# Our values include

- Science that makes a difference

- Health equity and social justice

- Lifelong learning that supports growth for all

- Collective creativity through collaboration and engagement

- Diversity and inclusion as drivers of scientific inquiry and excellence

Our vision is for the best health and well-being for all through science, community-engagement and education.

UMass Chan
MEDICAL SCHOOL

Developing this presentation allowed me to:

- Reflect on the joy of working with engaged faculty, students, and staff who "have their heart in the right place" and who are deeply committed to high-quality science and health equity

- Reflect on the privilege to be trusted with the care of such a magnificent resource

- Reflect on the tremendous support from central administration

- Build the presentation about "crowd sourcing," so that many may speak about their work in their own voice

- Grapple with an "embarrassment of riches"
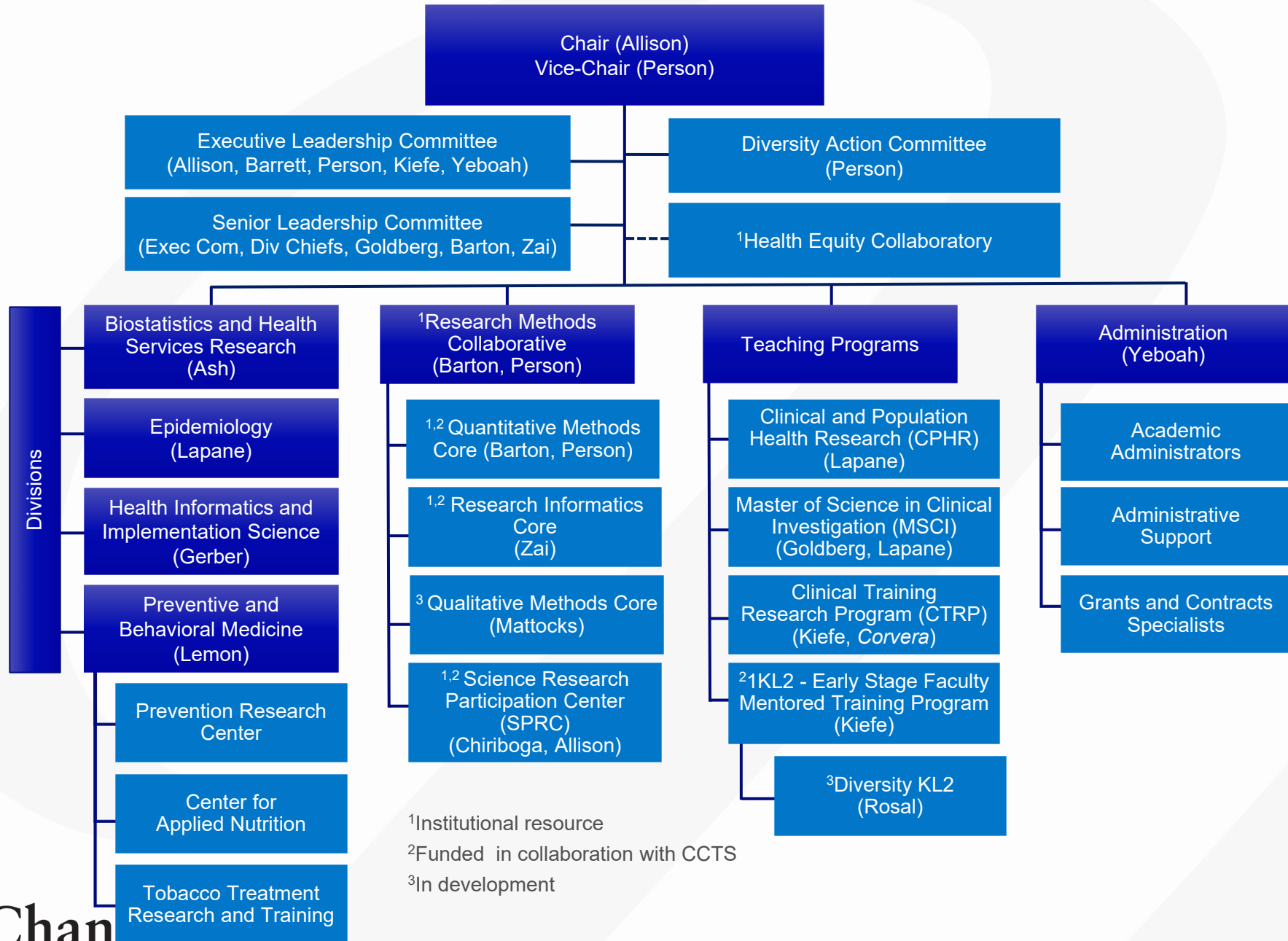
We have an outstanding cadre of new faculty

Primary
- Ben Gerber, Professor, HIIS
- Austin Lee, Professor, BIO
- JungAe Lee, Assistant Professor, BIO
- Elise Stevens, Assistant Professor, PBM
- Lakshmana Swamy, Assistant Professor, BIO
- Chengwu Yang, Associate Professor, BIO
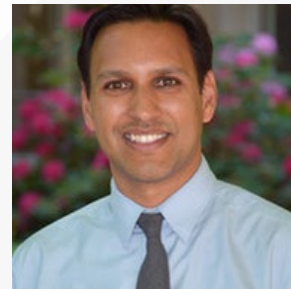- Adrian Zai, Associate Professor, BIO
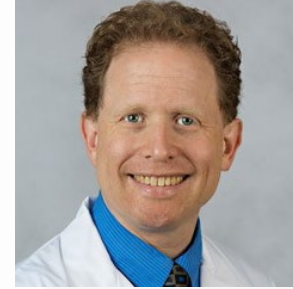
Secondary
- Nisha Fahey, Assistant Professor, Pediatrics
- Arvin Garg, Professor, Pediatrics
- Apurv Soni,
  Assistant Professor, Medicine

Affiliate
- Ekaterina (Katya) Anderson,
  Assistant Professor
- Rebecca Kinney, Instructor

UMass Chan
MEDICAL SCHOOL

PQHS Awards, Appointments, Promotions

- **Ariel Beccia**—2021 Academy for Eating Disorders Student/Early Career Fellowship

- **Esther Boama-Nyarko**—"40 Under Forty Award"

- **Cathy Dube**—Faculty Award for Outstanding Contributions to Curriculum Development

- **Zach Dyer**—21-22 Barbara Starfield Medical Care Scholar; Student Trustee

- **Julia Hua Fang**—2021 award recipient from UMass CTSA Pilot Project Program (PPP)

- **Stephenie Lemon**—Women's Faculty Committee Annual Award for "Outstanding Community Service"

- **Catherine Nagawa**—awarded the Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship

- **Josh Rumbut**—Computer and Information Science (CIS) Graduate Research Award

- **Apurv Soni**— "29 Who Shine" Award

- **Milagros Rosal**—is among *Worcester Business Journal*'s 21 people to meet in 2021

- **Sharina Person and Sarah Forrester**—appointed to the Tenure Track

- **Sarah Cutrona, Rajani Sadasivam and Bo Wang**—promoted to Professor

- **Julie Volkman**—adjunct faculty—promoted to Associate Professor

UMass Chan
MEDICAL SCHOOL

We are blessed with top-notch faculty, staff, students, and productivity

Sarah Yeboah

Senior Administrator, PQHS

UMass Chan
MEDICAL SCHOOL

Our people are the "heart and soul" of PQHS

- 45 primary faculty

- 35 secondary faculty

- 40 voluntary or adjunct faculty

- 9 doctoral students, 16 graduate students

- 64 staff

  - 13 administrative

  - 51 research

First in-person Financial Team Meeting, Fall 2021

UMass Chan
MEDICAL SCHOOL

8

Staff translate our vision into reality

14 administrative staff

- PQHS Chief Academic Administrator: Yeboah
- 6 Financial: Byron, Desai, Holden, Lou, McNally, O'Reilly
- 7 Secretarial: Baron, Kelly, McDonald, Raymond, Riley, Saber, Stankus

51 research staff

- 15 Quantitative Methods Core technical staff
  - Statistical computing: Ayturk, Bhatia, Flahive, Frisard, Lessard, Min, Morrison, Olaitan, Williams
  - Data management: Lazar, Orvek, Rosenberg, Rumbut
  - Project Management/Coordination: Granillo, McGrath
- 2 Research Informatics Core staff
  - Informatics Systems: Wong
  - Informatics Operations: Guilarte-Walker
- 34 program directors, research coordinators & assistants, project directors

UMass Chan
MEDICAL SCHOOL

We are growing ...

New Staff

- Jennifer Batista, Research Coordinator, EPI
- Elayn Byron, Academic Administrator
- Yan (Kathy) Guo, Research Assistant, BIO
- Carolyn Kelly, Executive Assistant to the Chair
- Anamika Kumari, Intern, HIIS
- Vivien Lou, Academic Administrator
- Camilla Madziar, RD LDN, Registered Dietitian and Nutritionist, PBM
- Emily McPhillips, Research Assistant, EPI
- Princilla Minkah, Research Coordinator, PBM
- Stacey Wainaina, Clinical Research Assistant, HIIS
- Jiayi (Jessie) Wang, Research Coordinator, EPI
- Koon (Steven) Wong, Director, Research Informatics Systems, Research Informatics Core

New post-docs

- Maira CastanedaAvila
- Donghee Lee
- Grace Ryan
- Elizabeth (Izzy) Schieber

![UMass Chan Medical School logo]
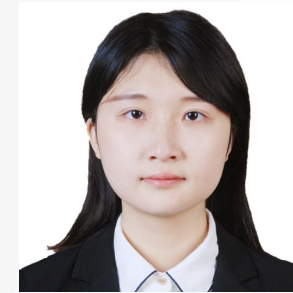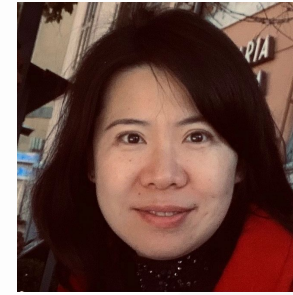
And growing… with new arrivals

- Zahra (Maryum Zaidi)
- Hailey Marie (Jamie Faro)
- Eva Theodora (Deborah Mack)
- Eli (Zixiu Li)

![UMass Chan Medical School logo]

Service Awards

	Years of Service
Matthew Alcusky	5
Dhruti Desai	5
Karin Valentine Goins	5
Carl Hollins	5
Jeffrey Williams	5
Kavitha Balakrishnan	10
German Chiriboga	10
Eric Mick	10
Sharina Person	10
Jennifer Tjia	15
Christine Foley Frisard	20
Karen Ronayne	20

UMass Chan
MEDICAL SCHOOL

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

Sponsored Projects	Total Award Value	n
Active	$98,992,336	67
Completed	$82,378,919	126
Total	$181,371,255	**193**
Pending	$15,614,889	15

[1]Only projects for which PQHS investigator is PI or Multi-PI are included.

UMass Chan
MEDICAL SCHOOL

Diversity Action Committee

Sharina D. Person, PhD

Professor and Vice-Chair, PQHS

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

History of the Diversity Action Committee (DAC)

Purpose of the DAC:

To provide information and education about diversity and inclusion to PQHS as it relates to our mission and effectiveness.

Timeline:

- **Feb 2020** — IMPACT 2025 Strategic Plan launched
- **May** — Murder of Mr. George Floyd
- **June** — National and International Protests; UMass conducts, "A Campus Conversation About Race: Coming Together to Reflect and Progress."; UMass conducts part II, "A Campus Conversation About Race: Coming Together to Reflect and Progress"
- **Jul** — PQHS holds workshop, "Moving from Safe Spaces to Brave Spaces: Dialogues about Racism"; The PQHS Diversity Action Committee (DAC) created
- **Aug** — PQHS holds first meeting of the Diversity Action Committee; The Inaugural DAC Membership established
- **Oct** — First engagement of DAC with Gwen Cochran Hadden, Diversity Consultant
- **Jan 2021** — Entered into a formal consulting agreement with Ms. Hadden

Inaugural Members:

- Esther Boama-Nyarko
- Amy Borg
- Germán Chiriboga
- Tammy Falla
- Katarina Ferruci
- Julie Flahive
- Rob Goldberg
- Yurima Guilarte-Walker
- Carly Herbert
- Ariana Kamberi
- Grace Masters
- Eric Mick
- Barbara Olendzki
- Jyothi Pendharkar
- Sharina Person
- Milagros Rosal
- Jessica Wijesundara
- Yiyang Yuan

UMass Chan
MEDICAL SCHOOL

15

Present Activities and Accomplishments

- Current Webpage: https://www.umassmed.edu/pqhs/diversity-and-inclusion/diversity-action-committee/
- Reviewed all guiding departmental documents (e.g., strategy map, mission and vision) through a diversity and inclusion lens. Made recommendations for changes as warranted.
- Developed a Charter for the DAC and webpage highlighting PQHS efforts in Diversity and Inclusion
- Developed Diversity Statement for PQHS
  - Key Points
    - *Fostering equity with the purpose of improving quality of life and health through our work*
    - *Striving to foster a safe, proactive, and dynamic environment of respect and trust for all*
    - *Promote diversity in PQHS through enhancing recruitment and retention of diverse individuals*
    - *Collaboration with institutional leadership, other departments, and programs to advance diversity and inclusion*
- Participated in departmental strategy sessions with Dr. Marlina Duncan, Vice Chancellor for Diversity and Inclusion

UMass Chan
MEDICAL SCHOOL

Future Plans

- Develop a Diversity Digest of currently existing resources for interaction, education and training (e.g., Affinity Groups, courses, suggested readings)
- Determination of current diversity of PQHS to set a baseline
- Cultural and Organizational Assessment of PQHS

Current DAC Membership

- Esther Boama-Nyarko
- Amy Borg
- Germán Chiriboga
- Katarina Ferruci

- Sarah Forrester
- Julie Flahive
- Yurima Guilarte-Walker
- Ariana Kamberi

- JungAe Lee
- Eric Mick
- Alice Min
- Barbara Olendzki

- Sharina Person
- Milagros Rosal
- Chengwu Yang
- Barret Zimmermann

Diversity Consultant: Gwen Cochran Hadden

UMass Chan
MEDICAL SCHOOL

Office of Health Equity

Milagros C. Rosal, PhD

Vice Provost for Health Equity

UMass Chan
MEDICAL SCHOOL

Background

- Population at large is becoming increasingly diverse

- Widely recognized lack of progress in building diversity among biomedical research faculty. Extrapolation of trends without intervention:
    - It will take nearly 50 years for women to reach parity among full professors
    - It will take centuries for racial/ethnic groups underrepresented in medicine (URiM) to reach parity among medical school faculty

- Pressing need to enhance diversity in NIH-funded institutions across the U.S

    - LCME accreditation

    - Only 2-6% of NIH funding to URiM faculty

    - Diversity improves <u>institutional excellence</u> in teaching, research & scholarship and patient care. It determines:
        - What questions we ask
        - How we ask those questions
        - How we go about answering them / methods
        - How we interpret the answers / what we do or how we use the data

    - Diverse knowledge, <u>lived experiences</u> and world views benefit faculty, learners and patients alike:
        - Improvements in the quality of educational programs – cognitive diversity
        - Innovations AND faster pace of innovations
        - URiM faculty are mentors that can relate to URiM learners and role models for success

UMass Chan
MEDICAL SCHOOL

Current Initiatives

- Infrastructure to support programming
  - Fully staffing a new office
  - Co-lead DEI Liaisons committee; support FFEI, AALANA
  - Contribute to new data warehouse: diversity metrics and progress
- New strategic initiatives to facilitate recruitment of URiM faculty
  - Cluster recruitment pilot initiative – 6 departments actively recruiting, tenure track positions - Includes cluster hire and iCAP
  - Health Equity and Career Advancement (HERCA) compensation benefit for clinical hires
  - Collaborate with OFA, Department Chairs, DIO, CDIO: workflows that facilitate best practices for equitable faculty recruitment
  - FIRST Cohort grant proposal to NIH
- Pipeline development
  - Identification of top talent, including library searches – NIH toolkit
  - Networking with minority-serving institutions
  - Warm connections: Voices in Science, Ground Rounds

UMass Chan | Office of
MEDICAL SCHOOL | Health Equity

PQHS Education

Kate Lapane, PhD, MS
Associate Dean and Director of the Doctoral Program
in Clinical and Population Health Research

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

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

—NELSON MANDELA

UMass Chan
MEDICAL SCHOOL

MD/PhD CPHR TRACK
(10 students, 30% diverse, 60% T awardees, 20% F awardees)

Student	Mentor	Topic (Grant funding)	# papers
MD/PhD students finishing medical school			
Eric Ding	McManus	Smartwatches to aid in the diagnosis and management of cardiac arrhythmias (CVD T32, F31)	22*
Grace Masters	Byatt	Perinatal mental health, particularly in women with severe mental illnesses like bipolar disorder (TL1)	12
MD/PhD candidates			
Eric Romo	Friedmann	Distance to sterile syringe source and hepatitis C virus (HCV) infection (PREP, TL1, F31)	3
Julie Hugunin	Lapane	Healthcare utilization in youth and young adults with serious mental health conditions (TL1, R36 pending, promising score)	6
Zach Dyer	Ash	Constructing a structural racism effect index (TL1, F31 pending, promising score)	1
MD/PhD students			
Carly Herbert; Mentor: Soni, 5 publications (NCI T32). Pryce Michener; Mentor: Friedmann, 4 publications. Laël Ngangmeni; Mentor: Mattocks			
Claire Branley and Hye In Sarah Lee newly matriculated in 2021! *Includes conference proceedings			

UMass Chan
MEDICAL SCHOOL

PhD—Clinical and Population Health Research
(19 students, 37% diverse, 32% international, 63% TL1, T32, F, IMSD)

Candidates	Mentor	Topic (Grant funding)	# papers
Candidates completing between June 2021 and March 2022			
Maira Castaneda-Avila	Epstein	The Role Of A Monoclonal Gammopathy Of Undetermined Significance Diagnosis In Healthcare Utilization	12
Nien-Chen Li	Ash	Assessing and Modeling Quality Measures for Healthcare Systems (IMSD)	4
Ariel Beccia	Lapane	Intersectionality of sexual orientation, gender expression, and weight status on risk of disordered eating behaviors (CVD T32, F31)	15
Catherine Nagawa	Sadasivam	Smoking cessation in persons with mental health conditions (IMSD,T32,F31)	11
Danni Zhao	Lapane	The Use of Gabapentinoids for Pain in the Ongoing US Opioid Epidemic	5
Bunmi Emidio	Lemon	Mixed Methods Study of Psychosocial Distress Screening in Newly Diagnosed Lung Cancer Patients (NCI T32, IMSD)	4
Yiyang Yuan	Lapane	Trajectories of physical frailty and cognitive impairment among nursing home residents and community-dwelling older adults (F99/K00)	10

UMass Chan
MEDICAL SCHOOL

PhD—Clinical and Population Health Research

Candidate/Student	Mentor	Topic (Grant funding)	# papers
Divya Shridharmurthy*	Liu	Management of spondyloarthritis in pregnancy	6
Qiaoxi (Tracy) Chen*	Alcusky	Improving Oral Anticoagulant Use among Nursing Home Residents with Atrial Fibrillation	2
Melissa Goulding*	Lemon	Pediatric Hypertension Screening and Follow-up: A Mixed Methods Assessment (IMSD, TL1, F31 pending)	6
Katarina Ferrucci*	Jesdale	Eating disorders among transgender populations(TL1, R36 scored)	4
Syed Naqvi	Nunes	Pressure ulcer in nursing home residents (PREP, IMSD)	1
Esther Boama-Nyarko	Byatt	Perinatal mental health services for women of color (IMSD, TL1)	2
Seun Osundolire	Lapane	Heart failure management in nursing home residents (IMSD)	2
Peng (Billy) Zhou	Zhou	Noncoding RNAs and epigenomics for personalized medicine	
Welcome incoming students 2021!			
Clevanne Julce (mentor: Byatt, IMSD) Stephane Labossiere (mentor: Lemon, IMSD)			
Arvis Mortimer (mentor: Wang) Atinuke Oyinbo (mentors: Lapane/Epstein) Meagan Sabatino (mentor: Alcusky, T32 funded)			

Master of Science in Clinical Investigation

Incoming 2021 class

- 3 medical students (1 year MSCI option)
  - Adam Cellurale, Eileen 'Riley' McNichols, Dawn Truong
- 4 physicians
  - Kathryn Delaney (Maternal Fetal Medicine)
  - Jacqueline Furbacher (Emergency Medicine, Health Equity Fellow)
  - Kamaris Merritt (Pediatrics)
  - Kara Smith (Neurology, K awardee)

8 completed MSCI in 2021

- Jordy Mehawej (CVD T32, 14 publications)
- Max Hazeltine (Surgery, 10 publications)
- Nisha Fahey (Pediatrics, 5 publications)
- Sarah Davenport (Pediatrics, 1 publication)
- Gianna Wilkie (Maternal Fetal Medicine, 2 publications)
- Lauren Orr (Maternal Fetal Medicine, 1 publication)
- Jessica Kloppenburg (medical student, 1 publication)
- Wanlu Xu (medical student, 1 publication)

UMass Chan
MEDICAL SCHOOL

PQHS Research and Service

Jeroan Allison, MD, MS

Professor and Chair, PQHS

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

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

Bo Wang[a,*], Feifan Liu[a,*], Lynette Deveaux[b], Arlene Ash[a], Samiran Gosh[c], Xiaoming Li[d], Elke Rundensteiner[e], Lesley Cottrell[f], Richard Adderley[b] and Bonita Stanton[g]

Effect of Poloxamer 188 vs Placebo on Painful Vaso-Occlusive Episodes in Children and Adults With Sickle Cell Disease

A Randomized Clinical Trial

James F. Casella, MD; Bruce A. Barton, PhD; Julie Kanter, MD; L. Vandy Black, MD, MSc; Suvankar Majumdar, MD; Adlette Inati, MD; Yasser Wali, MD; Richard A. Drachtman, MD; Miguel R. Abboud, MD; Yurdanur Kilinc, MD; Beng R. Fuh, MD; Murtadha K. Al-Khabori, MD; Clifford M. Takemoto, MD; Emad Salman, MD; Sharada A. Sarnaik, MD; Nirmish Shah, MD; Claudia R. Morris, MD; Jennifer Keates-Baleeiro, MD; Ashok Raj, MD; Ofelia A. Alvarez, MD; Lewis L. Hsu, MD, PhD; Alexis A. Thompson, MD, MPH; India Y. Sisler, MD; Betty S. Pace, MD; Suzie A. Noronha, MD; Joseph L. Lasky III, MD; Elena Cela de Julian, MD, MSc, PhD; Kamar Godder, MD; Courtney Dawn Thornburg, MD, MS; Natalie L. Kamberos, DO; Rachelle Nuss, MD; Anne M. Marsh, MD; William C. Owen, MD; Anne Schaefer, MD; Cameron K. Tebbi, MD; Christophe F. Chantrain, MD, PhD; Debra E. Cohen, MD; Zeynep Karakas, MD; Connie M. Piccone, MD; Alex George, MD; Jason M. Fixler, MD; Tammuella C. Singleton, MD; Thomas Moulton, MD; Charles T. Quinn, MD, MS; Clarisse Lopes de Castro Lobo, MD, PhD; Abdulkareem M. Almomen, MD; Meenakshi Goyal-Khemka, MD; Philip Maes, MD; Marty Emanuele, PhD, MBA; Rebecca T. Gorney, MS; Claire S. Padgett, PhD; Ed Parsley, DO; Shari S. Kronsberg, MS; Gregory J. Kato, MD; Mark T. Gladwin, MD

Integrating Self-Report and Psychophysiological Measures in Waterpipe Tobacco Message Testing: A Novel Application of Multi-Attribute Decision Modeling

Elise M. Stevens [1,*], Andrea C. Villanti [2], Glenn Leshner [3], Theodore L. Wagener [4,5], Brittney Keller-Hamilton [4,5] and Darren Mays [4,5]

Disease Burden and Health-Related Quality of Life Among Women and Men with Spondyloarthritis: An Exploratory Analysis of a Population-Based Sample

Divya Shridharmurthy, MBBS, MPH,[1,2] Danni Zhao, MS,[1,2] Kate L. Lapane, PhD,[1] Jonggyu Baek, PhD,[3] Jonathan Kay, MD,[1,4,5] and Shao-Hsien Liu, MPH, PhD[1,5]

UMass Chan
MEDICAL SCHOOL

COVID-19 Mortality Prediction among Patients with Cancer Using a Large National Cohort

Feifan Liu, PhD[1], Noha Sharafeldin, MD, MSc, PhD[2], Vithal Madhira, MS[3], Kate Bradwell, PhD[4], Qianqian Song, PhD[5], Benjamin Bates, MD[6], Yu Raymond Shao, MD, PhD[7], Jing Su, PhD[8], Alfred Jerrod Anzalone, MS[9], Tim Bergquist, PhD[10], Sarah L. Cutrona, MD, MPH[1], Ben S. Gerber, MD, MPH[1], Peter N. Robinson, MD, PhD[11], Justin Guinney, PhD[10], Umit Topaloglu, PhD, FAMIA[5]

[1]University of Massachusetts Medical School, Worcester, MA; [2] University of Alabama at Birmingham, Birmingham, AL; [3] Palila Software, Reno, NV; [4]Palantir Technologies, Denver, CO; [5] Wake Forest School of Medicine, Winston Salem, NC; [6]Rutgers Center for Pharmacoepidemiology and Treatment Science, New Brunswick, NJ; [7] Duke Cancer Institute, Durham, NC; [8] Indiana University School of Medicine, Indianapolis, IN; [9] University of Nebraska Medical Center, Omaha, NE; [10] Sage Bionetworks, Seattle, WA; [11]The Jackson Laboratory, Farmington, CT

American Medical Informatics Association Symposium, 2021

Actions to Transform US Preventive Services Task Force Methods to Mitigate Systemic Racism in Clinical Preventive Services

US Preventive Services Task Force

Article Information

Check for updates

An Efficient Segmentation Algorithm to Estimate Sleep Duration from Actigraphy Data

Jonggyu Baek[1,2] · Magaret Banker[2] · Erica C. Jansen[3] · Xichen She[2] · Karen E. Peterson[3] · E. Andrew Pitchford[4] · Peter X. K. Song[2]

UMass Chan
MEDICAL SCHOOL

29

Physical Activity, Mental Health, and Technology Preferences to Support Cancer Survivors During the COVID-19 Pandemic: Cross-sectional Study

Jamie M Faro[1], PhD; Kristin M Mattocks[1,2], MPH, PhD; Catherine S Nagawa[1], MS; Stephenie C Lemon[3], PhD; Bo Wang[4], PhD; Sarah L Cutrona[1,5], MD, MPH; Rajani S Sadasivam[1], PhD

Annals of Internal Medicine

EDITORIAL

Extending a Lifeline to Nonhospitalized Patients With COVID-19 Through Automated Text Messaging

Jamie M. Faro, PhD
University of Massachusetts Medical School, Worcester, Massachusetts

Sarah L. Cutrona, MD, MPH
Bedford VA Healthcare System, Bedford, Massachusetts

UMass Chan
MEDICAL SCHOOL

Developing a behavioral support texting protocol for hypertension incorporating African American Veterans' success stories

Kathryn L. DeLaughter, Gemmae M. Fix, Sarah E. McDannold, Charlene Pope, Barbara G. Bokhour, Stephanie L. Shimada, Rodney Calloway, Howard S. Gordon, Judith A. Long, Danielle A. Miano, Sarah L. Cutrona

Pathogen and Surrogate Survival in Relation to Fecal Indicator Bacteria in Freshwater Mesocosms

Christopher A. Baker,[a] Giselle Almeida,[a*] Jung Ae Lee,[b] [iD]Kristen E. Gibson[a]

Qualifying Certainty in Radiology Reports through Deep Learning–Based Natural Language Processing

[iD]F. Liu, [iD]P. Zhou, [iD]S.J. Baccei, [iD]M.J. Masciocchi, [iD]N. Amornsiripanitch, [iD]C.I. Kiefe, and [iD]M.P. Rosen

UMass Chan
MEDICAL SCHOOL

"Recuerda La Memoria"

Germán Chiriboga, MPH

Program Director

UMass Chan
MEDICAL SCHOOL

"Recuerda La Memoria" "Remember the Memory"

- A Health Equity Multi-Media Installation including recycled sculpture, drawing, and public health storytelling

- This is a 3-piece installation to discuss health equity for Latinos during the COVID pandemic. We used a blend of recycled material sculpture, drawing, and public health storytelling to convey messages of vaccination, hesitancy, empathy, and discussion of data through deep cultural symbology.

- The work was funded by the Creative Intersections grant from the Greater Worcester Community Foundation and was presented originally for a Health Equity Celebration during Día de los Muertos in the City of Worcester.

- Authors: José Criollo (sculpture and concept), Fernando Ponce (Video Editing), Germán Chiriboga (sculpture and concept, drawing, and storytelling development).

- Unveiled during the "Día de Los Muertos" Celebration on Oct. 30 in Worcester.

UMass Chan
MEDICAL SCHOOL

33

"Recuerda La Memoria"

Funded by The Greater Worcester Foundation's Creative Intersections Grant

Supported by Health and Human Services—City of Worcester

A special shoutout to a fellow artist and health equity partner: Geraldine Puerto for her contribution.

▲

Geraldine Puerto's design "Perseverancia" is now on display in City Hall.

UMass Chan
MEDICAL SCHOOL

Worcester COVID Vaccine Ambassador Public Health Campaign

Stephenie Lemon, Ph. D.

Chief, Division of Preventive and Behavioral Medicine

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

Worcester Vaccine Ambassador Public Health Campaign

Evidence-informed behavioral medicine and public health
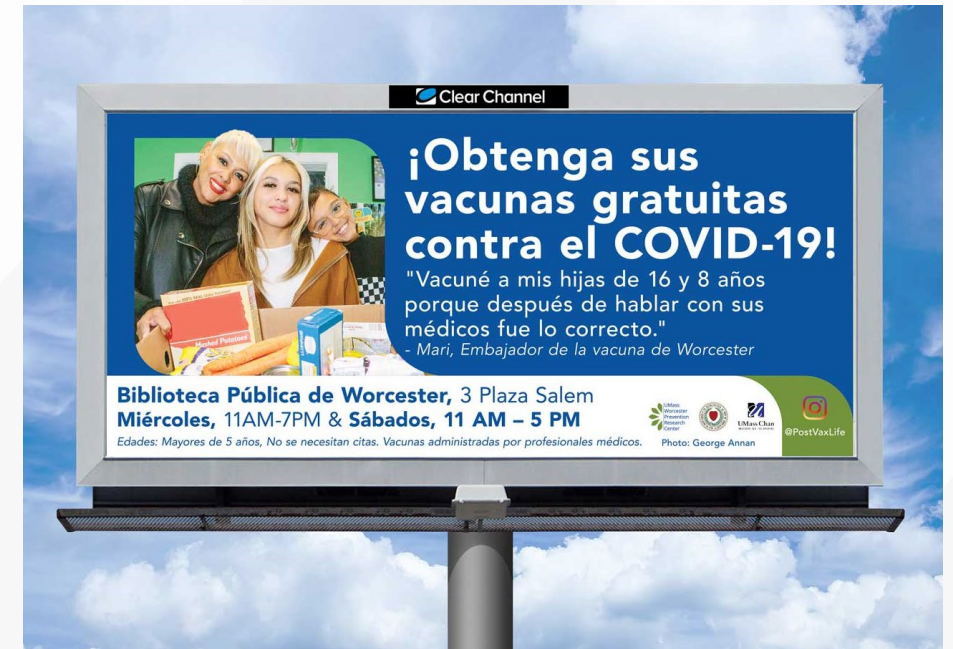
Voices of youth and families

Theory-based and locally adapted

- Youth empowerment, social norms/modeling approaches to behavior change

- Informed by focus groups and local experts

Campaign approach

- Young adults, teens, younger children, parents

- Provide structured, foundational training in COVID, vaccinations and effective messaging

- Work with ambassadors to find their "Reason Why"

- Showcase local locations and ambassadors 'safe spaces'

- Step back and allow creativity of Ambassadors, Photographers, Videographers, etc…

Clear Channel

¡Obtenga sus vacunas gratuitas contra el COVID-19!

"Vacuné a mis hijas de 16 y 8 años porque después de hablar con sus médicos fue lo correcto."
- Mari, Embajador de la vacuna de Worcester

Biblioteca Pública de Worcester, 3 Plaza Salem
Miércoles, 11AM-7PM & **Sábados, 11 AM – 5 PM**
Edades: Mayores de 5 años, No se necesitan citas. Vacunas administradas por profesionales médicos.   Photo: George Annan

@PostVaxLife

UMass Chan MEDICAL SCHOOL

#POSTVAXLIFE Worcester

Local dissemination

- Television and radio PSAs
- Billboards
- Bus ads
- Posters and flyers in community organizations
- Social media campaign
- JMAC vaccination event with BCBS and the City

Community engaged approach

Key Partner

- City of Worcester Department of Health and Human Services

Additional Collaborators

- City of Worcester Division of Youth Opportunities
- Girls Inc. of Worcester
- El Buen Samaritano
- Seven Hills/Family Resource Center
- YMCA of Central MA
- Local photographers and videographers
- UMass Chan Office of Human Resources

#PostVaxLife

Olivia
Vaccine Ambassador
Worcester

UMass Chan
MEDICAL SCHOOL

#POSTVAXLIFE
Worcester

#POSTVAXLIFE

"I'm vaccinated. For my mom, for my dad, for my grandmother...For myself. I love them, so I want to protect them. Protect yours!"

— Jean Herrera, Age 19
Worcester Youth Vaccine Ambassador
North High School C/O 2020
Favorite Neighborhood: Plumley Village

Questions about the vaccine or vaccine clinics?

Call the Worcester Department of Health and Human Services Mobile Clinic at 508-868-6438. Or visit http://www.worcesterma.gov/coronavirus/vaccination for more information about vaccines in Worcester.

@PostVaxLife

COVID-19 Vaccines in Worcester Available at:

- Aids Project Worcester, 165 Southbridge Street: Fridays from 1 – 4 PM
- Edward M. Kennedy Community Health Center, 19 Tacoma Street: Mondays - Fridays, 8 AM - 1 PM
- UMMHC Mercantile Center, Front Street: Mondays, 11 AM – 4 PM; Tuesdays, 10 AM – 3 PM; Thursdays, 10 AM – 3 PM
- Worcester Public Library's Main Branch, 3 Salem Square: Wednesdays, 11 AM – 7 PM; Saturdays, 11 AM – 5 PM

UMass Chan
MEDICAL SCHOOL

UMass Worcester Prevention Research Center

PRC PREVENTION RESEARCH CENTERS

UMass Chan
MEDICAL SCHOOL

#POSTVAXLIFE
Worcester

Vaccine Ambassador Campaign Next Steps

- Provider message campaign
- Integration with communications trainings for providers

Additional Vaccine Promotion Activities

- Youth agency workshops and social media competition (YMCA, REC, Girls Inc., Boys & Girls Club, Job Corps)
- ~25 Community forums
- "Navigation" best practices trainings for community agencies

UMass Worcester PRC Vaccine Ambassador Campaign Team

- Amy Borg
- Chris Frisard
- Melissa Goulding
- Stephenie Lemon
- Princilla Minkah
- Milagros Rosal
- Grace Ryan

UMass Worcester Prevention Research Center

UMass Chan MEDICAL SCHOOL

Research Informatics Core

Adrian Zai, MD, PhD, MPH

Chief Research Informatics Officer, Director, Research Informatics Core

UMass Chan
MEDICAL SCHOOL

Research Informatics Core (RIC)

Institutional Core co-sponsored by PQHS and CCTS

Access to clinical data:

We provide clinical data from the Epic electronic health record system for grant preparation, Patient Recruitment and Retrospective Research.

Get Data Analytics or Geo-Mapping Support:

We provide investigators with clinical research support in statistics, experimental design, data analytics, project management, and geo-mapping.

Enable Natural Language Processing and Machine Learning:

We assist researchers in the design and implementation of solutions to complex data-related problems involving Natural Language Processing and Machine (Deep) Learning.

Collaborate with our partners for additional informatics services:

We work closely with our partners to support other informatics needs with, for example, Epic research tools, or advance AI analytics for imaging.
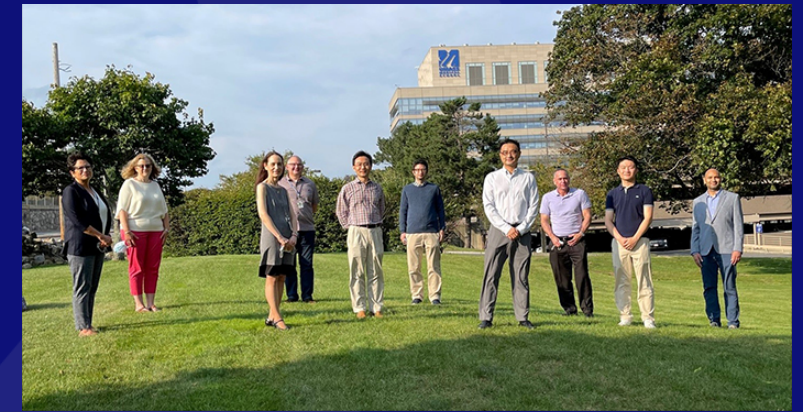
Research Informatics Core Team

From left to right:
Katherine Luzuriaga, Ann Han, Yurima Guilarte-Walker, Karl Simin, Feifan Liu, Ugur Celik, Adrian Zai, Jeroan Allison, Qiming (Timmy) Shi, Mahesh Vangala

Partners:

UMass Memorial Health

UMassAmherst
Institute for
Applied Life Sciences

Quantitative Methods Core

Program in Digital Medicine

Health Informatics and Implementation Sciences

UMass Chan
MEDICAL SCHOOL

Introducing...

The Research Informatics Core has 2 main objectives:

1. to provide excellent informatics services to our Researchers
2. to design and build the best research informatics infrastructure in the future.

Yurima Guilarte-Walker
Director of Research
Informatics Operations

Steven Wong
Director of Research
Informatics Systems

RIC Website: https://www.umassmed.edu/research-informatics/

Click on "Contact Us", select an office hour and schedule a free consult

UMass Chan
MEDICAL SCHOOL

Storytelling Interventions in the Time of COVID

Breaking down barriers to diverse research participation and vaccine uptake

Sarah Forrester, PhD

Assistant Professor, PQHS

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

Background

Clinical Research

Lacks diversity
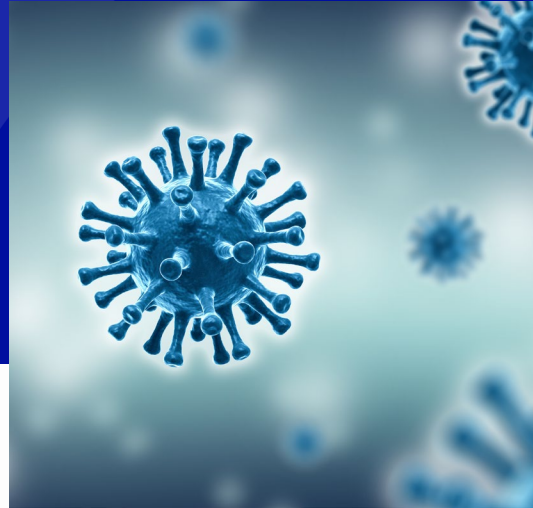
COVID Research

Similar pattern as general clinical research

Vaccine Hesitancy

Affects all populations but particularly dangerous for populations at the highest risk for bad outcomes

Solutions?

How do we change behavior without coming up against cognitive barriers?
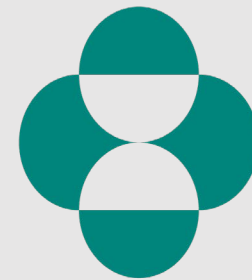
UMass Chan
MEDICAL SCHOOL

UMass Memorial Health–UMass Chan Medical School Health Policy Task Force

Eric Mick, ScD

Assistant Professor, PQHS

JANUARY 11, 2022　　|　　PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

Health Policy Task Force

Collaboration with PQHS and UMass Memorial Health

- Mission is to bring our research expertise to pressing healthcare policy issues prioritized by UMass Memorial Health's leadership.

- To-date we've had introductory meetings as we flesh out the short- and medium-term agenda for the task force.

- We aim to be responsive to needs of hospital leadership in this inaugural year.

- First project underway is focused on the impact of Medicare for All on our system.

Health Policy Task Force Project 1: Impact of Medical for All on Safety Net Systems

Collaboration with PQHS and UMass Memorial Health

- This is a collaboration between UMass Chan Medical School (PQHS) and UMass Memorial Medical Center (Finance)

- Our Main Aim is to identify key components of an M4A system transformation that would enable UMMC to maintain the same quality of care as under the current system

UMass Chan
MEDICAL SCHOOL
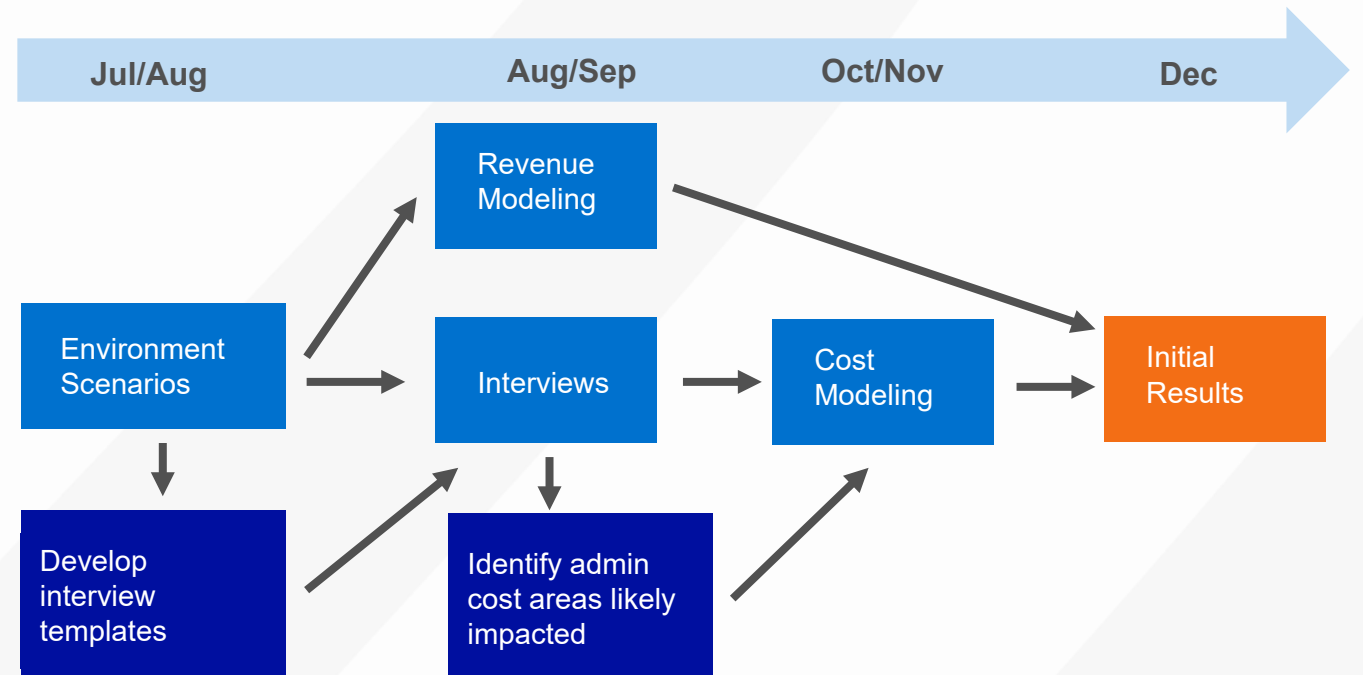
Health Policy Task Force

- Eric Dickson, MD MHCM FACEP
- Eric Mick, ScD
- Susan Stinson, VP Finance
- Arlene Ash, PhD

- David Polakoff, MD MSc
- Apurv Soni, MD PhD
- Jeroan Allison, MD MS

UMass Chan
MEDICAL SCHOOL

Quantitative Methods Core: Central to our Department's Mission

Bruce Barton, PhD

Professor and Director of Quantitative Methods Core, PQHS

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

Quantitative Methods Core central to PQHS mission

- QMC is the outreach arm of PQHS to offer support to UMMS researchers

- Consults and Projects from 05/2010: 2,944

- Investigators: 700+

- Departments: All UMMS

- Staffing (full- and part-time):
  - Faculty: 7
  - Statistical Analysts/informatics: 12
  - Data Management: 4
  - Project management: 3

- Based on fiscally responsible model balancing staffing levels with income

UMass Chan
MEDICAL SCHOOL

Selected QMC Research Projects

- RADx (Rapid Accelerated Development of Diagnostics) Data Team—Multiple studies/designs

- Alcoholic Hepatitis Research Network Data Coordinating Center—Manage 10 translational and pilot studies and biorepository—House/support genomic and clinical data on 2,000 AH patients and healthy controls

- Fitbit Clinical Trial Data Coordinating Center for 700 participant RCT of study link between activity and biomedical data

- BedJet/Fitbit Study of sleep quality: UMMC staff on swing shifts

- Moderna CMV transmission study in daycare centers

- External collaborators: Baystate, WPI, UML,UMB, VA, CorEvitas

UMass Chan
MEDICAL SCHOOL

UMass Chan Independent Evaluation of the Massachusetts Delivery System Reform Incentive Payment Program (DSRIP)

Matthew Alcusky, PhD, Pharm D, MS
Assistant Professor, PQHS

Jay Himmelstein, MD, MPH
Professor Emeritus, PQHS

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

Massachusetts health policy innovations have been funded through Medicaid 1115 Demonstration Waivers

The current Demonstration (2017–2022) included a $1.8 billion DSRIP program to transform the delivery system, integrate care, and hold providers accountable for quality and costs

- DSRIP funds are being used to develop Medicaid Accountable Care Organizations (ACOs) and Community Partners (CPs), to pay for services related to health-related social needs, and to expand the statewide healthcare workforce

  - More than 1 million (>80%) eligible members were shifted from traditional managed care into 17 Medicaid ACOs

  - Hundreds of new ACO-CP partnerships formed; >18,000 members engaged by CPs in 2018 –2019

  - An innovative Flexible Services program (housing and nutritional supports) launched in 2020 with >60 ACO-Social Service Organization partnerships and >3,300 members served in the initial year

- UMass Chan, through a collaboration between PQHS and Commonwealth Medicine, was chosen to serve as the Independent Evaluator for the Demonstration and the DSRIP program.

  - This $7+million, 7-year mixed methods study is one of the first to be conducted and reviewed under recently adopted CMS scientific guidelines

UMass Chan
MEDICAL SCHOOL

The UMass Interim Report (IEIR) was submitted with the Massachusetts Demonstration extension request

The IEIR found significant progress during early implementation and made recommendations for the next phase of the Demonstration

IEIR recommendations included:

- Target funding to areas of greatest need to continue and sustain delivery system improvements
- Add new program elements to engage and align provider incentives with those of the ACO
- Improve collection of race, ethnicity, language, disability, and health-related social needs data to better understand how reforms affect these populations

The goals of the new (2022-2027) MA Demonstration extension reflect UMass input and include:

- Continue the path of restructuring and accountable, value-based care
- Make new investments in primary care, behavioral health, and pediatric care
- Advance health equity, with a focus on initiatives addressing health-related social needs and specific disparities
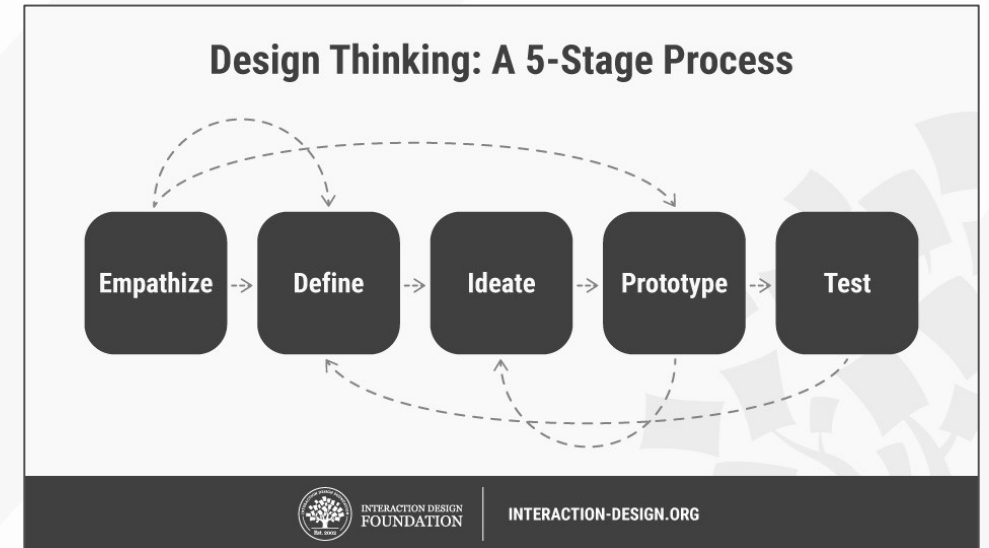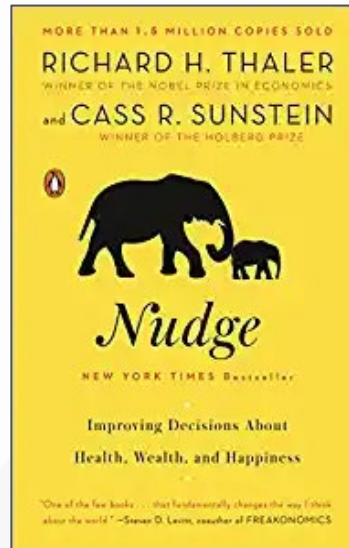
DM-BOOST

Diabetes **M**ellitus program using **B**ehavioral economics to **O**ptimize **O**utreach and **S**elf-Management support with **T**echnology

Evidence: Diabetes self-management training helps.
Problem: Not enough patients complete it.
Possible solution: Leverage behavioral economics + patient-facing tech!!

- What is Behavioral Economics (BE)?
  - Choice Architecture/Defaults
  - Herd Behavior
  - Loss Aversion
- How can patient-facing tech help?
  - Text-messaging
  - Patient Portal (MyChart)
  - Telehealth
- Intervention Development Approach:
  - User-centered Design Thinking

UMass Chan MEDICAL SCHOOL

DM-BOOST Approach, Components + Future Directions

KL2 Approach:
1. Community Engagement Studios with Patient Research Expert Panel (PREP)
2. Intervention content development with PREP
3. Usability/Acceptability testing with PREP
4. Randomized Feasibility Pilot (ongoing)

Intervention Components:
1. Mailed Active Choice Invitations + Recruit Call
2. Peer tips + goal-setting nudge text messages
3. Telehealth training + MyChart Message

Pending K01 Proposal:
- Culturally adapt: Spanish-speaking Latinx pts
- BE enhancements: Default Invitation, personalized tips, loss aversion @ telehealth training
- Pilot testing: Acceptability/Usability/Feasibility

Future:
- R01 proposal to test efficacy in English + Spanish
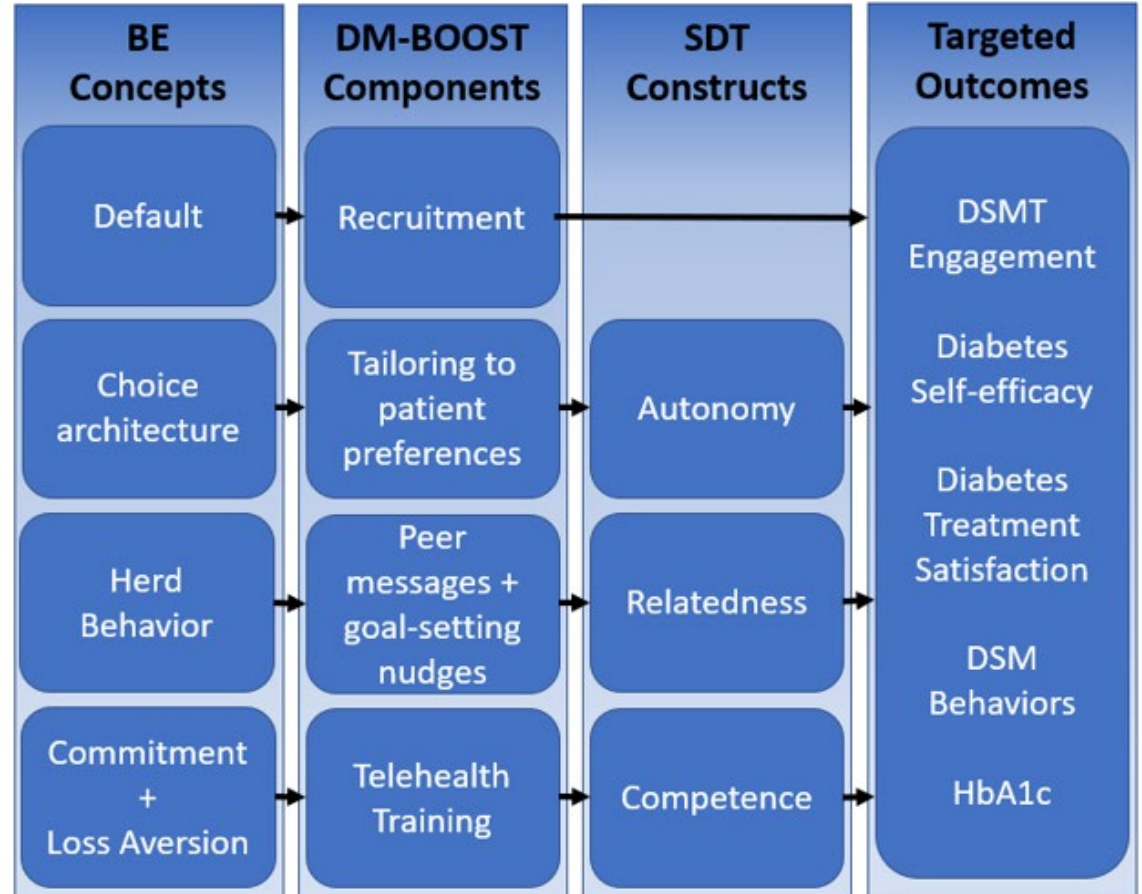
Legend. BE = Behavioral Economics, SDT = Self Determination Theory, DSMT = Diabetes self-management training, DSM = Diabetes self-management, HbA1c = Hemoglobin A1c

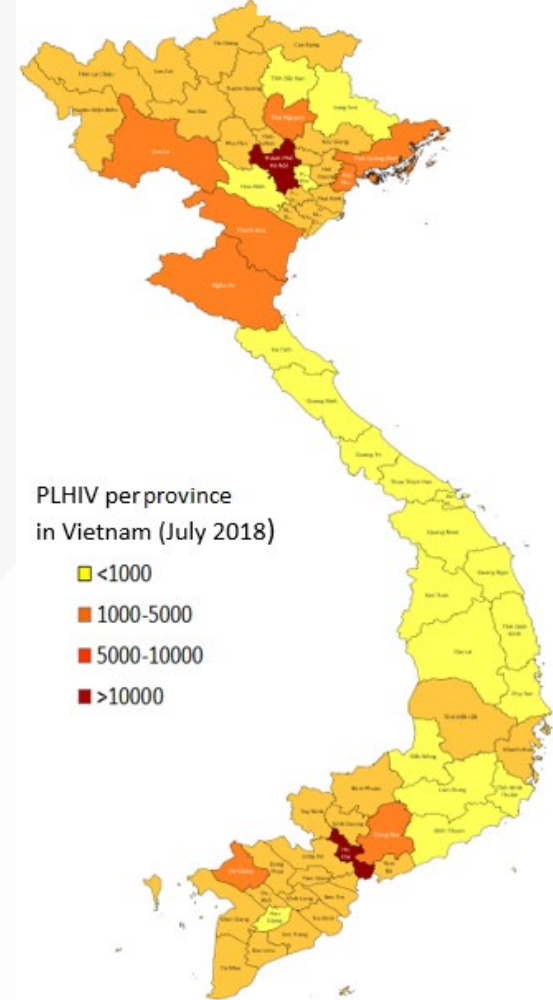# mHealth Messaging to Motivate Quitline Use and Quitting in People living with HIV-PLWH (M2Q2-HIV)

NIH Award #: 1U01CA261604-01

MPIs: **Rajani Sadasivam, PhD** and **Hoa Nguyen, MD, PhD**

UMass Chan
MEDICAL SCHOOL

Smoking in PLWH in Vietnam

- Vietnam has 250,000 PLWH, with 13,000 new infections and 2,800 HIV-related deaths annually

- Smoking is higher among PLWH than general population (men: 60% vs. 42%; women: 3% vs. 2%)

- Intersection between smoking and HIV/AIDS poses a serious public health threat leading to disproportionate suffering and mortality among PLWH

- HIV stigma are highly prevalent and frequently paired with substance use stigma, which are important barriers to quitting

- **Need novel interventions tailored for PLWH in Vietnam to promote smoking cessation and reduce stigma**

PLHIV per province
in Vietnam (July 2018)

- <1000
- 1000-5000
- 5000-10000
- >10000

UMass Chan
MEDICAL SCHOOL

Study Design

- **Setting:** Hai Phong and Quang Ninh provinces in northern Vietnam

- *Aim 1:* Adapt the existing M2Q2 peer messaging, computer-tailored texting intervention for PLWH smokers

- *Aim 2:* Conduct a 2 arm- RCT including 750 PLWH smokers from 26 HIV clinics
  - **Intervention:** Motivational text messages to promote Quitline use, smoking cessation, and reduce HIV related stigma
  - **Comparison group:** Minimal texting
  - **Outcomes:** 6-month verified cessation rate (primary), self-efficacy, QOL, stigma, mental health, and HIV outcomes (viral load, CD4, ART adherence)

- *Aim 3:* Prepare for national dissemination by assessing acceptability and contextual factors using qualitative interviews with key stakeholders and PLWH smokers

- **Capacity Building**

UMass Chan MEDICAL SCHOOL

63
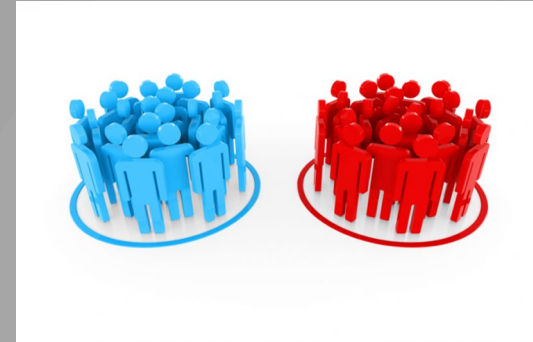
Dissertation Research

Smoking cessation in persons with mental health conditions (MHC): *exploring the role of family and peers*

Catherine S. Nagawa, PhD

Dissertation Work: Background

- Smokers with MHC are interested in quitting, but their quit rate has not increased over the past decade

- Family/peer support is a promising strategy for reducing smoking rates in persons with MHC who smoke

  - Family/peers' influence on health is well established in behavior change
  - Family or close friend/peers are often a principal resource for accessing care

- Knowledge gap: Influence of family and peers' attitudes (and behaviors) on smoking cessation is understudied in smokers with mental health conditions

UMass Chan
MEDICAL SCHOOL

Dissertation Work: Specific Aims

1. Examine associations between family/peer attitudes on tobacco use and smoking cessation

2. Evaluate relationships between family/peer influences and smoking cessation using structural equation models

3. Explore social barriers and facilitators to smoking cessation

Dissertation Work: Findings

Associations between family or peer attitudes on tobacco use and smoking cessation
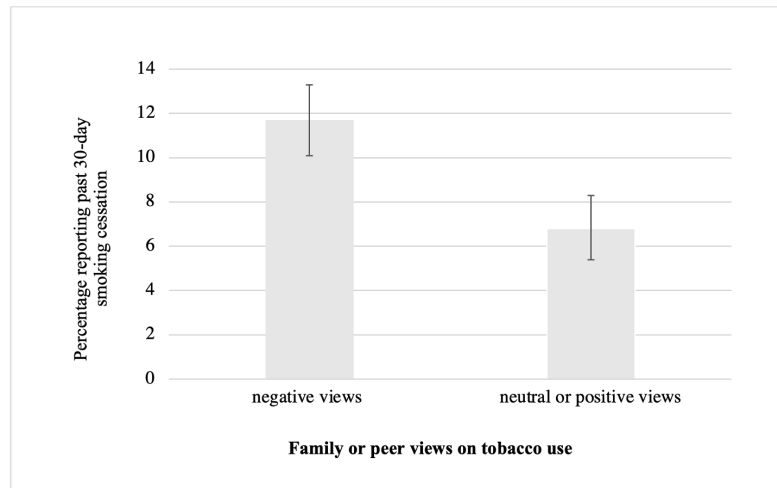
Relationships between family or peer influences and smoking cessation

- Family/peer attitudes on tobacco use → intentions → cessation
- Rules against smoking in the home & non-smoking family/peers → cessation

Social barriers & facilitators to smoking cessation (Aim 3)

1. Level of readiness to quit
2. Family dynamics
3. Insufficient support

UMass Chan
MEDICAL SCHOOL

Learning to Step Outside your Lane: Building VA/UMMS Partnerships

Kristin M. Mattocks, PhD, MPH
Associate Dean for Veterans Affairs
Professor, Population and Quantitative Health Sciences

UMass Chan
MEDICAL SCHOOL

Worcester VA Community Based Outpatient Clinic: A lesson in venturing outside your lane and not giving up

We were all trained as researchers and/or clinicians, but where is your greatest impact?

2013: First draft of "Joint Venture" proposal sent to VA

2015: UCLA baseball stadium stopped progress of Worcester CBOC

2018: Some clinical services moved to 7th floor ACC

2019: Ground-breaking ceremony

July 2020: Promise to Provost Flotte to try to move UMMHC/Optum contract forward

July 2020–October 2021: Work with VA Undersecretary for Community Care and UMMHS

October 2021: UMMHC signs Optum contract

November 2021: Ribbon cutting ceremony

UMass Chan
MEDICAL SCHOOL

UMass Chan Veterans Health Research and Education Fund

- New UMass fund to support research and education focusing on Veterans receiving care at Worcester CBOC

- **Spring 2022:** an RFA will be released that will allow UMMS investigators to apply for pilot funding to examine health/healthcare utilization for Veterans at Worcester CBOC

- Pilot funding amounts to be determined

- UMMS employees may donate to Veterans Health Fund through UMass Chan Cares Campaign: https://umasschancares.org

UMass Chan
MEDICAL SCHOOL

The Solidarity Project

Arlene Ash, PhD

Division of Biostatistics and Health Services Research

JANUARY 11, 2022 | PQHS STATE OF THE DEPARTMENT ADDRESS

UMass Chan
MEDICAL SCHOOL

PQHS seeks ways to support our workers, encourage collaboration, and improve morale

- The pandemic has changed our lives…
  productivity is up, but so are isolation and burnout
  … the new "normal" will be different

- We must adapt to thrive
  - "Pause weeks" - to concentrate on creativity and catch up on important looming tasks
  - Funding for (employee initiated) training ideas
  - New ideas welcome

Social Solidarity (how we feel connected and united with one another and to the society as whole) **is key**!

UMass Chan
MEDICAL SCHOOL

The Solidarity Project

- Hypothesis: Social solidarity → improves happiness and productivity
- Methods:
  - Identify ideas for improving connections among faculty, staff, administrators
  - Pilot promising interventions, generate feedback and improve them
  - Longer term: Seek funding to test and disseminate successful interventions
- First step
  - Gift cards for all staff (funded by senior faculty)
- Second step, coming in the spring
  - Gift cards for taking someone you haven't socialized with before out for a "coffee"—to learn a little about each others' lives (COVID permitting) with foundation funding
- Seeking volunteers to plan Solidarity Project activities

"If you have a strong purpose in life, you don't have to be pushed. Your passion will drive you there."

—ROY T. BENNETT, THE LIGHT IN THE HEART

"Leadership is not about titles, positions or flowcharts. It is about one life influencing another."

—JOHN MAXWELL

UMass Chan
MEDICAL SCHOOL