It is my pleasure to present the first annual report of the UMass Worcester Prevention Research Center. Since we were first funded in October 2009, we have been working to establish an infrastructure that will allow us to work toward our goal of establishing enough public health, community and academic resources to enable research partnerships to conduct behavioral intervention and policy research that address overweight, obesity and associated chronic conditions among residents of Central Massachusetts.

Our work to date has focused on building our relationships with our public health and community partners, developing training programs for the next generation of applied researchers and public health practitioners, developing new avenues of research, and establishing systems to communicate our work.

I take great pride in the fact that we have made extraordinary strides in each of these areas. In this report, we highlight just a few of our team’s accomplishments. I invite you to review these stories and learn more about the nature of our collaborative work.

Stephenie C. Lemon, PhD
Director and Principal Investigator
The UMass Worcester Prevention Research Center (UMW-PRC) at UMass Worcester works closely with community and public health partners to address overweight, obesity and associated conditions. Our collaborative research yields practical health promotion and disease prevention strategies that can bring long-term benefits to our community. We are one of only 37 academic research institutions nationwide designated a Prevention Research Center by the Centers for Disease Control and Prevention (CDC). The CDC and PRC network members work together to test and apply approaches that can improve the nation’s health.

OUR CORE FACULTY

From left: Suzanne Cashman, ScD; Lori Pbert, PhD; Stephenie Lemon, PhD; Sherry Pagoto, PhD; and Milagros Rosal, PhD

IN PARTNERSHIP WITH

Central Massachusetts Area Health Education Center, Common Pathways, Division of Public Health, Edward M. Kennedy Community Health Center (formerly Great Brook Valley Health Center), Office of Healthy Communities: Massachusetts Department of Public Health, UMass Memorial Health Care, University of Massachusetts Medical School
Steering Patients Back to Health Care

Interacting with the health care system can be confusing and even discouraging. For older people with diabetes or hypertension, sometimes it helps to have a navigator.

Health care providers at the Edward M. Kennedy Community Health Center (EMKCHC) recognized that a large number of older patients are disengaged in their treatment for diabetes and hypertension. They don’t show up for appointments and fail to reschedule visits for extended periods of time.

Seeking to help these patients, the EMKCHC received a grant from Tufts Health Care to fund a “Patient Navigator” program, whose purpose is to engage patients in their health care by helping them to attend health care provider visits. PatientNavigators called Spanish-, Portuguese- and English-speaking patients who had not been back to the health center for at least six months, and offered to set appointments and provide other assistance so they could return to the health center.

They found that the Patient Navigators were successful in bringing patients back into care. To conduct a formal evaluation of the program, they established a partnership with Central Massachusetts Area Health Education Center and UMass Medical School.

This is a core project of the UMass Worcester Prevention Research Center. The first phase involved a qualitative evaluation of the program.

Using focus groups and telephone interviews with 30 patients, staff from the three organizations came together to better understand the Patient Navigator program, document evidence of success, and look for ways to further enhance the program. The project is currently in the qualitative analysis stage.

The next phase will involve applying their qualitative findings to enhance the program, implement the enhanced version of the program, and then analyze the program results by documenting its impact on how often EMKCHC patients access the health care system and how well they control their diabetes and hypertension.

| **WHY** do some people with diabetes or hypertension not seek regular health care? |
| **WHEN** patients have an appointment, why do they decide to come? |
| **WHAT** makes it possible for them to come? |
| **HOW** do patients react to a Patient Navigator? |
| **WHAT** else could a community health center do to encourage patients with chronic illness to see their health care providers? |
Social Network Tackles Couch Potatoes

Can an online social network get Fido and his owner off the couch?

That’s the question asked by Drs. Kristin Schneider and Stephenie Lemon from the UMass Worcester Prevention Research Center at the University of Massachusetts Medical School, together with Common Pathways, and Drs. Deirdra Murphy and Cynthia Ferrara from the University of Massachusetts Lowell. Their study examines whether an online social network can increase physical activity in dog owners by using Meetup, a freely available online social network, to connect local dog owners, arrange neighborhood dog walks and provide education on the benefits of dog walking, for both dogs and their owners. Starting in May 2012, residents in Worcester and Lowell neighborhoods were randomly assigned to receive the online social network or standard, print-based materials for increasing physical activity.

The study’s developmental work found that most local dog owners were interested in walking with other dog owners and thought that an online social network would be a good way to make that happen. They expressed certain concerns about the online social network approach, however, including fear of email overload, loss of privacy and meeting strangers. To address these concerns, the study will provide participants with an orientation on managing their Meetup profile to maintain their privacy and reduce the volume of emails, and organize an initial meeting for dog owners to meet one another in person and agree on Meetup participation rules. Initial results are expected in December 2012.
School Nurses Effective Weapon to Battle Teen Obesity

A successful approach to smoking cessation among teens has led to new work combating teen obesity.

Dr. Lori Pbert, her research team, and the School Health Unit of the Massachusetts Department of Public Health (MDPH) are now collaborating with school nurses in eight high schools as part of an NIH-funded study to provide school nurse counseling sessions throughout the school year along with an after-school exercise program.

Building on prior success with a community-based participatory research model, the partners conducted focus groups with high school nurses to determine current practice and how a school nurse-delivered approach might best meet the needs of students, families and nurses. In the school setting, school nurses are the primary health care professionals.

Funded by the National Institute of Child Health and Development of NIH, the team collaborated with school nurses, students, their families, and other school personnel to design and pilot test a program called “Lookin’ Good, Feelin’ Good,” where school nurses help adolescents make health behavior changes to reduce their body mass index. The pilot study showed promise in helping adolescents make important changes in weight-related behaviors. Nurses in the study recommended extending the program and adding structured exercise to support teens in their efforts.

This partnership worked so well thanks to a common mission to help adolescents lead healthy lives, and the participants respected each others’ unique contributions, perspectives and skills brought to their shared work. School nurses have the skills and credibility to deliver health-related counseling to teens, and UMMS researchers bring empirical evidence and guidelines from the literature, along with research and evaluation expertise.
Our Trainees

Matthew Whited, PhD, has been a postdoctoral fellow with the PRC for the past year after spending two years as a postdoc on a study investigating depression and weight loss. At the PRC, his focus has been on facilitating training efforts with community partners. He undertook key informant interviews with participants who trained in healthy weight management to improve this training going forward. He also has helped to make a weight management training seminar available to community partners in nursing, psychology, and social work.

In addition, Dr. Whited has catalogued the various training opportunities available to community partners and developed training materials for future postdocs to ensure that they achieve appropriate breadth and depth of training across the multiple domains covered by the PRC. Dr. Whited hopes to begin five years of training in depression and cardiovascular disease.

He will join the psychology department at East Carolina University as an assistant professor in August.

Lauren Gellar, PhD, graduated from the Clinical and Population Health Research doctoral program at UMass Worcester this past year after working with Dr. Lori Pbert and her team throughout her training. During her three years in the program, she trained in applied community research, particularly in the areas of child and adolescent obesity, where she contributed to two grant-funded research studies. In an NIH-funded randomized controlled trial on adolescent obesity in public schools, Dr. Gellar served as a member of the intervention protocol design team, contributing her knowledge regarding child and adolescent nutrition, obesity, diabetes and health behavior change to the research team meetings and the group’s effort. Dr. Gellar worked closely with a community partner at the Massachusetts Department of Public Health School Health Unit, and developed a
collaborative relationship so that the trial’s design reflected the partner’s perspective.

Dr. Gellar also took a leadership role in a community-based type 2 diabetes prevention study conducted in partnership with the Lowell Community Health Center (LCHC) and the Lowell Boys and Girls Club. She was responsible for designing the behaviorally based nutrition program that targeted improved diet and weight management. She also implemented the nutrition education and behavior change protocol for high risk and underserved youth.

**WooFood Is Healthy Food**

A medical student project mentored by Drs. Stephenie Lemon and Sherry Pagoto is addressing the fact that a poor diet and sedentary lifestyle are overtaking even tobacco as the leading actual cause of death in the United States. Founded in Worcester by UMass Worcester medical students Matt DeWolf, Adam Chin and Mitch Li, WooFood is a 501(c)3 non-profit that certifies restaurants that promote healthful eating by not only providing healthful options, but making those options the easy option.

Because an increasing proportion of meals are eaten outside of the home, restaurants contribute significantly to a community’s culture, and are thus a vital partner in any effort to combat the chronic diseases suffered by ballooning numbers of Americans. Restaurants can make simple changes with enormous nutritional impact by incorporating more whole grains, fruits and vegetables, and reducing salt and portion size.

WooFood certification criteria, taken from the Harvard School of Public Health’s Healthy Eating Plate and the USDA MyPlate, were designed to make it possible for any restaurant to become WooFood Certified, thus expanding the program’s potential public health impact.

To earn certification, restaurants need to provide healthful options, list them on the menu and announce them to customers. Once a restaurant is certified, the wait staff, chefs, cooks and managers are actively involved.

The Worcester-area restaurants currently involved in the certification program include a variety of cuisines, from American Bistro and Asian to frozen yogurt. As part of its mission, WooFood is targeting additional restaurants in low-income and underserved areas in order to address health disparities.

UMW-PRC faculty members Drs. Stephenie Lemon and Sherry Pagoto have helped the co-founders with community connections and procedural guidelines, as well as expansion through social media.
Motivational Interviewing Can Change Behavior

To increase motivation among patients, the faculty of the UMW-PRC provided evidence-based intervention training for health care providers at the Edward M. Kennedy Community Health Center (EMKCH), a private non-profit community health center serving more than 100 communities in the greater Worcester area.

Utilizing a family practice model of care including preventive care, healthcare providers including nurses and healthcare assistants participated in an interactive presentation “Motivational Interviewing: Promoting Adherence to Lifestyle Changes,” facilitated by Dr. Milagros Rosal, PhD, associate professor of medicine, co-director UMW-PRC, and Sharon Shad, BS Ed, project coordinator, UMW-PRC.

Adherence to lifestyle changes is not only challenging but difficult when faced with chronic diseases. The healthcare providers were able to walk away with a basic understanding of motivational interviewing that supported existing strategies and skills so they could counsel their patients and strengthen their motivation for change.

Health Weight Curriculum Developed for Patient Navigators

The PRC played a critical role in Healthy Weight curriculum development and training during the winter and spring of 2011 while building on the Outreach Worker Training Institute’s team teaching model for clinicians, community health workers and Patient Navigators. PRC faculty worked together with a number of partners to enhance training and content quality and promote professional development. Training participants had a supportive learning environment that put the knowledge and skills required for patient navigation and health promotion into context, together with professional networking opportunities. Course evaluations confirmed the need to continue offering similar training opportunity for other community health workers and Patient Navigators in Massachusetts.
The PRC faculty developed a Healthy Weight curriculum and training for Patient Navigators in collaboration with the Central Massachusetts Area Health Education Center (the home of the Outreach Worker Training Institute), the PASA Coalition of the Central Massachusetts YWCA and the UMASS Worcester Prevention Research Center. Course participants included community health workers and Patient Navigators from the Family Health Center, the Edward M. Kennedy Community Health Center, Grafton Job Corps Career Academy, VNA Care Network, the Boston Medical Center and the Fenway Community Health Center.
Research Projects

CORE UMW-PRC Project

Patient Navigation to Reach Disengaged Patients with Diabetes and Hypertension at a Community Health Center

Focus of Study: Diabetes and Hypertension  
Funder: CDC PRC Program  
Principal Investigator: Milagros Rosal, PhD  
Partner Organizations: UMW-PRC, Edward M. Kennedy Community Health Center, Central Massachusetts Area Health Education Center, Massachusetts Department of Public Health  
Project Description: The core UMW-PRC project will evaluate the effectiveness of a patient navigator outreach model designed to engage low-income Latino diabetics who do not seek regular care.

CDC-Funded Special Interest Projects

Physical Activity Policy Research Network (PAPRN)

Focus of Study: Physical Activity Policy  
Funder: CDC Division of Nutrition and Physical Activity  
Principal Investigator: Stephenie Lemon, PhD  
Partner Organizations: PAPRN is a thematic research network that consists of one coordinating/member, PRC member centers, CDC technical advisors, and affiliate university members  
Project Description: The mission of PAPRN is to identify policies that affect population physical activity, and the determinants of those policies. PAPRN will also describe the process of implementing and the outcome of physical activity policies.

UMass Worcester Prevention Research Center (UMW-PRC)-Funded Pilot Projects

Primary Prevention for Resettled Refugees: Where Best to Begin?

Focus of Study: Overweight, Obesity, Chronic Conditions  
Funder: UMass Worcester Prevention Research Center  
Principal Investigators: Meredith Walsh, RN, MPH, Clara Savage, Suzanne Cashman, ScD  
Partner Organizations: Worcester Refugee Assistance Project (WRAP), Common Pathways, UMass Medical School Department of Family Medicine and Community Health  
Project Description: Assess how refugees from Burma settling in Worcester view health and wellness, and how exposure to a healthy living curriculum influences their views toward health, wellness, stress management and prevention of chronic diseases.

Be the Change for Health

Focus of Study: Overweight, Obesity, Nutrition, Physical Activity  
Funder: UMass Worcester Prevention Research Center  
Project Dates: 1/1/2012–12/31/2012  
Principal Investigators: Liz Davis, MPH and Lori Pbert, PhD  
Partner Organizations: Edward M. Kennedy Community Health Center, Roosevelt Elementary School
Project Description: This project is testing the feasibility of an innovative program delivered in a School-Based Health Center that is designed to provide children with skills and tools to serve as change agents within the family for improved nutrition and physical activity.

Other Projects

Barriers & Facilitators of Mental Health Services Utilization among Latinos
Focus of Study: Mental Health
Funder: NIH/NIMH
Principal Investigators: Milagros Rosal, PhD and Stephenie Lemon, PhD
Partner Organizations: Greater Lawrence Family Health Center, Lawrence Senior Center, Greater Lawrence YWCA
Project Description: To examine an ecological framework to examine the impacts of culturally specific sources of stress and resources on mental health services utilization among Latinos in Lawrence, MA.

Community-Based Participatory Research for Diabetes Prevention in Individuals with Mental Illness
Focus of Study: Diabetes
Funder: Healey Foundation, Blue Cross Blue Shield Foundation of Massachusetts in Partnership with ServiceNet
Project Dates: 2/1/2010–1/31/2011
Principal Investigator: Sherry Pagoto, PhD
Partner Organizations: UMW-PRC/UMass Worcester, ServiceNet
Project Description: To train direct care work force of ServiceNet, a community mental health organization in Central Massachusetts, in lifestyle counseling and to pilot test the impact of this training using a group-based lifestyle intervention.

A Community-Based Social Networking Intervention to Increase Dog Walking
Focus of Study: Physical Activity
Funder: UMass CCTS
Project Dates: 1/1/2011–12/31/2012
Principal Investigator: Kristin Schneider, PhD
Partner Organization: Common Pathways
Project Description: Developmental work to inform the social networking dog-walking intervention followed by a trial to assess whether the intervention increases walking in dog owners compared to a standard print-based control condition.

A Pilot Lifestyle Intervention for Gestational Diabetes among Hispanic Women
Focus of Study: Gestational Diabetes
Funder: CDC/ASPH
Partner Organizations: University of Massachusetts Amherst, UMW-PRC/UMass Worcester, Baystate Medical Center
Principal Investigators: Milagros Rosal (subcontract PI); Prime: Lisa Chasan-Taber (UMass Amherst)
**Project Description:** To test the feasibility & potential impact of a randomized controlled lifestyle intervention to prevent GDM among pregnant, overweight/obese Hispanic women at increased risk for GDM.

**Pregnancy and Postpartum Observational Dietary Study (PPODS)**

**Focus of Study:** Nutrition, Obesity & Overweight  
**Funder:** UMass CCTS  
**Project Dates:** 4/1/2011–3/31/2013  
**Principal Investigator:** Milagros Rosal, PhD  
**Partner Organization:** UMass Memorial Health Care  
**Project Description:** To evaluate whether associations among consumption of saturated fat, fat deposition and weight loss observed in mice can be observed in human subjects during pregnancy and the postpartum period.

**Preventing Cancer by Addressing Adolescent Risk Behaviors**

**Focus of Study:** Obesity & Tobacco  
**Funder:** UMass/Dartmouth Cancer Center  
**Project Dates:** 9/1/2011–5/31/2012  
**Principal Investigator:** Lori Pbert, PhD  
**Partner Organizations:** Dartmouth Medical School, MA Department of Public Health, School Health Unit, eight high schools in Massachusetts  
**Project Description:** Modify/delay the onset of cancer-causing behaviors adopted during childhood & adolescence, focusing on tobacco use and behaviors associated with obesity. General aims are to better understand the neurobiological basis for self regulation of cue responses.

**School Nurse Intervention & After School Exercise Program for Overweight Teens**

**Focus of Study:** Obesity  
**Funder:** NIH/NHLBI  
**Project Dates:** 8/18/2011–7/31/2013  
**Principal Investigator:** Lori Pbert, PhD  
**Partner Organizations:** Children’s Hospital Boston/Harvard Medical School, MA Department of Public Health/ School Health Unit, eight high schools in Massachusetts  
**Project Description:** This exploratory study will test the feasibility and ability of a school-based intervention, consisting of school nurse counseling and a school-based exercise program, to reduce BMI and improve dietary quality, physical activity, and sedentary behaviors in overweight and obese adolescents. If effective, this could prove to be a cost-effective and relatively easy intervention to disseminate widely for significant public health impact.

**School Worksite Weight Gain Prevention Intervention Study**

**Focus of Study:** Obesity  
**Funder:** NIH/NCI  
**Project Dates:** 7/1/2009–6/30/13  
**Principal Investigators:** Stephenie Lemon, PhD and Lori Pbert, PhD (MPI)  
**Partner Organizations:** UMW-PRC/UMass Worcester, Massachusetts Department of Education, Massachusetts School Nurses Research Network, 12 Central Massachusetts public high schools  
**Project Description:** To evaluate the effectiveness of an ecological intervention at preventing weight gain in the school worksite setting.
Skin Cancer Risk and Physical Activity

Focus of Study: Physical Activity & Cancer
Funder: ACS
Principal Investigator: Kristin Schneider, PhD
Project Description: To understand whether physical activity is associated with increased risk for skin cancer and to identify profiles of individuals at greatest risk.

Virtual World Health Behavior Counseling for Patients with Diabetes

Focus of Study: Diabetes
Funder: NIH, ARRA
Principal Investigators: Milagros Rosal, PhD (subcontract PI); Prime: John Weicha (Boston Medical Center)
Partner Organization: Boston Medical Center
Project Description: This comparative effectiveness study will evaluate the feasibility of a theory-driven diabetes self-management intervention delivered through interactive group sessions within a virtual reality environment (i.e., Second Life) vs. in-person. The study targets low-income African Americans, a population with considerable diabetes disparities.
The UMass Worcester Prevention Research Center is a member of the Prevention Research Centers Program, supported by the Centers for Disease Control and Prevention cooperative agreement number 1-U48-DP-000062

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