Climate Change Fluency as a Competency for Future Healthcare Leaders

AUPHA Webinar
January 17, 2023

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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.
7.6% of national footprint
- Equivalent to 141 coal-fired power plants
- Would be 13th largest emitter as a country
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.

“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

“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.”

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

<table>
<thead>
<tr>
<th>Academic year</th>
<th>Number of schools with required courses</th>
<th>Number of schools participating in survey</th>
<th>Percentage of schools with required courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020</td>
<td>41</td>
<td>153</td>
<td>27%</td>
</tr>
<tr>
<td>2020-2021</td>
<td>60</td>
<td>155</td>
<td>38%</td>
</tr>
<tr>
<td>2021-2022</td>
<td>86</td>
<td>155</td>
<td>55%</td>
</tr>
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AUPHA Presentation January, 2023
Robert Malte MBA
Clinical Associate Professor
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.

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<thead>
<tr>
<th>STUDENT DEMOGRAPHICS</th>
<th>MHA</th>
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<tbody>
<tr>
<td><strong>Underrepresented minorities:</strong></td>
<td><strong>Women:</strong> 68%</td>
</tr>
<tr>
<td><strong>MATRICULATED STUDENTS:</strong></td>
<td>60 in 2 cohorts</td>
</tr>
<tr>
<td><strong>GRADUATION RATE:</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>EMPLOYMENT RATE:</strong></td>
<td>94% working within 3 months of graduation</td>
</tr>
</tbody>
</table>

| 27 FACULTY |
| 1,774 ALUMNI |

### 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.

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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
The University of Washington
MHA Competency Model & Climate Change

5 Domains with 23 Competencies
“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
MHA Student Association-Planetary Health
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
Version 1.1 2023

University of Washington In-Residence MHA Program: Imbedded DE/Anti Racism and Climate Change/Planetary Health Curriculum 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.

[Signature]

Robert Maltsi, Clinical Associate Professor, on behalf of the MHA Faculty and the HMI Education

<table>
<thead>
<tr>
<th>Imbedded DEI/Anti Racism Curriculum for AY 22-23 (Updated: 12/2022)</th>
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<tbody>
<tr>
<td><strong>Fall 1st Year</strong></td>
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<tr>
<td><strong>Course</strong></td>
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</table>
| HSERV 511 | Intro to Health Systems and Public Health (Mates/Gardner) | - Intro-Major issues in health care discussion
- The History of US Health Care through the Lens of DEI |
| HSERV 505 | Management of Healthcare Organizations (Austin) | - The role of all health 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 |
| HSERV 507A | Group Dynamics | #13 |
| | | Creating a safe, inclusive and equitable work environment |

[Signature]

Robert Maltsi, Clinical Associate Professor, on behalf of the MHA Faculty and The HMI Education
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
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
Planetary health education for future healthcare leaders

Santosh Basapur
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
~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).
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
Projects identification process

**Our Objectives**

- **Climate Change**
  - Decrease Rush’s direct and indirect GHG contributions through active emissions tracking, analysis, and targeted reduction projects.

- **Reduce Waste**
  - Utilize a systemic, data-driven approach to rethink waste, increase waste avoidance, and enhance landfill diversion efforts at Rush.

- **Efficient Utilities**
  - Decrease our campus resource (electricity, natural gas, steam, water) consumption and costs through identifying, exploring, and implementing utilities efficiency projects.

- **Supply Chain**
  - Reach upstream of onsite operations to infuse our procurement process with intentional and environmentally responsible best practices that positively influence the largest contributor to our environmental footprint.

- **Engage/Educate**
  - Inspire Rush staff, students, and visitors to actively support our sustainability efforts and explore new projects through storytelling, sharing best practices, and hosting volunteer opportunities.

**Projects**

- "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

- Reducing PVC/DEHP in medical products
- Reducing bedside waste
- Food waste reduction through composting
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 teamwork
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
Thank you!

For comments or discussion:
Santosh Basapur
Santosh_Basapur@rush.edu
MHA Program

Residential

Core Credits (51)
Elective Credits (9)

Executive

Core Credits (42)
3+ Yrs. Work Experience

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?

- Current Information
- Customizable to Student Interests
- Words Matter
- External Perspectives
- Comfortable and Interactive Learning Environment
- Optimism and Energy
Thank You

Ryan Armbruster, MHA
armb0001@umn.edu
‘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!

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