Population and Quantitative Health Sciences

Celebrating our Faculty, Students, and Staff
In the COVID Era

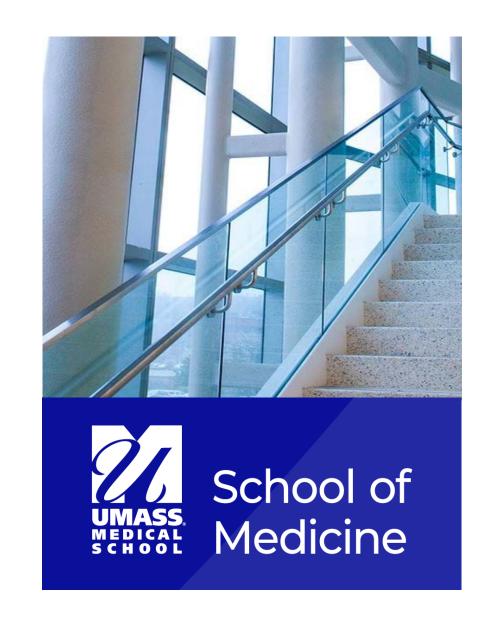
Jeroan Allison December 14, 2020



School of Medicine

Preparing this presentation allowed me to:

- Reflect on the joy work of working with engaged faculty, students, and staff who "have their heart in the right place" and who are deeply committed to highquality science
- Reflect on the unwavering support of UMass for our departmental mission centered on health equity
- Grapple with an "embarrassment of riches" (9 new faculty; 14 new students/post-docs; 60 active protocols; 49 new proposals; 224 scientific manuscripts; 11 new staff)



My goal is to showcase PQHS through:

- Metrics
- People and stories
- Sampling of scientific products
- Quotations from across the institution
- Emerging institutional initiatives and collaborations



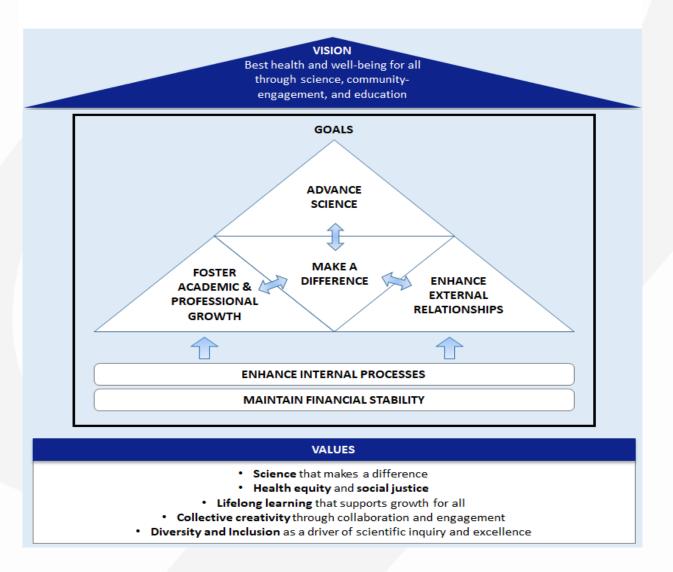
Ikigai

A JAPANESE CONCEPT MEANING "A REASON FOR BEING"





PQHS STRATEGY MAP





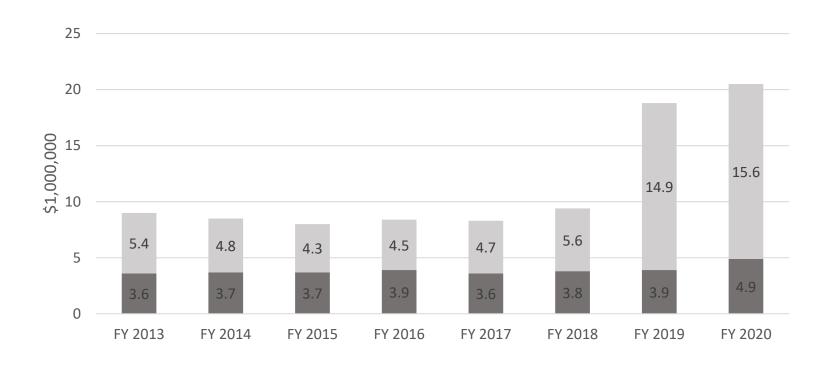
PQHS has a robust portfolio of sponsored projects dedicated to its core mission.¹

| Sponsored Projects ² | Total Award \$ | n |
|---------------------------------|----------------|-----|
| Active | \$71,993,994 | 60 |
| Completed | \$81,377,595 | 112 |
| Total | \$153,371,589 | 172 |
| Pending | \$23,589,164 | 36 |

¹During FY 2020, 43 new proposals were submitted, and 49 were funded. ²Only projects for which PQHS investigator is PI or Multi-PI are included.

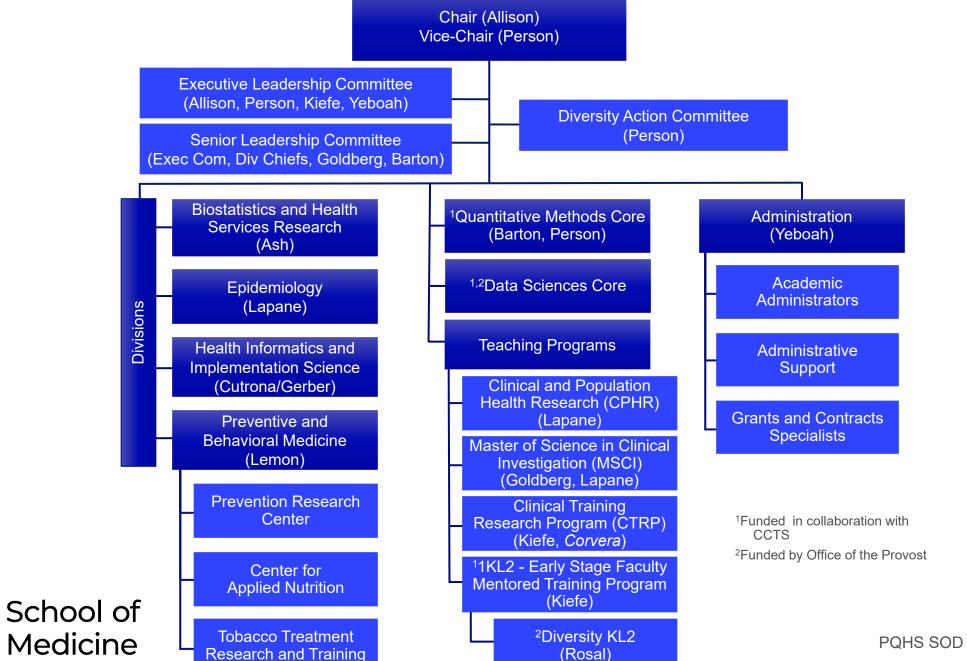


PQHS offers ROI.



- Sponsored expenditures (Direct only)
- Non-sponsored expenditures (e.g., Start-up Funds, Research Trust Funds, State Allcoation)







MOVING FROM SAFE SPACES TO BRAVE SPACES: DIALOGUES ABOUT RACISM

Monday, June 22, 2020 11:30 AM – 1:00 PM

This PQHS workshop will be an interactive experience on how to move from being a bystander to becoming an upstander, about moving from safe spaces to brave spaces to confront racism. All students, staff, and faculty are invited and encouraged to attend.



THIS EVENT WILL BE LED BY:

Tawara D. Goode, MA

Professor Tawara Goode is a high-profile international Health Equity investigator and thought leader.

Director, National Center for Cultural Competence
Principal Investigator, Leadership Institute for Cultural Diversity
and Cultural and Linguistic Competence
Director, University Center for Excellence in Developmental Disabilities,
Georgetown University Center for Child & Human Development
Assistant Professor, Department of Pediatrics
Georgetown University Medical Center



PLEASE RSVP BY RESPONDING TO THE OUTLOOK INVITATION FROM JUDI SABER OR SEND AN EMAIL TO JUDI.SABER@UMASSMED.EDU



Diversity Action Committee: A little less talk and a lot more action

- Sharina Person, Professor
- Esther Boama-Nyarko, Graduate Student GSBS
- Amy Borg, Project Director II
- Germán Chiriboga, Program Director I
- Tammy Falla, Executive Assistant for Diversity Action Committee
- Katarina Ferrucci, PhD Student, CPHR
- Julie Flahive, Biostatistician III
- Rob Goldberg, Professor
- Yurima Guilarte-Walker, Development Engineer, Sr.
- Carly Herbert, Graduate Student GSBS
- Ariana Kamberi, Research Coordinator II
- Grace Masters, Graduate Student MD PhD CPHR
- Eric Mick, Associate Professor
- Barbara Olendzki, Professor
- Jyothi Pendharkar, Research Project Director
- Milagros Rosal, Professor
- Jessica Wijesundara, Program Director I
- Yiyang Yuan, CPHR Student



Diversity Action Committee

Identified concerns

- Desired PQHS D&I climate not defined
- Guiding documents do not mention inclusion
- Guiding documents are faculty focused
- Guiding documents use deficit-based language

Recommendations

- Develop PQHS Diversity Statement
- Add inclusion to guiding documents
- Broaden guiding documents to focus more on students and staff
- Replace deficit-based language
- Obtain external review of guiding documents



PQHS Diversity Statement

Recognizing the importance and richness that diversity and inclusion brings to our work and our lives, we:

- Are committed to fostering equity through our research, education, advocacy, clinical work, policy, and service.
- Will create a safe environment of mutual respect and trust.
- Embrace <u>multiple dimensions of diversity and inclusion</u>, and will work to actively counter any situations that diminish.
- Are committed to building an environment where all members of the community feel safe to <u>freely express positive and</u> <u>negative experiences</u>
- Will provide <u>education and training</u> that emphasizes appreciation for differences between individuals and groups
- Will evaluate progress by developing appropriate metrics



Our people are the "heart and soul" of PQHS

- 39 primary faculty + 4 new in 2021
- 33 secondary faculty
- 38 voluntary or adjunct faculty
- 22 doctoral students, 5 post-docs
- 69 staff
 - 13 administrative
 - 56 research



Staff are the glue that holds us together.

- 13 administrative staff
 - PQHS Chief Academic Administrator: Yeboah
 - 5 financial: Desai, Holden, McNally, O'Reilly, Randall
 - 7 other: Baron, Falla, McDonald, Raymond, Riley, Saber, Stankus
- 56 research staff
 - Quantitative Methods Core technical staff
 - Statistical computing: Ayturk, Bhatia, Flahive, Frisard, Lessard, Min,
 Morrison, Olatian, Williams
 - Data management: Lazar, Orvek, Rosenberg, Rumbut
 - Data science: Guilarte-Walker
 - Project Management: McGrath
 - 41 project managers, research associates, specialists



The department is growing with faculty.

Primary

- Hoa Nguyen, Associate Professor, EPI
- Jamie Faro, Assistant Professor, HIIS
- Ying (Elaine) Wang, Associate Professor, BIO

Affiliate

- Aimee Kroll-Desrosiers
- Barbara Bokhour

New faculty in 2021

- Elise Stevens, Assistant Professor, PBM (starts 1/3/21)
- Chengwu Yang, Associate Professor (starts 1/3/21)
- Xuefeng (Chris) Liu, Professor (starts 1/3/21)
- Ben Gerber, Professor, PBM (starts 3/1/21)















And growing...

- New post-docs
 - Deborah Mack EPI
 - Maryum Zaidi PBM
 - Zixiu Li BIO
- New Staff
 - Lori Randall Academic Administrator
 - Sonja Gagnon Research Coordinator for PQHS and MCCB
 - Yurima Guilarte-Walker, Research Technology Senior Development Engineer
 - Carl Hollins III Research Coordinator EPI
 - Sara Khan Clinical Research Assistant (former student intern)
 - Donna McGrath Research Project Director
 - Barret Zimmermann Sr. Project Director
 - Julie Riley Administrative Assistant
 - Peggy Anne Preusse Health Outcomes Associate
 - Tubanji Walubita Clinical Research Assistant (former GSBS student)
 - Lisa Lombardini Research Coordinator













And growing... with new arrivals

- Perry (Jessica Wijesundara)
- Alexis Yi-Chien (Shao-Hsien Liu)
- Lily Sophia (Mara Epstein)
- Ama Mbrah (Reynolds Morrison)
- Gabrielle (Sarah Yeboah)
- Zahra (Maryum Zaidi)

2020 CPHR PhD Graduates



Meera Sreedhara (Evaluation Fellow, Centers for Disease Control and Prevention, Atlanta GA)



Deborah Mack (Post Doc, UMMS)



Retiring

- Joyce Barrett
- Sandra Manning
- Nanette Vitali

2020 Service Awards

| | Years Service |
|-----------------------|---------------|
| Jennifer Fournier | 20 |
| Barbara Olendzki | 20 |
| Esther Kamiri | 15 |
| Elizabeth Aaker Orvek | 15 |
| Daniel Amante | 10 |
| Kelley Baron | 10 |
| Bruce Barton | 10 |
| Jennifer Hazelton | 10 |
| Karen Del'Olio | 5 |
| Sarah Yeboah | 5 |
| | |



PQHS Awards, Appointments, Promotions

- Dan Amante --- Center for Leading Innovation and Collaboration Award; Assistant Professor
- Andrea Lopez Cepert --- Boston's Latino 30 under 30
- German Chiriboga --- Worcester DPH COVID Health Equity Task Force Steering Committee
- Sarah Forrester --- Assistant Professor
- Jay Himmelstein --- Professor Emeritus
- Stephenie Lemon --- Worcester Public Health Hero Award in April 2020
- Lisa Lines --- Affiliate Assistant Professor
- ShaoHsien Liu --- Spondylitis Association of America Early Career Investigator Award
- Deborah Mack --- 2020 American Geriatrics Society Scientist-in-Training Research Award
- Kristen Mattocks --- Associate Dean for Veteran's Affairs; Professor
- Lori Pbert --- Society of Behavioral Medicine 2020 Jessie Gruman Award
- Sharina Person --- Dr. Marcellette Williams Senior Scholar
- Milagros Rosal --- Vice Provost for Health Equity; Imoigele P. Aisiku Chair
- Josh Rumbut --- NSF Student Travel Award
- Jen Tjia --- Professor



The mission of the Division of Health Informatics and Implementation Sciences is to focuses on patient-facing and provider-facing informatics interventions and the study of effective implementation strategies.









- Implementation Science
- Patient-facing technologies to support lung cancer screening, diabetes self-management, tobacco cessation, cancer survivorship care.
- Clinical Informatics (Division includes certified EPIC builders, staff with expertise in database development & design)
- Health Communication

Methodologic expertise

- Natural Language Processing (NLP) and Machine Learning
- User-centered design/co-production of health messages with patients
- Peer recruitment/Respondent-driven sampling methods



Division of Health Informatics and Implementation Science: 2019-2020

Our story focuses on:

- The success of our junior faculty and trainees a young & innovative group among whom many have achieved career development awards within the past 1-3 years
- A rising and established core of mid-career and senior faculty currently leading > \$17 million in grants from multiple governmental funders (NCI, VA HSRD, VA QUERI, PCORI);
- Our multi-level collaborative ties within our institution, nationally and internationally. These include strong VA-UMass alliances.
- Contributions to the UMass effort toward becoming an NCI-funded Cancer Center, especially with the NCI-funded P50 Center of Excellence





We are immensely grateful for the contributions of our staff including Jessica Wijesundara, Ariana Kamberi, Kavitha Balakrishnan, Elizabeth Orvek, and Carla McDonald, and we welcome Lisa Lombardini to our team.

In the upcoming year, we plan to build on this foundation, ensuring solid career starts for our junior faculty and trainees, encouraging our mid-career faculty to rise and take on leadership roles within the Department, and working hard to maintain and nurture existing collaborations as a basis for future partnership. We also look forward to welcoming a new division chief: Ben Gerber, MD"



The mission of the Division of Biostatistics and Health Services Research is to deploy statistical expertise in the service of scientific discovery, population health, and health equity.



Division of Biostatistics and Health Services Research: 2019- 2020

- Collaboration with MassHealth and Commonwealth Medicine
 - Developing payment models for social complexity for more equitable ACO reimbursement
 - Evaluating the \$1.8 billion contract between MassHealth and CMS to organize 17 ACOs
 - Earned qualification to bid for research contracts with the Medicaid and CHIP Payment and Access Commission.
 - Working with Dr. Jatin Dave, MassHealth CMO, to develop long-range plans for strengthened relationships with the State's Executive Office of Health and Human Services



Division of Biostatistics and Health Services Research: 2019- 2020

- Matt Alcusky and Arlene Ash are members of Mass DPH Executive Office of Health and Human Services Quality Measure Alignment Taskforce
- Bo Wang developed new international research collaborations in the Bahamas, in Thailand (two R proposals focused on mHealth and PREP among transgender youth) and Zambia
- Chan Zhou funded by the UMMS Internal COVID Pandemic Research Fund with collaborators in the Departments of Medicine and Pathology to study the "Clinical and Functional Significance of Human noncoding RNAs in Response of SARS-CoV-2 Infection"
- Jonggyu Baek is geospatial analysis consult for the Worcester Health Equity Task Force
- Eric Mick and Matt Alcusky developed new model to account for the social determinants of health in readmission and ED visits



The Quantitative Methods Core led by Dr. Barton is central to our department's mission.

- Consults from 05/2010: 2,220
- Investigators: 675
- Departments: All UMMS
- Commitments to Departments:
 - Psychiatry/iSPARC
 - Pediatrics
 - CHPR (Comm Med)
 - VA
 - Tufts Vet School
- Based on fiscally responsible model



Selected QMC Research Projects (Barton)

- RADx (Rapid Accelerated Development of Diagnostics) Data Center – Multiple studies/designs
- Sanifit Therapeutics Statistical Center Multiple studies/designs
- Alcoholic Hepatitis Research Network Data Coordinating Center
 Manage 10 translational and pilot studies and biorepository
- Alcoholic Hepatitis Genomic Coordinating Center House and support genomic and clinical data on 1,000 AH patients and healthy controls
- Fitbit Clinical Trial Data Coordinating Center for 700 participant
 RCT of study link between activity and biomedical data
- School of Medicine

Tufts Vet School – ongoing for 9+ years – hundreds of consults

The mission of the Division of **Preventive and Behavioral Medicine** is to improve clinical and public health practice and policy through innovative and sustainable education, research, and service in preventive and behavioral medicine.



Selected ongoing research projects

- MSWeight (NIH, Ockene, Pbert, Pendharkar, Frisard)
- Pediatric Practice-based Obesity Intervention to Support Families: Fitline (NIH, Pbert, Druker, Hazelton, Simone, Olendzki & team, Frisard, Clements, Bibeault)
- Asthma Symptom Management Through Mindfulness Training (NIH, Pbert and Carmody, Druker, Simone, Clements, Bibeault)
- MELODY (Helmsley Foundation, Olendzki, Maldonado, Frisard, Andersen, Madziar, Mt. Sinai)



New research projects

- BP Control (CDC, Rosal, Lemon, Borg, Ronayne, Person, Clements)
- PR Outlook (NIH, Rosal)
- Physical Activity Policy Research and Evaluation Network (CDC, Lemon, Goins)
- Evaluating Specific and Non-Specific Mechanisms in Two Distinct Complementary/Integrative Interventions for Chronic Pain (NIH, Carmody, Rush University)



Leadership in institutional initiatives

- Community Engagement Core of the UMMS CCTS (Lemon, I. Ockene, Del'Olio, Estabrook)
- Community Health Equity and Engagement (CHEE) Team of the RADx Tech Clinical Studies Core (Lemon, Del'Olio, Rosal, Pbert)
- Clinical, Translational and Health Sciences Committee of the Scientific Council (Pbert, Chair)
- Cancer Population and Health Sciences Program, UMass Cancer Center (Pbert, Cutrona)
- NCI T32, PRACCTIS (Lemon, Ockene, Estabrook, Ronayne)
- NHLBI Institutional K12 (Lemon, Estabrook, Lindenauer, Weiner)



Supporting practice through training, technical assistance and evaluation

- UMass Worcester Prevention Research Center (Lemon, Rosal, Borg, Ronayne,
 - Evaluating contract for Worcester's CDC REACH grant (Racial and Ethnic Approaches to Community Heath Grant) focused on food access and the built environment
 - Conducting COVID-19 surveillance and monitoring for City of Worcester/Greater Worcester Public Health Alliance
- Supporting WDPH via evaluation of Community Health Improvement Plan and Greater Worcester Youth Survey
- Center for Tobacco Treatment Research and Training (Pbert, Cranos, Vitali, Bibeault)
- Center for Applied Nutrition (Olendzki, Anderson, Madziar, Maserati, Menger)



Greater Worcester Covid-19 Survey

- Collaboration of the PRC and QMC with the Worcester Department of Public Health and the Greater Worcester Public Health Alliance (Lemon, Person)
- Enrolled 2,755 people to date
- Promoted in collaboration with numerous agencies and individuals
- Data available to all partners
- Greater Worcester Community Health Improvement Plan
- Available in 9 languages
- COVID-19 Health Equity Task Force
- Versatility allow rapid response, for example to address vaccine readiness





What has been YOUR experience living through the COVID-19 pandemic?

The City of Worcester, Central Massachusetts Regional Public Health Alliance and the University of Massachusetts Medical School are inviting **everyone** who lives in the Worcester area to take an online survey.

The purpose of the survey is to learn more about how the Coronavirus (COVID-19) is affecting the lives of people who live in the Worcester area. We will use this information to help plan programs and services. Your answers will remain anonymous. We are all in this together!

Please take the survey if you live in: Worcester, Shrewsbury, Holden, Grafton, Millbury, Leicester or West Boylston.

The survey is in English, Albanian, Portuguese, Russian, Spanish, Vietnamese, Twi, Arabic, and Urdu.

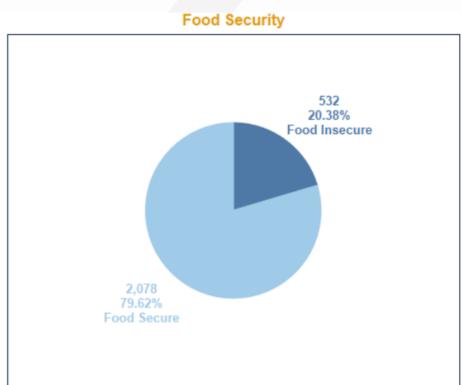
Take the Survey

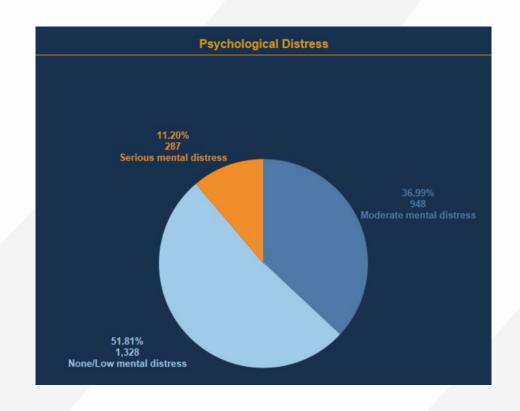
There are two versions of the survey in each language: 1) Survey questions about yourself and 2) Survey questions about someone you take care of who is not able to answer the questions themselves, such as someone who is all

English Español Português



Greater Worcester Covid-19 Survey: Emerging Results







The mission of the Division of **Epidemiology is to improve** population health by advancing knowledge of the causes and prevention of disease and by training epidemiologists in state-of-the science methods for observational research.





Education is the most powerful weapon which you can use to change the world."

Nelson Mandela



Highlights from the Division of Epidemiology

- Early-stage investigators getting NIH R/U grants (Tony Nunes, Sarah Forrester, ShaoHsien Liu, Matt Alcusky).
- Jen Tjia's promotion and K24 for mentoring
- PhD students getting independent funding (Yiyang (F99/K00), Maira Castaneda-Avila (F31), Eric Romo (F30), Ariel Beccia (F31), and Catherine Nagawa(F31))
- Multiple PhD students getting funding on institutional training grants
- Two post-docs (Mack and Morrison) getting funding on TL1
- Publications 40 publications by trainees, many on the common theme of underserved populations (e.g., people at end of life, nursing homes, racial/ethnic disparities, transgender)
- Faculty put their heart and souls into innovative teaching in the remote format (Bill Jesdale, Cathy Dube, Rob Goldberg)



Increasing diversity in COVID-19 studies



- Identify barriers to research study participation
- Storytelling to recruit diverse patients to COVID-19 clinical trials
- COVID-19 is hitting these communities the hardest. We connect through personal stories, through hearing and seeing somebody that looks like you and has the same experiences you have had."

Sarah Forrester PhD
Assistant professor, population & quantitative health sciences





Institutional Training Grants

- Ongoing
 - NCI T32 in Implementation Science, pre/post doc (PI: Lemon)
 - NHLBI K12 Implementation Science (PI: Lemon)
 - MSTP Supplement for Curriculum Development (Multi-PIs: Lapane/Dube)
 - Fogarty D43 Vietnam Training Grant (PI: Allison)
 - PREP (Multi-PIs: Lapane/Lewis)
 - IMSD (MPI: Lapane/Lewis)
 - CTSA KL2 (Multi-Pls: Kiefe / Lindenauer/ McCormick/Rosal)
 - CTSA TL1 pre/post doc (PI: Lapane)
- Pending
 - CVD T32 pre/post doc (MPI: Kiefe/Freedman)



PQHS welcomes our new students.

Postbaccalaureate Research **Education Program**



Guadalupe Mabry



Asli McCullers

Master of Science in **Clinical Investigation**



Jessica Kloppenburg



Gianna Wilkie



Lulu Xu

Clinical and Population Health Research



Esther Boama-Nyarko



Carly Herbert



Syed Naqvi



Pryce Michener



Peng "Billy" Zhou



Dr. Nisha Fahey, MSCI Student, featured in T&G

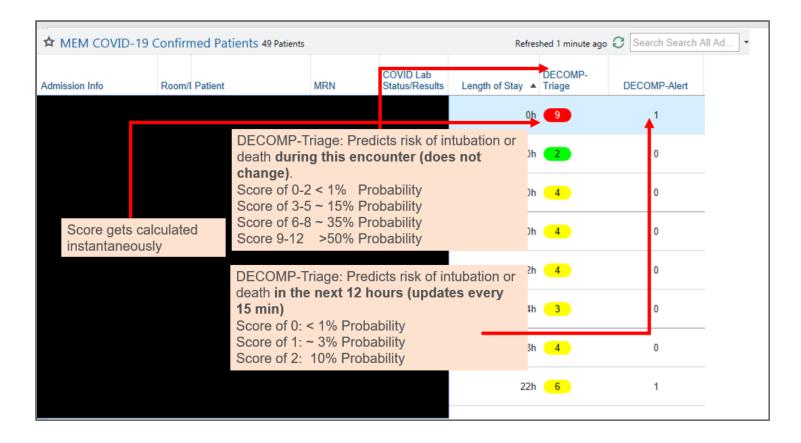






Scott O'Connell Telegram & Gazette

Keeping DCU COVIDpatients safe





Apurv Soni MD/PhD candidate



My goal is to showcase PQHS through:

- Metrics
- People and stories
- Sampling of scientific products
- Quotations from across the institution
- Emerging institutional initiatives and collaborations





Contents lists available at ScienceDirect

SSM - Population Health

journal homepage: www.elsevier.com/locate/ssmph

Article

Racial differences in weathering and its associations with psychosocial stress: The CARDIA study

Sarah Forrester^{a,*}, David Jacobs^b, Rachel Zmora^b, Pamela Schreiner^b, Veronique Roger^c, Catarina I. Kiefe^a





RESEARCH ARTICLE

Pre-clinical medical student reflections on implicit bias: Implications for learning and teaching

Christine Motzkus ¹*, Racquel J. Wells², Xingyue Wang³, Sonia Chimienti⁴, Deborah Plummer⁵, Janice Sabin⁶, Jeroan Allison⁷, Suzanne Cashman⁸



Nutrition Education and Behavior Society for Nutrition Education and Behavior

RESEARCH ARTICLE | VOLUME 52, ISSUE 11, P995-1000, NOVEMBER 01, 2020

Emotional Eating Mediates the Relationship Between Food Insecurity and Obesity in Latina Women

Andrea López-Cepero, PhD

Christine Frisard, MS

Stephenie C. Lemon, PhD

Milagros C. Rosal, PhD

DOI: https://doi.org/10.1016/j.jneb.2020.08.007



DEPRESSION, ANXIETY, AND PAIN AMONG NEWLY ADMITTED NURSING HOME RESIDENTS

C.M. ULBRICHT¹, J.N. HUNNICUTT², A.L. HUME³, K.L. LAPANE^{1,2}



Jour Nursing Home Res 2019; 5: 40-48

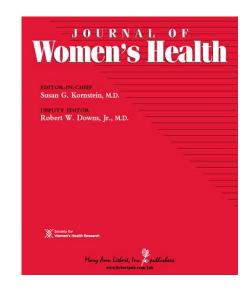


Journal of Women's Health, Vol. 29, No. 1 | Original Articles

A Longitudinal Investigation of Military Sexual Trauma and Perinatal Depression

Georgina M. Gross ☑, Aimee Kroll-Desrosiers, and Kristin Mattocks

Published Online: 13 Jan 2020 https://doi.org/10.1089/jwh.2018.7628





Annals of Internal Medicine®

Letters

Recent Trends in Cannabis Use in Older Americans

Colleen J. Maxwell, PhD III (10), Bill M. Jesdale, PhD, Kate L. Lapane, PhD



Public Health Management & Practice

Developing Core Capabilities for Local Health Departments to Engage in Land Use and Transportation Decision Making for Active Transportation

Lemon, Stephenie C. PhD; Goins, Karin Valentine MPH; Sreedhara, Meera MPH; Arcaya, Mariana ScD; Aytur, Semra A. PhD; Heinrich, Katie PhD; Kerner, Bridget MS; Lyn, Rodney PhD; Maddock, Jay E. PhD; Riessman, Robin MPH; Schmid, Thomas L. PhD



Clinical Review & Education

JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Primary Care-Based Interventions to Prevent Illicit Drug Use in Children, Adolescents, and Young Adults US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force





JMIR Mhealth Uhealth. 2020 Apr; 8(4): e18064.

Published online 2020 Apr 27. doi: 10.2196/18064

PMCID: PMC7215495

PMID: 32338619

Comparison of a Collective Intelligence Tailored Messaging System on Smoking Cessation Between African American and White People Who Smoke: Quasi-Experimental Design

Monitoring Editor: Gunther Eysenbach

Reviewed by Yanhui Liao

Jamie M Faro, PhD,^{™1} Catherine S Nagawa, MS,^{#1} Jeroan A Allison, MS, MD,^{#1} Stephenie C Lemon, PhD,^{#1} Kathleen M Mazor, EdD,^{#2,3} Thomas K Houston, MD,^{#4} and Rajani S Sadasivam, PhD^{#1}







Contents lists available at ScienceDirect

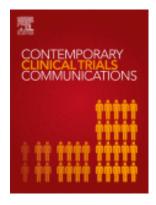
Contemporary Clinical Trials Communications

journal homepage: http://www.elsevier.com/locate/conctc

Research paper

Simulation-based power and sample size calculation for designing interrupted time series analyses of count outcomes in evaluation of health policy interventions

Wei Liu^a, Shangyuan Ye^b, Bruce A. Barton^a, Melissa A. Fischer^{c,d}, Colleen Lawrence^e, Elizabeth J. Rahn^f, Maria I. Danila^f, Kenneth G. Saag^f, Paul A. Harris^g, Stephenie C. Lemon^a, Jeroan J. Allison^a, Bo Zhang^{h,*}



Original Paper

Theme Trends and Knowledge Structure on Mobile Health Apps: Bibliometric Analysis

Cheng Peng¹, MD, PhD; Miao He², BSc; Sarah L Cutrona^{3,4}, MD, MPH; Catarina I Kiefe³, MD, PhD; Feifan Liu³, PhD; Zhongqing Wang^{2,3}, BSc, MBA



JMIR Mhealth Uhealth 2020;8(7):e18212

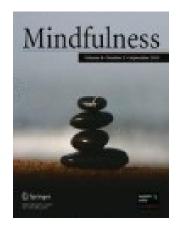




ORIGINAL PAPER | Published: 20 December 2019

Feasibility of a Smartphone App with Mindfulness Training for Adolescent Smoking Cessation: Craving to Quit (C2Q)-Teen

Lori Pbert [™], Susan Druker, Sybil Crawford, Christine Frisard, Michelle Trivedi, Stavroula K Osganian & Judson Brewer



Mindfulness. 2020; 11:720-733







Abstract

Adolescent HIV-related behavioral prediction using machine learning: Building a foundation for precision HIV prevention

Bo Wang, PhD¹, Feifan Liu, PhD¹, Bonita Stanton, MD², Arlene S Ash, PhD¹, Elke Rundensteiner, PhD³, Karen MacDonell, PhD⁴ and Lynette Deveaux, BS⁵, (1)University of Massachusetts Medical School, Worcester, MA, (2)Seton Hall-Hackensack School of Medicine, South Orange, NJ, (3)Worcester Polytechnic Institute, Worcester, MA, (4)Wayne State University School of Medicine, Detroit, MI, (5)Bahamas Ministry of Health, Nassau, Bahamas

https://apha.confex.com/apha/2019/meetingapp.cgi/Paper/443017





Corpus ID: 198489608

Deep Multimodal Learning for Medical Visual Question Answering

Lei Shi, Feifan Liu, M. P. Rosen • Published in CLEF 2019 • Computer Science

This paper describes the participation of the University of Massachusetts Medical School in the ImageCLEF 2019 Med-VQA task. The goal is to predict the answers given the medical images and the questions. The categories of the questions are provided for the training and validation datasets. We implemented long-short-term memory (LSTM) for question textual feature extraction and transfer learning followed by the co-attention mechanism for image feature extraction.



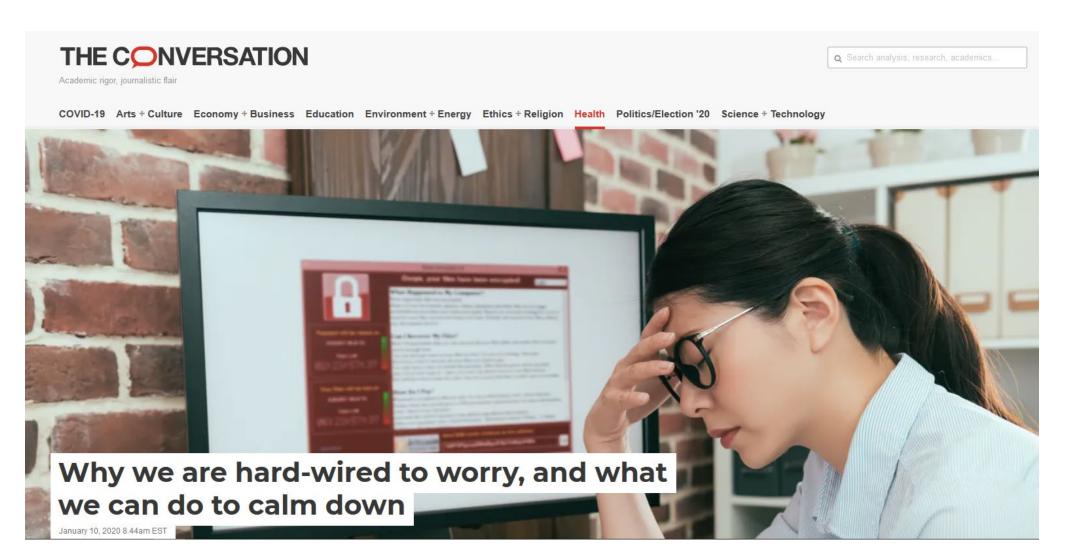


Stakeholder Engagement in Late-Stage
Translation Phase 4 Research for
Noncommunicable Diseases in Low- and
Middle-Income Countries: What Works and
Why—The Vietnam Experience (UMMS–
Vietnam Team)

Duc A. Ha *, †, Oanh M. Tran †, Hoa L. Nguyen ‡, \$\infty\$ \omega, Hien T. Nguyen \(^{\infty}\), An M. Dao \(^{\infty}\), Huy V. Nguyen \(^{\infty}\), Nguyen C. Vu ¶, Germán Chiriboga \$\infty\$, Robert J. Goldberg \$\infty\$, Thomas K. Houston \$\infty\$, Jeroan J. Allison \$\infty\$



Gobal Heart. 2019; 14(2): 143-147







My goal is to showcase PQHS through:

- Metrics
- People and stories
- Sampling of scientific products
- Quotations from across the institution
- Emerging institutional initiatives and collaborations





Since starting at UMass in the summer of 2009, I have worked with numerous PQHS faculty across a range of studies focused on technology enabled care and systems-based change for substance use disorders and suicide prevention. The most recent success has been co-leading the System of Safety with Catarina Kiefe which has led to transformations in how we identify, manage, and prevent suicide across the entire UMMHC system. This work is further driving a Center grant application being submitted in May 2021."



Edwin Boudreaux, PhD
Professor of Emergency Medicine, Psychiatry, and
Quantitative Health Sciences, Vice Chair of Research,
Department of Emergency Medicine



Austin has been an incredible addition to help build research capacity in the Department of Pediatrics. In the time that he has spent with us, he has participated in approximately 10-15 unique projects, leading to accelerated completion of multiple publications, grants and presentations. He has been patient and taken the time to teach and explain. We are grateful for his many contributions and look forward to more productive work with him!"

Lawrence M. Rhein MD, MPH Chair, Department of Pediatrics





The Department of Medicine is fully committed to building upon fantastic collaborations with PQHS that are growing in number and scope over the last few years. Whether it be through the CODA group, the COVID-19 RADx grant, our new Program in Digital Medicine and new clinical research training programs, or on our growing number of clinical trials, we are excited to fully leverage the fantastic resources and faculty that PQHS has to offer moving forward."

David McManus, MD, MSCI
Professor and Chair Elect, Department of Medicine





Our partnership with PQHS is critical to faculty and fellow efforts impacting perinatal mental health and diabetes in pregnancy; future robust collaborations, especially regarding outcome disparities in pregnancy and postpartum, are vital in our pursuit of equity."

T. Moore-Simas, MD, MPH
Professor and Chair, Department of Obstetrics and Gynecology





Having a close collaboration with PQHS has helped expand the range of research options available to the Radiology faculty in areas of quality improvement and systems management. Feifan Lui PhD has a joint appointment in Radiology and PQHS and has collaborated with us on several projects, striving to help Radiologists better understand how providers perceive and "read" our reports: one of the most important aspects of the Radiology work-product. Having someone with NLP expertise has led us to investigate several interesting questions and has resulted in our submission of a patent application, one manuscript and several great ideas."



Max P. Rosen, MD, MPH
Chair, Department of Radiology



I am writing to express my gratitude for the strong support that PQHS has provided to our planning efforts to obtain NCI designation for the UMass Cancer Center. In particular, I want to acknowledge Sharina Person who has remarkable first-hand understanding of the NCI designation process and has unselfishly devoted her time and effort to help our planning process. It is a real pleasure to work with you, Sharina and others from PQHS."

Michael Green, MD, PhD
Chair, Molecular, Cell and Cancer Biology
Vice Provost for Strategic Research Initiatives
Co-Director, Li Weibo Institute for Rare Diseases Research
Director, Cancer Center





We are extremely grateful to PQHS leadership and faculty for their partnership on UMCCTS Cores and training programs over the past decade. PQHS faculty expertise has contributed to the rigor and impact of our investigators' work through cores that have engaged diverse communities in research and assisted investigators with rigorous study design and data analysis. PQHS faculty have served as valued leaders of and mentors in UMCCTS education and training programs.

Katherine Luzuriaga, M.D.
Director, UMass Center for Clinical and Translational Science
Vice Provost, Clinical and Translational Research
Professor, Program in Molecular Medicine, Pediatrics, and Medicine





Collaborations between PQHS and Commonwealth Medicine (CWM) extend the reach of PQHS's mission and vision by bringing CWM's policy lens and experience engaging with public agencies to combined efforts to improve population health."

Lisa M. Colombo, DNP, MHA, RN

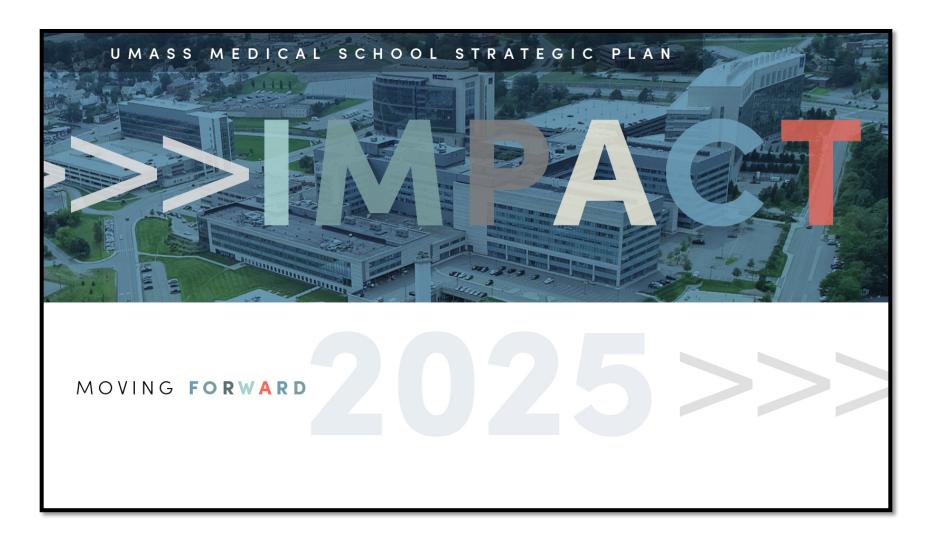
Executive Vice Chancellor, Commonwealth Medicine



My goal is to showcase PQHS through:

- Metrics
- People and stories
- Sampling of scientific products
- Quotations from across the institution
- Emerging institutional initiatives and collaborations







Milagros Rosal named inaugural vice provost for health equity at UMMS

- Professor of population & quantitative health sciences in the Division of Preventive and Behavioral Medicine appointed to this new position
- Reports to the provost with a direct advisory role to the chancellor

As a highly distinguished and accomplished faculty member and an influential thought leader in the field of health equity research, Dr. Rosal is uniquely equipped to help our institution develop and implement a strategic vision for increasing recruitment and retention of diverse faculty."

Michael F. Collins, MD
Chancellor, UMass Medical School



Milagros Rosal, PhD



Emerging institutional collaborations

- Health Equity Collaboratory
- Data Sciences Center
- Learning Health System Laboratory
- Increased VA collaboration in research, education and service
- NCI Cancer Center designation
- Center for Child Health Equity



Resuming lunch with the Chair and Vice-Chair



