



AMA Innovations in Medical Education Webinar Series

Health systems science: The third pillar of medical education

Richard Hawkins, MD
Stephanie R. Starr, MD
Jed D. Gonzalo, MD
Joy H. Lewis, DO, PhD
October 23, 2017

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Today's Host



- Richard Hawkins, MD, Vice-President, Medical Education Outcomes, American Medical Association

Objectives

- Discuss the emergence of health systems science as the third pillar of medical education
- Learn about the integration of medical education and health care systems through health systems science curricula
- Discuss the systems navigation curriculum as an authentic example of health systems science curriculum
- Discuss how to integrate students in the community to be trained in identifying social and economic factors which affect health and wellness

Calls for Reform of Medical Education by the Carnegie Foundation for the Advancement of Teaching: 1910 and 2010

David M. Irby, PhD, Molly Cooke, MD, and Bridget C. O'Brien, PhD

Calls for Change in Medical Education

A Decade of Reports Calling for Change in Medical Education: What Do They Say?

Susan E. Skochelak, MD, MPH

Abstract

Purpose

To review the recommendations of 15 U.S. and Canadian reports, published in the last decade, that call for significant change in medical education.

Method

The author selected for review 15 reports published over the last ten years that emphasize general recommendations for change in medical education in the United States and Canada and that represent a broad spectrum of sources.

Results

The purpose, methods, and content of each report are briefly described. The reports were selected because they address comprehensive change in medical education and have been recently published. The reports are categorized based on their inclusion of eight major themes: integrating the educational continuum, need for evaluation and research, new methods of financing, importance of leadership, emphasis on social accountability, use of new technology in education and medical practice, alignment with changes in the health care delivery system, and

future direct workforce. An overview and reveals themes to be implemented in the next decade.

Conclusion

There is recommendation that the author propose facing content have been that it is time to paths; many



Physician Leadership Education



Health Affairs

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Gaps In Residency Training Should Be Addressed To Better Prepare Doctors For A Twenty-First-Century Delivery System

[Expand](#)

Francis J. Crosson^{1,*}, Jean Leu², Beth M. Roemer³ and Murray N. Ross⁴



American Hospital Association



American Hospital Association's
PHYSICIAN LEADERSHIP FORUM



acpe
AMERICAN COLLEGE OF
PHYSICIAN EDUCATORS

AMA Accelerating Change in Medical Education Goals:

- Create competency based assessment & **flexible individualized learning plans**
- Develop exemplary methods to achieve **patient safety, performance improvement and patient centered team care**
- Understand the **health care system and health care financing**
- Optimize the **learning environment**

Accelerating Change in Medical Education Initiative

- \$13.5 million in grants to medical schools
 - 11 schools in 2013
 - 21 schools in 2016
 - 19,000 students ~ 33 million patient visits each year
- Consortium formed to jumpstart and speed dissemination of ideas
 - Venue for collaboration, innovation and scholarship

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University of Nebraska
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Ψ | SCHOOL OF MEDICINE
INDIANA UNIVERSITY

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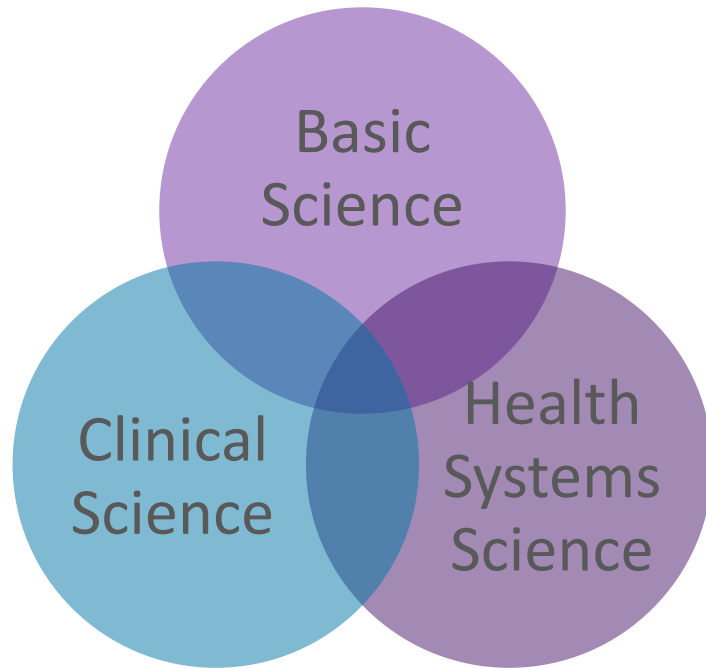
AMA Accelerating Change in Medical Education Consortium Innovation Themes

- Integration of medical education and health care systems
 - Emergence of Health Systems Science
- Technology in support of learning and assessment
- Competency-based programming
- Workforce solutions to improve population-based care
- Metrics to support CQI of educational programs
- Faculty development: Coaching and quality improvement
- Envisioning the learner of the future

Integration of Medical Education and Health Care Systems

- Engagement of health systems leaders in developing curricula
- Early integration of students
 - Emergence of “Health Systems Science” (HSS)
 - Value-added roles for medical students (and faculty)

Health Systems Science – “the principles, methods, and practice of improving quality, outcomes, and costs of health care delivery for patients and populations within systems of medical care”



- Patient population management
- Health care disparities
- Informatics
- Healthcare financing structures
- Epidemiology of errors
- Quality improvement science



- Leadership / change management
- Root cause analysis
- Working in teams
- Care coordination
- Care transitions
- Error disclosure
- Using HIT, EHR....

Integration of Medical Education and Health Care Systems

Health Systems Science Curricula in Undergraduate Medical Education: Identifying and Defining a Potential Curricular Framework

Jed D. Gonzalo, MD, MSc, Michael Dekhtyar, Stephanie R. Starr, MD, Jeffrey Borkan, MD, PhD, Patrick Brunett, MD, Tonya Fancher, MD, MPH, Jennifer Green, MD, MPH, Sara Jo Grethlein, MD, Cindy Lai, MD, Luan Lawson, MD, MAEd, Seetha Monrad, MD, Patricia O'Sullivan, EdD, Mark D. Schwartz, MD, and Susan Skochelak, MD, MPH

Abstract

Purpose Value-Added Clinical Systems Learning Roles for Medical Students That Transform Education and Health: A Guide for Building Partnerships Between Medical Schools and Health Systems

Jed D. Gonzalo, MD, MSc, Catherine Lucey, MD, Terry Wolpaw, MD, MHPE, and Anna Chang, MD

OPEN

Innovation Report

Abstract The Teachers of Quality Academy: A Learning Community Approach to Preparing Faculty to Teach Health Systems Science

Jed D. Gonzalo, MD, MSc, Elizabeth G. Baxley, MD, Luan Lawson, MD, Herbert G. Garrison, MD, MPH, and planne medical educDanielle Walsh, MD, Suzanne Lazorick, MD, MPH, Donna Lake, RN, BSN, MEd, PhD, documents biomedical aind Jason Higginson, MD

Method However, the medical school

Problem Although efforts to integrate health systems as a systems science (HSS) topics, such as Educators in patient safety, quality improvement (QI), relationship in interprofessionalism, and population and health systems, into health professions curricula is the design are increasing, the rate of change has been slow.

Approach

The Teachers of Quality Academy (TQA), Brody School of Medicine at East Carolina University, was established in January 2014 with the dual goal of preparing faculty to lead frontline clinical transformation while becoming proficient in the pedagogy and curriculum design necessary to prepare

students in HSS competencies. The TQA included the completion of the Institute for Healthcare Improvement Open School Basic Certificate in Quality and Safety; participation in six 2-day learning sessions on key HSS topics; completion of a QI project; and participation in three online graduate courses.

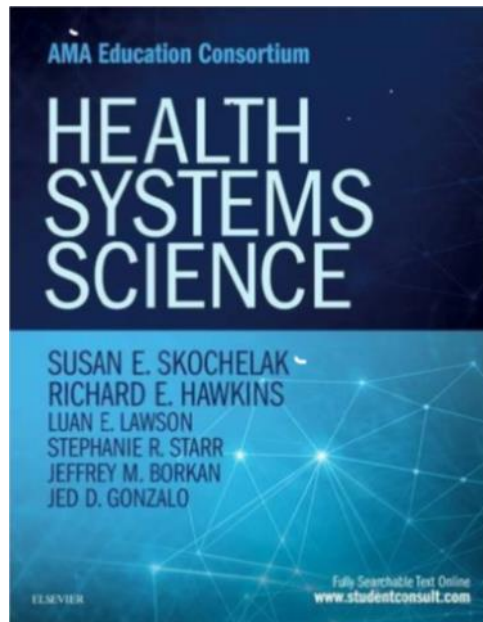
Outcomes

Twenty-seven faculty from four health science programs completed the program. All completed their QI projects. Nineteen (70%) have been formally engaged in the design and delivery of the medical student curriculum in HSS. Early into their training, TQA participants began to apply new knowledge and

skills in HSS to the development of educational initiatives beyond the medical student curriculum.

Next Steps

Important next steps for TQA participants and program planners include further incorporation as faculty advisors and contributors to the full implementation of the longitudinal HSS curriculum; expanded involvement with the Leaders in Innovative Care Scholars student leadership distinction track; continued in-depth evaluation of the impact of TQA participation on patient care, teaching, and role modeling; and the recruitment of the next cohort of TQA participants.



American Medical Association
In Collaboration with the National Board of Medical Examiners



Examinee Performance Profile
Health Systems Science
000000 - Generic Medical School

ID: 0000
Name: Student A

Test Date(s): mm/dd/yyyy
Total Percent Correct Score: ###

The score you received on this examination is shown above. This Performance Profile is provided to aid in self-assessment. The profile provides information regarding your performance compared to the performance of a comparison group of examinees on the major content areas of the examination. The comparison group includes first-time takers from LCME-accredited and COCA-accredited medical schools who took this examination under standard testing conditions. The mean performance of the comparison group is represented by the vertical line.

Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement; narrower bands indicate greater precision. A 4B or 4C symbol indicates that your performance band extends beyond the displayed portion of the scale. Because many of the content areas are based on a relatively small number of items, small differences in the location of bands should not be over-interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Please note that many items may contribute to more than one content area. Use caution when interpreting differences in performance across content areas.

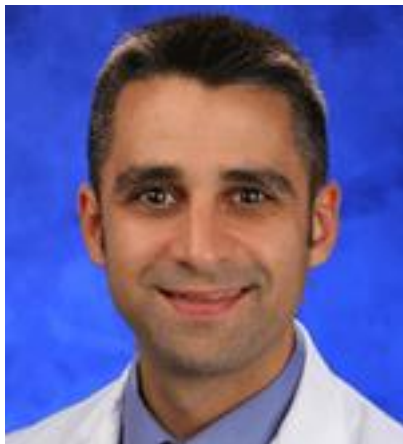
	Lower Performance	Average Performance	Higher Performance
Health Systems Science Content Area			
Evidence-based Medicine			
Patient Safety			
Quality Improvement			
Teamwork			

Presenter



- **Stephanie R. Starr, MD**
*Director, science of healthcare delivery
education, Mayo Clinic School of Medicine*

Presenter



- **Jed D. Gonzalo, MD**
Associate professor, medicine and public health sciences; Associate dean, health systems education, Penn State College of Medicine

Presenter



- **Joy H. Lewis, DO, PhD**
Professor, chair of department of public health; Director of public health programs & practice-based research, A.T. Still University School of Osteopathic Medicine in Arizona



Health Systems Science Education at Mayo Clinic School of Medicine

Stephanie R. Starr, MD
Associate Professor of Pediatrics
Director for Science of Health Care Delivery Education
Mayo Clinic School of Medicine

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Arizona Campus
4 years
July 2017



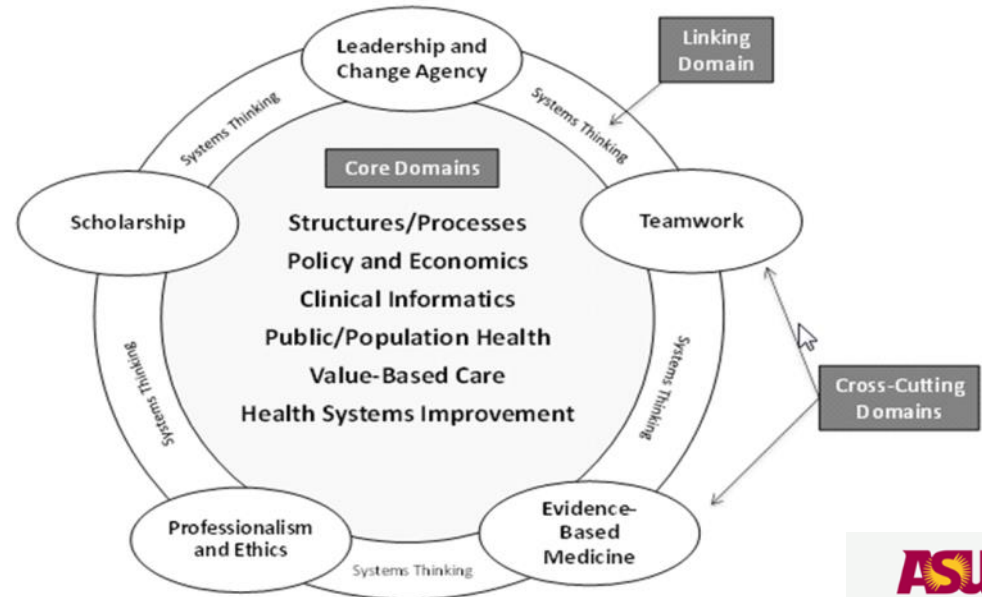
Minnesota Campus
4 years



Florida Campus
Yrs 3 & 4



Science of Health Care Delivery \approx HSS



Four-year SHCD curriculum required for MD



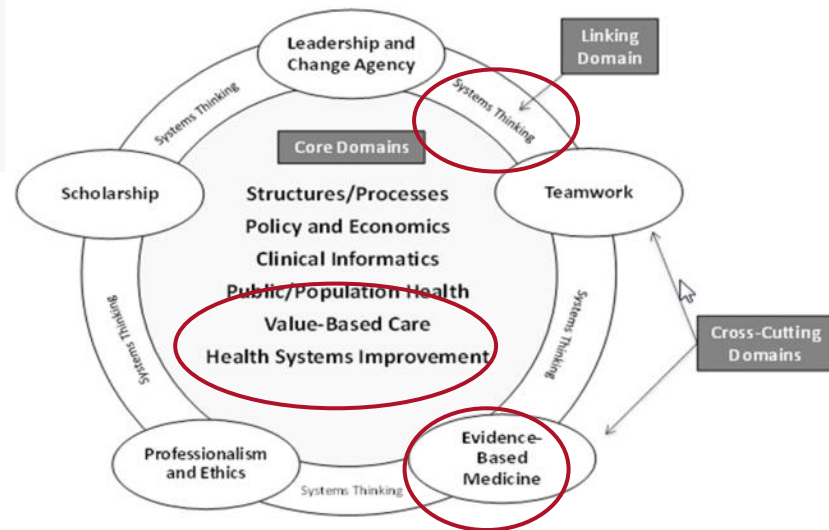
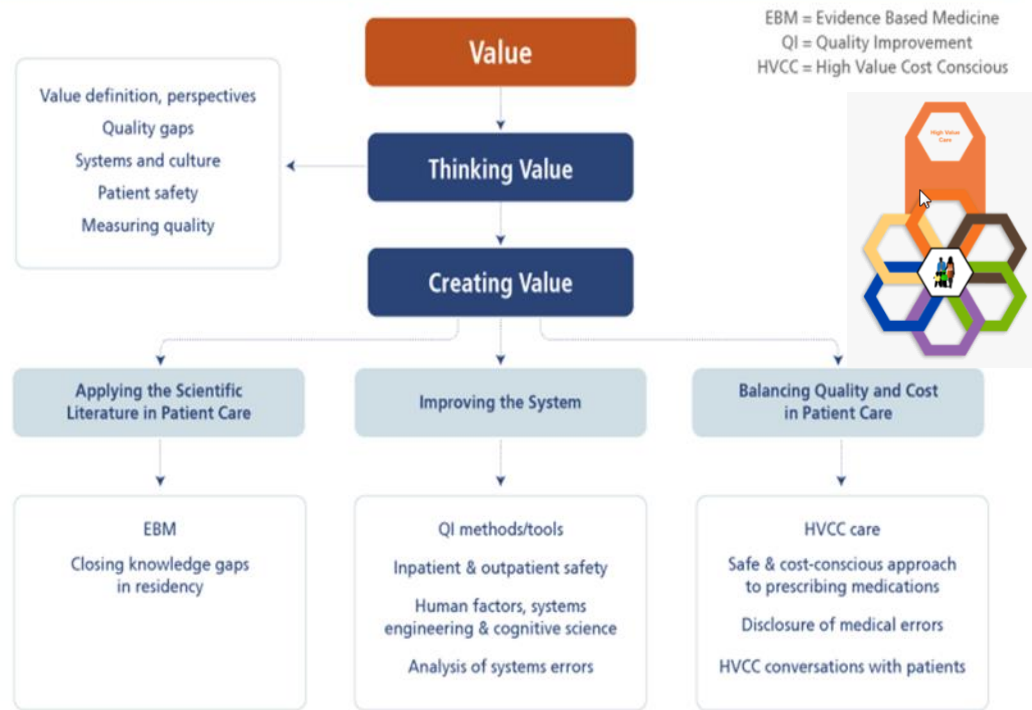
- Class of 2019+ (MN)
- Class of 2021+ (AZ)
- Blended learning (74 online modules) + classroom, simulation, clinical experiences
- Yr 1 (4 wks), Yrs 2 – 4 (1+ wk each)
- High-Value, Cost-Conscious Care and Shared Decision-Making 'threads' into Yr 3
- Standardized pt scenarios (OSCE), SHCD milestones
- Option for + 12 credits to = ASU Masters in SHCD



Starr Mayo Clin Proc Inn Qual Out 2017;1(2):117-129



High Value Care



Value = quality of care
cost of care over time



HVCC Care curriculum



EBM

EBM

SDM

Step 1:
Understand
risks, benefits,
and costs of
interventions

Step 2:
Decrease
interventions
of minimal/
no value

Step 3:
Choose
interventions
that maximize
value

Step 4:
Create plan
incorporating
patient's
values &
concerns

Step 5:
Identify
systems-level
opportunities
to improve
value

HC Improvement

ABIM-ACP model

Smith Annals Int Med 2012;157:284-6

EBM = evidence-based
medicine

SDM = shared decision-
making

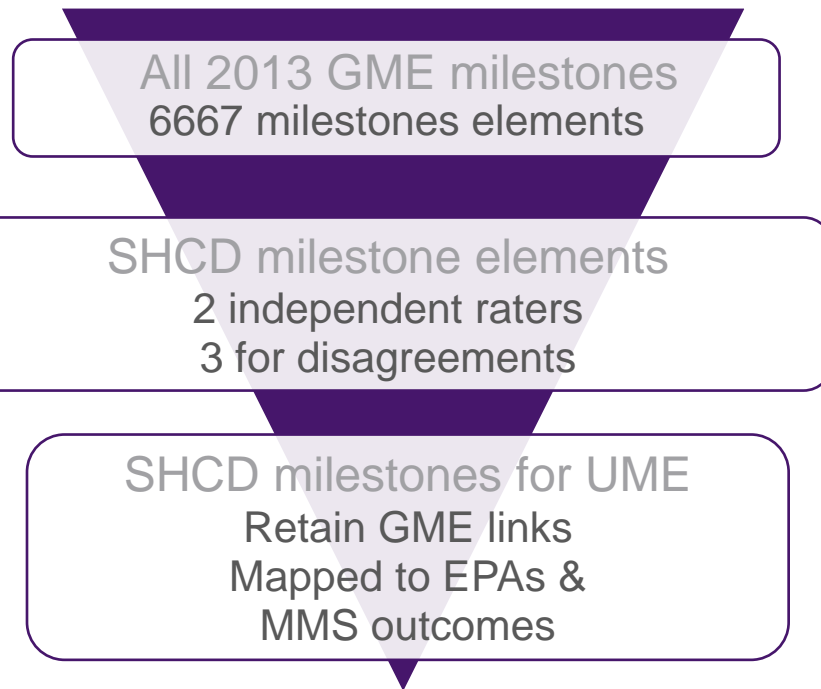




SHCD Milestones: For UME

- Adapted from 2013 GME milestones
- Mapped to AAMC EPAs
- Intentional 'hand-off' UME to GME

Committee views each student's progression over time



Havyer *BMC Med Ed* 2017;17:145

Student Assessment



*Workplace
assessments*

**OSCE, QI project design,
systems error analysis**

**Projects, case-based responses,
reflections**

**MCQ questions in modules;
NBME HSS exam**





Curriculum evaluation

- Student-of-course feedback
- NBME HSS exam (starting 2017)
- Year 4 AAMC graduation questionnaire
- *In progress*
 - Annual curriculum evaluation
 - Graduate survey
 - Program director survey
- SHCD-related scholarship by students (*future*)





Reflections on 4-year HSS curriculum

HSS is broad; students need to see connections

- across HSS topics
- within HSS topics at different levels (individual provider, microsystem, macrosystem)
- across basic, clinical and HSS (*in vivo* to *in vitro*)

You may have more existing HSS at your school than you know ('orphan' preclinical topics); work is to

- intentionally choose HSS scope and outcomes for your school
- label existing HSS content
- close HSS curricular gaps





Health Systems Science and Value-Added Medical Education

Jed Gonzalo MD MSc
Associate Professor of Medicine and Public Health Sciences
Associate Dean for Health Systems Education
Penn State College of Medicine

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Health Systems Science Competencies

Systems-Based Practice:

Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care

Functional Competencies

Patient-Centered Care

Processes and Collaboration

Clinical informatics, data, tools

Population and public health

Policy and payment

Value-based care

Health system improvement

Foundational Competencies

Systems Thinking

Change Agency and Management

Teaming

Leadership

Are Medical Students an Asset or Liability?



“Value-Added Medical Education: Experiential roles for students in practice environments that have the potential to positively impact individual patient and population health outcomes, costs of care, or other processes within the health system, while also enhancing student knowledge, attitudes, and skills in Clinical or Health Systems Science.

How Can Medical Students Add Value?

Direct patient care
History-taking
Evidence-based medicine
Patient education
Patient advocates
“Care Extenders”
Clinical process extenders
Safety Analysts
QI Team Extenders
Population Health Managers
Research and systems projects
“Systems” Projects

HSS Curricular Continuum

Year 1

- SHS711 - Science of Health Systems; Patient Navigator Roles (n=150 students)

Year 2

- SHS721 - Science of Health Systems Course (n=150 students)

Year 3

- Integrated Clerkship HSS Exercises (several pilots)

Year 4

- SHS743 - Translating Health Systems (n=150 students)
- HSS Electives (Interprofessional Academy Elective, Population Health Elective)

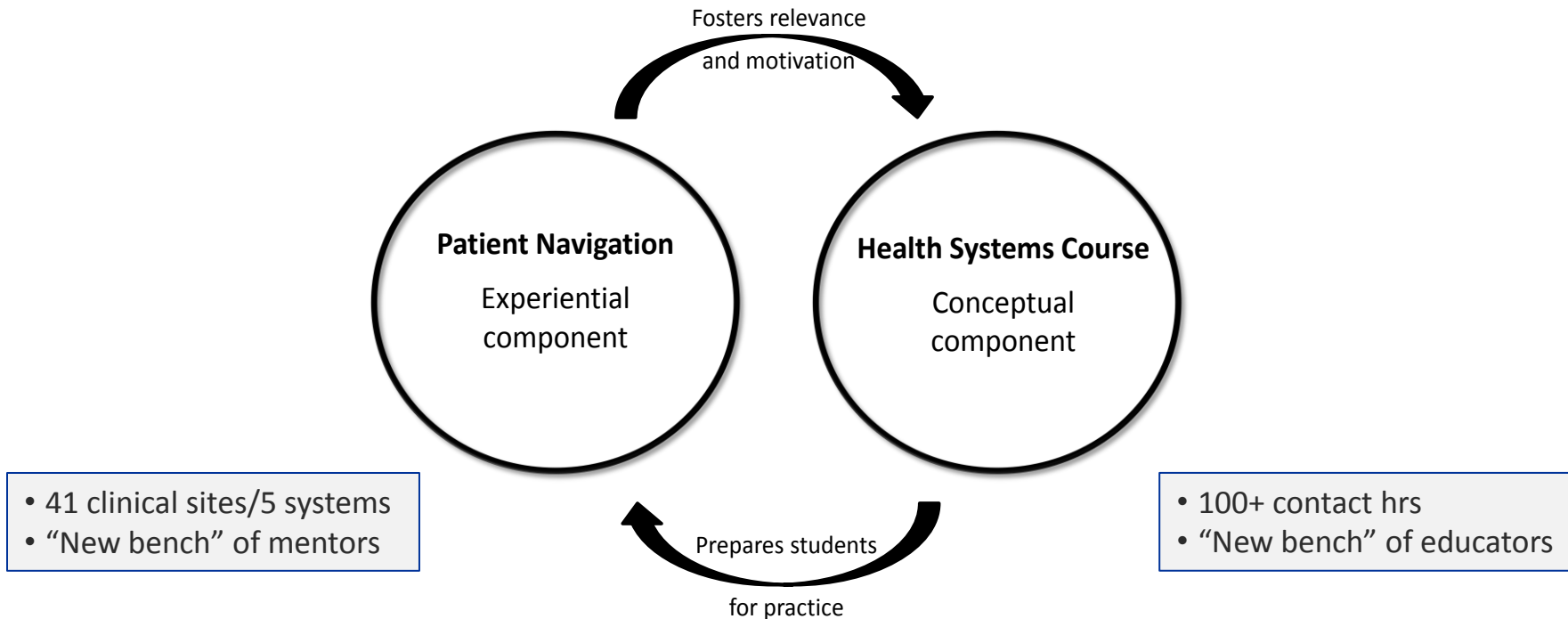
GME

- Core HSS Curriculum (4 hours across all GME programs)
- HSS Resident Course (1-week immersive course, n=40)

Faculty

- Health Systems Science Academy (Year 1 - n=14, Year 2 - n=29)
- Health Systems Science Seminar Series

Systems Navigation Curriculum



An Example – Internal Medicine Clinic

Team: 2, 1st-year students, care manager, social worker, physician mentor

Case: 84F with multiple comorbidities with “↑ no show” rate. Through in-clinic discussions, calls, and home visits, students learned the patient’s ex-husband, was an alcoholic, and her primary means for transportation. In her cluttered apartment, she had fallen 3x during the past year, each resulting in a fracture. Students helped facilitate:

- (1) A motorized wheelchair,
- (2) In-home ramp,
- (3) Walk-in shower, and,
- (4) Dependable source for transportation.

Students helped the patient apply for public assistance, and advocated for her while she was in clinic. Following visits, students educated the patient about her treatment plan, and confusing areas. Students determined moving to a nursing home was financially unfeasible. Although she qualified for assistance, the process of approval would be lengthy. Students reached out to local churches to help identify in-home needs. They identified an organization willing to volunteer weekly and help her with activities of daily living, and providing an expanded social network.

Functional Competencies	
★	Patient-Centered Care
★	Processes and Collaboration
★	Clinical informatics, data, tools
★	Population and public health
★	Policy and payment
★	Value-based care
	Health system improvement
Foundational Competencies	
★	Systems Thinking
★	Change Agency and Management
★	Teaming
	Leadership

Implications

1. The Expanding Educator “Bench”
 - Curriculum developers
 - Small-group facilitators
 - Large-group instructors
 - Research mentors
 - Evaluators
 - Clinical preceptors (not just physicians)
2. “New” culture required in medical education and health care

Citations

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Integrating students in the community to be
trained in identifying social and economic
factors which affect health and wellness.

Joy H. Lewis, DO, PhD

*Chair, Department of Public Health
Professor of Medicine and Public Health*

A.T. Still University School of Osteopathic Medicine in Arizona

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Thank You to the AMA and

Kate Whelihan, MPH, CPH

Frederic N. Schwartz, DO, FACOFP

Earla White, PhD, MEd, RHIA

J. Aaron Allgood, DO, FACP

Sharon Obadia, DO, FNAOME

Lorree A. Ratto, PhD, FT

Lise McCoy, EdD

Deborah M. Heath, DO

Lisa Watts, DO

Faith Polkey, MD, MPH

ATSU-SOMA Students

NACCH and our partner Health Centers

SOMA Regional Directors of Medical
Education

ALL of the ATSU-SOMA Administration,
Faculty and Staff

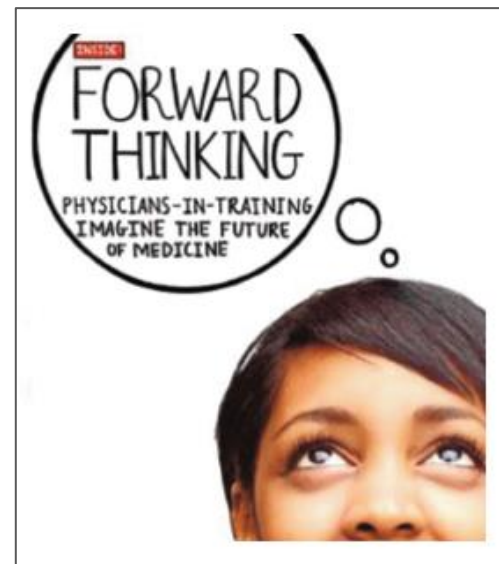


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...to prepare community- and research-minded osteopathic physicians who **serve the unmet healthcare needs of society** through innovative, learner-centered undergraduate and graduate medical education programs. The curriculum and selection of students, faculty, and staff, are geared toward our mission of **service to the underserved**.

The New Physician will be able to..

- **work with inter-professional** teams
- use **technology** and **data**
- **communicate** effectively
- focus on **patient-centered, preventive, primary care**
- work with **community members & institutions**
- integrate primary care and **public health**
- **adapt**, show resilience



Unique Foundation

- ATSU SOMA is partnered with the **National Association of Community Health Centers (NACHC)**.
- Years 2-4 students are embedded in contextual learning environments at 12 **community health center (CHC)** campuses.
 - **Health Systems Science education** is emphasized in authentic settings
 - Students are paired with **role model CHC physician preceptors**

ATSU SOMA Community Campus Locations and Residency Sites







Lisa Watts



Dr. Joy Lewis



Meaghan Ruddy



Aaron Allgood



cquezada



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Mark Sivakoff



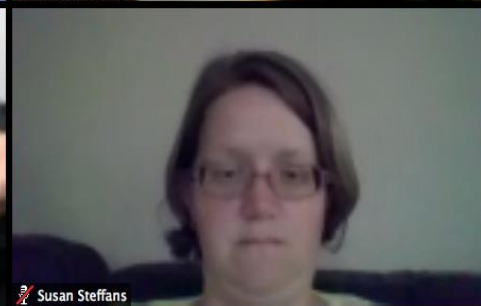
Faith Polkey, MD, MPH



Cathy Shanahan



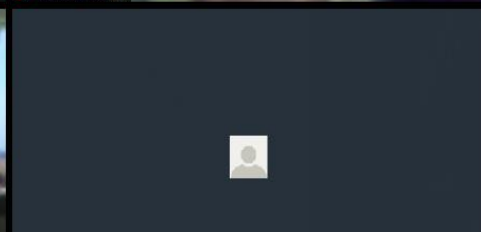
Laura Grady

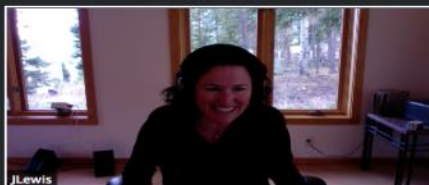


Susan Steffans



Isaac





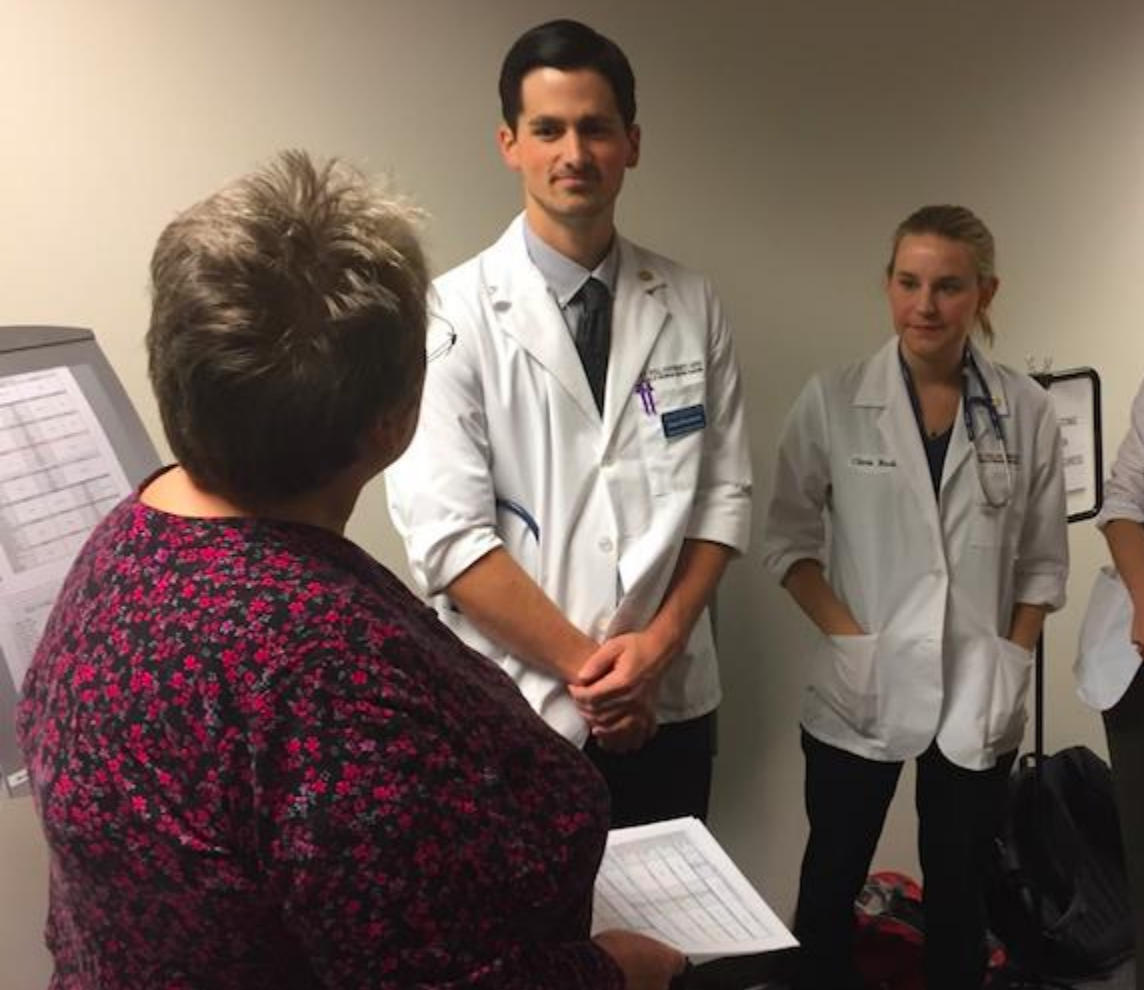
Introduction to and Incorporation of the SDH

OMS-I

Social Determinants of Health

- The social determinants of health are the conditions (the physical environment) in which people are born, develop, learn, work, age, receive health care, and are represented politically.
 - These circumstances are shaped by the distribution of money, power and resources at local, national, and global levels.
 - The social determinants of health largely determine health inequities - the unfair and avoidable differences in health status seen within and between different cultures.







Community Oriented Primary Care Projects

OMS-II ALONG WITH EPIDEMIOLOGY & BIostatISTICS
AND PGYI-III

Student-Led Community Oriented Primary Care (COPC) Projects

- One way we can **give back** to our community health center (CHC) campuses.
- Must be related to **CHC priorities**.
- Important to our shared mission with **the National Association of Community Health Centers (NACHC)**.



Community Oriented Primary Care

PUBLIC HEALTH

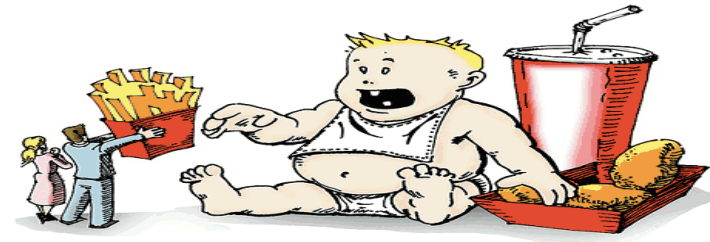
PRIMARY CARE

COPC



THE COMMUNITY

Population Health



The health outcomes of a group of individuals, including the distribution of such outcomes within the group.

- Kindig and Stoddart (2003)

Develop and Evaluate projects directed towards the social determinants of health.



The Social Determinants of Health and the Social Determinants of Health Equity.

BEST PRACTICE

COMMUNITY
SERVICE



Quality Improvement

Why is this important?

- Improve the health of the **community**
- Impact **patients in the room** and people who **do not seek care**
- Chance to **engage** positively with the community
- Opportunity to engage practicing providers, faculty, students and residents in **scholarly work** aligned with their passions and ideals

4 COPC Steps

1. Define the community of interest
2. Identify the problem
3. Develop and implement interventions
4. Conduct ongoing evaluation (of process and outcome)

COPC Toolkit

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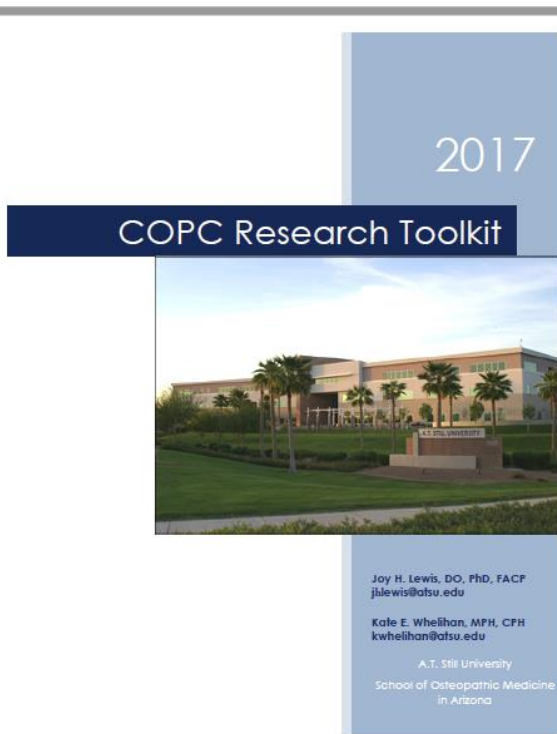


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HOW TO PREPARE FOR YOUR PROJECT

The community project will follow the elements of COPC. As a team, you will identify a need, develop or expand an intervention and plan methods for evaluating the process and the outcomes.

Each community project must focus on the social determinants of health relevant for your community and be related to the priorities of your CHC.

To develop your project and ensure you are meeting these standards, please start by reviewing the list of needs assessment resources. You should utilize these resources to describe the makeup of the community, identify areas of need and discover the barriers and resources to addressing the identified issue.

You will also need to talk with CHC stakeholders. Each group is required to perform 3 interviews with providers, CHC leaders, RDME Faculty Advisors, or community members.

Needs Assessment Resources

A list of needs assessment resources can be found on the following pages. Each resource is provided with a description and the web-link to access it. Review the resources to identify what will best suit your needs. You should be looking for data on the demographics of your community, the existing social determinants of health, UDS measures from your CHC, and other statistics relevant to your interests and the needs of the community. These resources can help you identify an issue to address and populations to target in order to achieve the most successful results.

CHC Interview Form Instructions

Each project team is required to perform a minimum of 3 brief interviews with CHC Stakeholders. The first interview should be with your RDME Faculty Advisor who should help you identify topics of interest and CHC stakeholders to interview. The second interview should be with someone in CHC leadership such as a CEO, CMO or Quality Improvement Director. The third interview should be an opportunity to connect with the community by interviewing a CHC board member from the community or a community program director or participant.

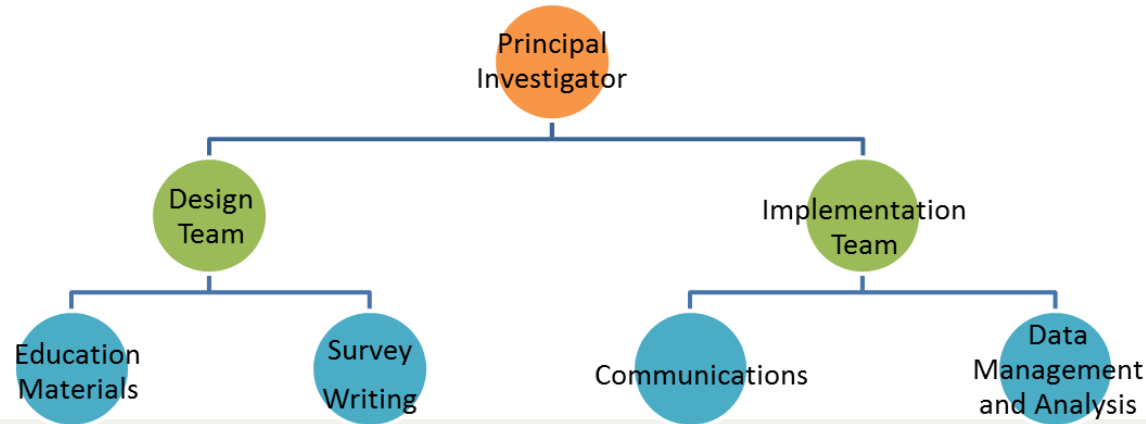
After completing your 3 required interviews, draft a list of 2 or 3 topics of interest and any potential programs or individuals you might work with. The course director will review your topics and provide recommendations. You will then be required to bring your ideas back to CHC leadership before deciding on a topic. This step is important because it is essential to have CHC leadership supportive of your project. When CHC leadership are engaged, they can provide you resources and assistance.

Click the link here to access the [Interview Form](#) to complete. Once completed, submit your form to the assignment drop box on Blackboard. This form will be due on _____.

Preparing for Your Project
Page 6

Group Expectations

- Assign roles to each team member – use your skills!
- Important to continually collaborate and communicate so all parts of the project match



Mini-Doc Program: Waianae, HI

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Mini-Doc Program: Waianae, HI

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Community Impact

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ATSU

Dear Big Doc's,
Thank you for teaching me
things about my body and I am
learning about the Lungs it was cool
I hope you are getting this and I
hope everyone have a good day

Dear doctors,

Thank you for coming to
Kamale Academy and teaching
our 3rd grade class. My
favorite activity was
asthma and that thing that
can infect asthma, like dust.



What is a Mini Doc? A Mini Doc is a young student that is learning how to be a health expert. Don't let their size fool you!! They care about their families, friends and their community. They want to see everyone living a happy and healthy life. We hope you will let them be their "first patients" and let them leave a healthy impact!

What did I learn from my Mini Doc?

I learned to control
my anger, to not have
a heart attack.



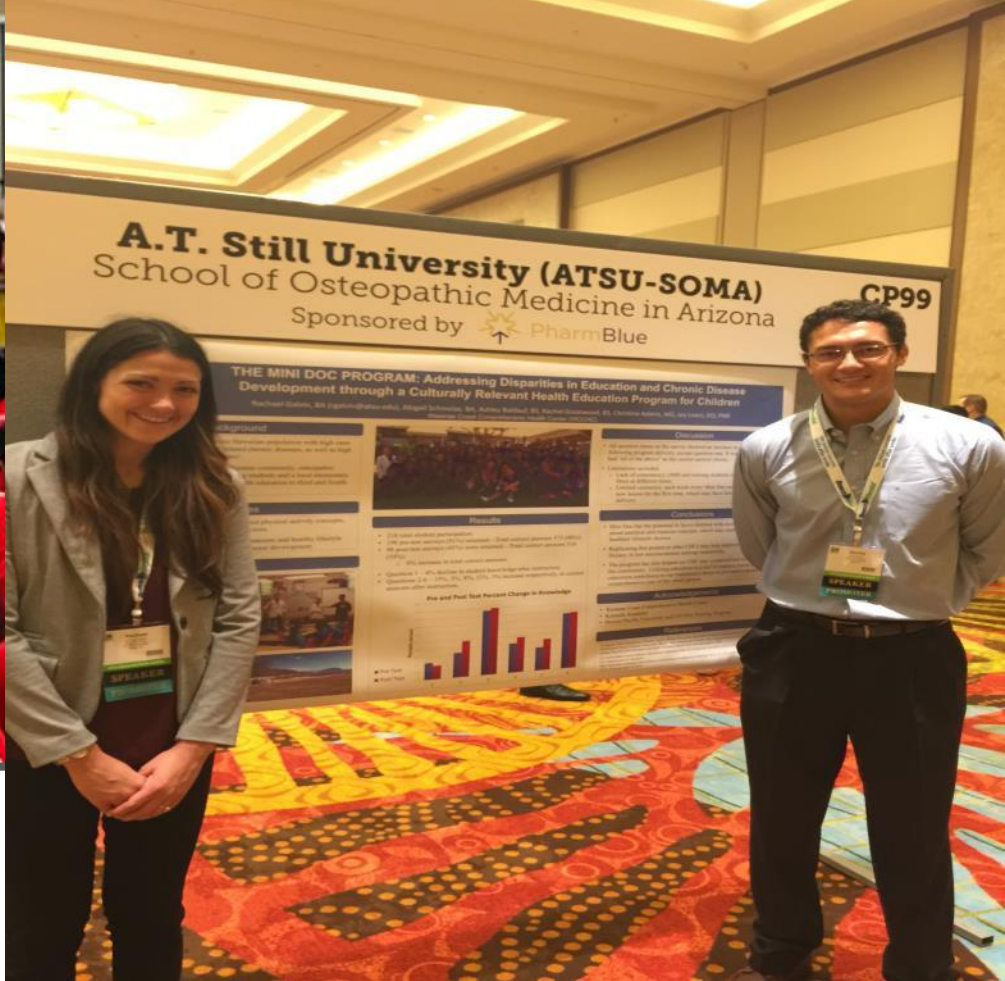
How do you know student:
He is my grand son

Student Name:

Protected

Don't forget to bring this
form back to school!!







A.T. Still University (ATSU-SOMA)
School of Osteopathic Medicine in Arizona
Sponsored by  PharmBlue

CP94



An Assessment of the Level of Knowledge of Type II Diabetes Among the General Population of the Patients at NYU Lutheran Family Health Centers
Joseph P. Khata S, Edward A. Garcia S, Jackson S, Gray L DO, Villanueva H MD, MPH, Lewis J DO, PhD
NYU Lutheran Family Health Centers - Brooklyn, NY



Introduction

According to the Centers for Disease Control and Prevention (CDC), Type II Diabetes Mellitus (Type II) is the most common chronic disease in the United States. It is a leading cause of blindness, kidney failure, heart disease, and nerve damage. It is also a leading cause of death.

Patients with Type II Diabetes Mellitus often have comorbidities such as hypertension, hyperlipidemia, and obesity. These comorbidities can lead to complications such as heart disease, stroke, and kidney failure.

The purpose of this study was to assess the level of knowledge of Type II Diabetes Mellitus among the general population of the patients at NYU Lutheran Family Health Centers.

The study was conducted using a cross-sectional design. The data was collected from a survey of 100 patients at NYU Lutheran Family Health Centers.

The results of the study showed that the majority of patients had a low level of knowledge of Type II Diabetes Mellitus. The majority of patients did not know what Type II Diabetes Mellitus was or how to prevent it.

The study also found that patients with higher education levels had a higher level of knowledge of Type II Diabetes Mellitus. This suggests that education is an important factor in the management of Type II Diabetes Mellitus.

The study has several limitations. First, the study was conducted at a single site, which may limit the generalizability of the results. Second, the study used a self-reported survey, which may be subject to bias.

Despite these limitations, the study provides valuable information about the level of knowledge of Type II Diabetes Mellitus among the general population of the patients at NYU Lutheran Family Health Centers.

The study also highlights the need for education and outreach programs to improve the level of knowledge of Type II Diabetes Mellitus among the general population.

Further research is needed to explore the factors that influence the level of knowledge of Type II Diabetes Mellitus and to develop effective interventions to improve knowledge.

The study was funded by the NYU Lutheran Family Health Centers. The authors thank the staff and patients of NYU Lutheran Family Health Centers for their participation in the study.

The authors also thank the following individuals for their assistance in the study: [Names of individuals]

The authors declare no conflict of interest.

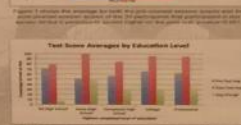
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The authors have nothing to disclose.

The authors have nothing to disclose.

The authors have nothing to disclose.

The authors have nothing to disclose.



Discussion

There is a great disconnect between the pre-test and post-test scores. This suggests that the patients at NYU Lutheran Family Health Centers have a low level of knowledge of Type II Diabetes Mellitus.

The study also found that patients with higher education levels had a higher level of knowledge of Type II Diabetes Mellitus. This suggests that education is an important factor in the management of Type II Diabetes Mellitus.

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Conclusion

The study found that the majority of patients had a low level of knowledge of Type II Diabetes Mellitus. The majority of patients did not know what Type II Diabetes Mellitus was or how to prevent it.

The study also found that patients with higher education levels had a higher level of knowledge of Type II Diabetes Mellitus. This suggests that education is an important factor in the management of Type II Diabetes Mellitus.

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CP86

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Improving CRC Screening: A comparison of patients' and providers' perspectives toward CRC screening methods at
Unity Health Care, Washington, D.C.

Linda Hawthorne and A. T. 2001 Unpublished

- Eighty patients and 26 providers surveyed (100% response rate)
- Forty-five patients were screened and 16 were not screened for CRC
- Forty percent of patients reported FIT as their preferred screening method (33% for colonoscopy and 18% had no preference)
- 92% of providers offered CRC screening according to USPSTF guidelines
- All providers surveyed offered colonoscopy for CRC screening and 75% offered FIT
- The results provided evidence that the majority of patients and providers

- Colorectal Cancer Screening Method Perceptions

-
- | Screening Method | No response at previous screening (%) | First history publication (%) | First history publication (%) |
|------------------|---------------------------------------|-------------------------------|-------------------------------|
| Colonoscopy | ~85 | ~45 | ~45 |
| FIT | ~15 | ~45 | ~25 |
| Stool | ~5 | ~15 | ~25 |

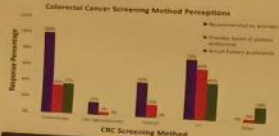
Discussion

- ### Discussion
- Within the past year, units introduced and supplied FTT options for providers to offer to patients at all clinics.
- A significant number of providers and a majority of patients are willing to offer FTT, which suggests a CRC screening preference balance that patients prefer and the method providers prefer.
- CRC screening rates are likely to improve in the future as increased patient education and option expansion.
- Most providers follow NPSFT CRC screening guidelines, but the CRC screening rates can be attributed to the rate at which providers offer screening.

Conclusion

- The patient population at UHC will greatly benefit from implementation of HIT centered on improving CRC. The following sample issue is the primary distribution of only 80 patients and is not a random survey, it is generally in the minority of CRC. Both provide collection was limited by a lack of time and contact with the population base.
- Future research should focus on improving study design and data collection.
- Because all patients living in Washington, D.C. have insurance, the majority UHC patients are covered. Focus on an area with fewer insured patients to examine differences on CRC screening knowledge and attitudes.

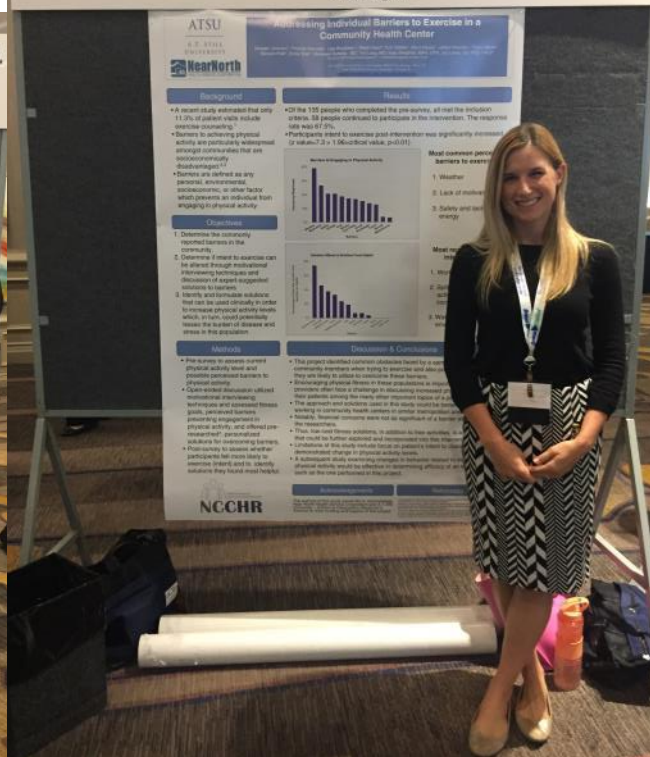
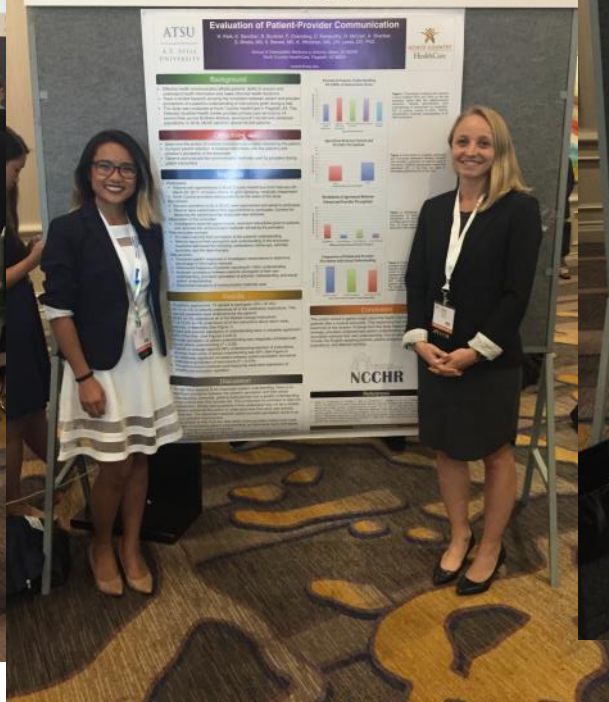
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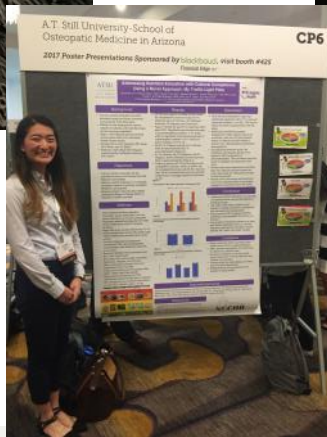
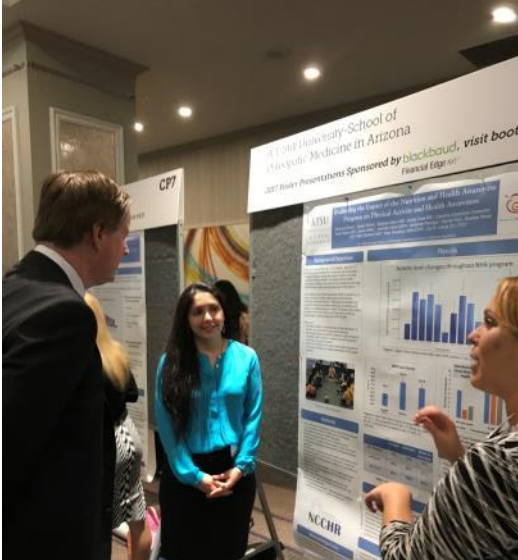


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Dr. Williams, we would like to thank the patients and medical providers of Unity Healthcare for their participation in this research study. We would also like to thank the Transcursive Healthcare Building team at Unity Healthcare, specifically Dr. Karen Scheraga, and Dr. Karen Donohue. Finally we would like to thank Dr. Scott and Dr. Z. Scott for their support and subject of this research. We are grateful to Dr. Williams, specifically Dr. Williams, for his

References







Rotation Experiences

OMS-III AND OMS-IV

Circle the City Medical Respite Center

A.T. STILL UNIVERSITY
SCHOOL OF OSTEOPATHIC MEDICINE IN ARIZONA | ATSU

- Overview

- 50 bed, free-standing medical respite center in Central Phoenix, AZ
- Staffed 24/7 by nurses (RN's/LPN's), respite assistants, and security
- Providers on-site 7 days/wk.



Helen Hill, DO, MPH (SOMA 2016)
PGY2 University of Missouri Kansas City,
Family and Community Medicine

In 2015

*"Today I had the privilege of being able to talk to a gentleman (my patient) for almost twenty minutes. I was collecting more of his history because he was so obtunded when he presented but really I was reminded how good it was to just talk with another person on this journey we call life, and **why I am becoming a physician.**"*

Helen Hill, DO, MPH (SOMA 2016)
PGY2 University of Missouri Kansas City,
Family and Community Medicine

A.T. STILL UNIVERSITY
SCHOOL OF OSTEOPATHIC MEDICINE IN ARIZONA | ATSU

*When I log him into e*value, the school's logging program for patients, **he will be reduced to "hypertensive crisis, sleep apnea, pacemaker, obesity, and substance abuse". I wish we could log "insufficient resources" or "experiencing homelessness" or any of a number of social challenges he faces that compromise his health.** He isn't able to hold a job because he falls asleep when he sits. Why? Because his sleep apnea is so bad he doesn't sleep, he chronically desaturates and then wakes up when his brain realizes it is not getting enough oxygen. If he had stable housing he would be on CPAP at night. But to have stable housing you have to have income.*

DIAGNOSIS CODE

DEFINITION

SDH – Poverty

Income below poverty line; lack of basic needs such as nutrition, clothing, shelter.

SDH - Near Poverty

Just enough money to meet basic needs but not enough for extras. Qualifies for sliding fee discounts at FQHC.

SDH - Food Insecure

Does not have reliable access to sufficient quantity of affordable, nutritious food. Does not know where next meal is coming from. Might live in food desert.

SDH - Unstable Housing or Homelessness

Does not have permanent housing, may live on the streets, in a shelter, mission, abandoned building, vehicle or any unstable non-permanent situation.

SDH - Poor Quality Housing

Living in housing unit that has physical problems (deficiencies in plumbing, heating, electricity, hallways, and upkeep) or the presence of negative characteristics including evidence of rodents, water leaks, peeling paint, and absence of a working smoke detector.

SDH - Lack of or No Insurance

Either no health insurance or has insurance which is not sufficient to cover medical expenses or doesn't cover medications. Prohibits seeking care or follow through.

SDH - Lack of Access to Healthcare

Living in a medically underserved area where access to primary care and other services is limited.

SDH - Health Literacy Limitations

Not having the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions

SDH - Unemployed or Underemployed

Being unemployed or having employment which is insufficient in some way including low pay or unavailability of hours to work.

SDH - Unstable Work Schedule

Difficulty scheduling or keeping appointments due to variable work schedule; multiple jobs, varying start/stop times, long shifts or unsure when will work. Person may be a migrant worker who relocates frequently due to work availability.

DIAGNOSIS CODE	DEFINITION
SDH - Family Care Demands	Responsibilities at home caring for others (children, partner, parents, family) which prevent person from caring for themselves.
SDH - Transportation Issues	Hard to get to appointments due to lack of transportation. Does not own vehicle, can't afford public transportation, lives far from public transportation or services unreliable.
SDH - Educational Limitations	Observed difficulty processing and understanding medical information. Can include difficulty reading, listening, asking questions or applying information.
SDH - Language Barrier	Primary language not English; inability to communicate freely and openly with provider.
SDH - Cultural Barrier	Cultural background is not in concordance with Western Medicine. May believe Western Medicine can be detrimental or is the place of last resort. Beliefs may conflict with medical care - prohibit patient from seeking care or adhering to treatment plan.
SDH - Immigrant Status	Not born in US, now living here legally or illegally. Can have difficulty obtaining public assistance if 'illegal'. May be child with legal status whose parents do not have legal status.
SDH - Poor Neighborhood Composition	Not feeling safe going outside in neighborhood, threat of crime/violence. Under stress from environment. Environmental pollution, lack of green space. Children can't play outside, can't exercise, hard to get to appointments.
SDH - Social Isolation	Lacking a sense of belonging socially, lacking engagement with others, has a minimal number of social contacts and are deficient in fulfilling and quality relationships
SDH - Other	Any other social determinant observed but not included here.

PROCEDURE CODE

DEFINITION

Crisis Intervention	Immediate, short-term help to resolve emotional, mental, physical, and behavioral distress or problems.
Educational Materials Provided	Provision of materials to help educate patients on conditions, medications, treatments, services, etc.
Extended Appointment Time	visiting with a patient beyond the regularly scheduled appointment time
Family Counseling	working with a whole family unit to improve communication, resolve conflicts and encourage changes for a healthier lifestyle
Lifestyle Counseling	working with a patient to improve healthy choices and discontinue habits which may be impeding health
Referral to CHC Services	Referral to a service offered within the CHC
Referral to External Services	Referral to services provided by external institutions

SDH and the Electronic Health Record

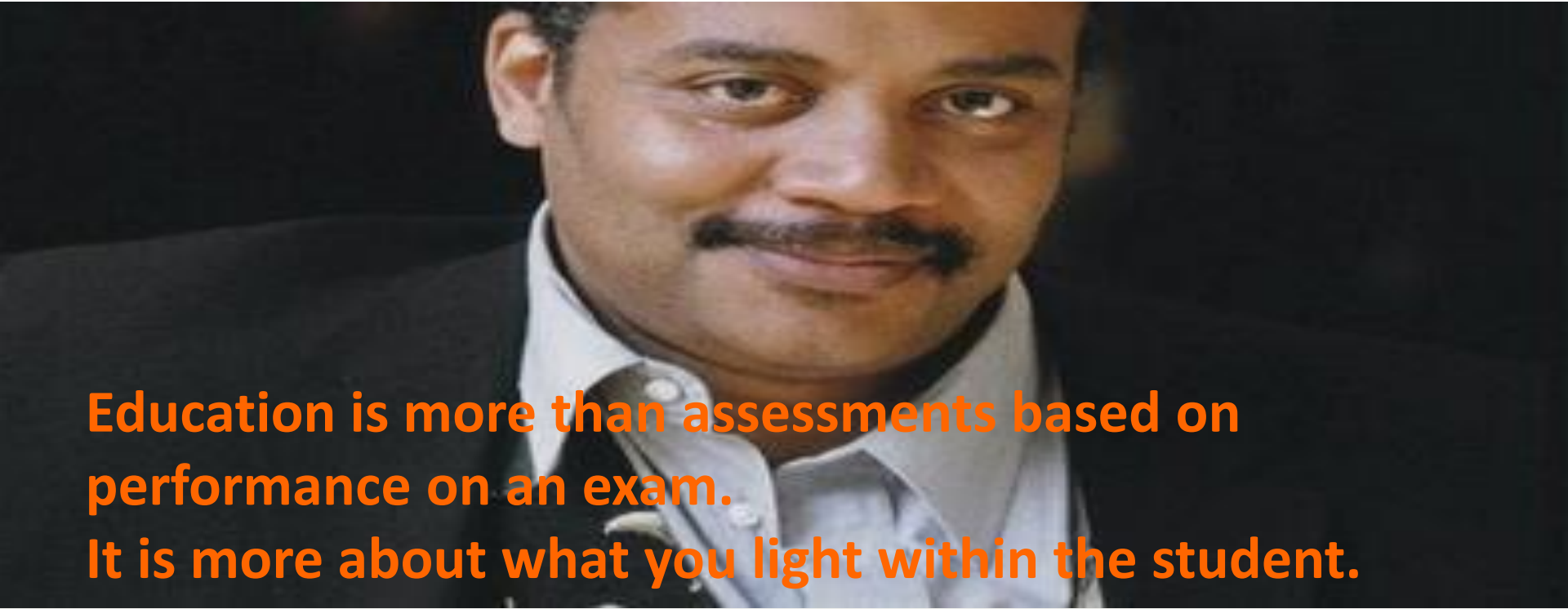
Only when the SDH are incorporated into the EHR can they be quantified, reviewed and fully addressed by health care providers and health systems.

Including the SDH in the EHR can enable more effective treatment of patients at the point of care and more effective population management.

Knowledge is power, and in the EHR world, the knowledge must be available in a systematic and searchable mechanism. With the ability to directly tie observed SDH factors to health outcomes for individuals and populations, future funds and programs can more efficiently and more effectively promote true health.

Lewis et al. BMC Family Practice <https://doi.org/10.1186/s12875-016-0526-8>

Neil deGrasse Tyson, Astrophysicist, on Education

A close-up portrait of Neil deGrasse Tyson, an African American man with a mustache, wearing a dark suit jacket over a light blue shirt. He is looking directly at the camera with a slight smile.

**Education is more than assessments based on performance on an exam.
It is more about what you light within the student.**

How can community projects influence medical students' education and professional lives?

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ATSU

Provides us with context into the current health, social/cultural and economic environment that will help us add depth to the type of health care we provide.

It is no more a figure in a book but a person we see.

It also raises more awareness and reality into what the current atmosphere of healthcare management, care and governmental involvement really is like as we prepare to jump into the fight to help improve public health policy and overall patient and community health outcomes.

- Megan Aspelund, ATSU-SOMA class of 2018



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AMA Innovations in Medical Education Webinar Series

Health systems science: The third pillar of medical education

Questions

Your MISSION is *Our* MISSION

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Future Events

Continue the discussion

Please join us to ask questions of our panelists at:

<https://ama-assn.org/communities/accelerating-change-in-medical-education>

- Integration of health systems science into medical school curricula
- Implementing systems navigation curriculum for medical students
- Integrating students in the community

Future webinars

January 2018

Interprofessional Education