Developing Medical Educators of the 21st Century

San Francisco, February 10-12, 2020

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Course Directors

**Patricia O’Sullivan, EdD**
Professor of Medicine and Surgery, Endowed Chair of Surgical Education, Director, Education Research and Faculty Development, UCSF Center for Faculty Educators

**Sandrijn van Schaik, MD PhD**
Professor of Pediatrics, Baum Family Presidential Chair for Experiential Learning, Director, Learning and Caring Environment (LACE) Faculty Development

Course Manager

**Joey Bernal, MA**
Program Manager
UCSF Office of Continuing Medical Education
UCSF Center for Faculty Educators
Planning Committee

Denise Connor, MD
Associate Professor of Medicine, UCSF Gold-Headed Cane Endowed Teaching Chair in Internal Medicine, Director, Diagnostic Reasoning Block, Associate Director, PRIME Internal Medicine Residency Area of Distinction, Chair, Diversity, Equity & Inclusion Committee, Academy of Medical Educators

Sue Cox, MD
Professor of Obstetrics & Gynecology, Executive Vice Dean of Academics, Dean's Office, Chair, Department of Medical Education, Dell Medical School, The University of Texas at Austin

William B. Cutrer, MD, MEd
Associate Dean for Undergraduate Medical Education, Associate Professor of Pediatrics, Critical Care Medicine, Vanderbilt University School of Medicine

José Franco, MD
Professor of Medicine, Institutional and Community Engagement Pillar Director, Kern Institute for the Transformation of Medical Education, Medical College of Wisconsin

Jeff Fritz, PhD
Assistant Professor of Cell Biology, Neurobiology and Anatomy, Department of Regional Campuses, Curriculum Pillar Faculty, Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education, Medical College of Wisconsin
Participants: 106 total pre-registered

Plus 1 from Australia, 1 from Saudi Arabia, and 1 from South Korea
Health Professions Education as a Public Good

*Patient- and Society-Centered Curriculum Redesign*

Catherine R Lucey MD
Executive Vice Dean and Vice Dean for Education
UCSF School of Medicine
Roles and Disclaimers and Lenses

- Internist at Zuckerberg San Francisco General Hospital
- Professor of Medicine
- Executive Vice Dean and Vice Dean for Education, UCSF School of Medicine
- Member, National Academy of Medicine
- Master, American College of Physician
- Site PI: Kern Family Foundation National Transformation Network Grant
Conclusions

- HP Education is a Public Good, with a commitment to society to prepare the workforce our nation needs to improve the health of our communities and alleviate suffering in our patients.

- The HP our patients and communities need are individuals who
  - understand the context in which our patients live, experience illness and access healthcare;
  - embrace core values that enable them to provide the highest quality care to all patients, regardless of power and privilege; and
  - Develop competencies that enables them to solve contemporary challenges impacting health and wellbeing for all, across a career that will span decades of scientific and social change.

- Fulfilling this promise requires educators to begin by putting the needs of patients and society at the center of decisions about curriculum and by putting the curriculum at the center of organizational culture change.
Medical Education is a Public Good: Responsible for Improving the Health of Our Communities and Alleviating Suffering in our Patients by Educating

The workforce for our nations

Physician citizens for our democracies

The Edinburgh Declaration. World Federation for Medical Education 1988
Imagine a World
Curriculum in the News: September 2019
“Why have medical schools become a target for inculcating social policy when the stated purpose of medical education since Hippocrates has been to develop individuals who know how to cure patients?”
Recommendation 2d. Schools for health professions (including schools of medicine and nursing) as well as continuing education programs should incorporate competency-based curricula on social care. Curricula should include evidence on the social determinants of health, protocols for working in interprofessional teams to address social needs in health care settings, interpersonal and organizational approaches to advancing health equity and decreasing health disparities, and competencies relating to collecting, securing, and using data and technology to facilitate social and health care integration.
### Content-Driven Curricular Change: **Incremental Change**

<table>
<thead>
<tr>
<th>Epistemology: Legacy Content as Laws of Physics</th>
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<tbody>
<tr>
<td>Context Agnostic</td>
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<tr>
<td>Prioritizes Values, Views and Power of Individual Faculty</td>
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<tr>
<td>Reinforced by Legacy Exams and other Organizational Structures</td>
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Process-Driven Curricular Change: **Instrumental Change**

- **Epistemology:** Pedagogical Strategies drive improvement
- **Embraces new learning and assessment modalities (Sim, VR, PBL, EPAs, CBTV)**
- **Insulates the curriculum from non-pedagogical experts**
- **Reinforced by accreditation agencies**

*Whitehead C, Adv Health Sci Educ Theory Pract, 2017*
The Skeptics’ View of Medical Education Curricular Redesign: Revolution without Change
Patient and Society Driven Curricular Change: Transformational

Epistemology: Centered on the goal of improving health for patients & for our communities

Context: What are they called upon to do?
Leveraging contemporary paradigms to solve contemporary problems

Core Values: Who do we need them to be?
Demonstrating the core values and habits of mind needed to achieve goals

Then Competencies: How do we prepare them to succeed?
Abilities that enable collective problem solving on behalf of patients

Catalyzes Organizational Culture Change: Designing reinforcing systems and structures
Transformational Curriculum Change Requires Transformation Learning Theory

AS A METHOD OF INSTRUCTION FOR LEARNERS

AS A CATALYST FOR DESIGN

Mezirow J. Jossey-Bass 1991
Disorienting Dilemmas for the Academic Community

I am a good physician, educated in a system similar to what is in place today.

• What does it say about me if that approach is outdated?

Our institution is one of the top in the country.

• How can it be that some patients at times get care that doesn’t meet IOM goals for excellence: Safe, Timely, Effective, Efficient, Equitable and Patient Centered?

We have an institutional commitment to celebrating differences.

• How can it be that there are population group differences in our health care, educational, and career outcomes?
The Reality of Health Care Delivery in Vulnerable Populations: Patients with Behavioral Health Issues as an exemplar
Vulnerability to Less than Ideal Outcomes: A Problem Impacting Many Communities

Social Groups:
- Race
- Ethnicity
- Gender
- Gender Identity
- Age

Stigma:
- Mental Illness
- Substance Use
- H/o Incarceration
- Poverty
- Homelessness
- Obesity
- HIV Infection

Vulnerabilities:
- Stigma
- Mental Illness
- Substance Use
- H/o Incarceration
- Poverty
- Homelessness
- Obesity
- HIV Infection

Additional Vulnerabilities:
- Sexual Orientation
- Race
- Ethnicity
- Gender
- Gender Identity
- Age
- Obesity
- Homelessness
- Poverty
- HIV Infection
- H/o Incarceration
- Stigma
Individuals with serious mental illness

Less likely to receive evidence-based preventive care

Less likely to receive evidence-based care for diabetes, hypertension

Often Subject to medications with adverse metabolic complications

Structural stigma and marginalization also contribute to adverse lifestyle risk factors: tobacco, alcohol, substance use

Hatzenbuehler ML Am Psychol 2016
Health Care Disparities in Pts with Behavioral Health Issues: Screening Mammography as an exemplar

FIGURE 1. Mammogram screening rates among 14,651 women with serious mental illness, by demographic and clinical characteristics\textsuperscript{a}

\textsuperscript{a} Vertical bars show 95\% confidence intervals. MDD, major depressive disorder

Thomas M et al. Psychiatric Services 2018
Compared with White counterparts, Racial and Ethnic Minorities with Serious Mental Illness:

- Have less access to community-based care, more commonly use Psych Emergency services
- Are less satisfied, less adherent and more likely to drop out of care
- Are more likely to be dx w/schizophrenia, receive higher doses of antipsychotics & are less likely to receive 2nd generation antipsychotics
- Have poorer outcomes: symptoms, functional status, return to work

Fulfilling our responsibility as a public good requires designing the workforce that can meet the needs of our patients and our communities. That workforce must be able to collectively solve the complex challenges of this century and prepare subsequent generations of HP to do the same.
The Health Professions Workforce our Patients and Communities Need

Understands the **context** in which our patients live, experience illness and access healthcare.

**Complexity** is the defining characteristic of 21st century problems.

**Systems Thinking** is the prevailing paradigm in 21st century science, society & healthcare.
The Social-ecological Model of Health recognizes that social structures and policies have an enormous impact on a person’s opportunity to be healthy, economically and physically safe, and educated.
High relevance for health and healthcare disparities

- Health Disparities
- Structural oppression
- Interpersonal oppression
- Healthcare Disparities
21st Century Science Uses Systems Thinking to Understand the Complexity of Health and Illness
Health Care Delivery and Continuous Improvement is driven by Systems Thinking

Figure 1. The Chronic Care Model. Developed by the MacColl Institute, ©ACP-JSIM Journals and Books, reprinted with permission from ACP-ASIM Journals and Books.
View this figure
The Health Professions Workforce our Patients and Communities Need

Embraces the core values and habits of mind that enable them to provide the highest quality healthcare to all, regardless of power or privilege.
The Mindset of the Health Professional who Values Social Justice

SYSTEMS OF GOVERNMENT AND OF SCIENTIFIC THOUGHT HAVE NOT BEEN STRUCTURED TO PROVIDE EQUAL ACCESS

STRUCTURAL OPPRESSION HAS LED TO INDIVIDUAL BIAS AND TO DISPARITIES IN SOCIAL SYSTEMS AND HEALTHCARE DELIVERY.

RESPECTFUL ENGAGEMENT WITH OTHERS FROM DIFFERENT BACKGROUNDS REQUIRES CULTURAL HUMILITY.
The Mindset of the HP who values Inquiry

Complex problems of today require exploration using a variety of disciplinary lenses.

Current concepts must be challenged to generate new knowledge.

“We see this” experiences are an opportunity for further study.

Investment in research in all fields is an imperative.

Whitehead C. Medical Education 2013
The Mindset of the HP who Values Continuous Improvement and Personal Growth

- Systems protect vulnerable patients from fallible health professionals
- Data on outcomes of care and education guide improvement
- Feedback and coaching from colleagues in all professions guides growth
The Mindset of the HP who Values Trustworthiness

- Trust implies vulnerability and privilege
- Trustworthiness depends on character, caring and competence
- Trust propensity relates to past experiences of trust and betrayal and works to overcome trust reticence
Develops **competencies** that enable them to solve contemporary challenges impacting health and wellbeing for all, across a career that will span decades of scientific and social change.

- **Foundational Knowledge**
- **Direct Patient Care Skills**
- **Systems Improvement Skills**
What is the Foundational Knowledge of the 21st Century HP:

“that needed to “deal with the complexities of the human body and mind and apply biologic and other scientific concepts and principles in order to effectively analyze, assimilate and solve novel and ill structured human and human systems problems.”

IUGR Causes Epigenetic Changes that Increase Risk of Obesity, DM, Schizophrenia

Systems of Early Childhood Educ Decreases DM Risk

Cervical Softening Monitor IDs Preterm Labor

Gut Microbiome Changes Increase Obesity

C-Section Increases Risk of Adverse Microbiome

Exposure to Violence in Childhood Increases Metabolic Syndrome

Childhood Obesity & Adult Metabolic Syndrome

Education

Biomedical

Clinical/Trans

Social/Behav

Epidemiol/Data

Engineering/Technology
The entire educational ecosystem must be designed to reinforce context, core values & competencies.
The Educational Ecosystem Must Also Catalyze Change in Local and National Organizations and Systems
Outcome: Better Care for Patients with Mental Illness

**Medical Expert:** understands multidisciplinary foundational knowledge

**Leader:** Designs and continuously improves systems that integrate needed services

**Collaborator:** Works effectively in interpersonal teams and across boundaries between health systems and communities

**Communicator:** Respects patient needs for understanding

**Scholar:** Embraces inquiry and advocates for and consumes new knowledge in multiple fields of knowledge

**Health Advocate:** Recognizes injustice as a cause of illness; Uses their voice in policy
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