# May-October 2014 **SCHOOL NEWS**

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#### Selected Publications

Meagan Vaughn, PhD, recent alumna, and mentor Steve Meshnick, MD, PhD, EPI professor, found repellent-treated clothing reduces tick bites by 80 percent among North Carolina forestry workers. The study was published online April 16 in the American Journal of Preventive Medicine.

Barry Popkin, PhD, W.R. Kenan Jr. Distinguished Professor of NUTR, authored a study published online April 17 in the Journal of Nutrition that found easy availability of sugary drinks in Mexico is linked to the country's escalating obesity crisis.

Elizabeth Mayer-Davis, PhD, NUTR professor and chair, and colleagues with the SEARCH for Diabetes in Youth Study examined data from more than three million children across the U.S. and found that prevalence of Type 1 and Type 2 diabetes increased significantly between 2001 and 2009. The findings were published May 7 in the Journal of the American Medical Association.

One-third of all children affected with febrile urinary tract infections suffer

#### KEY TO DEPARTMENTS

**BIOS** Biostatistics EPI Epidemiology

ESE Environmental Sciences and Engineering

HB Health Behavior

HPM Health Policy and Management

MCH Maternal and Child Health

**NUTR** Nutrition

PHLP Public Health Leadership

from vesicoureteral reflux (VUR), a condition in which urine flows backward from the bladder into the kidneys. A new study, co-authored by Myra Carpenter, PhD, senior investigator in BIOS, found that children with VUR who received antimicrobials over a two-year period had a substantially reduced risk of urinary tract infection recurrences. The study was published online May 4 in The New England Journal of Medicine.

A collaboration of researchers at UNC and Harvard found that one reason for increased suicide risk for young people on antidepressant therapy is that patients are started on a higher-than-recommended dose. Til Stürmer, MD, PhD, EPI professor and director of the UNC Center for Pharmacoepidemiology, co-led the study, which was published online April

28 in the Journal of the American Medical Association Internal Medicine.

About 40 percent of the people who contract the emerging Middle East Respiratory Syndrome coronavirus (MERS-CoV) will die in the course of the infection. A new study, co-led by Ralph Baric, PhD, EPI professor, and published online April 28 in Proceedings of the National Academy of Sciences, describes a novel panel of human monoclonal antibodies that bind to the virus and prevent infection.

A study co-led by Gary Rozier, DDS, HPM professor, found that the "Into the Mouths of Babes" program led to a significant increase in the number of children age four and younger who receive preventive dental care. The



Dr. Meagan Vaughn displays forestry workers' uniforms treated with tick repellent.

A study published May 6 in PLOS Medicine, coauthored by Robert Bain, MEng, visiting scholar at The Water Institute at UNC, and Jamie Bartram, PhD, Don and Jennifer Holzworth Distinguished Professor of ESE and director of The Water Institute, found that improving water sources does not mean a household in the developing world necessarily will have safer drinking water. Fecal contamination still occurs in about 25 percent of water from "improved" sources. This study and another by Bain, Bartram, Ryan Cronk and Kyle Onda, of The Water Institute at UNC, and other authors, published online May 8 in Tropical Medicine and International Health, made quite a stir in the Twitterverse. See tinyurl.com/ WASH-tweets-1 and tinyurl.com/ WASH-tweets-2.

program was designed to encourage dentists and physicians to use an interdisciplinary approach to reducing cavities in young, low-income children. The study was published in the April issue of Pediatrics.

Physical activity after breast cancer diagnosis has been linked with prolonged survival and improved quality of life, but most participants in a large breastcancer study did not meet national physical activity guidelines after they were diagnosed. Moreover, African-American women were less likely to meet the guidelines than were white women. Led by EPI doctoral student Brionna Hair and published online June 9 in Cancer, the findings indicate that efforts to promote physical activity in breast cancer patients may need to be enhanced significantly.



Brionna Hair













Dr. Bryan Weiner

Two recent studies by **Stephanie** B. Wheeler, PhD, HPM assistant professor, and colleagues reveal that breast cancer patients insured by Medicaid and African-American breast cancer patients are less likely to receive life-saving endocrine therapy (ET) to prevent cancer recurrence. One, published in May in the Journal of Cancer Survivorship, assessed ET use among low-income Medicaid-insured women in North Carolina. Another, published in May in Breast Cancer Research and Treatment, compared ET use among privately insured African-American women and white women.

Web-based and live counseling programs effectively can reduce risk of heart disease for patients at high risk for the disease, and Web-based programs are particularly cost-effective. So found a study published online May 26 in JAMA Internal Medicine, co-authored by Carmen Samuel-Hodge, PhD, NUTR research assistant professor; Kelly Evenson, PhD, EPI research professor; Bryan Weiner, PhD, HPM professor; Shrikant Bangdiwala, PhD, BIOS professor; and Alice Ammerman, DrPH, NUTR professor and director of the UNC Center for Health Promotion and Disease Prevention. The study adds to a growing body of evidence suggesting that nontraditional approaches to health care are becoming ever more important in managing health and disease.

Two new studies on e-cigarettes, both published in a special July issue of the journal

Tobacco Control, were led by Gillings School researchers. "The availability of electronic cigarettes in U.S. retail outlets, 2012: Results of two national studies" was led by Shyanika Rose, PhD, HB doctoral candidate at the time of the study. "Effects of advertisements on smokers' interest in trying e-cigarettes: the roles of product comparison and visual cues," was led by Jessica Pepper, PhD, HB doctoral candidate at the time of the study and now a postdoctoral fellow at the UNC Lineberger Comprehensive Cancer Center.

Barbershops and beauty salons have long been seen as excellent venues for distributing health information and increasing community awareness. Laura Linnan, ScD, HB professor, and others led the first synthesis review of the literature on outcomes associated with barbershopand salon-based activities. Results are published in the July print issue of American Journal of Preventive Medicine.

A study led by CDC researchers has found that the rate of HIV infections diagnosed in the U.S. has decreased by one-third over the past decade, offering hope that the AIDS epidemic in the U.S. may be slowing down. Amy Lansky, PhD, Gillings School alumna and deputy director for surveillance, epidemiology and lab science in the National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention's Division of HIV/AIDS Prevention, co-authored the article, available in the July 23/30 issue of the Journal of the American Medical Association.







Dr. Laura Linnan



Dr. Brian Pence



Dr. Jessica Pepper



Greg Pereira



Dr. Shvanika Rose

Antiretroviral treatment has transformed HIV from a death sentence to a chronic condition, enabling infected adults to pay more attention to their quality of life. Yet quality of life is affected strongly by depression, which plagues HIV-infected adults at a higher rate than the general population. A new study by Brian Pence, PhD, EPI assistant professor, and EPI doctoral candidate Angela Bengtson indicates that treating depression effectively improves quality of life in a number of areas for HIV-infected individuals. The study was published online Aug. 8 in AIDS Care.

More than half of emergency department patients ages 65 and older who were seen at UNC Hospitals during an eight-week period were either malnourished or at risk for malnutrition. These were among findings in an article published online Aug. 13 in Annals of Emergency Medicine, co-authored by Greg Pereira, BSPH, recent NUTR alumnus; Mark Weaver, PhD, BIOS research assistant professor; and Cynthia Bulik, PhD, distinguished professor of psychiatry and NUTR.

Allison E. Aiello, PhD, EPI professor, studied hand hygiene in health care

facilities and developed guidelines and strategies to increase adherence to hand hygiene practices. Published online July 16 in Infection Control and Hospital Epidemiology, the study finds that alcohol-based hand rubs are more effective than soap in most cases and that antibacterial soaps are no more effective than regular soaps and can make users susceptible to other infections. Aiello made a presentation about triclosan, a chemical used in antibacterial soap, at a U.S. Food and Drug Administration hearing on topical antiseptics in Silver Spring, Md., on Sept. 3.

## Selected Grants



Chancellor Carol Folt (left) congratulates Dr. Jim Thomas on the \$180M award to MEASURE Evaluation.

#### Thomas is PI of \$180M USAID grant

James Thomas, PhD, EPI associate professor, is principal investigator for a five-year, \$180 million award for the Carolina Population Center's Monitoring and Evaluation to Assess and Use Results (MEASURE) Evaluation project from the U.S. Agency for International Development (USAID). Read more about the MEASURE Evaluation success story at tinyurl.com/MEASURE-renew.





Dr. Allison Aiello

Dr. Gregory Characklis





Dr. Wizdom Powell

Dr. Paula Song

Wizdom Powell, PhD, HB assistant professor, has received a National Institutes of Health grant to study how neighborhoods and daily stress affect substance abuse by black men. The fiveyear award is for \$775,602.

Gregory Characklis, PhD, ESE professor, will lead a team that has been awarded a \$2.2 million grant from the National Science Foundation (NSF) and the U.S. Department of Agriculture (USDA).

Paula Song, PhD, HPM, associate professor, is principal investigator for a three-year, \$1.9 million grant from the Patient-Centered Outcomes Research Institute (PCORI) to study a new model of health delivery. Song and Marisa Domino, PhD, HPM professor, will work with academics and stakeholders from Ohio and Washington state, along with the Carolina Survey Research Lab, to assess the efficiency of accountable care organizations (ACOs), groups of healthcare providers that organize in new ways to take responsibility for the care of a specific health need population. ACOs emerged from the Affordable Care Act as vehicles to improve both the quality and efficiency of health care.

### Other Nervs



Dr Folt

#### Folt appointed professor in ESE

Chancellor Carol L. Folt, PhD, was appointed as joint professor in ESE and biology this summer. Prior to becoming UNC-Chapel Hill's 11th-and first woman-chancellor in July 2013, Folt had a distinguished career at Dartmouth University. She was named associate director of Dartmouth's Toxic Metals Research Program in 1998 and, in 2000, became associate director of the university's Center for Environmental Health Sciences. In 2007, she was named a distinguished professor, and in 2010, was named a fellow of the American Association for the

Advancement of Science. In addition to faculty appointments, she served at the highest administrative levels at Dartmouth, including as dean of graduate studies, dean of faculty, provost and interim president.

"Chancellor Folt is an exemplary scientist, teacher and leader," says Gillings School Dean Barbara K. Rimer, DrPH. "That combination is inspirational, and we are so grateful that she chose to affiliate with our School."

#### The UNC Graduate School has announced two new degree programs

affiliated with the Gillings School that will be available to students beginning fall 2014—the Master of Professional Science in Biomedical and Health Informatics and the Professional Science Master's Program in Toxicology. Learn more about the health informatics degree at chip.unc.edu/mps-bmhi. Learn more

about the toxicology degree at tinyurl. com/UNC-tox-degree.

A partnership with North Carolina's McDowell County will enable Laura Linnan, ScD, HB professor and director of the Carolina Collaborative for Research on Work and Health (CCRWH), to study workplace health in the county. Linnan and her team will seek input from about 400 employers about their current health programming and their interest in developing other such workplace programs. Her project will help meet four of McDowell County's five current community health assessment priorities, including ones addressing tobacco use, healthy eating and active living, substance abuse and behavioral health, and access to care.