Population Health Education

Preparing a New Workforce

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Lakshmi’s story
Our Charter

ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.
8 Design Aspirations

- Leverage our Place
- Transform Society
- Value Entrepreneurship
- Conduct Use-Inspired Research
- Student Success
- Intellectual Disciplines
- Culturally Embedded
- Engage Globally
Total health expenditures per capita
U.S. dollars, PPP adjusted, 2016

- United States: $10.348
- Switzerland: $7.919
- Germany: $5.550
- Netherlands: $5.385
- Austria: $5.227
- Comparable Country Average: $5.169
- Belgium: $4.839
- Canada: $4.752
- Australia: $4.708
- France: $4.600
- Japan: $4.519
- United Kingdom: $4.192

The US value was obtained from the 2016 National Health Expenditure data.

Comparisons of life expectancy at birth

- Japan
- Switzerland
- Australia
- France
- Canada
- Netherlands
- Austria
- Belgium
- United Kingdom
- Germany
- United States
The sickest 5% of the US population spends FIFTY times as much per person as the healthy majority.
What is going wrong?

“The conditions that are not medical but that can produce or undermine health (are known) as the “social determinants of health.” These are the socioeconomic, environmental, and behavioral factors that research over many decades has shown to be strong influences on health.”

The American Health Care Paradox: Why Spending More is Getting Us Less. by Elizabeth H Bradly and Lauren A. Taylor
Determinants of health

- Health Behaviors: 30%
- Social and Economic Factors: 40%
- Clinical Care: 10%
- Physical Environment: 10%
- Genes and Biology: 10%
What is population health?

- The health outcomes of a group of individuals such as communities, employees, or ethnic groups.
- Definition, distribution and measurement of health outcomes and patterns that influence the outcomes.
- Policies and interventions that link these two, including attention to resource allocation issues in linking determinants to outcomes.
- The overall goal is to maintain and improve the health of the entire population and to reduce inequalities in health between population groups.

Population health education needs

Proactive and systematic patient education and system reboots:

- Holistic **education** about disease management and prevention
- Education and disease management **initiatives** for at-risk groups
- **Multidisciplinary teams of providers** who coordinate cases, set goals and track progress, and follow up after transitions
- **Patient engagement strategies** that provide opportunities for discussion about test results and ways to address problems
- **Community outreach screening** or health education programs
Population health education needs

Workplace competencies and education on population health

- Leadership and staff dedicated to population health
- Staff trained in population health competencies as it relates to specific job duties, with defined roles within the population health management process
- Care coordinators, community health workers and health educators and augment population health staff as necessary
Population health involves everyone.
Population health education needs

Mature community partnerships to collaborate on community-based solutions

- Engage community by exchanging resources, sharing knowledge and developing relationships to manage challenges and leverage advantages
- Extensive, diverse partnerships between hospitals and local organizations to address specific needs
- Partnerships with community and public health departments to address gaps and limitations in care delivery and address community health infrastructure needs
Population health education needs

Mature community partnerships to collaborate on community-based solutions

- Balanced leadership leveraging resources of community partners and including community representatives in leadership
- Hospital-led initiatives address community issues such as environmental hazards, poverty, unemployment, housing, etc.
- Community partners collaborate to develop relevant health metrics to measure progress and community needs
Population health workforce: expanded
Coming to ASU...

Developing, implementing and evaluating a baccalaureate curriculum in Population Health.
Step 1: Identify Competencies
Step 2: Identify Core Concepts, and Theoretical and Pedagogical Frameworks
Step 3: Student Learning Outcomes
Step 4: Teaching Strategies
Step 5: Evaluation
Step 1: Identify competencies
Step 1: Identify competencies

C1: Population Health’s Core Values, Concepts, and Functions in Society: describe the history and philosophy of population health; identify the importance of key events and milestones in the history and development of the fields of public health and medicine.

C2: The Role and Importance of Data in Population Health: describe how the methods of epidemiology and surveillance are used to safeguard the population's health.

C3: Population Health Challenges: define concepts of population health and describe the basic processes, approaches, and interventions that identify and address the major health-related needs and concerns of populations.

C4: Human Health and Disease: describe the underlying science of human health and disease and list the leading causes of mortality, morbidity, and disparities among local, regional and global populations.

C5: Determinants of Health: analyze and discuss the socio-economic, behavioral, biological, environmental, and other factors that impact human health.
Step 1: Identify competencies

**C6: Program/Intervention/Policy Implementation:** Identify stakeholders who influence health programs, policies and interventions; review and synthesize literature, develop programs and policies to impact population health using theoretical foundations and systems thinking; and conduct evaluations;

**C7: Overview of the Health System:** describe and discuss the fundamental characteristics and organizational structures of the U.S. health system and other health systems internationally; compare outcomes and costs

**C8: Health Policy, Law, Ethics, and Economics:** describe and discuss basic concepts of legal, ethical, economic, and regulatory dimensions of healthcare and population health policy

**C9: Health Communication:** describe and acknowledge the role of mass media, social media and electronic technology in population health
Step 1: Cross-cutting competencies

C10: Community, Diversity, Health Equity & Advocacy: describe and discuss the role of community engagement in promoting health; describe the role of health equity in the distribution of health outcomes

C11: Professionalism & Ethics: describe and develop an independent and personal work ethic

C12: Leadership, Teamwork & Organizational Dynamics: describe and discuss alternative strategies for collaboration and partnership within and between organizations to achieve organizational and community health goals

C13: Critical Thinking, Creativity & Systems Thinking: describe and explain how systems (e.g., individuals, social networks, organizations, and communities) may be viewed as systems within systems in the causes and analysis of population health problems
Step 2: Identify frameworks
Step 2: Theoretical frameworks of population health

- Global Goals for Sustainable Development
- Healthy People 2020 goals
- Socio-Ecological Model
- Care Continuum: Primary, Secondary and Tertiary Prevention
Healthy People 2020 Framework

Healthy People 2020
A society in which all people live long, healthy lives

Overarching Goals:

- Attain high quality, longer lives free of preventable disease, disability, injury, and premature death.
- Achieve health equity, eliminate disparities, and improve the health of all groups.
- Create social and physical environments that promote good health for all.
- Promote quality of life, healthy development and healthy behaviors across all life stages.
Socio-Ecological Model
Examples of injury and violence prevention

In the framework of the socio-ecological model

- Individual behaviors
- Physical environment
- Access to services
- The Social Environment
Pedagogical Framework

Bloom’s Taxonomy:
- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create
Step 3: Student learning outcomes
Student Learning Outcomes

1. **Describe** the demographic trends and epidemiological trends related to diverse populations in the United States and abroad
2. **Explain** the differences between diversity, inclusion and cultural competency in the population health context
3. **Apply** a framework to design culturally competent population health interventions for diverse student populations
4. **Distinguish** different strategies to increase diversity and inclusion in our university
5. **Compare** the diversity and inclusions programs at ASU with those of other public institutions of comparable size.
6. **Create** a new proposal for a diversity and inclusion program at ASU.
Step 4: Teaching strategies
Teaching and learning strategies that support the student learning outcomes

- Experiential
- Community-based
- Creative use of technology
- Student Led
Step 5: Evaluation
Step 5: Establish evaluation/assessment protocols

- Measure the extent to which the students have achieved the SLOs and degree competencies, internal and external evaluation
  - Portfolios
  - Exams
  - Formative Assessments
  - Papers
  - Rich and timely feedback
  - Evidence-based instruction
  - Multi-media productions
  - Presentations
  - Employer feedback
  - Storytelling
Summary

- Intentional integration of the backward design (five iterative approaches competencies, outcomes, strategies and evaluation) is critical to effective curricular development.
- This new program utilizes a unique trans-professional approach to learning:
  - Multi-disciplinary collaboration
  - Coherence of degree program
Lakshmi’s story revisited
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