Climate Change Fluency as a Competency for Future Healthcare Leaders

AUPHA Webinar
January 17, 2023

Ryan Armbruster, M.H.A.
Senior Fellow and Director
MHA Executive Studies
School of Public Health
University of Minnesota

Santosh Basapur, Ph.D.
Assistant Professor, Department of Family Medicine, Rush Medical College & Director of Design
Rush University

Richard Hirth, Ph.D.
S.J. Axelrod Collegiate Professor of Health Management and Policy
University of Michigan

Robert Malte, M.H.A.
Clinical Associate Professor & Practitioner-in-Residence,
MHA Program
University of Washington

Chat Question

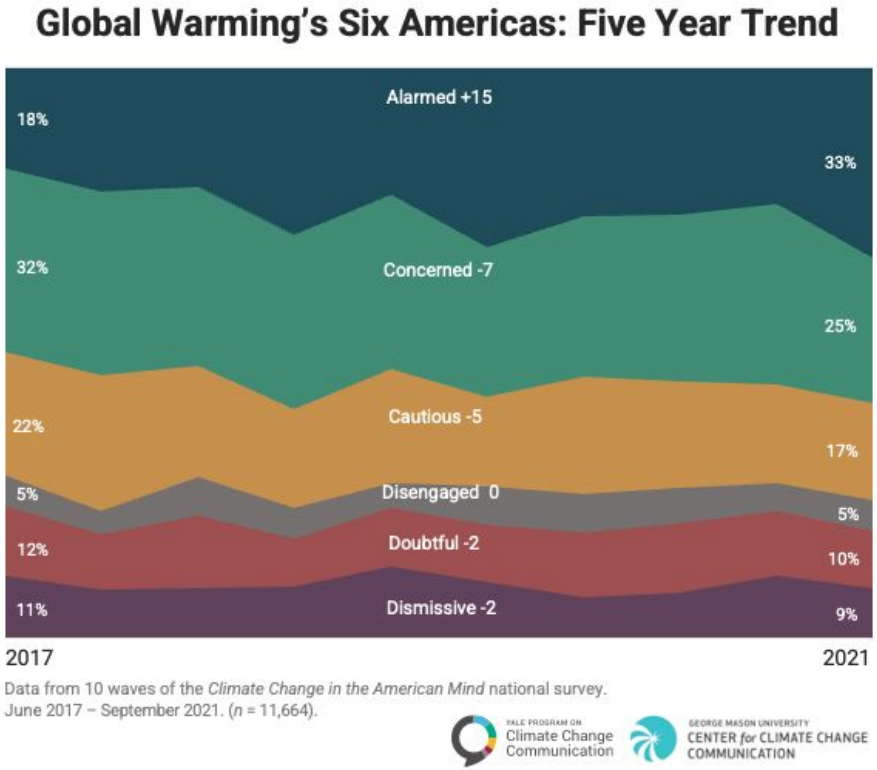
How is Climate Change affecting you where you live?

‘Six Americas’ Survey

Alarmed - most engaged, very worried, strongly support climate action.
Concerned - see climate change as a significant threat, but prioritize it less and are less likely to be taking action.

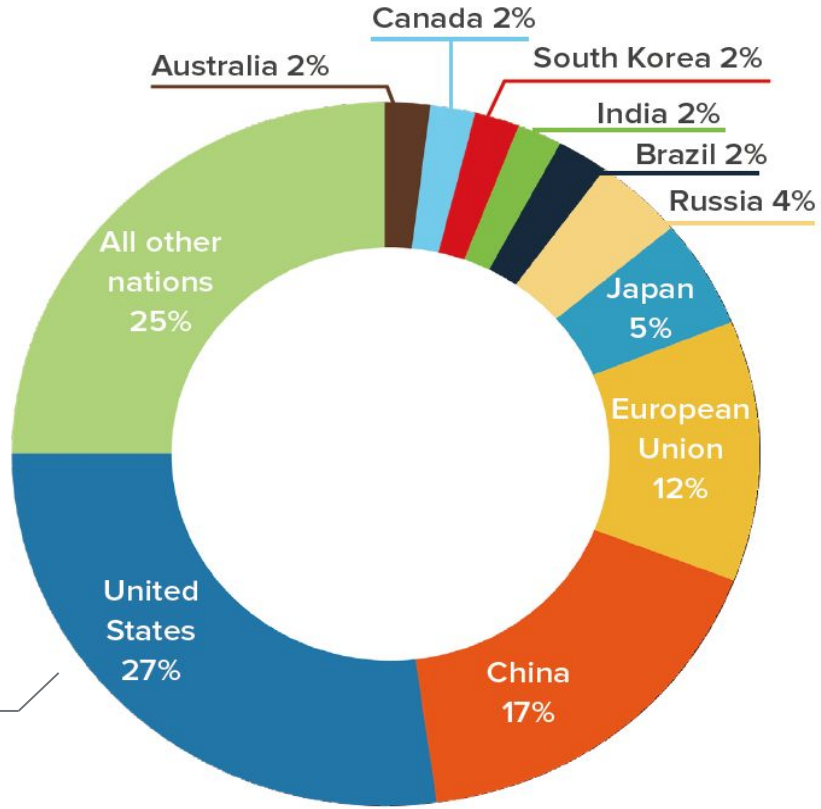
Cautious - aware of climate change but are uncertain it is human caused and/or are not very worried about it.
Disengaged - largely unaware of global warming.
Doubtful doubt it is happening or is human-caused, and perceive it as a low risk.

Dismissive - firmly reject / openly hostile toward any suggestion of human-caused global warming.



https://climatecommunication.yale.edu/publications/global-warmings-six-americas-september-2021/

Health Care Sector GHG Emissions by Country



7.6% of national footprint

- Equivalent to 141 coal-fired power plants
- Would be 13th largest emitter as a country

"Health Care's Climate Footprint" Health Care Without Harm, Climate-smart health care series, Green Paper Number One in collaboration with Arup. Sept. 2019.

The medical research community now fully recognizes climate change, as the “greatest threat” to global public health, according to an unprecedented joint statement in September 2021 by more than 200 medical journals.

“The health sector, whose mission is protecting and promoting human health, makes a major contribution to the climate crisis - the greatest health threat of the 21st century - and therefore has an important role to play in resolving it.”

“Health Care’s Climate Footprint” Health Care Without Harm, Climate-smart health care series, Green Paper Number One in collaboration with Arup. Sept. 2019.

No longer can we ignore the unbreakable connection between the health of our planet and the health of our people. As health care leaders, we have a responsibility to protect our patients and the communities we serve from the health impacts of climate change. Caring for Earth is part of caring for the people who rely on us.

— Lloyd H. Dean, CEO, CommonSpirit Health

Medical Schools are quickly adding required courses on the health effects of climate change to their curricula.

Table 5
Number and percentage of U.S. MD-granting medical schools including the health effects of climate change as a topic in required preclerkship and clerkship courses, 2019-2020 to 2021-2022 academic years

Academic year	Number of schools with required courses	Number of schools participating in survey	Percentage of schools with required courses
2019-2020	41	153	27%
2020-2021	60	155	38%
2021-2022	86	155	55%

Mallon WT, Cox N. Climate Action in Academic Medicine: An Overview of How Medical Schools and Teaching Hospitals and Health Systems Are Responding to Climate Change. Washington, DC: AAMC; 2022.

The University of Washington Health Management & Informatics Program

AUPHA Presentation-January, 2023

Robert Malte MBA

Clinical Associate Professor

MASTER OF HEALTH ADMINISTRATION
UNIVERSITY of WASHINGTON

The University of Washington
Masters in Health Administration Program

MHA

The in-residence MHA program equips early career professionals with the leadership skills needed to launch careers in health administration.

Weekly in-person courses are held on the UW Seattle campus. The program is offered over two academic years with students completing a paid internship during the summer.

STUDENT DEMOGRAPHICS

Underrepresented minorities: **20%**

Women: **68%**

Men **32%**

MATRICULATED STUDENTS: 60 in 2 cohorts

GRADUATION RATE: 100%

EMPLOYMENT RATE: 94% working within 3 months of graduation

EMHA

The Executive MHA program equips mid-career health services professionals with the business and management skills to advance into leadership roles and help their organizations deliver better patient care.

Classes meet face-to-face, once a month, Thursday- Saturday and via webinar between onsite sessions. Students complete the program in eight consecutive quarters with most continuing to work through the duration of their studies.

STUDENT DEMOGRAPHICS

Underrepresented minorities: **12%**

Women: **63%**

Men: **35%**

MATRICULATED STUDENTS: 50 in 2 cohorts

GRADUATION RATE: 100%

STUDENT EMPLOYMENT RATE: 100%

27 **FACULTY**

1,774 **ALUMNI**

The University of Washington Undergraduate and Graduate Programs in Health Informatics and Health Information Management

BS in HIHIM

Health Information Management: The practice of acquiring, analyzing, and protecting digital and traditional medical information vital to providing quality patient care and optimizing business decisions. It is a combination of business, science, the law, and information technology.

Classes meet twice a week in the evenings on the UW Seattle campus, with additional class material provided online in an asynchronous format. The program is offered over two academic years with students completing a Capstone project in their final quarter.

STUDENT DEMOGRAPHICS
Underrepresented populations: 88%
Women: 82% Men: 18%
Matriculated Students: 90 in two cohorts
Graduation Rate: 100%
Employment rate: 100% employed within 1 year of graduation

MHIHIM

Health Informatics: An interdisciplinary field of study that utilizes technology to organize, analyze, manage, and use information to improve healthcare. Its chief goals are to develop standards and clinical care guidelines that enhance electronic health records by facilitating information management.

Classes meet face-to-face or virtually, once a month, Thursday – Saturday and via webinar between onsite sessions. Students complete the program in six consecutive quarters with many continuing to work through the duration of their studies. Students complete a Capstone project in their final quarter.

STUDENT DEMOGRAPHICS
Underrepresented populations: 68%
Women: 68% Men: 32%
Matriculated Students: 40 in two cohorts
Graduation Rate: 98%
Employment rate: 100% employed within 1 year of graduation

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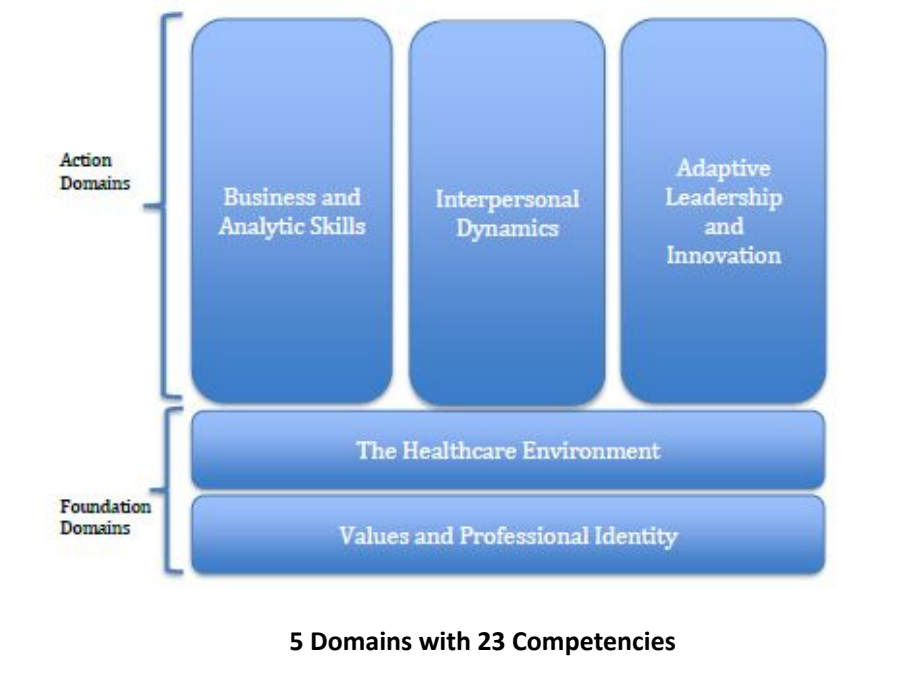
The University of Washington
MHA Competency Model & Climate Change



5 Domains with 23 Competencies

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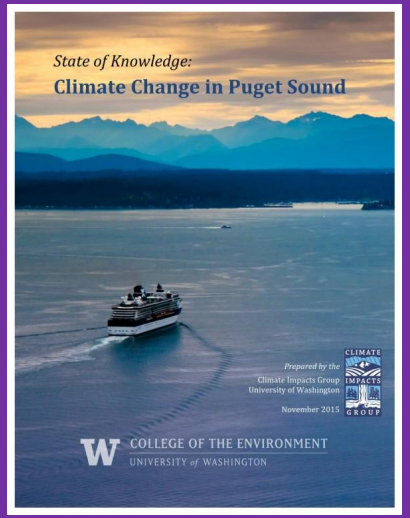
The University of Washington MHA Climate Change Journey



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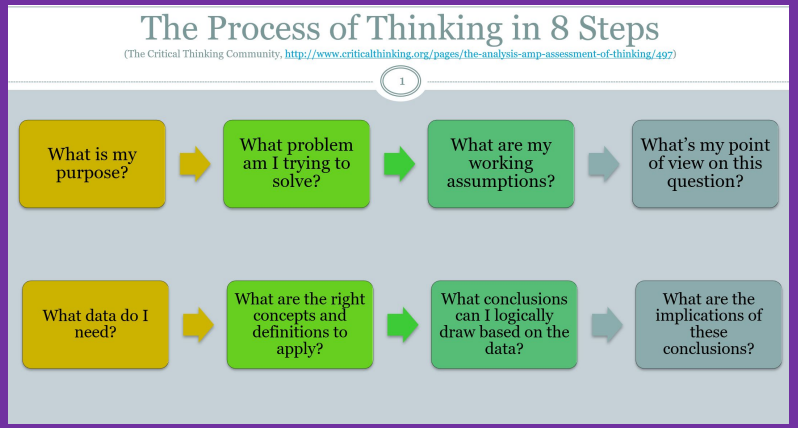
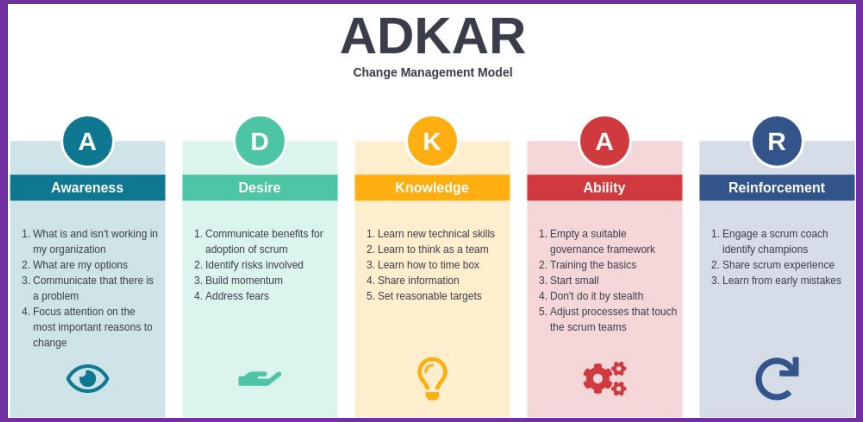
“Practicing What We Preach”





What Problem Am I (We) Trying to Solve?

Purpose:

- Prepare our students to lead
- Prepare our students to address difficult issues-not “admire” them

Problem:

- Should climate change be elevated in our curriculum?
- If so, how?
- If so, what and where?
- Happening in the midst of the COVID Pandemic (and an Accreditation Year)

Assumptions:

- Climate change is a “clear and present danger”
- Other members of the faculty agree
- Students really want this-vs. a few
- Our community partners want this

Collateral Beauty

VCU, UW, UMN, Rush, Xavier, Johns Hopkins

https://nhaccleadership.wixsite.com/nhacc

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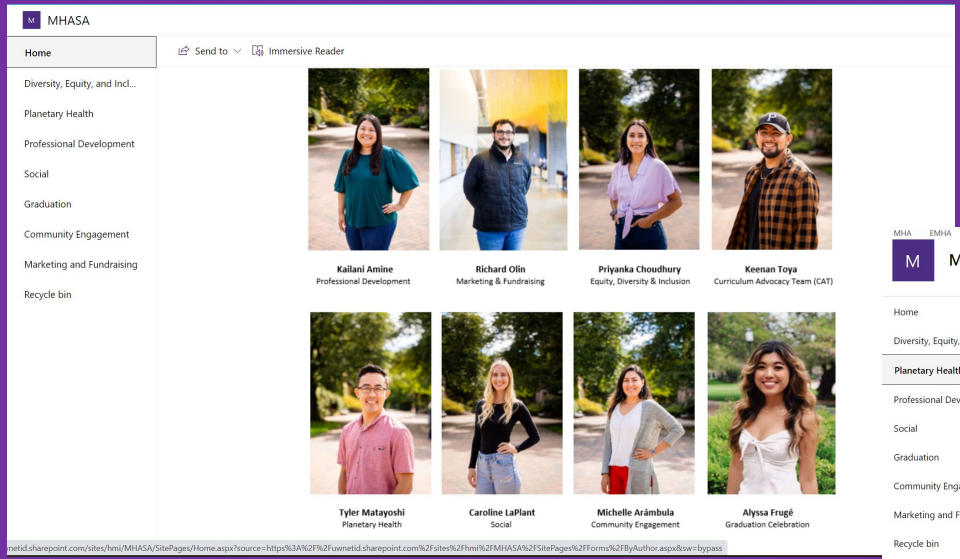
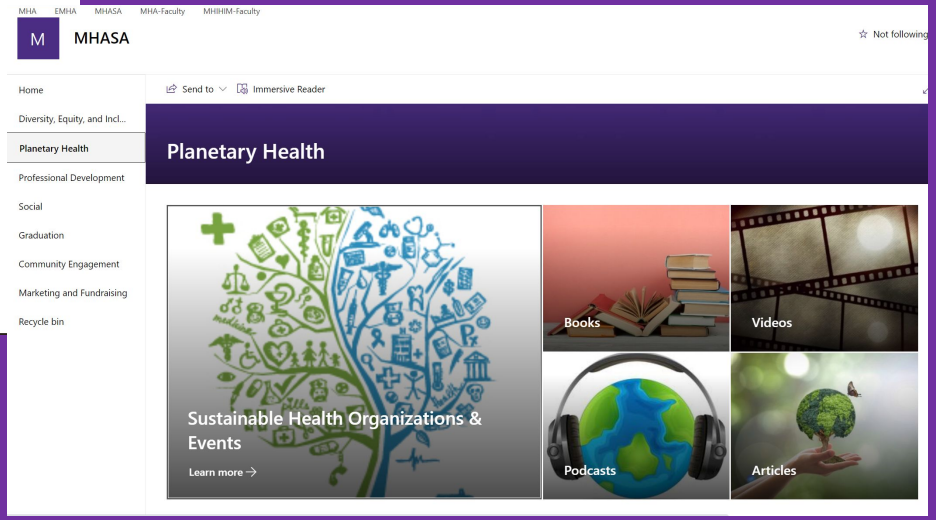
MHA Student Association-Planetary Health





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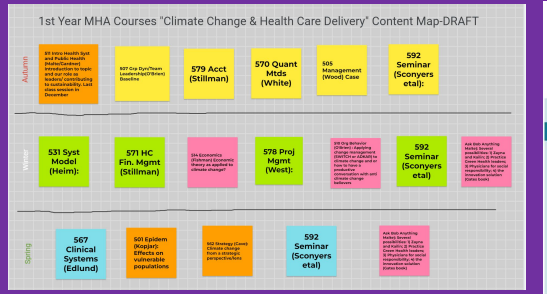
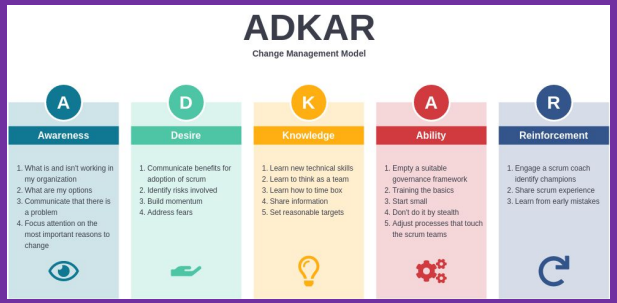
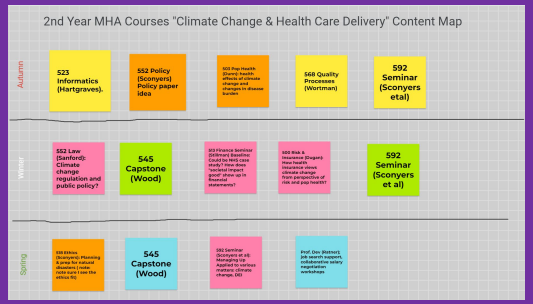
Change Management

- In a fee-based program, without electives, adding a new course is ~~difficult~~ close to impossible
- Led to a series of faculty discussions about the alternative approaches.
  - A new course?
  - Imbedded into many courses?
- Led to a planned faculty meeting “Jam Board” “test of concept” session Summer 2021
- Created a “project charter” and “project plan”

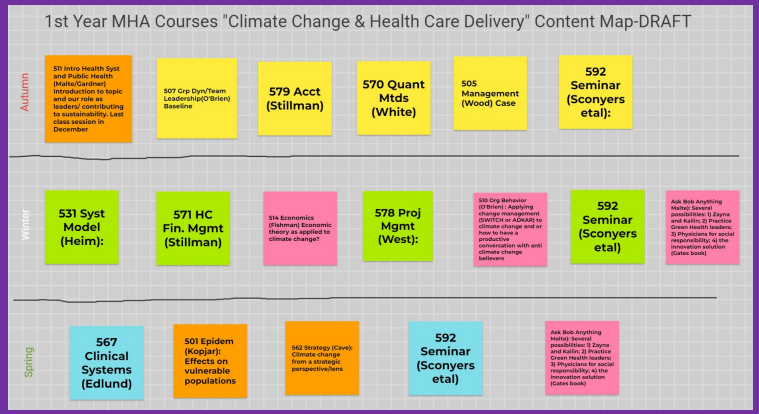




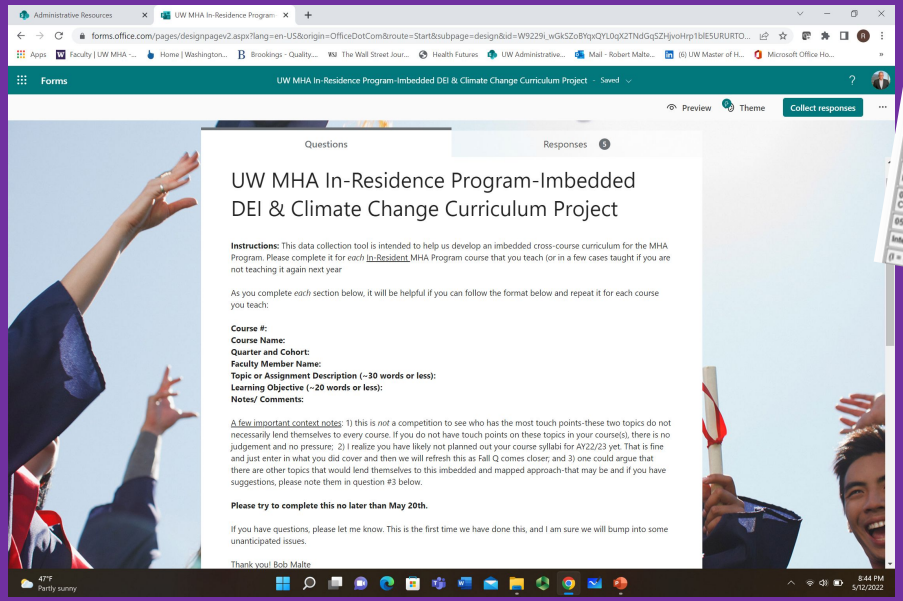


Conclusions

- Advance the concept of an “imbedded” climate change/planetary health curriculum across many courses
- Implement Fall Quarter, 2022
- Education Committee Oversight
- Design Properties:
  - Optional
  - Faculty and Student Co-Designed
  - Transparent and Prospective
  - Agile
  - Evolving
- Connecting it purposely to our Competency Model



Work in Progress, 2022



MASTER OF HEALTH ADMINISTRATION
UNIVERSITY of WASHINGTON

Version 1.1 2023

PROGRAM IN HEALTH MANAGEMENT & INFORMATICS
UNIVERSITY of WASHINGTON

University of Washington In-Residence MHA Program: Imbedded DEI/Anti Racism and Climate Change/Planetary Health Curriculums Syllabus: AY 22-23 (Updated 12/2022)

October 18, 2022

Dear UW MHA Degree Candidates,

You will face many significant and challenging issues in your career in healthcare delivery and improving health outcomes. Some will be long-standing; others will be new. Some will be systemic and fundamental, others will be highly specific to your time, place and setting. Some will come and some will go, and then come back again. Our goal in the MHA Program is to prepare you to manage and lead through and find solutions to these challenges, those facing us now and the new ones that will arise during your career.

Your UW MHA faculty, with student input, have identified two challenges that especially rise to the top as among the most urgent and critical issues of our times- Planetary Health/Climate Change and DEI/Anti Racism.

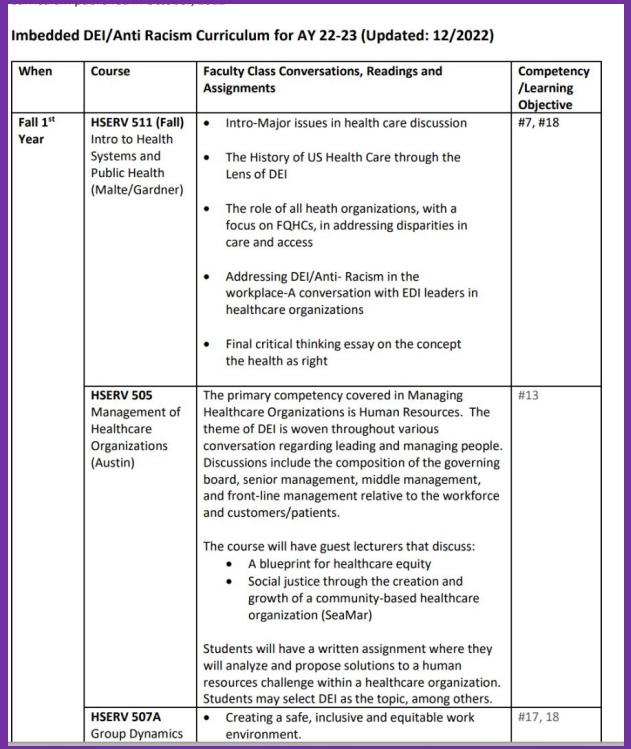
The UW MHA Program curriculum, and the associated leadership competencies we teach, are intended to provide our graduates with the requisite awareness, desire, knowledge, ability, skills and resilience to make significant advances in these two, and interconnected, critical health issues during their careers and involvement in their communities.

The MHA faculty and the MHASA Curriculum Committee collaborated during the Summer of 2022 to create the imbedded curriculum described below that prospectively maps where the topics of climate change and DEI are specifically discussed across the various courses taught during the two-year MHA program. They include courses in health delivery & public health, management, organizational behavior, group dynamics, systems modeling, professional responsibility, informatics, policy, ethics, law, quantitative methods, project management and quality management.

Like any "first version' of something, we recognize that this is a good but imperfect starting point in an ongoing journey of developing leaders in health and health care. We hope and expect that subsequent versions of this imbedded curriculum will continually improve and grow.
We hope that this work helps all of us have a more intentional, transparent and prospective understanding of how this preparation will unfold.

Respectfully shared and submitted,

Robert Malte, Clinical Associate Professor, on Behalf of the MHA Faculty and The HMI Education

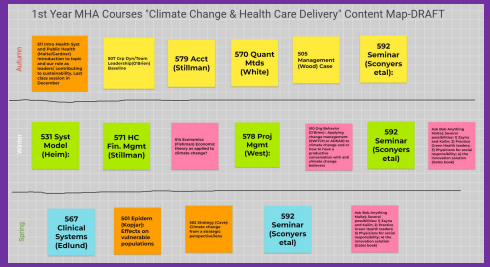


Imbedded DEI/Anti Racism Curriculum for AY 22-23 (Updated: 12/2022)

When	Course	Faculty Class Conversations, Readings and Assignments	Competency /Learning Objective
Fall 1st Year	**HSERV 511 (Fall)** Intro to Health Systems and Public Health (Malte/Gardner)	• Intro-Major issues in health care discussion • The History of US Health Care through the Lens of DEI • The role of all heath organizations, with a focus on FQHCs, in addressing disparities in care and access • Addressing DEI/Anti- Racism in the workplace-A conversation with EDI leaders in healthcare organizations • Final critical thinking essay on the concept the health as right	#7, #18
	HSERV 505 Management of Healthcare Organizations (Austin)	The primary competency covered in Managing Healthcare Organizations is Human Resources. The theme of DEI is woven throughout various conversation regarding leading and managing people. Discussions include the composition of the governing board, senior management, middle management, and front-line management relative to the workforce and customers/patients. The course will have guest lecturers that discuss: • A blueprint for healthcare equity • Social justice through the creation and growth of a community-based healthcare organization (SeaMar) Students will have a written assignment where they will analyze and propose solutions to a human resources challenge within a healthcare organization. Students may select DEI as the topic, among others.	#13
	HSERV 507A Group Dynamics	• Creating a safe, inclusive and equitable work environment.	#17, 18

Examples of Imbedded Courses

- 511 Year 1: Introduction to Health Systems and Public Health
- 523 Year 1: Informatics in Health Care Management
- 592 Year 1 and 2: Professional Identity and Responsibility
- 514 Year 1: Economics
- 510 Year 1: Org Behavior
- 578 Year 1: Project Management
- 501 Year 1: Epidemiology
- 503 Year 2: Population Health
- 581 Year 2: Ethical Issues in Healthcare



SCHOOL OF PUBLIC HEALTH
HEALTH MANAGEMENT & POLICY
UNIVERSITY OF MICHIGAN

Climate Change & the Health Care System Elective

Richard Hirth, PhD
University of Michigan

Context:
UM's Residential Masters Programs

- Combined cohort including both MHSA and MPH degrees
  - 60-65 students with variety of interests and career objectives
  - Overlapping core curriculum with several required courses distinguishing the degrees
  - Room for electives, particularly in 2nd year

Demand for Climate Course

- Student survey showed interest in several subtopics
  - Impacts of climate change on health (4.33/5), social justice (4.28), resiliency/preparedness of the health care system (4.17) and health care system's carbon footprint and sustainability (3.78)
- Student comments:
  - I strongly feel this is a challenge healthcare leaders currently in school will have to grapple with for the entirety of their careers.
  - HMP needs more policy courses and more varied classes about social determinants, equity, and interdisciplinary studies. A course on climate change would be a great addition to the curriculum. The curriculum must stay current.
  - I'd prefer if the class wasn't too depressing. Climate change discussion tends to emphasize how powerless we are to stop what's coming, and that kind of talk really wears you down.
- First offering this term
  - Class filled (25 slots)
  - Great willingness of guest speakers to participate

Challenges

- Faculty feel like we are supposed to be experts, teaching in our areas of expertise
- Most HMP programs have no faculty with climate expertise
- Field is rapidly becoming engaged
  - Health Affairs special issue (2020)
  - NAM initiative on sustainability of healthcare system (2021)
  - New HHS Office of Climate Change and Health Equity (2021)
  - AHRQ report on measures for health care organizations to mitigate climate change (2022)
  - AUPHA session (2022)

Why Me???

- Health economist with no academic background in climate issues
- Personal interest led to a desire to do “something” about climate change
- Conversations with others at UM working on climate and sustainability issues but without a healthcare focus left me feeling like, yeah, I could do this if I retired
- Found that Andy Garman from Rush shared my interest and was doing something about it in a peer department. Built contacts from there and realized I didn’t need to quit my day job!

Course structure

- 7 2-hour sessions, 6 with external guests
- 3 background sessions covering climate science, climate and health, and environmental justice
  - Needed to allow students to engage with implications for the health care system
- 4 sessions on health care system
  - How the health care system can respond effectively to the impacts of climate change on the populations it serves
  - How it can reduce its own footprint
  - How policy can support, encourage, or mandate these changes
- A lot of ground to cover in a one credit course!

Common Themes

- The programs represented here each have a champion who believes it is important to take this on despite nobody asking them to do it
- That champion didn’t arrive with climate as a primary professional or academic competency
- Structural features of the programs dictate variations in approaches (elective vs. curriculum wide, leadership/policy balance, project/hands on orientation)
- The community may not yet be large, but it is highly collaborative

RUSH UNIVERSITY

Planetary health education for future healthcare leaders

Santosh Basapur

AUPHA

About Rush University

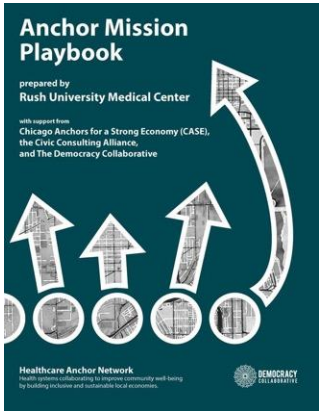
Integrated within Rush University Medical Center in Chicago, IL

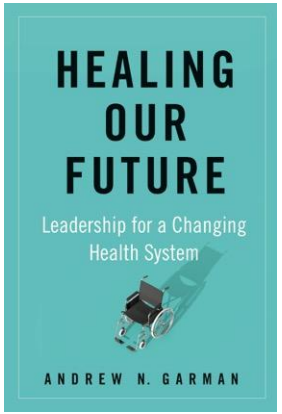
Offers more than 40 degree and certificate programs across medicine, nursing, allied health and biomedical research

History of pioneering work in anchor mission / community health

MS-HSM programs:

- Full-time residential: Students work half-time in positions throughout RUSH during their first year
- Part-time: RUMC covers tuition costs for full-time employees
- Executive track (new): working-adult students from a variety of for-profit and non-profit organizations





Background

~250,000 additional deaths per year, by 2050

President Biden identified climate change as the "number one issue facing humanity"

Health systems, direct contributors to challenges

Dept. of HHS requested that healthcare providers match the decarbonization goals (HHS, 2022)

Success will require widespread involvement of healthcare managers and colleagues

Planetary health principles are yet to find way into core curricula of the health professions

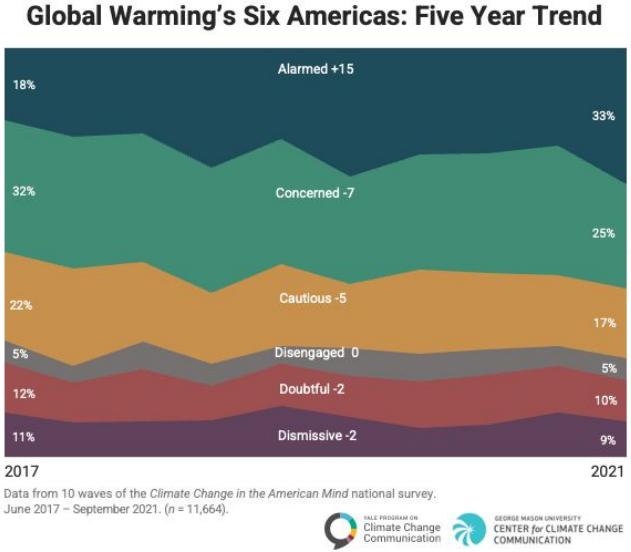
The Need

Students at Rush University are acutely aware of the need to mitigate climate change

Faculty keen on trying new approaches and interdisciplinary methods

Availability of in-house Human Centered Design expertise

Primary stakeholder, Sustainability Manager wanted to scale the team's efforts



"You are not mature enough to tell it like it is. Even that burden you leave to us children" (Thunberg, 2018).

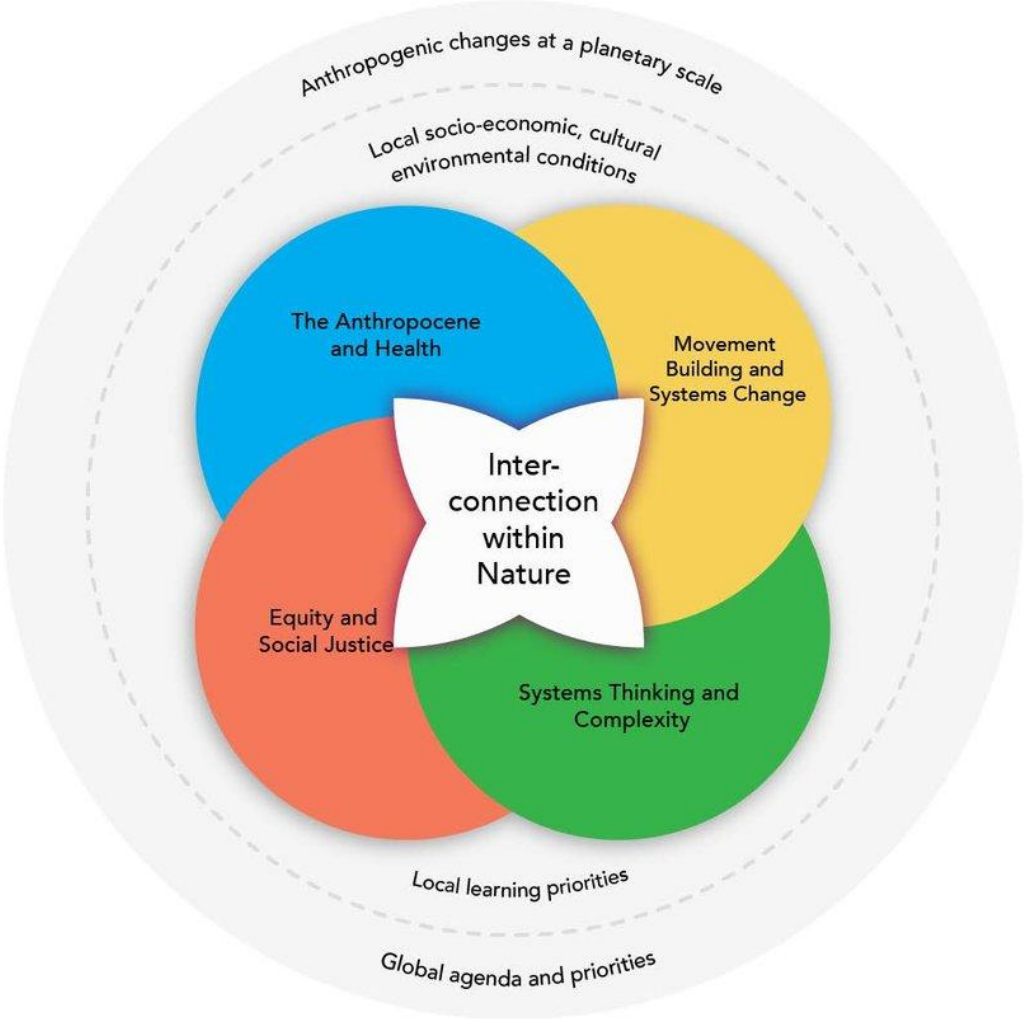
The Course

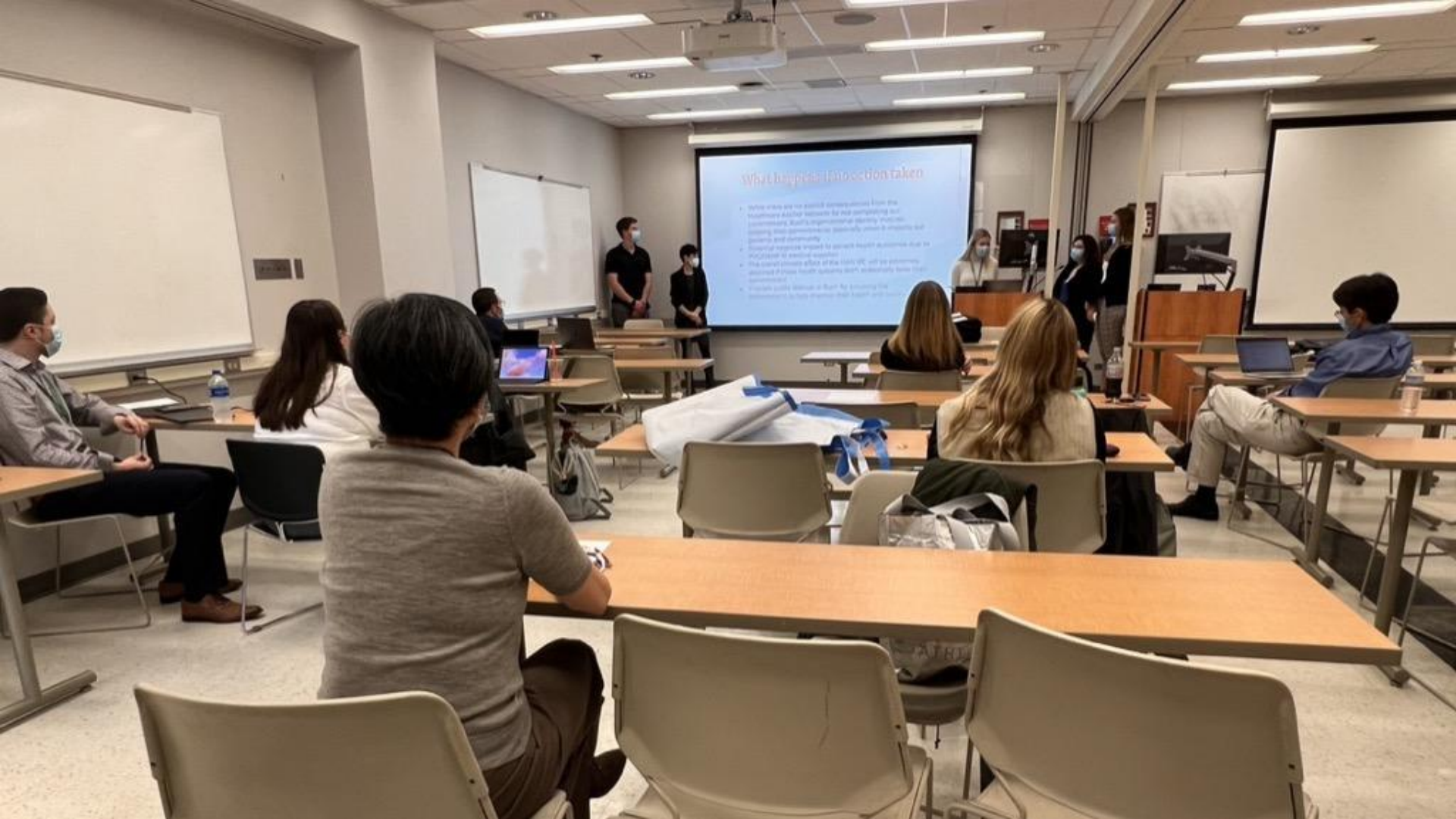
Interdisciplinary faculty **designed** an elective course

Better equip future **healthcare managers** and their allied health colleagues

Planetary Health Education Framework as the foundation

\+ **Project based learning** for interdisciplinary student teams engage in design thinking and innovation




What happened? Intervention taken

Projects identification process

- Reducing PVC/DEHP in medical products
- Reducing bedside waste
- Food waste reduction through composting

+

"Long-list" identified by Rush Sustainability Manager (Ian Hughes)

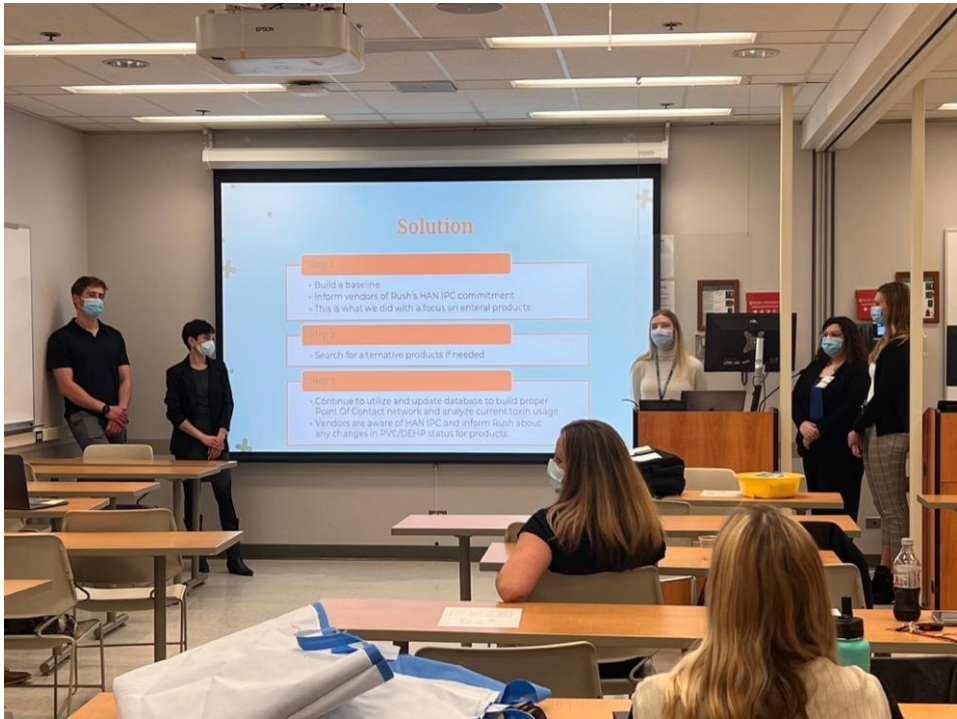
Filtered based on learning criteria developed by course faculty (Basapur & Garman)

Prioritization (ranking) by each student

Final Selection / staffing

Two projects came out of the course

- Reducing PVC/DEHP in medical products
- Reducing bedside waste



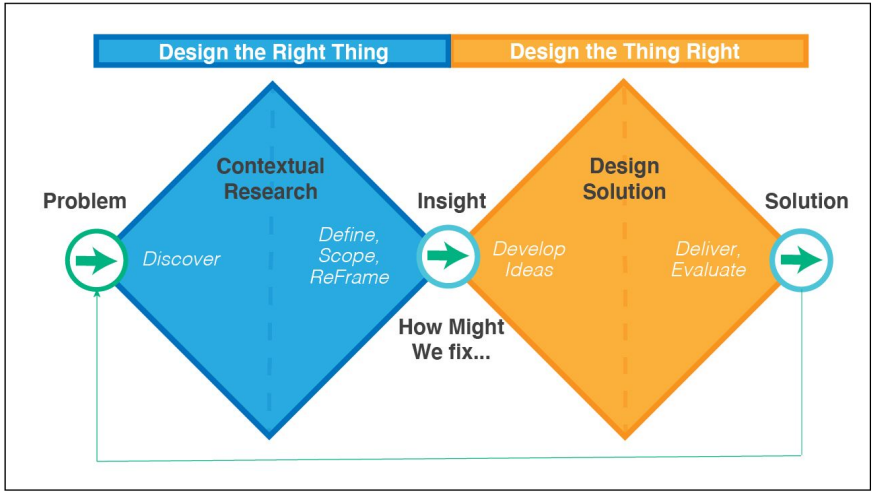
HCD as how…

HCD as an approach for “how to” address complex systemic issues

Design thinking as a means to improved Stakeholder involvement and innovation

Secondly, HCD for critical problem-solving and leadership abilities

HCD as an enabling mechanism to learn collaborative interdisciplinary



Positive preliminary outcomes…

Meaningful impact on commitment
for a majority of students

Student responses for “Excellent Course” averaged 4.8

Qualitative Feedback was positive, with many additional suggestions for more integration and transdisciplinary approaches

Human-centered design approach’s greater emphasis on iterative process worked

“This should be mandatory for all students in all disciplines.

This was the most useful information in regards to my future that I learned, and I wish I could've spent more semesters in the class.”

(Quoted from student course evaluations)

Course evaluation data were collected from students via the Anthology evaluation system

Now, what?

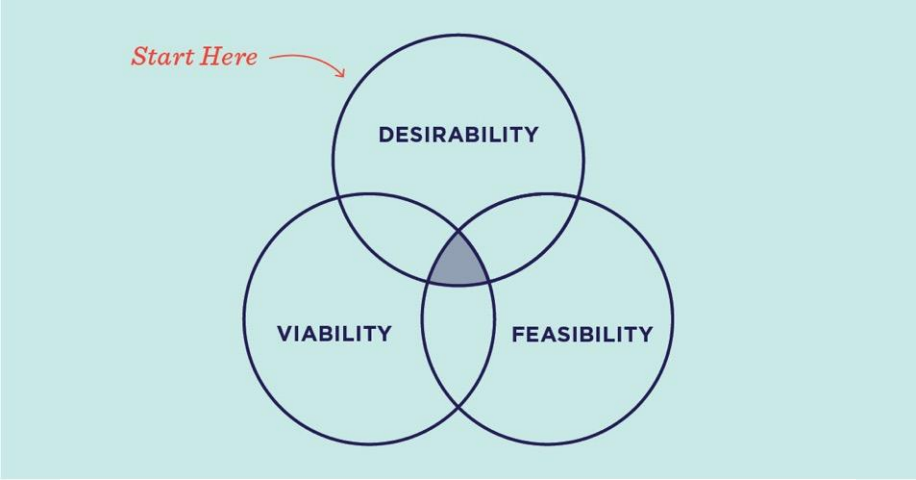
Right time to **mobilize student energy** and create **movement**

Innovative approaches needed to make system change happen

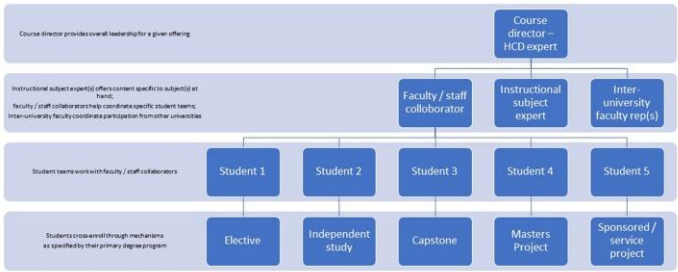
Nidus for Interdisciplinary courses to **break down silos** of traditional structures

\+

New Human centered design-based curricula to **help leaders think out the box**



Conceptual model – education delivery platform



Applications
of Human-Centered Design to
Planetary Health and Sustainability

Thank you!

For comments or discussion:

Santosh Basapur

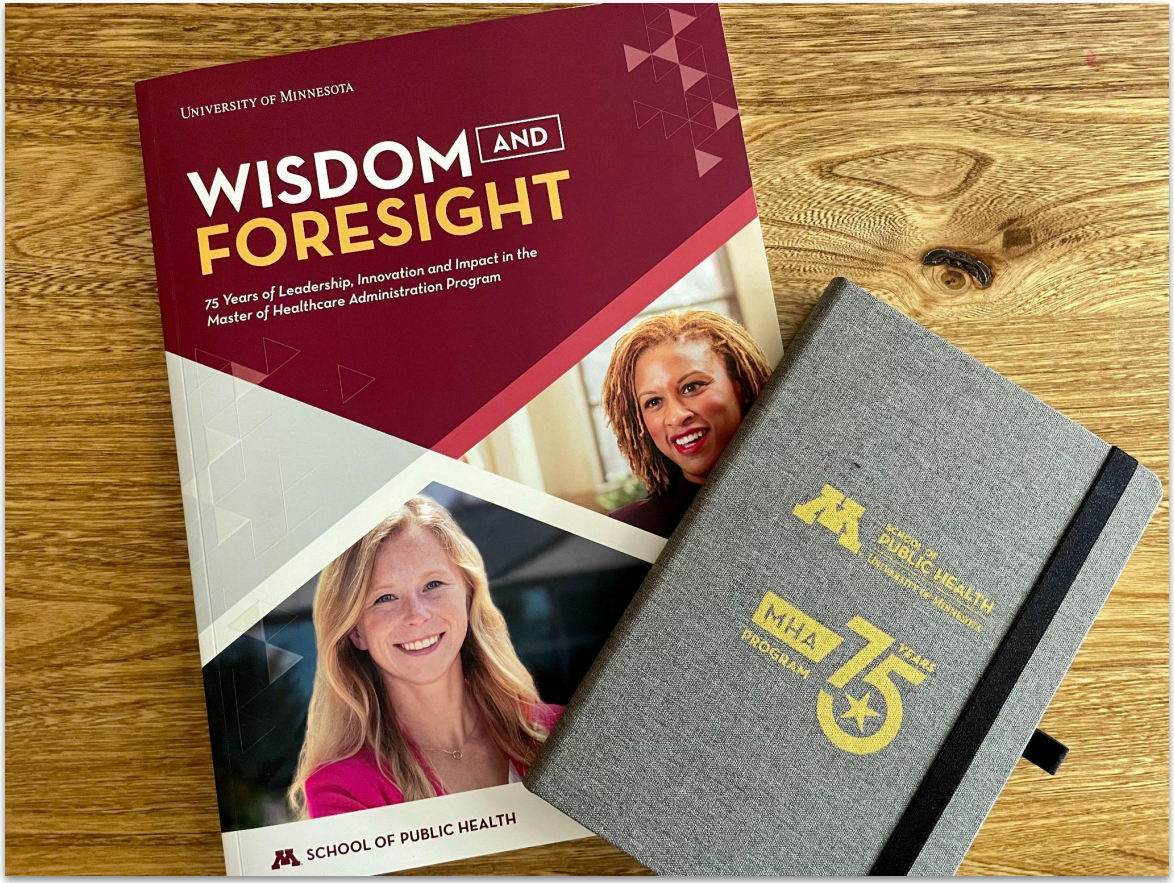
Santosh_Basapur@rush.edu

Leadership Coursework on Climate Change and Healthcare Organizations

Ryan Armbruster, MHA

SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF MINNESOTA
MHA PROGRAM 75 YEARS

MHA PROGRAM 75 YEARS
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF MINNESOTA
HEALTHCARE LEADERSHIP SYMPOSIUM
May 6, 2022
8:00 a.m. - 6:00 p.m.
Graduate Hotel, Minneapolis


UNIVERSITY OF MINNESOTA
WISDOM AND FORESIGHT
75 Years of Leadership, Innovation and Impact in the Master of Healthcare Administration Program
SCHOOL OF PUBLIC HEALTH
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF MINNESOTA
MHA PROGRAM 75 YEARS

MHA Program

MHA

Residential

Executive

Management Certificate

Core Credits (8)

Elective Credits (4)

MHA Experiential Learning and Engagement

Over the past year…

150+ Alumni & Industry Volunteers

175+ Organizations Represented

10 Case Competitions… **4** First Places

19 Problem Solving Field Teams

50%+ Involved in Extracurriculars

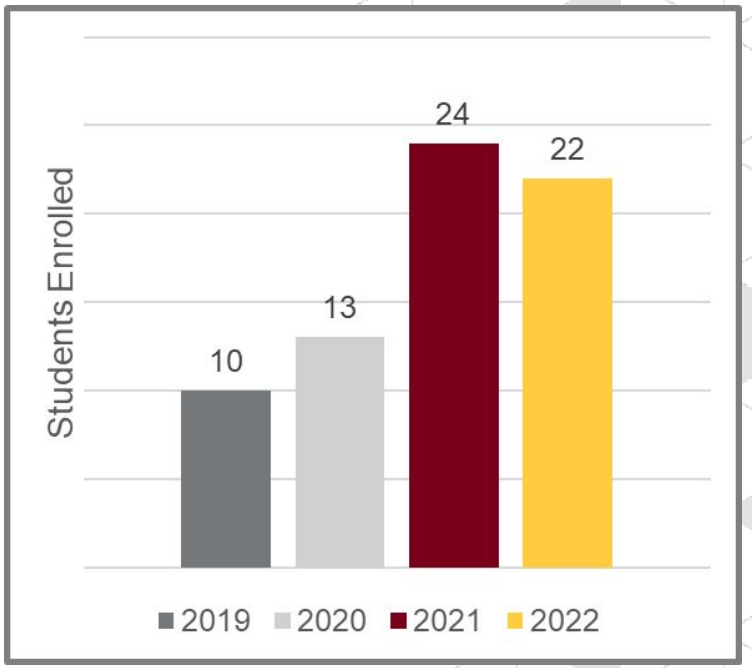
…and so much more!

Minnesota MHA Program and Climate Change

Created and delivered a 1-credit course beginning in 2019 titled "*Climate Change and Healthcare Organizations*"

Offered as an elective to MHA and other health profession students

Applies toward School of Public Health Graduate Minor in Climate Change and Health



Course Overview

“Climate Change and Healthcare Organizations”

Course Competencies

Learning Objectives

1. Explain the scientific basis of the causes of global warming and climate change
2. Describe the principal impacts of climate change on health
3. Assess the capacity of healthcare organizations to address the current and future health impacts of climate change
4. Identify ways that healthcare organizations, leaders and professionals can play a role in climate change mitigation

CEPH Knowledge Domains

1. Explain effects of environmental factors on a population's health
2. Explain the social, political, and economic determinants of health to population health and health inequities.
3. Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., 1Health).

NCHL Leadership Competencies

1. Community Collaboration
2. Process Improvement, Quality Improvement, and Operations Management
3. Innovation
4. Strategic orientation
5. Professional and social responsibility

Course Topics

Climate Change and Human Health Fundamentals

The Role and Responsibility of the Healthcare Industry and Organizations as Contributors to Climate Change

The Impact on Healthcare Organizations

- Changing Disease Burden
- Natural Disasters and Emergency Preparedness
- Impact on Vulnerable Populations
- Environmental Sustainability

Healthcare Organization Action Planning

Course Assignments

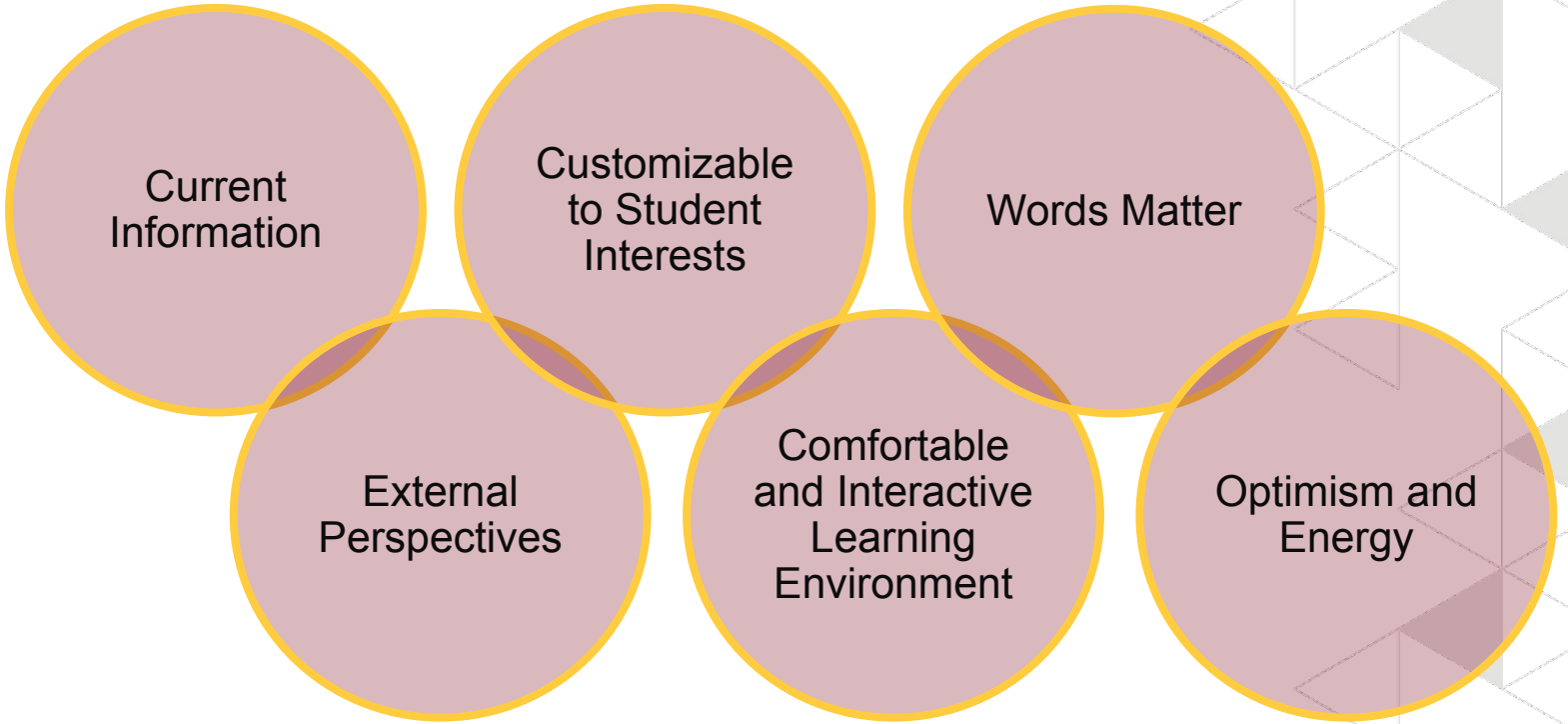
Students identify an organization and use it for numerous assignments across the course

This includes speaking to someone at the organization about their climate and sustainability strategies, actions and culture

This culminates in a final paper where students identify the biggest opportunity for that organization to make an impact along with a proposed plan to do so

What Have We Learned?

What Makes a Good Climate Change Course?



Thank You

Ryan Armbruster, MHA
armb0001@umn.edu

SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF MINNESOTA

MHA PROGRAM 75 YEARS

‘Six Americas’ Survey – Webinar Cohort

[Participant composite will be inserted here]

Questions and Comments

Ongoing Discussion and Further Resources

Join the AUPHA Healthcare Sustainability Discussion Group via the AUPHA website

Thank You!

Climate Change Fluency as a Competency for Future Healthcare Leaders

AUPHA Webinar
January 17, 2023

Ryan Armbruster, M.H.A.
Senior Fellow and Director,
MHA Executive Studies
School of Public Health
University of Minnesota
armb0001@umn.edu

Santosh Basopur, Ph.D.
Assistant Professor, Department of Family Medicine, Rush Medical College &
Director of Design
Rush University
santosh_basapur@rush.edu

Richard Hirth, Ph.D.
University of Michigan
S.J. Axelrod Collegiate Professor of Health Management and Policy
University of Michigan
rhirth@umich.edu

Robert Malte, M.H.A.
Clinical Associate Professor &
Practitioner-in-Residence
University of Washington
MHA Program
rhmalte7@uw.edu