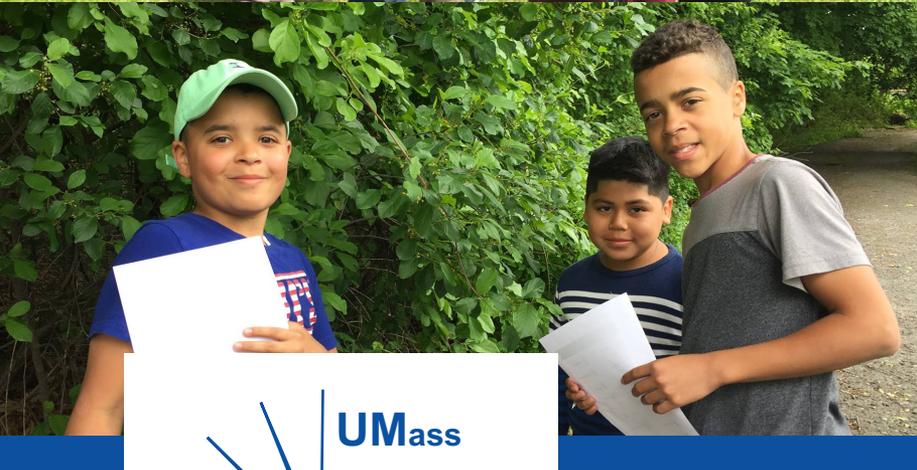


**FOSTERING PARTNERSHIPS**  
to Promote Health in Central Massachusetts



**UMass  
Worcester  
Prevention  
Research  
Center**

# 2017

## Annual Report to Stakeholders



# UMass Worcester PRC 2017 Annual Report

Welcome to the UMass Worcester Prevention Research Center's 2017 Annual Report! We are pleased to share a snapshot of various research studies with you.

Our work is to *improve the health of individuals, families and communities*. We do this by conducting research in the real-world through community partnerships, and by actively participating in local and state public health initiatives. We are proud to be part of a national network of Prevention Research Centers, funded by the US Centers for Disease Control and Prevention.

Through our research, we provide many opportunities for students, post-doctoral fellows and junior faculty to gain real-world research experience. In 2017, high school students, graduate students and post-doctoral fellows developed valuable skills through mentored work on various research projects. Their activities included conducting literature searches, creating and administering interview guides and surveys, training research staff, conducting study assessments, analyzing data, and disseminating research results. Doctoral students and post-doctoral fellows also followed their own research ideas, often launching from our shared work.

We are able to provide such rich learning experiences through a variety of leveraged funding opportunities, such as doctoral training with the UMass Clinical and Population Health Research Program and post-doctoral fellowship training with the Prevention and Control of Cancer Post-Doctoral Training in Implementation Science.

This 2017 Annual Report showcases our research through the lens of these opportunities for the next generation of researchers.

Enjoy!

Stephenie C. Lemon, PhD & Milagros C. Rosal, PhD



Stephenie C. Lemon, PhD and Milagros C. Rosal, PhD

## Research Portfolio

2017 was a busy year for UMass Worcester PRC faculty, staff and students! During the year, we

- Partnered with 25 local, state and national organizations
- Published 50 articles in scientific journals
- Created and shared 22 presentations and posters
- Implemented 25 associated research studies and projects

# Our Vision and Mission

**OUR VISION** - Optimal health of communities, families and individuals.

**OUR MISSION** - To promote health and prevent disease and disability through: real-world community engaged research, evidence-based practice, and education.

We accomplish our Vision and Mission by being:

1. A leader in community health research at UMass Medical School,
2. An integral part of Greater Worcester's collaborative public health system,
3. A research partner that addresses real-world challenges across Massachusetts,
4. A national model for research that connects academia, public health, community and health care systems.

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# Community Advisory Board, Faculty and Staff

We would like to thank each Community Advisory Board, and UMass faculty and staff!

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## Community Partners

**Martha Assefa**  
Manager  
Worcester Food Policy Council

**Joanne Calista, MSW**  
Executive Director  
Center for Health Impact

**Liz Sheehan Castro**  
Director of Advocacy  
Worcester County Food Bank

**Judi Kirk, MSPE**  
Director of Community Impact  
Boys & Girls Club of Worcester

**Mónica Escobar Lowell**  
Vice President  
Community Relations  
UMass Memorial Health Care

**Toni McGuire, RN, MPH**  
President and CEO  
Edward M. Kennedy  
Community Health Center

**Nikki Nixon, MS**  
Chief of Epidemiology  
Worcester Division of Public  
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**Mullen Sawyer**  
Executive Director  
Oak Hill Community  
Development Corporation

**Alexis Travis, PhD**  
Chief of Community Health  
Worcester Division of Public  
Health

**Shelly Yarnie, MPH**  
Director of Local Public Health  
Initiatives  
Office of Local and Regional Health  
Massachusetts Department of  
Public Health  
Central Regional Health Office

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## UMass Worcester PRC Faculty and Staff

### Faculty

**Stephenie C. Lemon, PhD**  
Co-Director, UMass Worcester PRC  
Professor of Medicine  
Division of Preventive and Behavioral Medicine

**Milagros C. Rosal, PhD**  
Co-Director, UMass Worcester PRC  
Professor of Medicine  
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**Suzanne Cashman, ScD**  
Professor  
Family Medicine and Community Health

**Wenjun Li, PhD**  
Professor of Medicine (Biostatistics) Division of  
Preventive and Behavioral Medicine

**Judy Ockene, PhD, MEd, 3MA**  
Professor of Medicine and Chief  
Division of Preventive and Behavioral Medicine

**Sherry Pagoto, PhD**  
Professor of Medicine  
Division of Preventive and Behavioral Medicine  
(until 8/2017)

**Lori Pbert, PhD**  
Professor of Medicine  
Associate Chief  
Division of Preventive and Behavioral Medicine

### Staff

**Amy Borg, MPH, MEd**  
Center Coordinator, UMass Worcester PRC  
Project Director, Healthy Kids & Families™  
Division of Preventive and Behavioral Medicine

**Christine Frisard, MS**  
Biostatistician II  
Division of Preventive and Behavioral Medicine

**Karen Ronayne**  
Research Coordinator  
Division of Preventive and Behavioral Medicine

**Karin Valentine Goins, MPH**  
Coordinator, PAPER+  
Division of Preventive and Behavioral Medicine

# Healthy Kids & Families™



During 2017, our study, Healthy Kids & Families™, continued its delivery of the intervention via in-person meetings, telephone contacts and via Facebook. Our Coach Marline contacted families every three months. Families in the intervention group are setting and meeting goals to walk more, eat more vegetables and fruits, drink more

water and less soda, and engage in less screen time. Families also learn about local services and organizations that may be available to help them meet their healthy lifestyle goals, such as local farmer's markets, local parks and hiking trails. We also visited several places in Worcester together. We had fun on a Scavenger Hunt at Green Hill Park, and went grocery shopping for healthy recipes at a local supermarket.



*Participant Families on a Scavenger Hunt*

The Healthy Kids & Families™ project provides opportunities for students from the Clinical and Population Health doctoral program to get hands-on practical experience in research, and play important roles on the project. Christina Haughton, MPH took the lead on developing posts with the intervention messages for delivery via Facebook; and Andrea Cepero-Lopez, MHSN and Meera Sreedhara, MPH conduct assessments with parents and children participating in the study.

Many thanks to our team for their hard work and efforts to work with our participants!

Meera Sreedhara, MPH  
Annabella Aguirre  
Andrea Lopez-Cepero, MHSN  
Karen Ronayne  
Kevin Kane, MS  
Anthony Clarke  
Marline Ruiz  
Christina Haughton, MPH  
Hannah Siden



*Meera Sreedhara, MPH and a study participant*



*Facebook post*

Principal Investigators: Milagros C. Rosal, PhD and Wenjun Li, PhD  
Research Project Director: Amy Borg, MPH, MEd

# MSWeight



Reaching a healthy weight can be a challenge for about 70% of adults in the United States. People are looking for help, and many physicians would like to share guidance as part of their regular office visits.

What is the best way to train future physicians to counsel patients?

The Association of American Medical Colleges (AAMC) recommends that Weight Management Counseling be strongly emphasized during medical school. UMWPRC Faculty member Judith K. Ockene, PhD, MEd, MA and her colleagues are doing just that by testing a new training curriculum called **MSWeight** (Medical Students learning Weight management counseling skills). **MSWeight** is based upon research evidence, and uses a weight-management counseling approach that helps patients create a personal plan by exploring their beliefs, experiences and motivations. This approach is called the 5As (ask, assess, advise, assist, and arrange). Over the first three years of medical school, students participate in web-based training, role plays, and a web-encounter with a standardized patient who provides feedback. The last step is to partner with a physician in an Enhanced Clerkship, where they observe the physician using this approach to counsel their patients. The students then deliver counseling themselves to patients, and the physicians provide feedback to help the students strengthen their skills. Doctoral student Karen Ashe, MS, MNSP, is working with our team to develop and implement study materials and perform secondary data analysis. As part of her research, she is looking at current trends in weight management counseling at the eight schools, with special emphasis on the primary care clerkship.

**MSWeight** is a randomized controlled trial. Medical students from four medical schools are being trained to deliver this counseling approach, and students from four other medical schools continue with their traditional education, which may or may not include weight management counseling. Results are compared at the end of the trial.

Through this study, the research team hopes to identify an effective training method so that future physicians can better counsel their patients to help them reach and maintain a healthy weight. This research study is funded by the National Cancer Institute.



# Exploring Needs for Research Methods Training with Community Research Partners

In community-engaged research, partners collaborate to focus their skills and expertise to improve health in a community. Community leaders bring their expertise and knowledge, such as of the community, clinic, and their own work, and researchers bring their knowledge of designing and implementing studies, and then analyzing and communicating results. In bringing their expertise, each person is also sharing it with others on the research team.

We asked our UMass Worcester PRC Community Advisory Board how we could better support them and their colleagues in their research partnerships. Many expressed a need for ways to tell others about the value of research, and for information about various research methods.

## Value of Research Video

In 2017, we took the first step in developing a research methods training by creating a video called the Value of Research. To make the video, we asked Greg Gersch, a graphic recorder, to illustrate a script and turn it into a video. We are pleased with the result, and will use this video as the foundation for our training curriculum on research methods.



## Foundations for Research Methods Curriculum Development

Karen Del'Olio, a graduate student pursuing a Master's of Public Health through UMass Medical School/UMass Amherst, dedicated her practicum experience to exploring the need for research methods training for community partners. With the guidance of Drs. Lemon and Rosal and Ms. Borg, she first scoured the research literature and the Internet for existing research methods training materials. She used this information to develop a mixed-method qualitative and quantitative survey to learn more about the experiences and recommendations from other community research partners.

Ms. Del'Olio then invited members of the National PRC Community Committee to interview and answer survey questions about their research experiences and recommendations for training on research methods. She completed 19 interviews with community partners from 16 PRCs from across the country.



From this survey, we learned that National PRC Community Committee members had many years of partnerships with PRCs across different stages of research, and have developed various skills through formal and informal research training. Members shared several recommendations for training on a variety of research topics. Our next step will be to incorporate this information into the research methods curriculum.

# Measuring the Impact of Active Transportation on Community Health

How often do you walk or bike to work or school, or to pick up a few things from the store? Many of us spend a lot of time sitting while driving to and from our various destinations, and to complete the many errands on our to-do list. We also may be trying to figure out how to fit in more physical activity into our lives. Part of the solution can be active transportation, such as walking and biking to get where we need to go. This is made possible by communities that are designed to encourage walking and biking.



Photo Credit: alyson west – seattlebikelanebusstopSDOTNACTO

UMass Worcester PRC's Dr. Stephanie Lemon, Karin Valentine Goins, MPH and graduate student Meera Shreedhara, MPH are partnering with researchers from the University of Massachusetts



Meera Sreedhara, MPH

Transportation Center (UMass Amherst College of Engineering and School of Public Health) and state agencies to help increase physical activity in a community. Funded by the Massachusetts Department of Public Health, this project aims to improve a tool called the Integrated Transport and Health Impact Model (ITHIM) to measure how different transportation choices can influence community health. The tool is designed to estimate whether increased walking and biking results in less use of vehicles and in increased physical activity. It also evaluates effects that walking and biking might have on air pollution and serious roadway injuries. This project is working to make the tool useful for Massachusetts by including available Massachusetts data.

# Prevention and Control of Cancer Post-Doctoral Training in Implementation Science

## Advanced Training to Prevent and Tackle Cancer

Unfortunately, chances are that you have been affected by cancer, either experiencing it yourself or supporting a family member or friend. The US Centers for Disease Control and Prevention reports that it causes one of every four deaths in the United States, making it the second leading cause of death, second only to heart disease.



The good news is that research has discovered ways to prevent many different kinds of cancer and detect it in its early stages. Research has also found ways to improve the health and quality of life of people who have it. For example, we know that we can lower our risk of developing cancer by eating a healthy diet with fruits and vegetables, and by being physically active.

Although we know what many of the healthy behaviors are, we also know that not everyone is able to make these healthier choices. It is one thing to have research evidence about prevention or treatment, but quite another to implement these effective prevention measures, interventions and treatments in the home, community, or health care provider's office, and to do it consistently.

This is where Implementation Science steps in. Implementation Science is a newer field of research that seeks ways to take research evidence of what works in ideal settings, or in some situations, and use it in challenging or new situations. Since 2014, UMass Worcester PRC's Stephenie C. Lemon, PhD and Thomas Houston, MD, MPH, Chief of the UMMS Division of Implementation Science and Health Informatics have led the PRACCTIS training grant to answer this challenge. Funded by the National Cancer Institute, PRACCTIS provides mentored training to post-doctoral fellows to develop solutions that reduce the burden of cancer at the local, national and international levels. Over the course of two years, the post-doctoral fellows can choose to focus their research on primary prevention, such as obesity, diet and physical activity, or on treatment at any stage. They learn about implementation science theories and frameworks, effective intervention components, formative research methods for intervention adaptation, and implementation science study designs and quantitative evaluation.

# Meeting a PRACCTIS Post-Doctoral Fellow



Danielle E. Jake-Schoffman, PhD, PRACCTIS fellow:

I am a behavioral scientist dedicated to developing and implementing evidence-based strategies for chronic disease prevention and treatment, specifically those that use technology such as wearable sensors, mobile apps, and online social networks. I hold a doctorate in Health Promotion, Education, and Behavior from the Arnold School of Public Health (University of South Carolina, 2016), where I was a graduate assistant in the PRC for five years. My research focuses on the promotion of physical activity, healthy eating, and weight loss. I have expertise in family-based approaches that use technology to facilitate parent-child communication about health behaviors.

As a PRACCTIS fellow, I am currently involved in a variety of research projects, including mobile app development, technology-delivered interventions, and a faith-based pilot study. With my mentor, Sherry Pagoto, PhD, I am exploring new ways to use smartphones and social media to help make programs for weight loss and stress reduction more accessible to people across the US. I am still involved in the evaluation of the faith-based implementation and dissemination project at the University of South Carolina PRC, testing a large-scale roll out of a healthy eating and physical activity intervention in rural South Carolina. My research explores ways to integrate evidence-based practices into innovative technologies and develop methods to reach a wider audience, including underserved populations.

# Advanced Training in Preventing and Treating Heart and Lung Disease



According to the US Centers for Disease Control and Prevention, heart disease is the leading cause of death in this country and chronic lower respiratory disease is the third. Research provides us with the evidence to prevent and treat heart and lung disease, but how can we make better use of this evidence in the real world?

UMass Worcester PRC's Dr. Stephenie C. Lemon is meeting this challenge through the Massachusetts Consortium for Cardiopulmonary Implementation Science Scholars (MCCISS) program. Joined by Dr. Tom Houston, MD, MPH of UMass Medical School's Quantitative Health Sciences, the program links an interdisciplinary team of researchers from University of Massachusetts Medical School (UMMS), Baystate Health and the Center for Healthcare Organization and Implementation Research of the Veteran's Health Administration. Together, they are creating innovative ways to train and mentor junior faculty who want to address cardiopulmonary disease prevention, treatment and management. By closely evaluating the program, it will be able to advance the field of implementation science by sharing best practices for training and mentoring junior faculty.

This training grant builds upon the curriculum developed for the PRACCTIS (Prevention and Control of Cancer Post-Doctoral Training in Implementation Science) training program for post-doctoral fellows. In addition to coursework, the participating junior faculty will have a multi-disciplinary mentorship team and conduct an independent research project with a partner in a clinical or community implementation setting. Scholars will also have opportunities to learn more about implementation science topics, cardiopulmonary disease prevention, treatment and management, grant and scientific writing and career development. By the time they complete the program, it is anticipated that the scholars will establish careers as independent investigators who are well prepared to take evidence-based cardiopulmonary treatments and interventions, and put them into practice in the real world.

This grant is funded by the National Heart, Lung and Blood Institute of the National Institutes of Health.

# High School Experiences in Partnership with Girls Inc. of Worcester Eureka! program

Stepping into the employment waters for the first time, Dayla and Kristen joined our UMass Worcester PRC and Healthy Kids & Families™ teams during the summer. As Worcester Public School high school students from Girls Inc Eureka! program, they brought new ideas and enthusiasm to the projects.

Girls Inc. Worcester is part of a national program whose motto is **Strong, Smart and Bold**. Eureka! is a five-year program where girls begin in 8th grade to explore career ideas, visit different college campuses, and gain valuable work experience. Eureka! focuses on helping young women prepare for careers in Science, Technology, Engineering and Math (STEM). The Worcester Girls Inc. chapter is proud of its accomplishments, as 100% of its first graduates in 2017 were accepted into college, earning \$600,000 in scholarships.

We will continue our commitment to mentoring these young researchers as they make their first forays into the world of community engaged research.



*Milagros C. Rosal, PhD, Dayla and Kristen, Interns from the Eureka! program with Girls Inc of Worcester*

## Research Brief

### Sitting for Long Periods of Time and the Risk for Heart Disease Among Latino Adults in Massachusetts

#### Overview

Heart disease, or cardiovascular disease (CVD), is the leading cause of death in the United States. Latinos have higher rates of CVD and its risk factors, such as high blood pressure, high cholesterol, inactivity, obesity and type 2 diabetes. Sitting for long periods of time (sedentariness) is linked with the development of these risk factors, even if a person is physically active at other points in the day. Although sedentariness has been linked with increasing the risk for CVD among primarily White populations, studies among Latinos have shown mixed results.

#### Main Questions

- Does sitting for long periods of time increase the risk for cardiovascular disease among Latinos?
- Which group of Latinos are more sedentary?
- What is the relationship among sitting a lot and the different risk factors for heart disease?

#### Study

This paper presents results of an analysis of the Lawrence Health and Well Being Study of 602 Latino adults in the city of Lawrence, Massachusetts. Using a Community Based Participatory Approach, the study was conducted by the City of Lawrence Mayor's Health Task Force, the Lawrence Senior Center, the YWCA of Greater Lawrence, the Greater Lawrence Family Health Center and the University of Massachusetts Medical School. Study participants answered survey questions, including: age, gender, education, marital status, physical activity (including walking), and sedentary behavior (time spent sitting while doing different activities such as watching TV, using the computer, riding in a car or bus). Their weight, height, waist circumference, and blood pressure were measured. High cholesterol and type 2 diabetes diagnoses were obtained from medical records.

#### The Bottom Line

In this sample of Latino adults, sitting was related to obesity. It was not related to high blood pressure, high cholesterol, type 2 diabetes, or physical activity.

#### Source

Silfee V, Lemon S, Lora V, Rosal M. Sedentary Behavior and Cardiovascular Disease Risk Factors among Latino Adults. *J Health Care Poor Underserved*. 2017;28(2):798-811. doi: 10.1353/hpu.2017.0075.

#### Contact

Valerie Silfee, PhD | Division of Preventive and Behavioral Medicine | Department of Medicine | University of Massachusetts Medical School, 55 Lake Ave N, Worcester, MA 01655 | [Valerie.Silfee@umassmed.edu](mailto:Valerie.Silfee@umassmed.edu).

**Funding Source:** This research was generously supported by grants from the National Institute of Mental Health (R01 MH085653), National Heart, Lung and Blood Institute (1T32HL120823-01), the Centers for Disease Control and Prevention (U48 DP005031-01), and the National Institute of Minority Health and Health Disparities (1 P60 MD006912-02). The findings and conclusions in this article are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



#### Spotlight on Results

##### Characteristics of people who were more sedentary:

**Age:** Participants ages 21-24 were more sedentary (M = 9.21 SD = 5.68) than participants who were aged 35-54 years (M = 7.02, SD = 4.12) and participants over 55 years (M = 5.92, SD = 3.95).

**Gender:** Males (M = 7.90, SD = 4.92) were more sedentary than females (M = 6.73, SD = 4.62).

**Education:** Participants with a high school, college, vocational, post-graduates spent more time sitting than participants who did not graduate from high school.

**Marital Status:** Participants who were single spent more time sitting than those who were married or previously married.

##### Sedentary behavior and CVD factors

**BMI/Waist:** Sedentariness was significantly associated with BMI ( $\beta = .164, p < .001$ ) and waist circumference ( $\beta = .162, p < .001$ ).

**CVD factors:** Sedentariness was not associated with blood pressure, high cholesterol (OR = 1.03,  $p = .260$ ), or type 2 diabetes (OR = 1.04,  $p = .135$ ).

**Physical Activity:** Sedentariness was not significantly associated with physical activity (OR = 1.01,  $p = .724$ ).

#### Call for Action

It is important to look at how CVD risk factors in different groups of people vary in order to decide what to include in interventions.

## Research Brief

# Exploring Contributions of Local Health Departments in Physical Activity Policy Decision-Making

### Overview

Regular physical activity is important for health and well-being. Local communities can increase opportunities for walking and bicycling by making local decisions and policies that enhance streets, sidewalks, trails, public transportation infrastructure, parks and other recreational facilities. Land-use planners and transportation/public works officials are typically responsible for setting these policies, and local health departments are less likely to be involved. National public health authorities encourage local health departments to engage in land use and transportation policy decision-making because these policies impact health.

### Main Questions

- What is the value of local health departments' participation in land use and transportation policy decision-making?
- What is the potential role of local health departments in the decision-making process?

### Study

Interviews were conducted with 49 state and local professionals from multiple disciplines including public health, land-use planning, transportation/public works, and other (municipal administration and bicycle and pedestrian advocates) in 13 U.S. states. Respondents were asked questions about their perspectives on the potential value and contributions that local health department officials can offer as communities make decisions and policies that affect physical activity opportunities. The sample was identified by members of the Physical Activity Policy Research Network Plus (PAPRN+).

### The Bottom Line

Seven potential local health department contributions were identified where local health departments can leverage their strengths to engage in land-use and transportation policy decision-making and foster collaborations with other sectors.

### Source

Sreedhara M, Goins KV, Aytur SA, Lyn R, Maddock JE, Riessman R, Schmid TL, Wooten H, Lemon SC. Qualitative Exploration of Cross-Sector Perspectives on the Contributions of Local Health Departments in Land-Use and Transportation Policy. *Prev Chronic Dis.* 2017 Nov 22;14:E118. doi: 10.5888/pcd14.170226. PMID: 29166249

### Contact

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[Stephenie.Lemon@umassmed.edu](mailto:Stephenie.Lemon@umassmed.edu).

### Call for Action

Sustainable capacity building strategies that involve increasing local health departments' skills, infrastructure and resources are needed to improve their involvement in physical activity policy decision-making.



[www.pedbikeimages.org](http://www.pedbikeimages.org) / SDOT

### Spotlight on Results

#### 7 potential local health department contributions:

- 1) **Physical activity and health perspective** – Local health departments can bring valuable emphasis on health impacts of land-use and transportation to local decisions. (N=44)
- 2) **Data analysis and assessment** – Local health departments can access, collect, analyze, and collaborate on health data and assessments. (N=41)
- 3) **Partnerships** – Local health departments can build and develop new relationships with diverse partners. (N=35)
- 4) **Public education** – Local health departments can educate communities on health benefits and enhance public support for transportation and land use policies and projects. (N=27)
- 5) **Knowledge of evidence base and best practices** – Local health departments can share research from public health and active transportation literature and best practices from other communities. (N=23)
- 6) **Resource support** – Local health departments can leverage resources and assist with grant proposals. (N=20)
- 7) **Health equity** – Local health departments can focus a health equity lens on transportation and land-use policy processes. (N=8)

The UMass Worcester Prevention Research Center, located at UMass Medical School in Worcester, MA, is a member of the CDC's Prevention Research Center (PRC) network. Our work promotes healthy lifestyles through increased opportunities for physical activity, healthy eating and healthy weight. For more information, visit: [www.umassmed.edu/prc](http://www.umassmed.edu/prc)

 @umwprc



#### Overview

Latinos in the United States have high rates of obesity, type 2 diabetes, and cardiovascular disease. Even though people can reduce their risk of developing these conditions by moving more and sitting less, almost 60% of Latino adults are not physically active for more than 150 minutes a week as recommended by the American College of Sports Medicine. Research also shows that they spend up to 74% of waking hours engaged in sedentary behaviors such as sitting while watching TV, using a computer, or driving/riding in a car, bus, or train. Given the link between spirituality and general health in Latinos, we may be able to help this population move more and sit less by learning more about their spirituality.

#### Main Questions

- What is the relationship between spirituality and physical activity in a group of Latino adults?
- What is the relationship between spirituality and sedentary behavior in a group of Latino adults?

#### Study

This paper presents results of a cross-sectional analysis of the Lawrence Health and Well Being Study of 602 Latino adults in the city of Lawrence, Massachusetts. Using a Community Based Participatory Approach, the study was conducted by the City of Lawrence Mayor's Health Task Force, the Lawrence Senior Center, the YWCA of Greater Lawrence, the Greater Lawrence Family Health Center and the University of Massachusetts Medical School. Study participants were selected to answer survey questions, including demographic characteristics (age, gender, education, employment, education, history of smoking), physical activity (including walking), sedentary behavior (time spent sitting while doing different activities such as watching TV, using the computer, riding in a car or bus) and spirituality (how often they felt God's presence, found strength in religion, felt guided by God, etc.). Data was analyzed using the SPSS software.

#### The Bottom Line

In this study, people who are more spiritual are also less sedentary. This association was stronger in men than women.

#### Source

Silfee VJ, Houghton CF, Lemon SC, Lora V, Rosal MC. Spirituality and Physical Activity and Sedentary Behavior among Latino Men and Women in Massachusetts. *Ethn Dis.* 2017 Jan 19;27(1):3-10. doi: 10.1186/s12918-017-1133-3.

#### Contact

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#### Spotlight on Results

- **Sedentary behavior and spirituality among men:** Men with greater spirituality were significantly less sedentary ( $\beta = -.17$ ,  $P = .005$ ).
- **Physical activity and spirituality:** There were no significant associations between spirituality and physical activity among men or women.
- **Sedentary behavior and spirituality among women:** There was no relationship between sedentary behavior and spirituality among women.
- Although not statistically significant, Latinos who were more spiritual were more likely to be physically active. There was a significant negative relationship between spirituality and sedentary behavior ( $\beta = -.12$ ,  $p = .004$ ).

#### Call for Action

Understanding the link between spirituality and health behaviors (i.e. physical activity and sedentary behavior) in Latinos may help researchers develop more tailored behavior change interventions. Future research should consider investigating the impact of spirituality-based messages to reduce sedentary behavior among Latinos.

The UMass Worcester Prevention Research Center, located at UMass Medical School in Worcester, MA, is a member of the CDC's Prevention Research Center (PRC) network. Our work promotes healthy lifestyles through increased opportunities for physical activity, healthy eating and healthy weight. For more information, visit: [www.umassmed.edu/prc](http://www.umassmed.edu/prc)

 @umwprc



## Overview

Cardiovascular disease (CVD) is the leading cause of death in the United States, and Latinos are at high risk of developing CVD. They have higher rates of some metabolic risk factors, such as obesity and diabetes. Dysfunctional eating patterns may influence these risk factors. This is the first study to look at dysfunctional eating patterns among Latinos, and the relationship with risk factors for CVD. The specific eating patterns examined were Emotional Eating (EE), or eating in response to emotions, not hunger cues; Uncontrolled Eating (UE), or eating when not hungry, or losing control of eating; and Cognitive Restraint (CR), or restricting food to lose or control weight.

## Main Questions

- How is Emotional Eating (EE) related to obesity and metabolic risk factors?
- How is Uncontrolled Eating (UC) related to obesity and metabolic risk factors?
- How is Cognitive Restraint (CR) related to obesity and metabolic risk factors?

## Study

This paper presents results of a cross-sectional analysis of the Lawrence Health and Well Being Study of 602 Latino adults in the city of Lawrence, Massachusetts. Using a Community Based Participatory Approach, the study was conducted by the City of Lawrence Mayor's Health Task Force, the Lawrence Senior Center, the YWCA of Greater Lawrence, the Greater Lawrence Family Health Center and the University of Massachusetts Medical School. Study participants were selected to answer survey questions, including demographic characteristics (age, gender, education, employment, education, perceived income, stress), and health records. The Three Factor Eating Questionnaire was used to assess dysfunctional eating patterns. Participant weight, height, waist circumference, and blood pressure were also measured.

## The Bottom Line

Among Latinos, dysfunctional eating patterns were associated with increasing the odds of having metabolic risk factors for heart disease, such as obesity, high blood pressure, and type 2 diabetes.

## Source

Lopez-Cepero A., Frisard CF., Lemon SC, Rosal MC. Association of Dysfunctional Eating Patterns and Metabolic Risk Factors for Cardiovascular Disease among Latinos. *J Acad Nutr Diet.* 2017 Aug 1. pii: S2212-2672(17)30597-X. doi: 10.1016/j.jand.2017.06.007.

## Contact

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## Spotlight on Results

**Emotional Eating** is associated with obesity, type 2 diabetes and hypertension

**Uncontrolled Eating** is associated with obesity and central obesity (abdominal fat).

**Cognitive Restraint** eating is associated with obesity, central obesity, type 2 diabetes and high cholesterol.

## Call for Action

By learning more about how eating patterns are associated with risk factors for cardiovascular disease among Latinos, we can develop and test interventions that could help people change these eating habits.

## Funding

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## 2017 Projects

# Research Projects

### **Healthy Kids & Families™: Overcoming Social, Environmental and Family Barriers to Childhood Obesity Prevention**

Healthy Kids & Families™ is the applied research project of the UMass Worcester Prevention Research Center. It is testing the impact of a community health worker-delivered intervention aimed at helping families overcome barriers to childhood obesity prevention. The intervention is compared to a comparison condition aimed at helping families improve positive parenting skills.

**UMass Worcester PRC Investigators:** Milagros C. Rosal, PhD, Wenjun Li, PhD

**Funder:** US Centers for Disease Control and Prevention

**Dates:** 2014-2019

### **UMass Worcester PRC PAPER+ Collaborating Center**

This grant re-establishes the UMass Worcester Prevention Research Center as a member of the Physical Activity and Policy Research Network Plus. Our team is leading research related to municipal officials' involvement in local built environment policy processes.

**UMass Worcester PRC Investigator:** Stephenie Lemon, PhD

**Funder:** US Centers for Disease Control and Prevention

**Dates:** 2014-2019

### **FITLINE: Pediatric Practice-based Obesity Intervention to Support Families**

The goal of this randomized clinical trial is to test a program consisting of a telephone coaching and family workbook of informational materials to see if it reduces obesity among children. The trial is enrolling 512 children ages 8 to 12 with overweight and obesity and their family from 16 pediatric practices.

**UMass Worcester PRC Investigator:** Lori Pbert, PhD

**Funder:** National Institute of Health/National Heart, Lung, and Blood Institute

**Dates:** 2016-2021

**The Fresh Start Trial, Center for Health Equity in Research**

This study aims to assess the effectiveness and implementation of a culturally adapted weight loss intervention for low-income, postpartum women participating in the Special Supplemental Nutritional Program for Women, Infants, and Children (WIC) through a randomized controlled trial.

**UMass Worcester PRC Investigator:** Milagros C. Rosal, PhD, Stephenie C. Lemon, PhD

**Funder:** Center for Health Equity Intervention Research, National Institutes of Health, National Institute on Minority Health and Health Disparities

**Dates:** 2012-2018

**MSWeight: Weight Management Counseling in Medical Schools: A Randomized Controlled Trial**

The goal of this study is to test the effect of a curriculum to teach medical students how to screen and assess all adult patients for obesity and offer counseling intervention to promote weight management.

**UMass Worcester PRC Investigator:** Judith Ockene, PhD, Med, MS

**Funder:** National Cancer Institute

**Dates:** 2015-2020

**Randomized Lifestyle Intervention in Overweight and Obese Pregnant Hispanic Women**

The goal of this randomized clinical trial is to test the efficacy of a culturally and linguistically modified, individually-tailored lifestyle intervention to reduce excessive gestational weight gain (GWG), increase postpartum weight loss, and improve maternal metabolic status among overweight/obese Hispanic women and their children.

**UMass Worcester PRC Investigator:** Milagros C. Rosal, PhD

**Funder:** National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases

**Dates:** 2013-2018

**RELAX: A Mobile Application Suite Targeting Obesity and Stress**

The purpose of this proposal is to develop and test the feasibility and proof-of-concept of RELAX Application Suite (AS), a mobile-, cloud- and web-based companion to a brief visit lifestyle intervention for obese individuals. RELAX-AS will be designed to reduce clinical visit time and cost by identifying and displaying behavior patterns that account for the greatest deviations in energy balance.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2014-2017

**Identifying successful childhood obesity interventions in Massachusetts schools and using findings to improve programs at schools left behind**

This project investigates the determinants of recent declines and widening disparities in childhood obesity among public school students in Massachusetts.

**UMass Worcester PRC Investigator:** Wenjun Li, PhD

**Funder:** Robert Wood Johnson Foundation

**Dates:** 2016-2018

**Get Social: Randomized Trial of a Social Network Delivered Lifestyle Intervention**

The purpose of the present study is to conduct a randomized controlled trial to compare the efficacy of an online social network delivered intervention to a traditional in-person group based lifestyle intervention. We hypothesize that an online social network intervention will not be inferior to the traditional delivery approach.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2020

**Intervention to Reduce Children's Televised Food Advertising Exposure**

This study will assess the feasibility of implementing and assessing the potential effects of a commercial-free television programming service in the homes of families with children aged 3-6 years old. Outcomes include child pestering for energy-dense foods and parental purchasing of energy-dense foods.

**UMass Worcester PRC Investigator:** Wenjun Li, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2017

**STRIDE: Strengthening Translational Research in Diverse Enrollment**

This collaborative study between UMass Medical School, Vanderbilt and the University of Alabama at Birmingham is developing innovative approaches to enhancing informed consent procedures with a goal of improving research literacy among under-served populations. This project is developing a multi-level informed consent platform that integrates e-consent with patient storytelling and simulations-based research assistant training. The intervention will be tested in the context of six ongoing clinical trials in a multiple time series design randomized trial.

**UMass Worcester PRC Investigator:** Stephenie Lemon, PhD

**Funder:** National Institutes of Health, National Center for the Advancement of Translational Science

**Dates:** 2016-2021

**CHEIR: UMass Center for Health Equity Intervention Research**

This collaboration between UMass Worcester and UMass Boston establishes a Center for Minority Health. This center provides infrastructure to identify, train, mentor and foster the career development of minority students and faculty and in general individuals with interests in health disparities interventional research. It provides an infrastructure support to faculty interested in developing research ideas aimed to reduce and eliminate health disparities.

**UMass Worcester PRC Investigator:** Milagros C. Rosal, PhD

**Funder:** National Institutes of Health, National Institute on Minority Health and Health Disparities

**Dates:** 2012 - 2018

**Community Engagement Core, Center for Health Equity Intervention Research (CHEIR)**

This core is supporting community engagement activities in affiliated projects. It also includes an independent project intended to advance the field of community engaged science through the development, dissemination, and evaluation of an innovative, culturally responsive video storytelling intervention to increase research literacy among community members.

**UMass Worcester PRC Investigator:** Stephenie Lemon, PhD

**Funder:** Center for Health Equity Intervention Research, National Institutes of Health, National Institute on Minority Health and Health Disparities

**Dates:** 2012-2018

**Community Engagement and Research Section, University of Massachusetts Clinical and Translational Science Award (UMCCTS)**

The Community Engagement and Research Section enhances academic and community capacity to address urgent health priorities among communities in Massachusetts using community-engaged research approaches. It establishes regional community-based research networks (CBRN) and junior faculty training programs.

**UMass Worcester PRC Investigators:** Stephenie Lemon, PhD, Suzanne Cashman, ScD

**Funder:** National Institutes of Health

**Dates:** 2015-2019

**Special Populations Resource Center, University of Massachusetts Clinical and Translational Science Award (UMCCTS)**

The Special Population Resource Center seeks to engage special populations in clinical and translational research with strategies that reach out to investigators and community members using tailored, culturally responsive methods.

**UMass Worcester PRC Investigator:** Milagros C. Rosal, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2019

**Social Determinants of Health**

This project investigates personal and community predictors of health status and medical expenditures of MassHealth subscribers.

**UMass Worcester PRC Investigator:** Wenjun Li, PhD

**Funder:** MassHealth (Massachusetts Medicaid)

**Dates:** 2014-2016

**Barriers and Facilitators of Mental Health Services Utilization among Latinos**

Using a community-engaged research approach, this study is to empirically assess the association of individual, partner/family, social context and larger community stressors and sources of support on markers of physical and mental health and health care utilization among low income Latinos.

**UMass Worcester PRC Investigator:** Milagros C. Rosal, PhD and Stephenie C. Lemon, PhD

**Funder:** National Institutes of Health, National Institute of Mental Health

**Dates:** 2011-2017

### **Development and Feasibility of a Primary Care-Based Online Weight Loss Intervention Platform**

This project will develop and test usability, feasibility, and acceptability of this web-based weight loss intervention designed for delivery in primary care. This work will lay the foundation for a 2-arm randomized controlled trial comparing the efficacy of the intervention for weight loss compared with a self-directed comparison condition.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2018

### **Mentoring in mHealth and Social Networking Interventions for Cardiovascular Disease Risk Reduction**

This mid-career development award is designed to support a mentorship plan in mHealth research for cardiovascular disease prevention that leverages the resources and transdisciplinary faculty of the UMass Center for mHealth.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Heart, Blood, and Lung Institute

**Dates:** 2015-2020

### **Center for mHealth-Based Behavioral Sensing and Interventions**

This goal of this center grant is to provide the resources for investigators to create an intercampus mHealth research center at the University of Massachusetts.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** UMass President's Science and Technology Fund

**Dates:** 2012-no end

### **Using Social Media to Prevent Teen Marijuana Use: A family Intervention in a State with Adult-Legal Cannabis**

An interdisciplinary team of researchers will evaluate the effectiveness and cost-effectiveness of a social media marijuana prevention intervention for Colorado's families.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2020

### **NDIT: Continuation of the Nicotine Dependence in Teens Study to Age 30**

The study will follow the use of tobacco products, quit attempts, and genetic and environmental factors among study participants. It extends the ability to follow-participants until they are 30 years old, and develop intervention tools.

**UMass Worcester PRC Investigator:** Lori Pbert, PhD

**Partners:** University of Montreal

**Funder:** Canadian Cancer Society Research Institute

**Dates:** 2015-2019

**Transdisciplinary Training in Cardiovascular Research**

The goals of this program are to train pre- and postdoctoral fellows in cardiovascular research that spans basic science to the T2+ translational arenas.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2013-2018

**Testing Skin Cancer Prevention Messages Targeted to High Priority At-Risk Adults**

Exposure to ultraviolet (UV) radiation is a significant contributing factor to skin cancer, yet sunburns, tanning, and unprotected sun exposure remain prevalent. The proposed study will develop and test health messages for key segments of the population who are understudied but at elevated risk for skin cancer. This work will produce a library of evidence-based skin cancer prevention messages for use in public health campaigns.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2019

**Developing a Smartphone App with Mindfulness Training for Teen Smoking Cessation**

This study will adapt the Craving to Quit (C2Q) smartphone app, which integrates mindfulness training into a smoking cessation program, for teen smokers (C2Q-Teen). It will test how well this app helps teens stop smoking compared to another teen smoking cessation app that does not include mindfulness training, and to written cessation information alone.

**UMass Worcester PRC Investigator:** Lori Pbert, PhD

**Funder:** National Institutes for Health/National Institute on Drug Abuse

**Dates:** 2014-2017

**Patient Navigation and Financial Incentives to Promote Smoking Cessation**

This randomized clinical trial will test a patient navigation program financial incentives to an enhanced traditional care control condition for smoking cessation.

**UMass Worcester PRC Investigator:** Lori Pbert, PhD

**Funder:** America Cancer Society

**Dates:** 2014-2018

**Using Social Media to Prevent Teen Marijuana Use: A family Intervention in a State with Adult-Legal Cannabis**

An interdisciplinary team of researchers will evaluate the effectiveness and cost-effectiveness of a social media marijuana prevention intervention for Colorado's families.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2020

**Likes Pins and Views: Engaging Moms on Teen Indoor Tanning Thru Social Media**

This study will develop and evaluate the effectiveness of a social media indoor tanning campaign to decrease mothers' permissiveness for, and prevalence of, indoor tanning by daughters and increase mothers' support for policy restrictions on indoor tanning by minors to improve the effectiveness of indoor tanning regulations.

**UMass Worcester PRC Investigator:** Sherry Pagoto, PhD

**Funder:** National Institutes of Health

**Dates:** 2015-2020

**Asthma Symptom Management Through Mindfulness Training**

The goal of this study is to evaluate the effect of participation in a Mindfulness-Based Stress Reduction compared to an active control on asthma symptom control and the role of mindfulness, psychosocial, and biological processes in intervention-related changes.

**UMass Worcester PRC Investigator:** Lori Pbert, PhD, Wenjun Li, PhD

**Funder:** National Institutes of Health/National Center for Complementary and Integrative Health

**Dates:** 2014-2019

**Evaluation of Prevention and Wellness Trust Fund Worksite Wellness Programs**

This project provides evaluation of the outcomes and progress of Massachusetts Prevention and Wellness Trust Fund worksite wellness programs.

**UMass Worcester PRC Investigator:** Wenjun Li, PhD

**Funder:** Massachusetts Department of Public Health

**Dates:** 2015-2018

## Training Grants

### **PRACCTIS: Implementation Research Training Program in Cancer Prevention and Control**

This education and training grant will establish a postdoctoral training program at UMMS focused on community and clinical implementation science in cancer prevention and control.

**UMass Worcester PRC Investigator:** Stephenie C. Lemon, PhD

**Funder:** National Cancer Institute

**Dates:** 2014-2019

### **K12 Cardiopulmonary Implementation Science Scholars Program**

This interdisciplinary K12 training program for junior faculty promotes the development of independent implementation researchers committed to addressing cardiopulmonary disease prevention, treatment and management. The program will be led by the University of Massachusetts Medical School (UMMS) in collaboration with Baystate Health and the Center for Healthcare Organization and Implementation Research of the Veteran's Health Administration.

**UMass Worcester PRC Investigator:** Stephenie C. Lemon, PhD

**Funder:** National Institutes of Health

**Dates:** 2017-2022

### **Multi-CTSA mini Sabbatical Evaluation and Quality Improvement (SEQUIN) Project**

This NCATS funded administrative supplement establishes best practices and a registry for mini-sabbatical opportunities offered throughout the CTSA network.

**UMass Worcester PRC Investigator:** Stephenie C. Lemon, PhD

**Funder:** National Institutes of Health

**Dates:** 2017-2018



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