daughters whose earning power has increased.

[Excerpted from ‘In South Korea, a rethinking of Asia’s preference for sons,’ by Choe Sang-Hun, *International Herald Tribune*, November 29, 2007]

Women drivers in Saudi Arabia? Saudi Arabian women are not yet permitted legally to drive. With recent increases in other rights, however, including the ability to travel abroad without a male, obtain a divorce, and own their own companies, the topic of women drivers is being re-considered, in part because of economic factors. As the cost of living has increased, more women have entered the workforce, and fewer families can afford drivers. Given the pace of previous changes, however, few expect women drivers anytime soon.

[Excerpted from ‘Saudis rethink taboo on women behind the wheel, Hassan M. Fattah, *New York Times*, Sept. 27, 2007]

Gender differences in the impact of marital communication style and health: Based on data from almost 4,000 Framingham study participants regarding how they argue with their spouse, more men than women – 32% versus 23% – kept their feelings to themselves in arguments. Despite the higher percentage of men who “self-silenced,” this communication style had no impact on their health, although men with wives who were unhappy with work were more than 2.5 times likely to develop coronary heart disease over the 10-year study period. In contrast, female self-silencers had more than four times higher mortality than other women. Similarly, research at the University of Utah suggests that a couple’s interaction style is as big a risk factor for heart disease as smoking or elevated cholesterol, with varying effects by gender – hostility had an adverse impact on women’s cardiovascular health, while men were affected by battles for control. Interestingly, neither study found that health was adversely affected by marital unhappiness or dissatisfaction.

[Excerpted from ‘Marital spats, taken to heart, Tara Parker-Pope, *New York Times*, Oct. 2, 2007; Eaker et al., *Psychosom Med* 2007;69:509-13.]

Happiness gap: According to recent research by economists Alan Krueger at Princeton and Betsey Stevenson and Justin Wolfers at the University of Pennsylvania, today men are generally happier than women, a reversal from 30 years ago. This “happiness gap” appears to be due to differences in activities. Compared with the 1960’s, survey data suggest that men spend less time performing activities they consider unpleasant. In contrast, women have substituted unpaid housework with paid employment, with not much change in the amount of time spent in unenjoyable activities. Dr. Stevenson suggested that one reason for the change in women is that they had lower ambitions 30 years ago, comparing themselves primarily to other women and not to men. The reversal in the gender difference appears not only in adults, but also in high school students. For boys, only 16% said they were very satisfied with their lives in 1976, compared with 25% now. For girls, about 22% gave the same response in 1976 and now. [Excerpted from ‘He’s happier, she’s less so’, David Leonhardt, *New York Times*, Sept. 26, 2007]

Navigation strategies: Studies over the past decade have shown that women are likelier to use landmarks and visual cues, and men to use maps, directions such as north versus south, and distance measures. Luc Tremblay, an assistant professor of physical education and health at the University of Toronto, speculates that men receive stronger internal directional cues because semicircular canals in the inner ear – which track the body’s motion, speed, and direction

– tend to be larger in men. On the other hand, women may be quicker to correct errors because they tend to be more likely to check for consistency of inner-ear cues with external stimuli such as road signs.
[Excerpted from ‘There’s a men’s route and a women’s route,’ Emily Lyons, Washington Post, Jan. 8, 2008]

WE CAN ALWAYS USE YOUR HELP:

Women’s Faculty Committee Workgroups: The Women’s Faculty Committee has several workgroups that need volunteers. The amount of time needed varies but is generally not extensive. Rather, the “work” is episodic, fun and shared with colleagues.

Website: If you would like to assist with maintaining the WFC website, please contact Connie Nichols, our web manager at ext. 6-4101 or email her at: nicholsc@ummh.org.

Interviewing for the Council of Diversity and Equal Opportunity: Candidates for senior administrative positions (Chairs, Deans, Vice Chancellors etc.) are interviewed by a combined committee of the Women's Faculty Committee and the Council on Equal Opportunity and Diversity. Contact Marian Wilson in the Diversity and Equal Opportunity Office ext.6-2179 or email her at Marian.Wilson@umassmed.edu.

Women’s Faculty Committee Newsletter: Special thanks to Mary Costanza, Janet Hardy, Heather-Lyn Haley, Pat Franklin, and Ellen More for materials for this newsletter, and to Mary Costanza for all the helpful advice and the wonderful newsletter template. For future issues, please send comments and news to the editors:



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