



WOMEN'S FACULTY COMMITTEE NEWSLETTER June 2008

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<http://www.umassmed.edu/deoo/wfc> ; www.umassmed.edu/OFA/

WHAT'S HAPPENING AT UMASS

Women's Faculty Committee Interim Report:

Spring 2008 was filled with wonderful celebrations of the achievements of the women faculty at UMMS. In May, more than 120 people attended the annual Women Faculty Awards luncheon where we honored UMMS faculty who have contributed to the school's research, clinical, education and service missions. (See the list of award winners in the article that follows). Importantly, Drs. Flotte and Ettinger reviewed the implementation plans for three initiatives developed by the Women's Leadership Group. Senior leadership fully endorsed and is funding the implementation of these efforts to foster promotion, leadership opportunities, and flexible programs to "bridge" the discrete intervals where personal and professional commitments are at odds.

In June, another 110 people attended a lunch time lecture by Joann Manson, MD, a national expert on women's health issues. Dr Manson, Chief, Division of Preventive Medicine at Brigham and Women's Hospital in Boston. Dr. Manson reviewed the recent Women's Health Initiative data on managing cardiac and endocrine health in post-menopausal women. Following her lecture, Dr. Manson discussed her career trajectory and the importance of flexible work hours and mentoring to allow her to successfully balance family and career demands.

WFC members participated in a career mentoring session at the MD-PhD retreat and are collaborating with the Work-Life Balance program in human resources on future programs for MD and PhD students. In the next year, the WFC would like to develop a systematic "welcome" process for women faculty who are new to UMMS and expand mentoring activities. We welcome your participation in these activities, whether as a WFC member or as an interested member of the faculty. Information on how to get involved is listed at the end of this newsletter.

We are proud to be part of the ever-growing numbers of UMMS women faculty who are making a difference—both in her individual work as clinician, researcher, or educator- and a difference in building a culture that prioritizes the success of diverse talent.

After three years as co-chairs, we will be stepping down as leaders of the WFC in the fall of 2008. We both will remain WFC members and will help to identify new co-chairs and support their transition. We are confident that the current momentum and commitment will only grow in the next three years. We want to formally thank the following people and offices at UMMS whose support made our work successful:

Judy Ockene and Sue Tremallo in the Office of Faculty Administration;

Marian Wilson, Marlene Tucker, Bonnie Bray, and Nellie Toney in the Office of Diversity and Equal Opportunity and

Joanne Derr and Janet Hirsch in UMMS Human Resources; Diane Bono in UMMHC Human Resources.

All of the WFC members who have made the newsletter, website, and programs so successful and fun!

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



Congratulations to:

Julia D. Andrieni, MD was promoted to Associate Professor of Medicine

Mary Gilchrist, PhD was appointed Clinical Professor of Medicine

Shannon B. Jenkins, MD was promoted to Clinical Associate Professor of Family Medicine & Community Health

Elisabet C. Mandon-Menetret, PhD was promoted to Research Associate Professor of Biochemistry & Molecular Pharmacology

Joanna Sawicka, MD was appointed Clinical Associate Professor of Radiation Oncology

Marian Walhout, PhD was promoted to Associate Professor of Molecular Medicine

Katherine J. Atkinson, MD, and Karen L. Peterson, MD received School of Medicine Community Faculty Educator Awards, for sustained excellence in undergraduate medical education in the community setting.

Mary Costanza, MD was awarded *Emerita* status, as well as the *Emerita* Award for Excellence in Medical Education.

Patricia Franklin, MD, Associate Professor of Orthopedics, received the Joy McCann Professorship.

Susan B. Gagliardi, PhD, Deborah C. Field, MD, Melissa A. Fischer, MD, and Julie Jonassen, PhD received the School of Medicine Educational Achievement (Star) Team Award, along with Robert A. Baldor, MD, Edward Peskin, MD, and Thomas W. Smith, for unwavering commitment to working in the best interests of the entire undergraduate medical education program.

Dr. Gagliardi and Anne M. Gilroy, MA also received Outstanding Medical Educator Awards for best representing the medical profession and significantly contributing to students' basic science education.

JeanMarie Houghton, MD, PhD was named a Fellow of the American Gastroenterological Association.

Sandra L. Leiby, MS, AP-BC, ANP, Margaret Trussler, MS, APRN, BC, ANP, and Carol Bova, PhD, RN, ANP received Graduate School of Nursing Distinguished Faculty Awards for outstanding educators who best exemplify excellence in teaching.

Jane Lian, PhD, Professor of Cell Biology, received NIH's prestigious Method to Extend Research in Time (MERIT) award, given to investigators with excellent records of productivity from previous research, for her research project "Synthesis of Osteocalcin in Bone."

Dr. Lian and Janet Stein, PhD, Professor of Cell Biology, received the 2008 Women in Science and Health Achievement Award.

Jean King, PhD, Professor of Psychiatry, received the 2008 Outstanding Community Service Award.

Susan L. Kozciz, ACNP, APRN, Anne Amberg, MS, APRN, BC, ANP, CNM, Allison Shields, RN, MSN, and Kathleen Zarycki, FNP, ACNP received Graduate School of Nursing Community Faculty Awards for significant community contributions and commitments to precepting students in hospital and community-based clinical settings, in Acute Care, Family Nurse Practitioner, Nurse Educator, and Primary Care respectively.

Gertrude Manchester, MD, General Medicine, and **Paulette Seymour-Route, PhD**, Dean, Graduate School of Nursing, both received the 2008 Excellence in Clinical Services Award.

Jane E. McCue Magner, MS, RN, CFNP received the Graduate School of Nursing Sheila Porter Nurse Practitioner Preceptor Award for Excellence.

Suzanne McLaughlin, MD, Department of Medicine, received the 2008 Sarah Stone Endowed Fellowship in Medical Education.

Judith Ockene, PhD, M.Ed., the Barbara Helen Smith Chair in Preventive and Behavioral Medicine, Professor of Medicine, and founder and Chief of the Division of Preventive and Behavioral Medicine, received the 2008 Katherine F. Erskine Award for Medicine and Science from the YWCA of Central Massachusetts, in honor of her community service.

Judy Savageau, MPH, Assistant Professor, Family Medicine & Community Health, received the 2008 Sarah Stone Excellence in Education Award.

Carole C. Upshur, PhD received the Graduate School of Biomedical Sciences Dean's Award for an outstanding faculty contribution to graduate education.

Upcoming Activities of Interest:

Gender salary equity study: As part of the celebration of Women's History Month this past March, former Lieutenant Governor Evelyn Murphy spoke at UMMS on the topic of "Getting Even – Why Women Don't Get Paid Like Men and What to Do About It." The administration is responding to her challenge to eliminate gender wage discrimination in the workplace. Associate Vice Chancellor for Human Resources Joanne Derr, Associate Vice Chancellor for Diversity and Equal Opportunity Dr. Marian Wilson, and Interim Vice Provost for Faculty Affairs Dr. Judith Ockene are devising a plan for analyzing and addressing potential inequities, working with Patricia Webb, Senior Vice President and Chief Human Resources Officer for UMMHC. Parallel analyses will be conducted separately for faculty and staff. Questions or concerns can be brought to the attention of Marian Wilson in the Diversity and Equal Opportunity Office at the Medical School, Jose Ramirez in Human Resources at UMMHC, or Judith Ockene in Faculty Affairs.

Researchers in a pinch? As part of the Department of Family Medicine and Community Health's spring faculty retreat, faculty worked with the University-contracted Parents in a Pinch program to provide onsite child care for faculty members during working sessions. The arrangement worked well – children enjoyed the providers, and faculty (both parents and non-parents) reported that they were happy to see that the department was family-friendly and accommodating of faculty needs. Parents in a Pinch also can provide child care during focus groups, providing a useful resource to researchers working with community groups. The primary contact for groups is Naquan S. Cooper, Manager, Placement Services & Group Childcare, who can be reached at groups@parentsinapinch.com, or at Parents in a Pinch, 45 Bartlett Crescent, Brookline, MA 02446, or 617-739-5437 ext 113. In addition, you can learn more at www.parentsinapinch.com.

Tobacco-free policy: In March, the University of Massachusetts Board of Trustees approved the Tobacco Free Environment / No Smoking Policy for UMMS campuses and facilities. According to the policy, there is to be no smoking or use of any tobacco products of any kind, on any UMMS property – including buildings, garages, and grounds. UMMS and UMass Memorial are providing assistance to smokers in complying, including no-cost medication and nicotine replacement options. To learn more, call 6-1555 or see <http://insideumassmed.edu/tobaccofree>.

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@ummhc.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.

Recent Events:

One-Woman Play: This past March, the Women's Faculty Committee, in collaboration with the Library's Office of Medical History and Archives, presented the play, "Yours for Humanity – Abby," a production of the Worcester Women's History Project. This one-woman play honored one of American's earliest and most courageous abolitionists, the advocate for women's rights and Worcester native, Abby Kelley Foster.

Women's History Month Program: As noted above, this past March also saw a presentation by Evelyn Murphy, former lieutenant governor of Massachusetts and President of The WAGE Project, Inc.

8th Annual Women's Faculty Committee Awards Program: The annual Women Faculty Awards Program to honor outstanding achievements of our women faculty was held on May 15, 2008. Honorees are noted above.

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, spoke about the latest research in women's health on June 4. Her talk was titled "Controversies in Women's Health: Making Sense of Recent Clinical Trials." Topics covered included hormone therapy, Vitamin D, and calcium supplementation.

WHAT'S HAPPENING ELSEWHERE



Weight – what you can and can't control: Recent research using twins has found that weight, like other physical features, is partly genetically determined. Ongoing research is looking for the relevant genes that are related to lean mass. Also, the number of fat cells in our bodies remains constant over time, as we lose but then replace 10% of our fat cells every year – even patients with bariatric surgery were found to have the same number of fat cells 2 years afterwards, despite having lost weight. On the bright side, bacteria in the gastrointestinal tract have been found to play a role in weight regulation; one day it may be possible to modify gut microbiota to aid in weight control, perhaps with relatively few side effects. Moreover, a team at the Joslin Diabetes Center has found that unlike visceral fat, subcutaneous fat – typically in the hips and thighs – is related

to lower levels of insulin and higher insulin sensitivity. And a study in Chile found that aerobic exercise lowers body fat and caloric intake, possibly by increasing levels of a protein that may suppress appetite.

[Excerpted from: 'The Lean Gene: Thinness Is An Inheritable Trait,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080401120505.htm>; 'Study finds that fat cells die and are replaced,' Gina Kolata, New York Times, May 5, 2008; 'Could Changing the Bacteria in Your Digestive System Be an Obesity Treatment?' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080401165014.htm>; 'Not All Fat Created Equal: Certain Body Fat Reduces Insulin Resistance,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/05/080506120944.htm>; 'Aerobic exercise increases a blood protein that may suppress appetite,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/06/080616115855.htm>].

You can't fool Mother Nature, or your brain: Research in mice has demonstrated that even when the ability to detect sweetness in foods was removed, the mice still preferred sugar water with calories. An examination of brain function showed that greater caloric intake was associated with increased dopamine and activation of neurons in the region linked to food-reward, indicating that the animals responded to calories even in the absence of taste. Other research in rats found that young animals – but not older animals – fed diet versions of normally high-calorie foods tended to overeat at regular meals, suggesting formation of a distorted view of the association between a food's taste and its caloric content that could lead to overeating and obesity in human children. These studies may help explain seemingly contradictory findings that low-calorie sweeteners are not helpful in weight loss and an association in children between diet soda consumption and risk of obesity. Other research indicates that food consumption is higher with greater dietary variety, related to lower sensory-specific satiety – that is, we're less likely to get tired of the taste of what we're eating if it's more varied.

[Excerpted from: 'Brain's "Sixth Sense" for Calories Discovered,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080326121239.htm>; 'JAMA questions sense of sweeteners for weight loss,' <http://www.nutraingredients.com/news/printNewsBis.asp?id=85250>; 'Diet foods for children may lead to obesity,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2007/08/070808082035.htm>; 'Variety in diet could be a factor in obesity problem in the U.S.; when eating one food, satiation is reached more quickly and therefore overeating less likely,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2001/06/010605074515.htm>].

Rise in life expectancy not uniform: Although average life expectancy is increasing in the U.S., the gap between low- and high-socioeconomic status (SES) groups remains and has widened over time, analogous to trends seen for infant mortality and mortality due to heart disease and some cancers. The gap in average life expectancy between the top and bottom tenths in terms of SES increased from 2.8 years in 1980-1982 to 4.5 years in 1998-2000. Moreover, life expectancy is actually decreasing – not just increasing more slowly – in some regions, particularly in Appalachia, the southeast, Texas, southern midwest, and near the Mississippi River; areas with declining life expectancy tend to be lower-income and have a higher proportion of African Americans. Differences by educational level in life expectancy may be tied to tobacco use.

[Excerpted from: 'Gap in life expectancy widens for the nation,' Robert Pear, New York Times, March 23, 2008; 'Life expectancy is declining in some pockets of the country,' Nicholas Bakalar, New York Times, April 22, 2008; 'Life expectancy rises for the educated; the less-educated reap no benefit,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080311081149.htm>].

More patients covered by health insurance coverage, but the coverage may not be adequate and there is a shortage of primary care physicians: In the first year of Massachusetts' mandatory health insurance coverage, the percentage of uninsured adults dropped by almost half, and more patients received routine preventive care. What's more, residents and employers did not drop private insurance to utilize publicly-funded programs, as had been feared. Unfortunately, many newly-insured patients are having difficulty finding primary care doctors. Nationwide, the number of medical school graduates entering a family medicine residency has declined by half since 1997, similar to the drop in the proportion of internal medicine residents entering general practice between 1998 and 2006. Researchers from the University of Missouri are predicting a shortfall of up to 44,000 family physicians and general internists by 2025, due both to fewer generalist graduates and the increase in the proportion of older adults, who seek care more often than younger patients. In addition, a study in *Health Affairs* found that 25 million Americans covered by health insurance were little better off than those with no coverage, in terms of out-of-pocket medical expenses and postponed or skipped treatments. Workers without employer-provided coverage – at both small and large companies – are covered by the government at a cost of \$45 billion per year.

[Excerpted from: 'Study finds state gains in insurance,' Kevin Sack, New York Times, June 3, 2008; 'In Massachusetts, universal coverage strains care,' Kevin Sack, New York Times, April 5, 2008; 'US could face shortage of 44,000 primary care physicians by 2025,' *ScienceDaily*, <http://www.com/releases/2008/06/080617111826.htm>; 'Even the insured feel strain of health costs,' Reed Abelson and Milt Freudenheim, New York Times, May 4, 2008; 'The plight of the underinsured,' Editorial, New York Times, June 12, 2008; 'Government picks up health tab of uninsured workers,' Steven Reinberg, Washington Post, May 2, 2008].

Potential conflicts of interest: The Association of American Medical Colleges is proposing a ban on gifts from pharmaceutical and medical device companies of food, travel, and ghost-writing services to faculty, staff, and students at medical colleges. The association's recent report also recommends that schools should discourage faculty participation in industry-sponsored speakers' bureaus, and that schools should have a centralized system for handling free drug samples. Both the University of Massachusetts Medical School/UMass Memorial Medical Center and Boston University School of Medicine already have strict guidelines in place.

Also, a recent study found that the increase in diagnostic imaging for privately insured patients was accounted for in large part by physicians referring patients to their own facilities.

[Excerpted from: 'Group urges ban on medical giveaways,' Gardiner Harris, New York Times, April 28, 2008; Mass. Medical schools looking at industry gift policy,' Elizabeth Cooney, Boston.com, April 28, 2008'; 'Self-referring physicians behind increase in diagnostic imaging, researcher argues,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080424171831.htm>].

Health benefits from a happy marriage....: A recent study in the *Annals of Behavioral Medicine* using 24-hour ambulatory blood pressure monitoring found that participants who were happily married had larger dips in blood pressure while sleeping – linked to lower cardiovascular disease risk – than did unmarried or unhappily married adults. Marital satisfaction also was linked to better life satisfaction, lower stress and depression, and lower daytime blood pressure. Interestingly, social support from friends rather than from a spouse was not related to blood pressure.

[Excerpted from: 'Patterns: another reason to choose a mate wisely,' Nicholas Bakalar, New York Times, April 1, 2008; 'Happy marrieds have lower blood pressure than social singles,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080320192610.htm>].

And from housework: Researchers in Scotland found that mental health, defined in terms of stress of anxiety, can be improved by only 20 minutes of physical activity per week. Although sports-related activities were most beneficial, even activities such as housework or gardening were helpful. The risk of psychological stress also was lower with more physical activity. Associations persisted after accounting for factors such as age, gender, and chronic health conditions.

[Excerpted from: 'Just 20 minutes of weekly housework boosts mental health,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080409205840.htm>].

PTSD and Afghanistan/Iraq veterans: A study by RAND Corporation has found that almost 20% of 300,000+ military personnel returning from Iraq and Afghanistan have symptoms of post traumatic stress disorder or major depression. Rates were highest for those exposed to combat trauma. Only about half sought treatment, however, due to concerns such as the possible impact on their careers. Of those who did, the report suggested that only half received minimally adequate care. The related total cost to the nation was estimated at \$6.2 billion, incorporating medical care as well as lost productivity and suicide; the latter costs could be reduced by \$2 billion by investing in better treatment.

[Excerpted from: 'One in five Iraq and Afghanistan veterans suffer from PTSD or major depression,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080417112102.htm>].

Watch where you type: Computer equipment, including keyboards and mice, can harbor potentially harmful bacteria such as staph and E. coli. As an example, the CDC reported that a January norovirus outbreak at an elementary school may have been due to contaminated equipment in a first-grade classroom. And when a British microbiologist compared germs on computer keyboards, a toilet seat, and a toilet door handle at a London office, he found that 80% of the keyboards were potentially hazardous, with one keyboard having more than five times the germs on the toilet seat – perhaps because toilets are flushed regularly, while only half of us

clean our keyboards at least monthly. Researchers recommend not sharing keyboards to reduce the likelihood of transmission of diseases.

[Excerpted from: 'Your keyboard: dirtier than a toilet: UK microbiologist finds e.coli, staph on computer keyboards,' Dan Childs, ABC News Medical Unit, May 5, 2008, <http://abcnews.go.com/print?id=4774746>].

Red wine may be good for your liver: Many studies have found a positive impact of moderate alcohol consumption on cardiovascular disease risk, although there is concern about harmful effects on the liver, as those at risk for cardiovascular disease also may be at risk for non-alcoholic fatty liver disease (NAFLD), the most common type of liver disease in the US. A recent study aimed at determining whether modest alcohol consumption for heart health is safe for the liver not only found no harmful liver effects from red wine, but that drinking one glass of red wine daily was associated with a 50% decrease in this type of liver disease. Beer or spirit consumption, however, was positively associated with NAFLD. The negative association with red wine consumption may be linked to resveratrol.

[Excerpted from: 'Red wine keeps liver healthy, suggests new study,' Lindsey Partos, <http://www.nutraingredients.com/news/printNewsBis.asp?id=85440>].

Mom was right – eat your fruits and vegetables (especially if you smoke):

A US clinical trial of a diet low in fat and high in fiber, fruits, and vegetables for prevention of recurrence of colon and rectal polyps showed a benefit of flavonol intake, associated with a 76% decrease in recurrence of advanced tumors for the healthy diet compared with a normal diet. Antioxidant flavonols can be found in foods such as onions, beans, apples, and tea. The findings are consistent with an earlier study in Italy. There was no benefit seen for total flavonoid intake, however. Risk of lung cancer in smokers also was found to be lower – by as much as 50% – in those with higher consumption of specific antioxidant flavonoids, including epicatechin (found in strawberries and tea), quercetin (found in beans, onions, and apples), and kaempferol (found in Brussels sprouts and apples). Flavonoid intake was found to be unrelated to lung cancer in non-smokers. Regarding potential mechanisms of action, flavonoids may block tumors' blood vessel formation, or promote apoptosis.

[Excerpted from: 'Flavonols may slash colorectal cancer risk: study,' Stephen Daniells, <http://www.nutraingredients.com/news/printNewsBis.asp?id=85959>; 'Flavonoids linked to lung cancer protection amongst smokers: study,' Stephen Daniells, <http://www.nutraingredients.com/news/print/NewsBis.asp?id=85605>].

Vitamin D, breastfeeding, and breast cancer: Consistent with earlier findings linking breastfeeding and Vitamin D deficiency, a recent study in the Boston area found that among of infants aged 8-24 months, 12% had Vitamin D deficiency and 40% had suboptimal levels of Vitamin D. The risk of deficiency was 10 times higher with breastfeeding with no supplementation compared with exclusive bottle-feeding. Deficiency was unrelated to gender, season and time spent outdoors, use of sunscreen, sun sensitivity, and skin pigmentation. Because of low Vitamin D levels despite reports by some parents of supplementation, the authors noted concerns regarding current recommendations about supplementation dose (200 IU daily) as well as compliance.

Another study of Vitamin D raises the issue of whether women seeking to reduce breast cancer risk should get Vitamin D from sun exposure or from supplements. A multi-country study found that lower breast cancer incidence was linked to higher serum Vitamin D levels and living closer to the equator. Other researchers, however, cautioned against unprotected sun exposure, which increases the risk of skin cancer.

[Excerpted from: 'Supplement breast-fed babies with Vitamin D: study,' Shane Starling, <http://www.nutraingredients.com/news/print/NewsBis.asp?id=85661>; 'Vitamin D and breast cancer: sunlight or supplements?,' Stephen Daniells, <http://www.nutraingredients.com/news/print/NewsBis.asp?id=85338>].

WOMEN'S HEALTH



Some startling statistics: A Kaiser Permanente study of women aged 25-84 found that one-third of respondents had at least one pelvic floor disorder, including anal incontinence (25%), stress urinary incontinence (15%), overactive bladder (13%), and pelvic organ prolapse (6%). Women with a vaginal delivery had twice the rate of pelvic floor disorders than childless women and those with a Cesarean delivery. In an on-line survey of women aged 25-45, 65% reported disordered eating behaviors such as skipping meals, smoking to lose weight, or eliminating entire food groups, and another 10% had symptoms indicative of anorexia, bulimia nervosa, or binge eating disorder. These rates were similar for both younger and older women. Finally, data from vaginal swabs collected in the

National Health and Nutrition Examination Survey (NHANES) indicate that one in four teenagers aged 14-19 has a sexually transmitted disease, including human papillomavirus, chlamydia, genital herpes, and trichomoniasis. Rates ranged from 20% for whites to nearly half for African Americans, and 15% of those infected had multiple diseases.

[Excerpted from: 'One in three women has pelvic floor disorder,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080302150723.htm>; 'Three out of four American women have disordered eating, survey suggests,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080422202514.htm>; 'Sex infections found in quarter of teenage girls,' Lawrence K. Altman, *New York Times*, March 12, 2008]

Breast cancer prevention: Although many recent studies demonstrate the heart benefits of alcohol consumption, a downside is that it raises women's breast cancer risk. Results from the NIH-AARP Diet and Health Study in postmenopausal women indicated that moderate drinking (1-2 drinks daily) was associated with incidence of breast cancer. The authors noted a dose-response association with ER+/PR+ cancers, with a relative risk compared to non-drinkers of 7% for less than 1 drink daily, 32% for 1-2 drinks daily, and 51% for 3+ drinks daily. A long-term Danish study found that the amount consumed at the beginning of the 27-year-followup rather than postmenopausal consumption was predictive of breast cancer risk, suggesting the need for caution even in younger women. Folate intake appears to be protective in women with at least 1 drink daily, although not in non-drinkers. Also, females who exercise regularly during ages 12-35 have been found to have a 23% lower risk of breast cancer before menopause than those who are less active, and soy consumption – particularly genistein – during puberty also may be protective.

[Excerpted from: 'Excessive alcohol drinking can lead to increased risk of breast cancer, study suggests,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080413173510.htm>; 'For women, the wineglass is half full,' Sally Squires, *Washington Post*, April 22, 2008; 'Girls, young women can cut risk of early breast cancer through regular exercise,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/05/080513171443.htm>; 'Eating soy foods in puberty protects against breast cancer, evidence now suggests,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080409091727.htm>]

Breast cancer screening and diagnosis: A newly developed model for predicting invasive breast cancer risk using breast density – information commonly obtained as part of a mammogram – as well as age, ethnicity, family history, and history of breast biopsy, has been validated in multiple ethnic groups. The Gail model, which is the standard risk assessment tool currently in use, was developed and validated using data from Caucasian women only. Another study of mammograms found that women who were cancer-free at the time of a mammogram but who had breast asymmetry were more likely to develop breast cancer subsequently than women with more symmetrical breasts, with an increase in relative odds of 1.5 for each 100ml increase in breast volume asymmetry. Digital mammograms have been found to be more accurate than traditional X-rays, particularly for those with dense breast tissue. The switch in technology, however, has led to a temporary increase in repeat mammograms for some doctors, as radiologists learn the new technology and as they are comparing previous non-digital to current digital images (apples to oranges). In the long run, however, the increase in clarification with digital films may result in fewer rather than more repeat mammograms.

Obese women have been found to have lower rates of screening for both breast and cervical cancer, particularly among whites. This discrepancy is particularly troubling because obesity is linked to higher cancer risk, including breast cancer. Moreover, obese women with breast cancer are presenting for care for the first time with more advanced disease and have worse outcomes compared with lighter-weight women.

[Excerpted from: 'New model for breast cancer risk assessment validated in multiple ethnic groups,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080304181233.htm>; 'Breast asymmetry predicts breast cancer,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2006/03/06032009416.htm>; 'In shift to digital, more repeat mammograms,' Denise Grady, New York Times, April 10, 2008; 'Obesity may keep some women from getting screened for breast, cervical cancer,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080324173525.htm>; 'Obese women disadvantaged in both breast cancer treatment and diagnosis,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080416081616.htm>]

Tea, coffee, and health: Two recent studies indicate the health benefits of tea drinking for women, including fewer carotid plaques and a lower risk of ovarian cancer. The first study examined men and women with a mean age of approximately 73, and found carotid plaques in only 34% of women drinking 3+ cups daily, versus 45% of non-tea drinkers and 43% drinking 1-2 cups per day. The association was independent of other factors, including body mass index, hypertension, education, age, or fruit and vegetable intake. There was no association of tea consumption and carotid plaques in men, however. Drinking at least two cups of tea per day also was found to be protective for ovarian cancer in a Swedish study. This level of consumption was associated with a 46% lower risk compared with non-drinkers, with a further 18% reduction per additional cup. In contrast, coffee consumption was unrelated to ovarian cancer risk. Both tea and coffee – consuming the amount of caffeine in 3+ cups of coffee – were linked to less decline in memory in women aged 65+, even after accounting for other relevant factors such as age, education, depression, medication use, disability, and chronic illnesses. Researchers noted that caffeine has fewer side effects than alternative treatments for cognitive decline, and a beneficial effect was seen for a relatively small amount. And just one daily cup of coffee may be protective against Alzheimer's disease, by blocking cholesterol from entering the brain through protection of the blood-brain barrier.

[Excerpted from: 'Tea drinking lessens female artery plaque,' <http://www.nutraingredients.com/news/printNewsBis.asp?id=83987>; 'Drinking tea associated with lower risk of ovarian cancer,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2006/01/060103085358.htm>; 'In women, caffeine may protect memory,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2007/08/070806164552.htm>; 'Cup of coffee a day could help protect against Alzheimer's disease, study suggests,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080402194407.htm>]

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. A study of pregnant women in 1997-2001 found a dose-response association between maternal serum Vitamin D measured before 22 weeks gestation and risk of pre-eclampsia, with a doubling of risk associated with a 50-nmol/liter drop even after controlling for other factors. The authors suggest further study of Vitamin D supplementation in early pregnancy. Chocolate could provide a more pleasant remedy – women consuming at least 5 servings per week had lower pre-eclampsia risk than those with less than one weekly serving. The association may reflect the overlap of pre-eclampsia's characteristics and risk factors with cardiovascular disease.

[Excerpted from: Bodner et al., *J Clin Endocrinol Metab* 2007;92:3517-22; 'Chocolate may help reduce pre-eclampsia risk,' Linda Rano, <http://www.nutraingredients.com/news/printNewsBis.asp?id=85081>]

Multiple benefits of exercise: As little as 10 to 30 minutes of physical activity per day can improve quality of life in sedentary overweight or obese women, according to the Dose Response to Exercise in postmenopausal Women (DREW) study, a 6-month randomized clinical trial of exercise in postmenopausal women. Quality of life indicators included social and physical functioning, role limitations due to physical or emotional difficulties, general health, vitality, and mental health. Women with the highest levels of physical activity had the greatest increase in quality of life, but women in the lowest activity group also improved compared with women assigned to the sedentary condition.

Exercise also was found to reduce severe menopausal hot flashes in one study of menopausal women. Another study did not see a decrease in hot flashes, but did find a reduction in stress and anxiety.

In older women, Iyengar yoga may improve gait and postural stability, as well as confidence in walking and balance. These improvements in turn may yield a reduction in falls. And in the category of “you win some, you lose some,” women aged 65+ generally produce more muscle protein than do men, which may help explain the slower decline of muscle in older women. Despite this, because older women start out with less muscle mass than men, they may be more likely to have sufficient muscle loss to cause functional disabilities; in addition, both food and exercise increase muscle protein production more in older men than in older women.

[Excerpted from: ‘Overweight, obese women improve quality of life with 10 to 30 minutes of exercise,’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080313140113.htm>; ‘Exercise reduces menopausal symptoms and improves quality of life,’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2006/03/060322140647.htm>; ‘Exercise eases some menopausal symptoms,’ Carolyn Colwell, Yahoo! News, January 3, 2008; ‘Yoga poses can prevent falls in women over 65, study suggests,’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080414114445.htm>; ‘Muscle loss slower in women than men?’ Miranda Hitti, WedMD Medical News, March 25, 2008]

Menopause and evolution: To explain why women survive for many years after the end of their reproductive period, theorists originally proposed the “grandmother hypothesis,” where natural selection produces post-reproductive survival because grandmothers can assist their children to reproduce. This helps explain post-reproductive survival but not why women stop reproducing in the first place. Regarding the latter phenomenon, a new theory posits that the timing of reproductive cessation is an evolutionary adaptation to minimize reproductive competition between different generations of females. In societies without access to modern technology such as birth control, on average women have their first child at age 19 and their last at age 38; the latter age coincides with the initiation of breeding in the next generation.

[Excerpted from: ‘Menopause is an adaptation to minimize reproductive competition between females in a family, research suggests,’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080331172519.htm>]

Trends and constants in heart disease: A recent study in England and Wales found a leveling off or even a possible reversal of the decline in CHD mortality in women aged under 50. This result may be due to increases in smoking, obesity, and sedentary behavior. In other age-sex groups, CHD mortality rates continued to decline. An international study of heart disease in men and women confirmed earlier findings regarding gender differences in symptoms and treatment. For example, among those with a heart attack or unstable angina – diagnosed using tests other than angiograms – women were twice as likely as men to have normal or mild angiogram findings. In addition, at the same level of coronary artery disease, women were less likely than men to receive beta blockers, statins, or ACE inhibitors, or angioplasty or a stent. Women also reported different symptoms upon reaching the hospital, including nausea and jaw pain.

[Excerpted from: ‘Trends in heart mortality reversing in younger women,’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/05/080501092746.htm>; ‘Women and heart attack: failure to recognize symptoms, failure to treat appropriately, study finds,’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/05/080506123056.htm>]

Gender differences in knee replacement: According to a Canadian study, women are less likely than men to receive a recommendation for knee replacement, even when they report the same symptoms. And University of Delaware researchers found that women tended to delay knee replacement longer than men, reaching higher levels of impairment prior to surgery and thus making recovery and regaining function more difficult. Moreover, women are likelier than men to have osteoarthritis, which contributes to the need for knee replacement. Candidates for knee replacement often are told to wait as long as possible, to reduce the likelihood of a second knee replacement when the first one wears out. The researchers suggest re-thinking the advice given to patients.

[Excerpted from: ‘Disparities: men likelier to be told to replace a knee,’ Nicholas Bakalar, New York Times, March 18, 2008; ‘Women more likely to postpone new knees,’ Tara Parker-Pope, New York Times, February 15, 2008]

WOMEN AND MEN:



Vermeer, detail
Berlin, Gemaeldegalerie

U.S. House hearing on gender equity in science: In May, the House of Representatives Subcommittee on Research and Science Education held a hearing on the bill “Fulfilling the Potential of Women in Academic Science and Engineering Act of 2008,” aimed at reducing gender bias in academic science and engineering. If the legislation passes, the Office of Science and Technology Policy would provide national workshops regarding gender bias in decisions regarding hiring, tenure, promotion, and in evaluation of research grants. Moreover, federal grant support periods would be extended for investigators with caregiving responsibilities. The bill also requires science agencies to collect demographic and grant data from awardees.

[Excerpted from: FASEB Washington Update, May 16, 2008]

Factors in choosing math- and science-related careers: A

University of Michigan study noted that the choice of a career in science among those confident in their mathematical abilities was related more to one’s values than to one’s skills, for both boys and girls. Because girls tended to see mathematics as less useful than boys and because they tended to be more people-oriented, they were more likely to major in college in biological sciences such as medicine or social sciences, and less likely to major in mathematically-based sciences such as physics. The researchers suggest the importance of both raising girls’ confidence levels and demonstrating mathematics’ utility, rather than reducing girls’ underestimation of their math skills.

Similarly, an economist at the University of Kansas investigating the relative lack of women in information technology (IT) careers found that compared with occupations more evenly balanced with respect to gender, those working in IT enjoyed manipulation of tools or machines – more likely to be men – while those working in the other occupations were more likely to enjoy working with others – and were more likely to be women. This personal preference explained approximately two-thirds of the gender imbalance. Moreover, a Vanderbilt study noted that women skilled in mathematics are more likely than men also to have good verbal skills, while men skilled in mathematics have lower verbal abilities; consequently, women with math competence may have a wider range of career options and thus may be less likely to choose a math-related career. Consistent with this finding, the gender gap in science and math-related careers is higher in countries where women have the most freedom in choice of career. As these investigators point out, however, little research has been conducted as to why women’s interests may be different from men’s.

In another study by researchers at University of California at San Francisco, women who identified with math-related gender stereotypes – linking male gender to math ability and professions – and who identified themselves as feminine did worse in an introductory calculus course than other women, and were less likely to pursue a math-based career. This was despite the fact that most participants disagreed that men are better at math, suggesting that stereotypes may have played a subconscious role.

[Excerpted from: ‘University of Michigan study helps define why fewer women choose math-based careers,’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2003/05/030526104537.htm>; ‘Implicit stereotypes and gender identification may affect female math performance,’ *ScienceDaily*, <http://www.sciencedaily.com/2007/01/070124104155.htm>; ‘The freedom to say “no”,’ Elaine McArdle, *Boston Globe*, May 18, 2008]

A study of gender differences in research applications & funding: Researchers examined gender differences in acquisition of research grant support by faculty at eight Harvard Medical School-affiliated institutions for 2001 through 2003. Women comprised 29% of investigators and submitted 26% of funding requests. Although men had higher numbers of submissions, a higher success rate, and requested more money for more years, these differences were reduced upon controlling for faculty rank. When accounting for rank, gender differences in success rate were no longer statistically significant. Key remaining

gender differences were at the Instructor level, where women submitted fewer requests and asked for and received less money, despite equal success rates. For Associate Professors, women submitted more proposals and had equal success, but received less money. For Full Professors, women again submitted more proposals, and had a lower success rate but received similar amounts of funding. An editorial accompanying the published findings suggests: 1) helping women faculty at the Instructor level with proposal writing, as well as seed money for preliminary research; 2) equalizing faculty salaries – since differences in amount of funding received may result from lower salaries for women; and 3) boosting awareness that time in lower rank overlaps with women’s childbearing years, and providing relevant assistance, e.g., modifying women’s clinical schedules or increasing leave time.

[Excerpted from: Waisbren SE et al., *Journal of Women’s Health* 2008;17(2):207-214; Bailyn L, *Journal of Women’s Health* 2008;17(2):303-304.]

Increase in women executives in Europe and the US: Although the proportion of women appointed to European corporate boards is still small, there is a trend towards hiring women for outside, nonexecutive directors. In Norway, this is largely in response to a 2003 law requiring that by 2008, 40% of corporate board seats be filled by women. Spain also recently enacted similar legislation. Companies generally prefer to have sitting or retired chief executives on their boards, however, and the representation of women in this pool is still relatively small. An organization in the Netherlands is asking companies to fill senior executive positions with women so that they can become candidates for corporate boards. In addition, the climate may be changing, as the head of a executive mentoring program in Brussels notes that diversity is viewed more favorably than previously.

The increase in woman-managed endowments for US universities and private foundations is relatively large compared with other sections of corporate America, growing from 4% ten years ago to 20% currently. In contrast, only 3% of the approximate \$1.9 trillion in hedge fund investments is controlled by women. Attractions for women in this field may include greater flexibility in schedules and travel, particularly for those with child-care responsibilities. Some executives also report that they enjoy the public service aspect. A disadvantage is that salaries for nonprofits are lower than analogous work at for-profit funds on Wall Street.

Massachusetts currently has 11 women mayors, representing 25% of Massachusetts cities with mayors. However, more than one-third of municipalities had no women serving on government bodies, and five of the largest cities have never had a female mayor.

[Excerpted from: ‘In Europe, women finding more seats at the table,’ Sharon Reier, *New York Times*, March 22, 2008; ‘Corner of finance where women are climbing,’ Geraldine Fabrikant, *New York Times*, March 22, 2008; ‘More women find new voice as mayors,’ Erin Ailworth and Milton J. Valencia, *Boston Globe*, March 11, 2008]

Marital and Parental Time Pressures: Both men and women report dissatisfaction with time spent with children and spouses, according to a recent study in the *Journal of Family Issues*. Men would like more time with their spouses, while women would like to increase the quality of the time spent with their spouses. In addition, women but not men reported that a “hectic pace” had an impact on time spent with their children.

[Excerpted from: ‘Do men and women view marital and parental time pressures differently?’ *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/02/080228130242.htm>]

Bias is worse for women than for men: Negatively perceived qualities have worse consequences or lower thresholds for women than for men, as seen in several studies. Yale researchers found that discrimination on the basis of weight is as common as on the basis of race, but that the weight threshold is lower for women than for men – a body mass index of 27 for women versus 35 for men. Anger also is more acceptable in men than in women, at least in a job interview. When researchers compared participants’ ratings of videotapes of actors applying for jobs, angry men were rated as deserving more responsibility and a higher salary, and as being more competent than angry women. On a related topic, a study of pregnant versus non-pregnant job applicants found that respondents were more judgmental towards pregnant applicants when they

applied for jobs such as corporate lawyer or high school math teacher – traditionally male occupations – than when they applied for jobs such as kindergarten teacher or pediatrician.

The website <https://implicit.harvard.edu/implicit/demo/takeatest.html> provides a test regarding unconscious associations of gender with career/family and with science, and other social biases and impressions.

[Excerpted from: 'Fat bias worse for women,' New York Times, March 31, 2008; 'People accept anger in men, but women who lose their temper are seen as less competent, study shows,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/04/080402152707.htm>; 'Pregnant women face hostile behavior when applying for jobs, new study shows,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/05/080506120937.htm>].

Gender differences in eating and drinking: A large survey of US adults' eating habits found that men are more likely to eat meat, poultry, and shellfish, while women are more likely to eat fruits and vegetables. Regarding consumption of risky foods, men were more likely to consume undercooked hamburger meat, and women were more likely to eat alfalfa sprouts. In response to a stressful story, Yale researchers noted that men's emotional arousal was associated with increased craving for alcohol, while women were more likely to report sadness and anxiety. The authors speculated that because men's stress-related blood pressure increase was higher but they were less likely to report sadness or anxiety, the use of alcohol may be a way of distracting themselves from their physiological arousal.

[Excerpted from: 'Men and women have different eating habits, study shows,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080319120318.htm>; 'Men are more likely than women to crave alcohol when they feel negative emotions,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/05/080511190834.htm>]

Educational issues: Despite earlier concerns that boys might be shortchanged with increased focus on girls' education, recent research by the American Association of University Women (AAUW) and the American Council on Education indicates that "Girls' gains have not come at boys' expense." Instead, the AAUW's report points to larger disparities in educational achievement by race/ethnicity and income than by gender. Interestingly, the impact of gender differs by race/ethnicity or income. For instance, the better performance of boys on the SAT verbal test is seen primarily among low-income students, and there is little gender difference in among African American students. The gender gap for the SAT math test also is smaller in African American students.

According to the Massachusetts Commission on the Status of Women, there are over 31,000 women in the state with no formal schooling, and more than 15% do not have a high school diploma.

[Excerpted from: 'Girls' gains have not cost boys, report says,' Tamar Lewin, New York Times, May 20, 2008; The Status Report, June 2008, Volume 4, Issue 6, The Massachusetts Commission on the Status of Women.]

This is your brain on video games: Researchers at Stanford University asked 11 young men and 11 young women to play a videogame while in an MRI. Researchers chose a non-violent game, asking participants to click on images of balls with no explicit goal. Both genders performed well, keeping balls from coming too close to a wall, but men did better and appeared more motivated. Men also had higher activity in the mesocorticolimbic system, a part of the brain linked to rewards and addiction. The authors suggest that this may explain the greater number of men reporting videogame addictions.

[Excerpted from: 'Patterns: A video game, an M.R.I. and what men's brains do,' Eric Nagourney, New York Times, February 19, 2008]

Gender differences in prescriptions: A study of prescriptions dispensed in 2002-2003 for a national pharmacy chain found that for patients aged 18+, 156 of 180 medications considered were more likely to be dispensed to women than to men, including antibiotics, analgesics, antihistamines and sympathomimetics, benzodiazapines, antidepressants, diuretics, and thyroid medication. Medications more likely to be dispensed to men included antianginal drugs, anticoagulants, glycosides, and antihypertensives. Gender differences were larger in reproductive years.

Researchers at the Rush Heart Center for Women found that among patients with coronary artery disease, more men than women – 91% versus 78% – received statins. After accounting for clinical factors, men were six times more likely than women to receive aspirin and beta blockers. Occurrence of adverse drug reactions was similar for men and women.

[Excerpted from: Anthony M, et al., Journal of Women's Health 2008;17(5):735-743; 'Women are treated less frequently than men with statins, aspirin and beta-blockers,' *ScienceDaily*, <http://www.sciencedaily.com/releases/2008/03/080304150505.htm>]

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