HPEC 2020

Health Professions Education Conference 2020

Focused on the Future of Health Professions Education

Saturday, February 15, 2020

Sponsored by Office of Medical Education
John A. Burns School of Medicine, University of Hawaii

Welcome to the 2020 Health Professions Education Conference

UH Mānoa John A. Burns School of Medicine
UH Mānoa School of Nursing
UH Mānoa Myron B. Thompson School of Social Work
UH Mānoa Department of Kinesiology and Rehabilitation Science
UH Mānoa Office of Public Health Studies
UH Mānoa Dietetics Program
UH Hilo Daniel K. Inouye College of Pharmacy

Aloha! Welcome to our fourth Health Professions Education Conference. This conference focuses on faculty development and the sharing of educational scholarship, thus supporting improvements and enhancements to our educational methods and outcomes that allow us to teach and train high-quality health professionals, and to stimulate academic exchange between programs, departments, schools and institutions.

As we enter a new decade, we are looking towards the future and how we can best educate the next generation of health professionals. At JABSOM, we are already starting to implement significant and transformative changes starting with the upcoming AY 2020-2021, with more changes in discussion. In keeping with this theme, we are very pleased to welcome our plenary speaker, Joshua Jacobs, former JABSOM faculty, Professor and Chair, Department of Medical Education and Clinical Sciences, Elson S. Floyd College of Medicine, Washington State University, a new medical school that held its first White Coat Ceremony in Fall 2017. He will be discussing "lessons learned" about building a new school – tips, tricks and pitfalls that can help others in their future path forward.

A special thanks to our HPEC 2020 Conference Planning Committee, our HPEC 2020 Program Planning Committee, and to all the individuals who submitted proposals for sessions, oral abstracts and posters and who served as proposal reviewers. The theme of our conference is "Focused on the Future of Health Professions Education", and we have a wonderful assortment of peer-reviewed topics ranging from having difficult conversations, conflict management, applying growth mindset, using telepresence robots in tele-health, using teleconference and online technology for preceptor training, and learning and leveraging your leadership talents.

Thank you for joining us at this conference, and participating in the collaborative spirit of teaching and learning from one another.

Pupukahi i holomua
Unite to move forward; by working together, we make progress

Sincerely,

Sheri F.T. Fong, MD, PhD
Conference Chair

Noelani Ching
Conference Coordinator

Acknowledgements

We would like to sincerely thank and gratefully acknowledge the following individuals who have guided and helped us in the planning and implementation of this conference. Mahalo nui loa!

HPEC 2020 Conference Planning Committee

Crystal Costa, Office of the DIO
Richard Kasuya, Office of Medical Education
Kori-Jo Kochi, Office of Medical Education
Jill Omori, Office of Medical Education
Vanessa Wong, Office of Medical Education

HPEC 2020 Program Planning Committee

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Acknowledgements

We would also like to acknowledge all of our wonderful volunteers.
Thank you so very much for all your time and effort. You are amazing people!

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Grace Transfiguracion
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Celeste Wong

A very special thank you to Ya-Wen Hsiao, who
designed and maintained our HPEC website.

And lastly, we would like to thank ~

Diagnostic Laboratory Services, Inc.
Hawai‘i American Nurses Association
Hawai‘i Association of Professional Nurses
University Health Partners of Hawai‘i

for their sponsorship of tables, and

Native Hawaiian Center of Excellence for donation of the name badges

Mahalo for your generosity!

Proposal Reviewers

Hyeong Jun Ahn, Department of Quantitative Health Sciences

Bridget Allard, Department of Pediatrics

Frederick Bellinger, Department of Cell and Molecular Biology

Kalani Brady, Department of Native Hawaiian Health and Continuing Medical Education

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Stacey Woodruff, Department of Surgery

Continuing Medical Education

The goal of this faculty development conference is for participants to be better able to:

- Describe and apply utilize the knowledge, tools and skills associated with providing quality teaching, training and technology in health professions education.
- Describe ways to demonstrate, teach and promote non-cognitive attributes such as communication skills, growth mindset and interdisciplinary teamwork, associated with providing comprehensive education.
- Describe and utilize the knowledge, tools and skills to counsel and remediate those in academic difficulty, manage conflict, and display leadership in health professions education and training.

CME is available for the following sessions:

- Plenary (1.5 hours)
- Session I (1.5 hours)
- Oral abstract and poster session (1 hour)
- Session II (1.5 hours)
- Session III (1.5 hours)

We will be providing CME credit through the Hawai‘i Consortium for Continuing Medical Education (HCCME). HCCME is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Hawai‘i Consortium for Continuing Medical Education designates this live activity for a maximum of 7.0 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

General Information

Contact Information

For questions related to the conference, please email us at: infohpecjoin-l@lists.hawaii.edu. For assistance on the day of the conference, please see one of the volunteers wearing leis of kukui nuts with painted turtles, or stop by the registration table.

Poster Session

Posters may be posted in your assigned spot starting from 7:30 am. Please see pages 11-13 for your assignment.

Wireless Internet Access

Free Wi-Fi will be available throughout the building. If you have a UH username and password, please use your UH credentials for access. If you do not have a UH username and password, please use the information below:

Network/SSID: EVENTS
Event code: 02005987

or

Network/SSID: JABSOM
Username: omeguest808@gmail.com
Password: Hpec@2020 (case sensitive)

If you have any problems, please see the registration desk.

Driving & Parking Information for JABSOM

Driving Direction from H-1 West

- Take Kinau Street Exit
- Turn Right on Ward Avenue
- Continue on through Ala Moana Boulevard onto Ilalo Street

Driving Direction from H-1 East

- Take Vineyard Exit
- Take first left onto Punchbowl Street
- Continue *makai* and take a left onto Ala Moana Boulevard
- Take second right onto Forrest Avenue

Lot C Parking Lot

Lot C is not an UH-run parking lot, so you cannot use UH parking permits. The parking fee is a $6.00 flat rate, with no in-and-out privileges. Please park in numbered stalls only and place your payment into the corresponding numbered pay box near the entrance located against the fence along Ilalo Street.

Please bring the exact amount as change is not given. DO NOT park in the Kakaako Waterfront Park lot to attend this program as those not actively using the park are subject to tow. For map, please see pages 60-61.

JABSOM address

JABSOM Medical Education Building: 651 Ilalo Street, Honolulu, HI 96813

HPEC Program Summary

Time	Event	Location	Description
8:00-8:15am	Welcome and Opening	Auditorium	p. 16
8:15-9:45am	Plenary: Dr. Joshua Jacobs *Hindsight is 20/20: Tips, Tricks, and Pitfalls Learned from Building a New Medical School You Might Apply to Your Health Professions School*	Auditorium	p. 16
10:00-11:30am	Session I: Concurrent Sessions		
	Difficult Conversations: Helping Our Students Change Problem Behaviors Speakers: Jill Omori, Kyra Len, Kristen Teranishi	MEB 301	p. 17
	Utilizing Telepresence Robots in Interprofessional Education Introduces Students to Tele-Health and Improves Communication Speakers: Lorrie Wong, Sheri Tokumaru, Nicole Young, Laura Boehm, Kamal Masaki, Susan Todoki	MEB 304	p. 18-19
11:45am-1:15pm	Oral Abstract and Poster Session		
	Oral Abstract Session (11:45am-12:45pm)	Library Computer Lab	p. 9
	Poster Session	Library	p. 10-13
1:30-3:00pm	Session II: Concurrent Sessions		
	Conflict Resolution: Building a Toolkit to Address Interpersonal Conflict Management Speakers: Jill Omori, Kamal Masaki, Kimberly Yamauchi	MEB 301	p. 20
	Preceptor Training – Improving Skills for Precepting Interprofessional Collaborative Teams Using Video Teleconference and Online Technology Speakers: Lorrie Wong, Julie Kathman, Robin Arndt, Chad Kawakami	MEB 304	p. 21
3:15-4:45pm	Session III: Concurrent Sessions		
	"Growing Up is Hard to Do": Applying Growth Mindset to the Professional Development of Health Profession Trainees Speakers: Barry Mizuo, Kyra Len, Travis Hong, Bridget Allard	MEB 301	p. 22
	Learning & Leveraging Your Leadership Talents Speakers: Lee Buenconsejo-Lum, Susan Steinemann, Holly Olson	MEB 304	p. 23
4:50-5:00pm	Closing	MEB 301	

There will be morning and afternoon refreshments (MEB 314) and lunch (cafeteria – ground floor).

Campus maps are shown on pages 62-63.

Oral Abstract Presentations

11:45 am - 12:45 pm
Library Computer Lab

Format is a 10-minute presentation, followed by 5-minute Q&A while the next speaker sets up.

Time	TITLE and PRESENTER(S)	Description
11:45-11:55am	**A Primary Care Initiative – A Proposal for the Creation of an Interprofessional Health Academy (IPA) at the University of Hawai'i** Presenter: Robert Hong, Department of Medicine, JABSOM	p. 25-26
11:55am-12:00pm	Q&A	
12:00 – 12:10pm	**The Story of a Longitudinal, Cross-Cultural Patient** Presenter: Vanessa Wong, Department of Native Hawaiian Health and Office of Medical Education, JABSOM	p. 27
12:10 – 12:15pm	Q&A	
12:15 – 12:25pm	**Learning Interprofessional Collaborative Competencies using the Geriatric Interprofessional Panel (GIPP) for Community College Health Sciences Students** Presenter: Kamal Masaki, Department of Geriatric Medicine, JABSOM	p. 28-29
12:25 – 12:30pm	Q&A	
12:30 – 12:40pm	**Increasing Accessibility While Minimizing Costs in an Online Program Focused on Child Health** Presenters: Ariana Eichelberger, Department of Learning Design and Technology, UH Mānoa; and Rachel Novotny, Department of Human Nutrition, Food and Animal Sciences, UH Mānoa	p. 30
12:40 – 12:45pm	Q&A	

Poster Session Summary

Poster Session: 11:45 am – 1:15 pm
Health Sciences Library
MEB 1st floor

Posters may be placed from 7:30 am, and must be posted by 11:45am

Presenters at posters 12:15 pm – 1:15 pm

Posters will be taken down at the end of the poster session

Poster #	TITLE and PRESENTER(S)	Description
1	**Medical-Legal Partnership: Opportunities for Interprofessional Education** Presenters: Alicia Turlington, JABSOM Department of Pediatrics, and Dina Shek, William S. Richardson School of Law	p. 32-33
2	**Learning Interprofessional Collaborative Competencies using the Geriatric Interprofessional Panel (GIPP) for Health Professions Students** Presenter: Samina Ahsan, JABSOM Department of Geriatric Medicine	p. 34-35
3	**Evaluation of a "Geri-Lab" Experience for Medical Students at the University of Hawai'i: Three Years of Experience** Presenter: Samina Ahsan, JABSOM Department of Geriatric Medicine	p. 36
4	**Pharmacy Students Teach in a Primary Care Clinic** Presenters: Dee-Ann Carpenter, JABSOM Department of Native Hawaiian Health and Office of Medical Education; and Wesley Sumida, UH Hilo Daniel K. Inouye College of Pharmacy	p. 37
5	**Breakout Kaka'ako: Using Escape Rooms to Teach about HIPAA and Universal Precautions** Presenter: Jill Omori, JABSOM Office of Medical Education	p. 38
6	**Find the Lesion: An Online, Interactive, Game-Show Style Learning Experience** Presenter: J. Douglas Miles, JABSOM Department of Medicine and Anatomy, Biochemistry and Physiology	p. 39
7	**Undergraduate Curriculum Designed to Facilitate a Cancer Exercise Rehabilitation Program** Presenters: Paulette Yamada, UHM Kinesiology and Rehabilitation Science and Cheri Teranishi-Hashimoto, Rehabilitation Hospital of the Pacific	p. 40-41
8	**Enhancing Dental Hygiene Student's Knowledge and Skills in Pediatric Care through Simulation** Presenter: Deborah Mattheus, UHM School of Nursing and Dental Hygiene	p. 42
9	**Increasing Pediatrician Satisfaction with the Preceptorship Experience through Formal Training and Recertification Incentives** Presenters: Elliott Koshi, MS1, Cori Sutton, MS1, Eryn Nakashima, MS1 Faculty Sponsor: Kyra Len, JABSOM Department of Pediatrics	p. 43

18	**Laying the *Kahua* (foundation): Incorporating Elements of Attitude and Purpose for Student Success During Phase I of the ʻImi Hoʻola Post-Baccalaureate Program** Presenters: Sharleen Chock, Kimberly Yamauchi, Winona Lee, JABSOM Department of Native Hawaiian Health	p. 57
19	**Voluntary Community Service at the John A. Burns School of Medicine: Perceived Impact and Benefits on Medical Students** Presenter: Woo Ri Bae, MS4 Faculty Sponsor: Damon Sakai, JABSOM Office of Medical Education	p. 58

Plenary Speaker

Joshua Jacobs, M.D., F.A.A.F.P.

Originally from Kailua on Oahu, Joshua Jacobs is the inaugural Chair of the Department of Medical Education and Clinical Sciences at the Washington State University (WSU) Elson S. Floyd College of Medicine. The department provides the entire program leading to the M.D. degree, and includes over 800 faculty members from multiple disciplines and specialties (physicians (all specialties), nurses, pharmacists, etc). Medical student teaching is distributed across the state of Washington (pop 7.54M, land mass 71,360 square miles) in collaboration with over 100 affiliate clinical institutions (hospitals and clinics). He has served as Acting Associate Dean for Curriculum and as Interim Associate Dean for Clinical Education.

Prior to joining WSU, Josh was a Senior Director at the AAMC (Association of American Medical Colleges) in Washington, DC. In his role, he interacted regularly with other national organizations involved in the training and licensure of physicians in the USA, including the NBME (National Board of Medical Examiners) and ECFMG. Previously, Josh worked in Singapore as a Senior Consultant at the National University Hospital in Family Medicine, and Assistant Dean for Education at the National University of Singapore, as well as in Tokyo, Japan, as a Visiting Research professor. He was a faculty member at our own JABSOM, from 2000-2010.

He has received and participated in numerous research grants relating to patient safety, education technology, and medical education from various organizations, including the U.S. National Institutes of Health (NIH), the Japanese Ministry of Health, Labour, and Welfare, and the Singapore Ministry of Health. His other research and teaching interests include quality improvement and international medical education. He was the inaugural e-Editor for two international medical education journals based in the UK, Medical Education and The Clinical Teacher. He has published widely in the international literature with over 50 peer-reviewed publications and hundreds of national and international presentations and workshops.

Session Descriptions

Welcome and Opening
8:00 am – 8:15 am
MEB Auditorium

S. Kalani Brady, MD – opening oli (chant)
Associate Professor, Department of Native Hawaiian Health
Sheri Fong, MD, PhD
Conference Chair, Health Professions Education Conference
Lee Buenconsejo-Lum
Interim Associate Dean for Academic Affairs, John A. Burns School of Medicine

Plenary
8:15 am – 9:45 am
MEB Auditorium

Hindsight is 20/20: Tips, Tricks, and Pitfalls Learned from Building a New Medical School You Might Apply to Your Health Professions School

Joshua Jacobs, M.D., F.A.A.F.P.
Professor and Chair, Department of Medical Education and Clinical Sciences, Elson S. Floyd College of Medicine, Washington State University

Learning Objectives:
By the end of this session, participants will be able to demonstrate they can extract tips, tricks and pitfalls to consider to apply or avoid at their own health professions school by…
1. Describing the unique organizational structure of a new medical school at a land grant state university and its effect on operations
2. Outlining an approach to accreditation that utilizes concepts of continuous quality leadership
3. Utilizing an internationally consensus-driven approach to design and deliver a case-based, integrated, interprofessional, competency-based curriculum and program of assessment at a statewide distributed campus

Brief Description of Session:
In keeping with the HPEC 2020 theme focused on the future of health professions education, the speaker will provide insights into recent 'lessons learned' in starting up a new medical school that will help inform a path forward. As a land grant institution, Washington State University shares many similarities with the University of Hawai'i. Tips, tricks, and pitfalls will be explored as potential signposts on the collective journey ahead. Specific areas to be discussed include the land grant mission, organizational structure, accreditation, competency-based education and related concepts.

Target Audience: Students, staff, faculty and administrators of schools of health sciences

Session I

10:00 am – 11:30 am
MEB 301

Difficult Conversations: Helping Our Students Change Problem Behaviors

Jill Omori, M.D.
Director, Office of Medical Education, JABSOM
Kyra Len, M.D.
Longitudinal Clerkship Director, Office of Medical Education and Department of Pediatrics, JABSOM
Kristen Teranishi, M.D.
Assistant Director, Office of Student Affairs, JABSOM

Abstract:
This workshop will review the concepts of motivational interviewing (MI) and help participants to apply MI techniques to engage health profession learners to help them to overcome professional and/or personal challenges that may be interfering with their academic success. The session will also introduce other techniques and resources that can assist in helping to address problem behaviors in our learners. We will utilize video scenarios and facilitated role playing to practice motivational advising of students. Participants will learn and practice skills to help them deal with difficult situations and will be better equipped to advise struggling learners.

Learning Objectives:

By the end of the workshop, the participants will be able to:

1) Define motivational interviewing and motivational advising
2) Utilize techniques to help move difficult conversations with students forward
3) Practice motivational advising techniques and other strategies to help students address problem behaviors
4) Access resources for further practice in helping students deal with problem behaviors

Intended Outcomes:
By the end of the workshop, participants will feel more comfortable in holding difficult conversations with learners to help address problem behaviors and will also leave with resources that can assist in advising these students.

Target Audience: This workshop will benefit all types of health professions faculty members and medical residents that work with students, particularly those that are responsible for advising or coaching students.

Session I

10:00 am – 11:30 am
MEB 304

Utilizing Telepresence Robots in Interprofessional Education Introduces Students to Tele-Health and Improves Communication

Lorrie Wong, Ph.D., R.N.
Associate Professor and Director of UH Translational Health Science Simulation Center, UHM School of Nursing and Dental Hygiene
Sheri Tokumaru, Pharm.D.
Associate Professor, Daniel K. Inouye College of Pharmacy
Nicole Young, Pharm.D.
Assistant Professor, Daniel K. Inouye College of Pharmacy
Laura Boehm, Ph.D., R.N.
Assistant Professor, UHM School of Nursing and Dental Hygiene
Kamal Masaki, M.D.
Professor and Chair, Department of Geriatric Medicine, JABSOM
Susan Todoki, B.S., R.N.
Simulation Coordinator, UH Translational Health Science Simulation Center, UHM School of Nursing and Dental Hygiene

Learning Objectives:
The learner will:
1. Describe how telepresence robots can enhance teaching and patient care in rural health settings.
2. Discuss challenges with interprofessional (IPE) education using novel distance technology.
3. Practice interprofessional and patient communication during a patient intake interview using a telepresence robot.
4. Explain evaluation methods utilized in IPE simulation and interpret evaluation results of a pilot telehealth IPE.

Methods:
This presentation will be conducted as a workshop (90 min) with hands on activities. The panel will present content utilizing PowerPoint slides, videos and audience participation in a live simulation session. Participants will break into small groups and have an opportunity to participate in a telehealth intake interview using telepresence robots. Discussion session will follow zoom.

Faculty representing the Hawai‘i Interprofessional Education (HIPE) working group will provide an overview of the teaching methods piloted in a telepresence robot simulation session and the pilot evaluation results. The overarching goal for the pilot session was to introduce nursing and pharmacy students to the concepts of providing interprofessional telehealth care using telepresence robots.

(see next page)

Key Phrases:
Interprofessional education *Technology and simulation* *Evaluation of simulation programs*

Brief Description of Session:
Volunteers from the audience at this workshop will participate in a telehealth simulation using a telepresence robot and two separate rooms for the activity section. We will bring two telepresence robots to the workshop. One room would house the audience volunteer "providers," and they will learn to control the robot via laptop. The other room would have the audience volunteer "patients," where they will see and communicate with the provider via the robot. Discussion session and debriefing will follow the short interaction with the robot. Discussion will include an explanation of teaching methods used in the telepresence simulation sessions, challenges the IPE workgroup encountered and recommendations to mitigate these challenges.

Evaluation Methods used in this pilot will be discussed: After each IPE activity, students from each profession completed 3 evaluation questions about the effect of participating in the exercise on their ability to collaborate interprofessionally, whether it would affect their future practice, and their satisfaction with their ability to work through the simulations (1-5 Likert scale). Satisfaction levels were high on all 3 questions. Students also completed a retrospective pre-post questionnaire called the Interprofessional Collaboration Competency Attainment Survey (ICCAS), a 20-item instrument designed to provide a self-assessment on behaviors associated with patient-centered, team-based, collaborative care. Using paired t-test, we found significant pre-post differences in scores on all questions and all domains (all $p<0.001$).

Target Audience: All health professionals and health professions students

Session II

1:30 pm – 3:00 pm
MEB 301

Conflict Resolution: Building a Toolkit to Address Interpersonal Conflict Management

Jill Omori, M.D.
Director, Office of Medical Education, JABSOM
Kamal Masaki, M.D.
Professor and Chair, Department of Geriatric Medicine, JABSOM
Kimberly Yamauchi, M.P.A.
Program Assistant, Imi Hoʻola Post-Baccalaureate Program, JABSOM

Abstract:
Conflict is ubiquitous and though it can sometimes be the driving force for positive change in health care, it can also lead to significant dysfunction, decreased productivity, and poor learner or patient outcomes when not addressed in a timely and effective manner. This workshop will help participants to identify sources of conflict in the workplace, recognize dynamics that contribute to and worsen conflict, practice strategies for de-escalating difficult situations, and practice and apply a structured approach to conflict resolution. We will utilize multiple educational strategies to actively engage workshop participants in learning and practicing conflict management. Techniques include didactic and large group discussion, small group work, and role play scenarios. By the end of the workshop, participants will have a toolkit of resources and strategies that can assist them in effectively managing conflict in their teams.

Learning Objectives:
By the end of the workshop, the participants will be able to:
1) Identify sources of conflict in their own departments and recognize personal and team dynamics that contribute to that conflict
2) Learn and practice a variety of conflict management techniques and strategies
3) Utilize a structured approach to conflict resolution that emphasizes professionalism and preservation of relationships
4) Build a toolkit of resources to effectively manage conflict and difficult situations

Intended Outcomes:
By the end of our workshop, participants will build a toolkit of strategies and resources that they can use in their own departments to more effectively manage conflict.

Target Audience: This workshop will benefit all types of health professions faculty members, medical residents, administrative staff, and learners.

Key Phrases: *Conflict resolution* *Communication* *Professionalism*

Session II

1:30 pm – 3:00 pm
MEB 304

Preceptor Training – Improving Skills for Precepting Interprofessional Collaborative Teams Using Video Teleconference and Online Technology

Lorrie Wong, Ph.D., R.N.
Associate Professor and Director of UH Translational Health Science Simulation Center, UHM School of Nursing and Dental Hygiene
Julie Kathman, D.N.P., R.N.
Assistant Professor and Doctor of Nursing Practice Program Director, UHM School of Nursing and Dental Hygiene
Robin Arndt, M.S.W., L.S.W.
Junior Specialist, Myron B. Thompson School of Social Work
Chad Kawakami, Pharm.D.
Assistant Professor, Daniel K. Inouye College of Pharmacy

Learning Objectives:
The learner will:

1. Discuss the HIPE proposed Interprofessional collaborative practice model.
2. Discuss methods to integrate an interprofessional team of students into your busy practice.
3. Practice evaluating and providing feedback to interprofessional teams of students utilizing the McMaster-Ottawa Tool.
4. Describe how to use distance technology, to conduct small group discussion sessions when conducting training workshops.
5. Practice using online live zoom breakout sessions.
6. Discuss the pros and cons of using distance technology to conduct a workshop.

Methods:
This presentation will be conducted as a workshop (90 min) with hands on activities. The panel will present content utilizing PowerPoint slides, videos and audience participation in a live zoom breakout session format. Participants will be divided into small groups and will participate in and lead zoom breakout sessions. Discussion will follow zoom session.

Brief Discussion of Session:
Faculty representing the Hawai‘i Interprofessional Education (HIPE) working group will provide a PowerPoint presentation of the tips and tricks of precepting interprofessional collaborative teams of students. Learning engagement includes demonstration and discussion on how to use zoom online video conferencing to engage online discussion sessions.

The hands-on practice session will be conducted using video teleconferencing technology – zoom breakout rooms. The audience will be divided into small groups to observe a video vignette of an interprofessional team working collaboratively to manage the care of a patient. The audience practice using the McMaster-Ottawa tool to observe and provide feedback to teams about their team collaborative behaviors.

Target Audience: All health professionals and health professions students.

Session III

3:15 pm – 4:45 pm
MEB 301

"Growing Up is Hard to Do": Applying Growth Mindset to the Professional Development of Health Profession Trainees

Barry Mizuo, M.D.
Pediatric Clerkship Director, Department of Pediatrics, JABSOM
Kyra Len, M.D.
Longitudinal Clerkship Director, Office of Medical Education and Department of Pediatrics, JABSOM
Travis Hong, M.D.
Assistant Professor, Pediatric Emergency Medicine, Department of Pediatrics, JABSOM
Bridget Allard, D.O.
Assistant Professor, Department of Pediatrics, JABSOM

Background:
Professionalism encompasses a diverse array of character traits that all medical trainees are expected to develop through training and eventually incorporate into practice. The ability to contend with adversity and the innate desire to want to improve are important traits we as faculty hope all medical trainees will embrace as part of their professional development. Understanding the concepts of growth mindset and fixed mindset which were discovered and popularized by Dr. Carol Dweck may help in fostering these particular professional traits. Learning to instill a growth mindset can be another tool for faculty to employ when developing and encouraging professionalism in our medical trainees.

Learning Objectives:
1. Describe and contrast a growth mindset vs a fixed mindset.
2. Identify ways for faculty to develop a growth mindset in health profession trainees.
3. Apply the concept of growth mindset to advising health profession trainees that may be struggling.

Methods:
This interactive and collaborative session will utilize a multifaceted approach by incorporating didactics, video, and a self-assessment questionnaire to teach the primary concepts of growth mindset and fixed mindset. Interactive group activities and small/large group discussion will also be employed.

Intended Outcomes:
Participants will be able to identify a growth mindset and fixed mindset in the trainees they supervise. They will also learn how to encourage a growth mindset in trainees and determine ways to implement a growth mindset to help trainees who may be struggling.

Target Audience: Though primarily geared towards individuals who supervise medical students or residents, the concepts discussed in this workshop may be useful for anyone who works with learners in other fields.

Session III

3:15 pm – 4:45 pm
MEB 304

Learning & Leveraging Your Leadership Talents

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Learning Objectives:

1. Self-assess your competency in building effective teams and interpersonal savvy, and iterate the relevance to medical education
2. Describe at least four actions or techniques that you can use to build skill in these competencies
3. Demonstrate, in a simulated setting, at least two of these skill-building techniques

Methods:
Participants will complete a leadership skills self-assessment (9 Types of Leaders) to create a personal profile of their relative leadership strengths and weaknesses. Two leadership competencies, Building Effective Teams and Interpersonal Savvy, will be discussed. Examples of highly skilled and less skilled behaviors will be demonstrated, and skill-building techniques presented.

In a small group simulated setting, participants will practice the techniques introduced in this workshop to optimize their leadership skills for medical education teams.

Intended Outcomes:
Medical educators will gain insight into their leadership skills and how these may be refined and deployed in the context of medical education teams. Improved leadership (and followership) capacity will positively impact our learning environments for the benefit of our trainees, and enable career advancement for our faculty.

Target Audience: "Leaders" at any level, including those who supervise clinical or research teams, teach students or residents, or deliver educational programs.

References:
Korn Ferry "FYI: For Your Improvement – Competencies Development Guide"

Oral Abstracts

11:45am – 12:45 pm

Health Sciences Library
Computer Lab
MEB 1st floor

Oral Abstract
11:45-11:55 am

A Primary Care Initiative – A Proposal for the Creation of an Interprofessional Health Academy (IPA) at the University of Hawai‘i

Robert Hong, M.D.
Department of Medicine, JABSOM

Context:
In Dr. Kelley Withy's report to the Legislature in 2017, it was estimated that there will be a shortfall in the Hawai‘i Primary Care physician work force by approximately 212 in 2020. There are only approximately 3693 actively practicing physicians (PCPs) in our state. Using our current training programs and recruitment efforts, we will not likely be able to fulfill these PCP needs. We need to look at alternatives to our current model for Primary Health Care delivery.

Objectives:
We need to develop a new model for Primary Health Care delivery using an interprofessional team approach and use education of this team to transform health care delivery. Team based care is an essential element of Health System Science, where health care transformation is based upon education.

The proposed team would include:

- Health coaches and community health navigators
- Allied health workers such as registrars and medical assistants
- Care coordinators including case managers, social workers and financial specialists
- Physical Medicine specialists, dieticians
- Pharmacists
- Advanced Health Practitioners (AHP) including APRNs, PAs and Nurse Practitioners
- Psychiatrists, psychologists and mental health specialists
- Primary Care Physicians
- Medical trainees such as Medical Students, Nursing Students and Resident Physicians
- Data analysts, Information Technology and Quality Improvement specialists
- Healthcare administrators

The curriculum for training by the IPA could focus on the 10 most common medical problems encountered by PCPs. Included in these topics would be: hypertension, diabetes, dyslipidemia, low back pain, anxiety disorders, thyroid disease, gastroesophageal reflux, general medical examinations, major depression and obesity. I propose that we should also develop interprofessional education on substance use and asthma/lung disease. We would target training over weekly blocks dedicated on Monday to disease-based education, Tuesday to communication and team work, Wednesday to Quality improvement and the remainder of the week to providing clinical care. 3 separate team tracks could be used such that a team is providing clinical care throughout a 6-day clinic week.

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Key Phrases: *Health System Science* *Interprofessional Training*

Using hypertension as a topic, the IPA could work with community health coaches and Health Kupuna to help teach patients to check their blood pressures at home. These coaches would learn basics of the causes of hypertension and lifestyle interventions changes needed. The coaches could be assigned to not only check blood pressures at home but to work with patients to change lifestyles, including supporting and shopping with patients.

Medical assistants would receive similar training on the basics of hypertension but focus on learning how to use the electronic medical record to enter data and use medication care pathways. Different education would be given to Primary Care physicians, medical students and advanced health care practitioners. Medical and nursing students would be taught the basic concepts in high blood pressure. Primary care physicians and advanced practice nurses could receive training on how to treat refractory hypertension. Dieticians and social workers could provide dietary education and would be incorporated into care teams. Physical medicine providers, education on exercise. Case managers could assist with training and provision of care dealing with the Social Determinants of Health.

By using an educational model, we hope to break down barriers to communication and develop common over-arching care plans.

Key Message/Conclusions:
We need to change our model for health care delivery. Using education to teach team-based care in an IPA we can teach teams to work together and serve as examples of Health System Science.

Oral Abstract
12:00-12:10 pm

The Story of a Longitudinal, Cross-Cultural Patient

Vanessa S. Wong, M.D., M.S.[1], Martina L. Kamaka, M.D.[1], Dee-Ann L. Carpenter, M.D.[1], and Gregory G. Maskarinec, Ph.D.[2]

[1]Department of Native Hawaiian Health, JABSOM;
[2]Office of Global Health and International Medicine, JABSOM

Objectives:
1. Describe a longitudinal, cross-cultural patient within the JABSOM curriculum
2. Discuss the potential learner benefits from this longitudinal patient-based experience

Key Message:
The John A. Burns School of Medicine is placing greater emphasis on longitudinal clinical experiences across all four years of training. The primary method of instruction in the first two years is problem-based learning (PBL). PBL is organized around small groups of students learning about the biological, clinical, populational and behavioral aspects related to the care of a particular patient. PBL is supplemented by additional experiences, including didactics, clinical skills preceptorships, and standardized patient exercises. Mr. Robert Kealoha is a patient who first presents as a PBL case within the first two months of the medical education curriculum. He subsequently re-appears as a PBL case, a standardized patient, a simulation, and as the focus of a panel discussion up through the third year. In addition to the many basic and clinical science learning opportunities Mr. Kealoha provides, there is an emphasis on cross-cultural care, particularly the care of Native Hawaiian patients. Social determinants of health and traditional healing practices are also introduced through this patient's stories.

Conclusion:
The longitudinal nature of this patient and his family allow for students to develop a connection to him over time. Additionally, the multiple modalities in which he presents, further engages the students. Future considerations include introduction of additional family members as PBL cases, standardized patient family exercises, and further integration with traditional healing practices.

Target Audience: Health professions educators

Key Phrases: *Native Hawaiian Health* *Cross-Cultural Care* *Longitudinal*

Oral Abstract
12:15-12:25 pm

Learning Interprofessional Collaborative Competencies using the Geriatric Interprofessional Panel (GIPP) for Community College Health Sciences Students

Aida Wen, M.D. [1], Hilary Hacker, M.A., C.T.E. [2], Tiffany Kawaguchi, Ph.D., O.T. [2], Amanda Allison, M.A. [2], Lynn Hamada, R.N., C.M.A. (A.A.M.A.), M.P.H. [2], Patricia Taylor, M.S.N., E.D., R.N. [2], Bennett Zazzera, P.T., D.P.T. , O.C.S. [2], Robert Vega, D.M., R.R.T. [2], Kamal Masaki, M.D. [1]

[1]The John A. Hartford Foundation Center of Excellence in Geriatrics and the Geriatrics Workforce Enhancement Program (GWEP, HRSA grant), Department of Geriatric Medicine, JABSOM;
[2]Kapiolani Community College Health Academic Programs (Community Health Worker, Medical Assisting, Occupational Therapy Assistant, Physical Therapy Assistant, Practical Nursing, and Respiratory Care)

Introduction:
Interprofessional collaboration is an important competency to attain for all health professions students. Faculty from the John A. Burns School of Medicine at the University of Hawai‘i collaborated with the Health Sciences Department at Kapiolani Community College to develop a half-day symposium for their students. We adapted and evaluated the Geriatric Interprofessional Panel (GIPP) workshop for interprofessional students in the areas of Practical Nursing, Community Health Worker, Physical Therapy Assistant, Occupational Therapy Assistant, Respiratory Care, and Medical Assisting.

Methods:
The KCC-GIPP workshop was 3.0 hours long, including introduction, evaluations, and debriefing. Interprofessional students were assigned to sit in teams of 13, with as even a distribution of professions as possible. The panel sitting up front was composed of faculty from geriatric medicine, practical nursing, community health worker, physical therapy assistant, occupational therapy assistant, respiratory care, and medical assisting. We began with an overview of the Age-Friendly Health Systems paradigm and the 4Ms Framework (What Matters, Medication, Mentation, Mobility), and then introduced the geriatrics case. We asked students to work with their IDT team to identify issues and consider preliminary management plans for three domains: Medication, Mentation, and Mobility. We then introduced “actors” for the patient and his daughter to share issues that Mattered most to them. The team then reconvened to adjust their plans with those considerations. Students shared their care plans, then invited the panel to share from their clinical experiences and answer questions. We concluded by debriefing lessons learned from the workshop.

Evaluation was done using the Interprofessional Collaboration Competency Survey (ICCAS), a 20-question validated survey used as a retrospective pre-post self-assessment with a 5-point Likert scale. We also included an extra item relating to cultural diversity. The evaluation also asked 3 questions about satisfaction with the workshop on a 5-point Likert scale. ICCAS scores were considered as continuous variables. We used paired *t*-tests to compare changes in mean scores before and after the workshop. Each question was analyzed separately and by categories based on interprofessional practice competencies. An overall average score was also generated.

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Key Words/Phrases: *Interprofessional education* *Health Science Students* *Geriatric Education*

Results:
A total of 100 students participated in the workshop, and we report on complete evaluation data from 75 students from respiratory care (n=8), physical therapy assistant (n=16), occupational therapy assistant (n=7), medical assisting (n=27), practical nursing (n=14), and community health worker (n=7). There were statistically significant improvements in all pre-post questionnaire items (all $p<0.0001$). The average total communication scores increased from 3.70 (SD 0.98) to 4.08 (SD 0.87), the average collaboration score increased from 3.69 (SD 1.06) to 4.16 (SD 0.87), the average roles and responsibilities score increased from 3.73 (SD 1.06) to 4.24 (SD 0.81), the average collaborative patient/family-centered approach score increased from 3.73 (SD 1.07) to 4.26 (SD 0.82), the average conflict management score increased from 3.94 (SD 0.99) to 4.33 (SD 0.78), the average team functioning score increased from 3.65 (SD 1.04) to 4.14 (SD 0.84), and the average cultural diversity score increased from 3.92 (SD 1.08) to 4.30 (SD 0.85). Students assessed effect of participation in the workshop on ability to collaborate inter-professionally (mean=4.47), impact on future practice (mean=4.23) and satisfaction with workshop (mean=4.23), on a 5-point Likert scale.

Discussion/Conclusion:
This interactive workshop provided an opportunity for interprofessional students to learn from each other and an expert panel and was successful in helping students improve interprofessional collaborative competencies.

Target Audience: Students and faculty from all health professions schools

Oral Abstract
12:30-12:40 pm

Increasing Accessibility While Minimizing Costs in an Online Program Focused on Child Health

Marie K. Fialkowski Revilla, Ph.D., R.D.N., L.D., I.B.C.[1], Ariana Eichelberger, Ph.D. [2], Hong Ngo, Ph.D.[3], Monica Esquivel, Ph.D., R.D.N. [1], William Meinke, M.Ed. [4], Rachel Novotny, Ph.D., R.D.N., L.D. [1]

[1]Department of Human Nutrition, Food and Animal Sciences, UHM; [2]Department of Learning Design and Technology, UHM; [3]UH System Office of the Vice President for Community Colleges; [4]Outreach College, UHM

Context:
Child obesity is a growing concern globally. One empowering approach to address child obesity is to enhance capacity in child obesity prevention through training and education. An online training program, Children's Healthy Living Summer Institute (CHL SI), has been developing an online education program as a long-term investment to increase the Pacific Region's capacity to promote child health.

Objectives:
The objective of the CHL SI is to elevate the human capacity of the Pacific Region to promote child health through online training that is globally relevant, locally applicable, accessible and affordable.

Key Message:
Courses offered in the CHL SI are based on the Social Ecological Model which encourages students who complete the coursework to be able to identify opportunities to improve child health at multiple levels including at the child, family, community, and policy levels. All courses in the CHL SI are delivered online and designed so students can complete material at their own pace within specified time frames offering the greatest flexibility for the expansive Pacific region. To minimize costs, all courses have textbook zero costs (TXT0). Students need a computer/device and reliable internet connection to participate. Although delivered online, the courses encourage a number of hands-on activities set in students' communities to reinforce concepts.

Conclusion:
The CHL SI has innovated online education to encourage hands on learning in an accessible manner with an eye to minimizing cost. Students who complete the courses will have foundational knowledge and skills to design, develop, and implement effective programs to promote childhood health that is globally relevant and locally applicable in the Pacific.

Target Audience: Those interested in making innovative use of technology to provide coursework to diverse underserved populations with information on nutrition, health promotion and disease prevention.

Key Words/Phrases: Online TXT0 (Textbook Zero Costs) Applied to the Community

Poster Abstracts

11:45am – 1:15 pm

Health Sciences Library
MEB 1st floor

Abstract #1

Medical-Legal Partnership: Opportunities for Interprofessional Education

Alicia Turlington, M.D. [1,2] and Dina Shek, J.D.[2,3]

[1]Department of Pediatrics, JABSOM; [2]Medical-Legal Partnership for Children in Hawai‘i;
[3]William S. Richardson School of Law, UHM

Context:
The Medical-Legal Partnership for Children in Hawai‘i (MLPC) was founded in 2008 as a partnership between the University of Hawai‘i at Mānoa’s William S. Richardson School of Law, the John A. Burns School of Medicine, and a federally qualified health center, Kōkua Kalihi Valley Comprehensive Family Services (KKV). Since its inception, MLPC has been a site for interprofessional education (IPE) of law fellows and pediatric residents, as well as law and medical/health students, to come together to focus on the social determinants of health in addressing whole person care with patients/clients. We encourage more IPE that utilizes MLPC values and lessons, including discrete, collaborative workshops.

Objectives:
1. To educate the next generation of health, law, and other professionals in the social determinants of health through an interdisciplinary and collaborative format.
2. To enhance student experiences by offering a unique venue for IPE and collaboration.

Key Message:
The opportunities for IPE activities are boundless but require some creativity and innovation as our students are educated far away from each other. Medical and law students are primarily focused on learning the distinct languages of our professions which isolate us into academic silos; they are also geographically separated and have misaligned academic schedules, leading to little opportunity to interact. KKV, the physical home of the MLPC, offers an avenue where law fellows and pediatric residents can fully engage and collaborate on patient care together. However, only a small number of students and residents experience this level of interprofessional collaboration.

We have developed and hosted shorter, discrete opportunities for engagement with MLPC, including individualized education units (IEU) for medical residents, MD7 lectures connected to PBL cases, and half-day site visits to KKV and the public housing complex where MLPC operates. More recently, MLPC hosted the pediatric resident annual retreat to participate in a short, problem-based, role-playing activity to address social determinants of health issues drawn from MLPC patient-client realities. With law fellows as facilitators and MLPC residents acting as “patients,” the remaining pediatric residents conducted interviews to uncover the medical and social/legal problems. This exercise allowed the law fellows to see how legal problems exacerbate health problems. Meanwhile, the pediatric residents recognize that if they fail to address the underlying social etiology of a medical problem, they will fail to provide optimal care. And together they share interviewing techniques and gain confidence in asking difficult questions about housing, income, discrimination, and other critical matters.

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Key Words/Phrases: Medical-legal partnership Social determinants of health Interprofessional education

Conclusion:
MLPC offers unique opportunities for health and law professional students and early career lawyers (fellows) and doctors (residents) to learn about the social determinants of health and health-harming legal needs together. Through their combined wealth of knowledge, which is often siloed and lost in professional jargon, they can reach new levels of understanding and practice skills to address whole person/whole client needs. Even short-term collaborative educational projects for students and early professionals can improve their confidence and ability to address the social/legal needs of patients.

Target Audience:
Law professors, fellows, and students; medical school professors, residents, and students; residency program directors and clinical faculty; and social work, public health, health management students and professors.

References:
Shek D, Turlington A. Building a Patient-Centered Medical-Legal Home in Hawai'i's Kalihi Valley. *Hawai'i J Med Public Health*. 2019;78(6Suppl1):55-60.

Benfer E. Educating the Next Generation of Health Leaders: Medical-Legal Partnership and Interprofessional Graduate Education. *J Leg Med*. 2014;35(1):113-48.

Kenyon C, Sandel M, Silverstein M, Shakir A, Zuckerman B. Revisiting the social history for child health. *Pediatrics*. 2007;120:e734-e738.

Key Words/Phrases: Medical-legal partnership Social determinants of health Interprofessional education

Abstract #2

Learning Interprofessional Collaborative Competencies using the Geriatric Interprofessional Panel (GIPP) for Health Professions Students

Samina Ahsan, M.D.[1], Vanessa Wong, M.D., M.S.[2,3], Aida Wen, M.D.[1], Lorrie Wong, Ph.D., R.N.[4], Chad Kawakami, Pharm.D.[5], Misty Yee, M.S.[1], Kamal Masaki, M.D.[1]

[1]The John A. Hartford Foundation Center of Excellence in Geriatrics and the Geriatrics Workforce Enhancement Program (GWEP, HRSA grant), Department of Geriatric Medicine, JABSOM; [2]Department of Native Hawaiian Health, JABSOM; [3]Office of Medical Education, JABSOM; [4]UHM School of Nursing and Dental Hygiene; [5]UH Hilo College of Pharmacy

Introduction:
The John A. Burns School of Medicine at the University of Hawai‘i has a problem-based learning (PBL) curriculum. Second year medical students have a “Life Cycle” unit, from pre-natal to geriatrics and end-of-life care. The Department of Geriatric Medicine provides geriatrics curriculum as part of this unit. In 2018-19, we developed, taught and evaluated the Geriatric Interprofessional Panel (GIPP) workshop for interprofessional students.

Objectives:
To describe and evaluate the Geriatric Interprofessional Panel workshop for students from 7 different health professions.

Methods:
The GIPP workshop was 2 hours long, including evaluations. Interprofessional students were assigned to sit in teams of 9 or 10, with as even a distribution of professions as possible. The panel sitting up front was composed of faculty from medicine, nursing, social work, pharmacy, physical and occupational therapy, dental hygiene, dietetics, and speech therapy. We introduced the case using the Geriatrics Interdisciplinary Care Summary (GICS) framework, then asked each interprofessional team to identify issues and consider preliminary management plans for each domain. Two domains were discussed at a time. After students shared their thoughts, panel members shared their experience and answered questions for each domain. This process was repeated 4 times to cover all 8 GICS domains (medicine, nutrition, cognitive, emotional, rehabilitation, environment, social, and caregiver). After the IPE activity, evaluation used the Interprofessional Collaboration Competency Attainment Survey (ICCAS), a 20-question validated survey for self-assessment on behaviors associated with patient-centered, team-based collaborative care. The ICCAS was used as a retrospective pre-post self-assessment using a 5-point Likert scale. An extra item relating to cultural diversity was added. Students also completed 3 evaluation questions about satisfaction with the IPE activity on a 5-point Likert scale.

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Key Phrases: Interprofessional education Geriatric education Health science students

Results:
We analyzed data from 181 students from medicine (n=63), nursing (n=69), pharmacy (n=9), social work (n=6), dental hygiene(n=11), dietetics (n=15), and speech/language pathology (n=8). Using paired t-tests, we found significant pre-post improvements in scores on all questions and all domains (all $p<0.0001$). Total communication domain scores increased from 3.78 to 4.20, collaboration domain scores increased from 3.67 to 4.30, roles and responsibilities domain scores increased from 3.73 to 4.29, collaborative patient/family-centered approach domain scores increased from 3.78 to 4.34, conflict management/resolution domain scores increased from 3.97 to 4.35, team functioning domain scores increased from 3.75 to 4.29, and cultural diversity score increased from 3.92 to 4.27. Using a 1-5 scale, students assessed the effect of participating in the exercise on: ability to collaborate interprofessionally (4.17), impact on future practice (3.78) and satisfaction with exercise (4.10).

Discussion:
This interactive workshop provided an opportunity for interprofessional students to learn from each other and an expert panel, and was successful in helping students learn interprofessional collaborative competencies.

Target Audience: Faculty and students in health professions schools.

Key Phrases: Interprofessional education Geriatric education Health science students

Abstract #3

Evaluation of a "Geri-Lab" Experience for Medical Students at the University of Hawai'i: Three Years of Experience

Samina Ahsan, M.D.[1], Vanessa Wong, M.D., M.S.[2,3], Daniel Murai, M.D.[3], Misty Yee, M.S.[1], Karen Lubimir, M.D.[1], Lauren Okamoto, M.D.[1], Aida Wen, M.D.[1], Kamal Masaki, M.D.[1]

[1]Department of Geriatric Medicine, JABSOM; [2]Department of Native Hawaiian Health, JABSOM; [3]Office of Medical Education, JABSOM

Introduction:
As part of the John A. Burns School of Medicine's problem-based learning (PBL) curriculum, 2nd year medical students have a "Life Cycle" unit, from pre-natal to geriatrics and end-of-life care. The Department of Geriatric Medicine provides geriatrics PBL paper cases, a lecture series, a workshop taught by an interdisciplinary panel, a half day of clinical skills experiences, and a half day "Geri-Lab" experience.

Objectives:
To report evaluation data from 3 years of the Geri-Lab experience for 2nd year medical students.

Methods:
The Geri-Lab experience was 3 hours long, including evaluations. First, Geriatric Medicine Fellows gave three 10-minute mini-lectures on Functional Status, Cognition and Depression. Then students met in small groups for hands-on experiences, with 8-12 students and 1 Geriatric Medicine Fellow. The fellow presented a case on a geriatrics patient who fell, was hospitalized and needed rehabilitation. Four workshop topics related to the case included: Mood; Cognition; Functional Status; and Interdisciplinary Team Care. The interactive workshops allowed students to practice screening tools on each other. All students gathered for the last hour for debriefing in a large group. One student from each small group presented 2 key learning points and what they liked best. One week after the Geri-Lab, students were supervised by the Geriatric Medicine Fellows in a 3-hour clinical skills session where they utilized skills taught in the Geri-Lab during an interview of an older adult. In small groups, students discussed issues raised during the patient interactions.

Results:
We analyzed data from a total of 217 second year medical students over 3 years (2016-17, 2017-18, 2018-19). Evaluation included 7 knowledge questions before and after the Geri-Lab, and a retrospective pre-post self-assessment of attitudes and skills at the end of the clinical skills session, using a 5-point Likert scale. The response rate was 200/217 (92.2%) for the knowledge questions, and 208/217 (96.0%) for the attitudes/skills questions. We found statistically significant differences in knowledge scores in 4 of the 7 questions. Total knowledge score increased from 4.74 to 6.25 ($p<0.0001$), on a scale of 0-7. Self-assessed attitudes and skills significantly improved in all 7 domains, all $p<0.0001$. The summary skills score was 3.71 before and 4.52 after the experience, $p<0.0001$.

Discussion:
The Geri-Lab provided a hands-on educational experience that was very well received by second-year medical students, and significantly improved their knowledge, attitudes and skills about geriatric issues. Future plans may include converting the Geri-Lab into an interprofessional education experience with other healthcare professions students.

Target Audience: Faculty and students in health professions schools

Key Phrases: Hands-on workshop Geriatric education Clinical skills

Abstract #4

Pharmacy Students Teach in a Primary Care Clinic

Dee-Ann Carpenter, M.D.[1] and Wesley Sumida, Pharm.D. [2]

[1]Department of Native Hawaiian Health and Office of Medical Education, JABSOM;
[2]Daniel K. Inouye College of Pharmacy, UH Hilo

Background:
Senior pharmacy students at the University of Hawai'i at Hilo Daniel K. Inouye College of Pharmacy (DKICP) have a mandatory Ambulatory care six-week rotation known as APPE, Advanced Pharmacy Practice Experience. One of the sites available for these learning rotations is at the University Health Partners of Hawai'i Medicine Faculty Practice in the JABSOM Department of Medicine. As part of their rotation in this clinic, students do a formal presentation to the entire clinic in the last week. This student teaching experience becomes a great learning activity and serves to foster interprofessional collaboration. The audience includes Internal Medicine physicians, residents, medical students doing their 3rd-year Medicine clinical rotation, as well as the staff, including the RN, MA's, receptionist and clinic manager.

Objectives:
Given the above information, our objective was to determine which topics the students were selecting to address in their presentations. A second objective was to determine the extent to which the clinical audience found these topics useful.

Methods:
In the first few of weeks of the rotation, the student self-selects a presentation topic. These presentation topics require the final approval by the pharmacy preceptor and physician partner. The selected topic must to be both relevant to the student's career interest as well as the clinical audience. Therefore, creativity is not only encouraged, but required. This is unique in that students in other ambulatory rotations often report being assigned a specific presentation topic by their pharmacy preceptor.

Our intent was to identify and categorize the types of presentation topics that the students selected. We collected two years of data and identified major themes. In addition, we solicited feedback from the clinical staff on the usefulness and relevance of this educational initiative.

Results:
Topics fell into 4 general categories which included clinical disease state management, pharmaceutical products, technology, and wellness.

Discussion:
Choosing a topic to present provides a growth opportunity for professional maturity of the student. The student has a higher level of responsibility by owning his own topic and expanding his self-directed learning. Recently, additional interprofessional learning requests have resulted in student delivered clinic inservices that embrace audience engagement.

We plan to describe our evaluation of reported clinician and clinic staff feedback for the favorite, most useful and highest interest in future topics.

Target Audience: Clinicians, including physicians and pharmacists, as well as students

Key Phrases: *Pharmacy students* *Primary care* *Teaching*

Abstract #5

Breakout Kaka‘ako: Using Escape Rooms to Teach about HIPAA and Universal Precautions

Jill Omori, M.D. and Kori-Jo Kochi, B.A.

Office of Medical Education, JABSOM

Introduction:
Medical education is constantly evolving and many schools have replaced traditional didactic lectures with more interactive, small group learning activities. There have been a number of improved learning outcomes demonstrated when utilizing active vs. passive teaching strategies.[1] The use of games in teaching, or “gamification”, has become much more popular in medical education and has been shown to increase learner engagement, promote deeper learning, and enhance collaboration.[2]

Objectives:
The objective of this educational innovation was to find a more engaging and effective way to deliver content related to HIPAA and universal precautions to incoming first year medical students, two topics that have been considered fairly boring topics.

Methods:
Students were provided with reading material ahead of time relating to HIPAA and universal precautions and advised that reviewing the material would assist them with an escape room activity during orientation week. An escape room scenario was created that incorporated specific learning objectives from the pre-assigned readings. Students were placed into groups of 5-6 individuals and tasked with working as a team to “break out” of an exam room, utilizing their knowledge of HIPAA and universal precautions and also in solving other fun puzzles.

Results:
The exercise was highly rated by the students, with 94% of the students rating it as somewhat to very effective. There were also many positive comments in response to the activity, including the engaging nature of the activity, the benefits of having to work as a team, and that it was a fun way to reinforce the material they had learned.

Discussion:
The “gamification” of these topics proved to be an effective way of delivering this content and should be considered as an alternative teaching strategy for other content areas in the curriculum.

Target Audience: Health professions faculty

References:
1. McCoy L etal. Gamification and Multimedia for Medical Education: A landscape review. J Am Osteopath Assoc. 2016 Jan; 116(1):22-34.
2. Rutledge C etal. Gamification in action: theoretical and practical considerations for medical educators. Acad Med. 2018 July; 93(7): 1014-1020.

Key Phrases: *Content delivery* *Gamification* *Learner engagement*

Abstract #6

Find the Lesion: An Online, Interactive, Game-Show Style Learning Experience

J. Douglas Miles, M.D., Ph.D.

Department of Medicine and Department of Anatomy, Biochemistry and Physiology, JABSOM

Context:
In a medical school neuroanatomy course, the goal of learning anatomical structures is to facilitate diagnosis and planning of treatment in the clinical setting. This requires students to not only know the relative locations of various structures, but to understand their functions and how derangement of function presents clinically. Developing this level of understanding can be challenging, but it is a core skill clinical neurology. To this end, an online, competitive, game-show style learning experience was developed for second-year medical students in a neuroanatomy course.

Objectives:
The purpose of the "Find The Lesion" game is to emphasize the clinical correlations of neuroanatomical structures and lesions.

Key Message:
A website called "FindTheLesion.com" was created. Software was created and hosted on the site to create an interactive, competitive game-show type learning activity.

The game is played as follows: In the lecture hall setting, the class is divided into small group teams. Each team signs into the website via a tablet or laptop computer. The class then receives a series of clinical scenarios, each including history and focused neurological exam. After receiving each scenario, groups are asked to submit the anatomical localization of the lesion, as precisely as possible. Groups compete to submit the correct answer in the shortest time. A display at the front of the lecture provides real-time feedback, including each team's answers, whether the answers are correct or incorrect, and the team's ranking as the game progresses. Prizes are provided for motivation.

"Find The Lesion" has been used at JABSOM during the neuroanatomy course since 2013. Overall, the student feedback has been positive.

Conclusion:
The "Find The Lesion" game provides an interactive and competitive means for students to practice localization of neurological findings relevant to the neuroanatomy they have learned prior to the game. It provides an informal means for the students to assess their own understanding of the material, and a means for the instructor to assess the class's level of understanding.

Target Audience: Health professions educators

Key Phrases: Clinical anatomical correlation Clinical skills Neuroanatomical localization

Abstract #7

Undergraduate Curriculum Designed to Facilitate a Cancer Exercise Rehabilitation Program

Paulette M. Yamada, Ph.D.[1], Cheri Teranishi-Hashimoto, M.S., M.S.P.T, D.P.T, C.L.T.[2], Ariimana Temanaha, B.S.[1,2], Jack Prince, B.S.[1,2], Russell Woo, M.D.[3]

[1]Department Kinesiology & Rehabilitation Science, UHM;
[2]Rehabilitation Hospital of the Pacific; [3]Department of Surgery, JABSOM

Introduction:
Cancer survivors living with cancer-related side-effects in the U.S. is expected to reach 18 million patients in 2022. Training of a workforce knowledgeable in the unique issues of oncologic exercise design and delivery will help to fulfill the need for services that improve survivor's overall health, prognosis and quality of life.

Objectives:
The purpose of this project was to deliver an in-person cancer exercise rehabilitation training curriculum and assess student knowledge and application (n=19 students/cohort x 2 cohorts = 38 students).

Methods:
We developed an internship training program for undergraduate Kinesiology students enrolled in a semester-long practicum course (KRS 488, 160 hours). We provided 10 hours of face-to-face training that taught students how to design an exercise program while accounting for preexisting medical conditions, proper exercise progression, cancer terminology, treatments and associated after-effects such as lymphedema. Students had access to online training resources, which supported reiterative learning. Then, students were assigned patients and created exercise prescriptions using newly acquired knowledge, patients' baseline fitness and medical histories. Students delivered exercise programs in a one-on-one setting (54 exercise instruction hours per patient). Weekly feedback and guidance on exercise program design were provided to students. Three performance dimensions were evaluated: 1) skills proficiency, 2) ability to apply newly acquired knowledge, and 3) academic, professional and interpersonal growth.

Results:
After curriculum delivery, 68% of the students (13 out of 19) calculated target exercise workloads correctly and 74%, 73% and 95% of the students included appropriate cardiovascular, resistance training and flexibility exercises in their initial exercise prescription design. With instructor feedback, 100% of the students resubmitted exercise programs that targeted each fitness component using appropriate workloads (9 out of 19 students made corrections). Mid- and final-semester performance (n=34 instructor-scored evaluations) revealed that student motivation and character (disposition) was highly rated with a score of 98%±1 (out of 100%, mean±SD). Mid-semester exercise leadership/knowledge of exercise prescription was rated lower (69±1%), but this dimension was significantly improved at the end of the semester (75±1.2%, 2-tailed, paired t-test, $p<0.05$). Total evaluation scores fall within the acceptable range of ≥90%, where mid- and final-scores significantly increased from 92±3% and 94±2% (out of 100%), respectively. Ninety percent of students (28 out of 31 students) reported that this was an excellent learning experience; 59% and 34% of the students reported that the quality of training was sufficient or above average, respectively. Furthermore, cancer patient fitness outcomes (female n=63, male n=8, mean±SD age: 59±11 years) significantly improved from pre-to-post intervention as demonstrated by increased

(see next page)

Key Phrases: *Curriculum efficacy* *Cancer rehabilitation* *Clinical assessment*

cardiorespiratory endurance (female VO_2 peak: 26.0±8.8 to 29.9±8.9 ml/kg/min); muscular strength as measured with a 1-repetition maximum using the chest press (female: 46±12 to 56±14 lbs, male: 77±16 to 91±19 lbs); unipedal balance on the non-dominant (left) foot with visual feedback (female: 33.9±15.8 to 38.0±13.6 sec, male: 37.5±10.4 to 43.3±4.6 seconds) and reduced body fat (male: 26.7±5.8% to 25.2± 6.3%), (2-tailed, paired t-tests, $p<0.05$).

Discussion:
These data indicate that the curriculum was effective in teaching students how to design and implement exercise programs that improve cancer patient's fitness and quality of life. Spending additional time on exercise workload calculations and exercise progression may enhance student learning. Translation of the curriculum to an online digital format would further increase the number of personnel trained in oncologic exercise design, the volume of patients receiving cancer rehabilitation and the value of this course.

Target audiences: Educators who desire to teach students oncologic exercise design principles

Key Phrases: Curriculum efficacy Cancer rehabilitation Clinical assessment

Abstract #8

Enhancing Dental Hygiene Student's Knowledge and Skills in Pediatric Care through Simulation

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Introduction:
Dental caries is the most common chronic disease in pediatrics. This condition can be prevented by performing proper oral hygiene (brushing and flossing) and by attending routine dental visits starting before or at the age of 12 months. Most dental hygiene (DH) programs have limited pediatric content within their curriculum and will often graduate students who demonstrate a lower proficiency in providing dental care to children and families. In 2017 the UHM SONDH revised its undergraduate DH program to increase student's pediatric exposure and created a Post-BS Advance Certificate in Expanded Function Dental Hygiene (EFDH) in Pediatrics. Included in the new curriculum was a one-day pediatric simulation experience for students.

Objectives:
To determine if pediatric dental hygiene simulation experience would increase students' knowledge and skills in:

1. Properly performing specific pediatric assessments (vital signs and growth measurements)
2. Recognizing risk factors for obesity and dental caries
3. Identifying social determinants that affect oral as well as systemic health of children
4. Communicating comfortably and effectively to children and families

Methods:
A pre-simulation survey assessed two classes (2018-2019) of dental hygiene student's confidence in obtaining pediatric vital signs; documenting growth measurements; recognizing social determinants of health and obesity risk factors; and communicating with parents. A simulation session, four hours in length, using low fidelity (manikins) and patient/parent (actors) was utilized to prepare students to provide care to children and families and included measuring vital signs, documenting growth measurements on standardized charts, identifying risk factors for caries and obesity and culturally appropriate communication with parents of children presenting for a dental assessment. Following the simulation, a post-simulation survey was distributed to students.

Results:
The mean scores from the pre-simulation survey (n=55 students) were compared to the mean scores of the post-simulation survey (n=55 students). The greatest changes in confidence (scale 1-5) was found in recognizing obesity risk factors (pre=1.87 ± .924 ; post=3.22 ± .658); developing culturally appropriate and individualized oral health education to parents/guardians of young children (pre=1.75 ± .844; post=2.78 ± .809); and recognizing social determinants of health contributing to children's oral and overall health (pre=1.91 ± .867; post=2.93 ± .690).

Conclusion:
Simulation in DH offers training that utilizes realistic scenarios, where DH students can practice skills in a safe and controlled environment, while reducing patient exposure to inexperienced trainees. The program's survey results demonstrate the benefits of integrating simulation into the dental hygiene curriculum and specifically highlights the impact of the simulation experience on student learning in the area of pediatrics. Next steps include increasing sample size with subsequent DH classes to determine statistical significance.

Target Audience: Dental hygiene professionals and faculty, health professionals

Key Phrases: *Dental hygiene* *Simulation* *Pediatrics*

Abstract #9

Increasing Pediatrician Satisfaction with the Preceptorship Experience Through Formal Training and Recertification Incentives

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Introduction:
The third-year Pediatric clerkship at the John A. Burns School of Medicine (JABSOM) relies heavily on volunteer pediatric faculty preceptors to teach medical students. Similarly, other clerkships rely heavily on volunteer faculty to deliver core curriculum to students. There is no formal curriculum in place that community preceptors are expected to participate in to ensure they have the foundational skills to provide effective teaching to our medical students. In addition, the lack of incentives and benefits to teaching medical students make the recruitment and retention of teaching faculty difficult. Nationally, the absence of formal training on teaching and protected time to teach are barriers to effective teaching of medical students.[1-2]

Objectives:
Our study attempted to address the gap that exists in regards to faculty development for our medical student preceptors in regards to their role as teachers. In addition, by offering Maintenance of Certification (MOC) Part 4 credit, we are providing a potential "reward" to our participants which may also have an impact on recruitment and retention of preceptors.

Methods:
Twenty-two pediatricians completed all project requirements including participation in 3 faculty development meetings, completion of 3 teachingphysician.org CME modules, and answering a pre and post-survey. These individuals were all awarded 25 MOC Part 4 credits for successful completion of the project's requirements. To see how this project impacted the pediatricians' overall satisfaction of their preceptorship experience, participants completed an anonymous electronic pre- and post-survey.

Results:
The survey rated participants' overall satisfaction with being a JABSOM preceptor and also inquired about their satisfaction with resources provided by JABSOM to prepare them for their preceptor role. Participants were also asked about their satisfaction with their career in pediatrics and how long they planned on volunteering as preceptors. Analyzing the survey data from these 22 participants, we saw a significant increase in their overall satisfaction with being a JABSOM preceptor and JABSOM-provided teaching resources (one-tailed test). In addition, since the start of the project in June 2018, we saw an increase of faculty meeting attendance by 87%.

Discussion:
Our study shows that including formal teaching sessions and incentives like offering MOC Part 4 credit can positively impact volunteer faculty perceptions of their role as preceptors and is a unique method to stimulate preceptor engagement.

Target Audience: Faculty of medical students and other health profession learners, medical students, health care professionals

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Key Phrases: Preceptorship experience MOC Part 4 credits Pediatric clerkships

Abstract #10

Hypothesis-Driven Gross Anatomy Learning for Brain and Cranial Cavity Dissection using MRI Imaging of Cadavers and Delivered Utilizing XR-Web Technology

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Introduction and Objective:
Extended reality (XR) technology has been shown to enhance the learning experiences of students in healthcare. The purpose of this study was to demonstrate that a multi-departmental workflow utilizing MRI, XR technology and a unique "patient" group, represented by the John A. Burns School of Medicine (JABSOM) Willed Body Program (WBP), supplements hypothesis-driven learning in anatomical dissections and promotes student exploration and engagement. This workflow was applied to the Cranial Contents dissection that is performed as the 5th dissection in the Head and Neck dissection series.

Methods:
The workflow began by obtaining MRI scans of WBP donors, subsequent to embalming, and uploading imaging files to rad3d.com. "Subject, (S)," "Medical History (M)" and "Physical Exam (PE)" data were input to the reports page followed by "Radiology (R)" and "Pathology (P)" reports. After initial assessment information consisting of S, M, and PE data was discussed within groups, hypotheses regarding cadaveric, neurological findings were generated and recorded using Google Forms. Students subsequently reviewed R and P reports and accessed relevant 3D segmented, photogrammetric and illustrative models. The models were also viewed as XR models using immersive, augmented and virtual reality z-space computers in the laboratory. The diagnostic features were reviewed and initial hypotheses were subsequently tested in a dissection exercise.

Results:
Analysis of hypotheses rendered revealed that students were able to identify important neurological abnormalities related to radiological and pathological findings in cadavers. Analysis of student opinion regarding the use of MRI and XR technology revealed an enhancement of learning that supplemented hypothesis generation. A survey consisting of seven questions was conducted following the laboratory to assess student opinion (n=74) using a 5-point Likert scale. Results showed that students found MRI scans of cadavers to be helpful in understanding dissections and that the MRI scans provided an understanding of relevant anatomy as demonstrated by a mean score of 4.14 (SD 1.1) and 4.32 (SD 0.9). Results also showed that 78.4% of students used Rad3D software to view MRI scans of cadavers. However, difficulty of use was found to be average as demonstrated by a mean score of 2.90 (SD 1.0). 40.5% of students used z-space technology with many students agreeing that it provided an understanding of spatial relationships of the diseased structures encountered as demonstrated by a mean score of 3.60 (SD 1.0), while 97.3% of students reported wanting more interactive sessions using MRI scans of cadavers.

(see next page)

Key Phrases: *Problem-based learning* *MRI imaging* *XR-web technology*

Discussion:
Based on these results, we conclude that cadaveric MRI scan visualization and XR technology enhance students' understanding of hypothesis-driven anatomical dissections and promotes student exploration and engagement. Furthermore, we conclude that this approach is consistent with JABSOM's longstanding pedagogy that utilizes student directed Problem-Based Learning and deserves further exploration as the basis for gross anatomy dissection in the medical curriculum.

Target Audience: Medical education

Supported, in part, by XLR8UH and Quake VC.

Key Phrases: Problem-based learning MRI imaging XR-web technology

Abstract #11

Neuroangiostrongyliasis: Raising Awareness Through Poster Distribution

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Context:
Angiostrongylus cantonensis, also known as rat lungworm, is a parasite endemic to the state of Hawai‘i. Neuroangiostrongyliasis is a severe form of Angiostrongylus infection that results when the L3 stage of the parasite migrates within the central nervous system of the patient. The presenting symptoms can be missed by physicians that do not have a high index of suspicion for Neuroangiostrongyliasis. Typical symptoms include severe headaches, neck stiffness, nausea, paresthesias and limb pain. Late diagnosis can lead to long-term sequelae, coma, or death.

Objectives:
In an effort to prevent a patient from developing severe pathology that can result from a delay in diagnosis, it is critical to raise awareness about the disease and how it can present in patients who have a positive clinical history.

Methods:
Academic posters have been created to be distributed in community clinics, urgent care clinics, and emergency rooms throughout the state, since these are common settings where patients are first seen. Pre-surveys are going to be distributed to Big Island physicians to access baseline knowledge of diagnosis and treatment of *A. cantonensis* before and after the posters are distributed to different facilities and clinical practices on the Big Island. After distributing these posters to different clinical practices in the community, feedback through post-distribution surveys are to be collected and analyzed to improve the quality of these posters and ensure they are fulfilling their purpose.

Conclusion:
The posters are intended to remind frontline physicians about the signs and symptoms of Neuroangiostrongyliasis so that an early diagnosis can be made and treatment can be started to prevent severe pathology of the disease.

Target Audience: Health care providers who are first contact for patients possibly infected with this disease such as primary care physicians, ER and urgent care physicians, NPs and PAs

Abstract #12

Analysis of Characteristics in People Receiving Cardiopulmonary Resuscitation Education in Korea

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Introduction and Objectives:
Cardiopulmonary resuscitation (CPR) education for layperson is an important factor to increase the survival rate of out-of-hospital arrest (OHCA) and the rate of performed bystander CPR. Since 2007, Korean government supported public CPR education by the law, in addition to private educational institution.

We analyzed the characteristics of the bystander CPR education for the public in South Korea 2016.

Methods:
We reviewed the nationwide data of the Korea Community Health Survey conducted by the Korea Centers for Disease Control and Prevention (KCDC). This was a visiting household survey in 2016.

The subjects were all adults and were selected using the PROC SURVEYSELECT procedure of SAS based on the registered population. The subjects who refused to take part the survey or to answer the questions about CPR education were excluded.

Those who received the CPR training within 2 years were defined as CPR-trained group.

We compared the characteristics between the CPR-trained group and non-CPR-trained groups for demographic (age, gender), socioeconomic (occupation, education level, family income) characteristics.

Results:
The survey was conducted on 228,452 people. Among them, 186,857 people were analyzed. The number of CPR-trained group within 2 years was 45,940 (24.6%) and non-CPR-trained group was 140,917 (75.4%).

In demographics, male subjects were 61.3%. In under 50 years group, CPR-trained group was larger than non-trained group.

In soldiers, students, manual labor and white-collar workers, CPR trained group was larger than the non-trained group unlike in agriculture, fisher and housewives. In over 2M won (about $2,000) income families, the CPR trained group was larger than non-trained group unlikely under 2M won income family.

Discussion:
There were significant differences between the CPR-trained group and the non-CPR-trained group according to demographic, occupation, education levels and family income.

This result could come from the unequal chance to learn CPR.

To decide CPR trainees, these differences should be followed up, and be correct if aggravated.

Target Audience: Public health providers, medical educators and administrators

Key Phrases: *Cardiopulmonary education* *Public health*

Abstract #13

The American Society of Echocardiography Cardiac Point-of-Care Ultrasound Curriculum for Pre-Clinical Medical Students: A Pilot Study

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Introduction:
Cardiac point-of-care ultrasound (POCUS) training has been integrated into medical school curricula. However, there is no standardized cardiac POCUS training method for medical students.[1] Recently, the American Society of Echocardiography (ASE) introduced a basic cardiac POCUS curriculum for medical students.

Objectives:
The objective of this pilot study was to determine the feasibility of measuring the skill and knowledge learning effects of the ASE-recommended basic cardiac POCUS curriculum.

Methods:
This pilot study was a prospective, single-group, pre-post education intervention study. We recruited 6 second-year pre-clinical medical students. Based on the ASE recommendations, we developed a cardiac POCUS curriculum which included a pre-training self-study of the ASE online medical student module[2] and a healthy volunteer 5 cardiac POCUS views 60-minute hands-on training session (parasternal long-axis, parasternal short-axis, apical four chamber, subcostal four chamber, and subcostal inferior vena cava views). Competency assessments were pre-training, immediate post-training, and 8-week post-training skill and knowledge tests. During skill testing, students demonstrated the 5 cardiac POCUS views on the same single healthy volunteer as in the hands-on training session. Image quality was scored by three blinded assessors, using a predefined 10-point maximum skill test scoring system. The knowledge test consisted of 40 multiple-choice questions identifying anatomical structures seen in the 5 cardiac POCUS views. The students used a hand-held ultrasound probe (Butterfly iQ; Butterfly Network, Inc.). Outcome measures were mean differences between pre-training and immediate post-training skill and knowledge test scores, and those of between pre-training and 8-week post-training. Interrater reliability of the skill test scoring system was assessed with intraclass correlation coefficient (ICC).

(see next page)

Key Words/Phrases: Medical students Cardiac point-of-care ultrasound Handheld ultrasound

Results:
All 6 students completed hands-on training and all skill tests. Five students completed all knowledge tests. Mean skill test score difference between pre-training and immediate post-training was 3.56 points (SD, 1.68; 95% CI, 1.79 to 5.32; effect size, 3.05) and the knowledge test score difference was 19.0 points (SD, 5.7; 95% CI, 11.9 to 26.1; effect size, 4.93). The mean skill test score difference between pre-training and 8-week post-training was 2.28 points (SD, 4.44; 95% CI, -2.38 to 6.94; effect size, 0.86), and the knowledge test score difference was 15.0 points (SD, 5.7; 95% CI, 7.9 to 22.0; effect size, 3.82). Interrater reliability of the test scoring system was excellent (ICC, 0.91).

Discussion:
The ASE-recommended basic cardiac POCUS curriculum demonstrated improved skills and knowledge learning effects immediately after the hands-on training compared to baseline, for pre-clinical medical students. The knowledge learning effects were maintained 8 weeks after the hands-on training. Post 8-week skill retention remains unknown because of pilot study limited sample size. Interestingly, eight-week post-training skill test scores were lower than pre-training scores in half the students. We plan to examine demographic factors which could explain differences in skill retention in a future definitive study. This educational research project pilot study was completed in September 2019 and we continue recruitment from an eligible pool of 149 pre-clinical medical students. (ClinicalTrials.gov Identifier: NCT04083924).

Target Audience: Healthcare educators and trainees interested in pre-clinical medical student education, POCUS, and cardiac ultrasound.

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Key Words/Phrases: Medical students Cardiac point-of-care ultrasound Handheld ultrasound

Abstract #14

Teaching Medical Students How To Deliver Bad News

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Context:
Delivering bad news is an integral skill for physicians. A curricular needs assessment conducted at the John A. Burns School of Medicine showed 57% of first-year medical students felt their curriculum did not adequately teach them this skill. Therefore, we developed an educational module that included a problem-based learning (PBL) case, a lecture, and a simulated patient experience to teach students how to deliver bad news using the SPIKES protocol, a six-step model designed to provide a framework for having difficult conversations with patients. Students' competency was assessed by completing a recorded simulated patient encounter and two multiple-choice questions on their final exam. Students also completed a post-simulation questionnaire to assess their confidence in delivering bad news and perception of the curriculum.

Objectives:
1. Determine if a simulated patient experience would increase the student's ability to state the importance and challenges of delivering bad news to patients
2. Assess the effectiveness of a simulated patient experience in helping students learn the different steps of the SPIKES model
3. Evaluate how a simulated patient experience can improve students' confidence and competence in delivering bad news

Key Message:
Implementing various teaching modalities proved to be effective in teaching students how to deliver bad news. Students scored an average of 15.8/17.0 (92.94%) on the objective SPIKES grading criteria during the simulated patient encounter. The students also scored well on the relevant final exam questions, averaging 93.51% for both questions. The percentage of students who felt confident in their ability to deliver bad news improved as a result of the simulated patient encounter from 31.58% to 90.79%. Furthermore, a majority of students (96.05%) "agreed/strongly agreed" that the simulated patient encounter was a beneficial learning experience.

Conclusion:
Given the significance of delivering bad news to patients, more emphasis should be placed on developing these communication skills in the pre-clerkship years. At the conclusion of these educational exercises, students were able to learn and apply the SPIKES model and improve their confidence in delivering bad news.

Further research can examine how well medical students retain these skills throughout their medical training and determine if there is a decay in competency over time. In addition, the purposeful integration of multiple learning methods (PBL, lecture, simulated patient) can be considered a model for teaching and evaluating more clinical skills in the pre-clerkship curriculum.

Target Audience: Medical educators, healthcare professionals, and medical students

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Key Phrases: Curriculum development. Communication skills Simulated patient experience

Abstract #15

Evaluation of Student-Developed Conference Curriculum: Pacific Region Indigenous Doctors Congress Medical Student Track

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Introduction:
The Pacific Region Indigenous Doctors Congress (PRIDoC) is an association of indigenous physician organizations from around the Pacific. The conference serves as an indigenous space for physicians, medical students, researchers, and other health professionals to network, discuss scientific and professional issues of mutual interest, and share scientific advances with a focus on issues of medical and public health significance for indigenous populations. The student track is a collection of student-focused activities and discussions designed to enhance indigenous student networking, education, and development. In previous years, the student track has been included, but not consistently, in PRIDoC conferences. The 2018 student track included a curriculum that was developed by members of *Ka Lama Kukui*, the indigenous medical student interest group at the John A. Burns School of Medicine, as well as members of *'Ahahui o nā Kauka*, the 2018 PRIDoC conference host organization.

Objectives:
Our objective was to evaluate the implementation of a student-developed conference curriculum and to provide feedback-based recommendations for future student tracks. We sought to provide a resource for conference organizers with the hope of more consistent inclusion of these tracks in the future.

Methods:
The Student Track curriculum was developed by members of Ka Lama Kukui, past student track participants, and the 2018 PRIDoC student track co-advisors. The student track curriculum was formulated around three learning objectives: 1) build formal professional networks, 2) build a knowledge economy, and 3) engage in cultural experiences. Each learning objective was then addressed with specific curriculum activities. To assess the curriculum activities, an evaluation was distributed to all student track participants at the end of the conference. The evaluation tool included questions regarding demographics, Likert scales regarding applicability of the activities to their training, as well as qualitative feedback regarding the overall program. Survey data was deidentified, digitized and analyzed to determine if the participants viewed the student track as a meaningful and worthwhile endeavor. Thematic analysis of the qualitative responses was done by four individuals on the 2018 PRIDoC student track leadership team.

(see next page)

Key Phrases: Curriculum development Student initiatives Cultural engagement

Results:
A total of 99 students and trainees participated in the student track including 39 residents, 55 medical students, and 5 non-medical university students. Thirty-four percent of participants in the student track completed the survey. The quantitative data collected indicated that the majority of respondents either strongly agreed or agreed (92% averaged over 8 objectives) that the learning outcomes were addressed through various activities throughout the conference. Thematic analysis of the results revealed three major themes: professional networking, unity and camaraderie, and cultural engagement. These results were used to generate seven recommendations for consideration in future PRIDoC conference student tracks.

Discussion:
Much of the success of the 2018 PRIDoC conference student track stemmed from the opportunities for professional networking with other indigenous students and students interested in indigenous health. Connecting with other indigenous students and trainees that are incorporating their culture into their profession as well as others who are interested in promoting indigenous health allows for the development of both personal and professional relationships that may be beneficial in the future. Through continuous progress and change, the student track at PRIDoC conferences will continue to establish and contribute to an ever-growing international network of indigenous students that will extend into professional practice.

Target Audience: Medical students, medical education, conference organizers

Key Phrases: Curriculum development Student initiatives Cultural engagement

Abstract #16

Self-Reported Changes in Cultural Competency in First Year Medical Students

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Introduction:
Racial and ethnic minorities in the U.S. experience lower quality of healthcare and medical schools and health professions schools are increasingly required to incorporate cultural competency training into their curricula. Requirements for training by the LCME, the ACGME, JACHO, some state licensing bodies and some medical specialty boards have helped spur a number of training programs and initiatives. Although there are few studies showing increased knowledge gain from cultural competency training programs, more elusive are studies that support the efficacy of these training efforts.

The C3 team at the Department of Native Hawaiian Health at the John A. Burns School of Medicine has developed a comprehensive cultural competency curriculum which includes workshops (colloquia), didactic lectures, a longitudinal PBL case, role play exercises, standardized patient exercises, electives and immersion experiences. Although the curriculum focuses on Native Hawaiian health, much of the training is transferable to other groups. Most curricular interventions occur in the first year.

Objectives:
To assess whether the cultural competency curriculum for first-year medical students increased students' self-reported confidence in interacting with patients of different cultures.

Methods:
All first-year medical students at JABSOM participate in the required comprehensive cultural competency training curriculum which includes three four-hour workshops (colloquia), an introduction to Native Hawaiian Health lecture and a cultural standardized Native Hawaiian patient experience that is linked to a longitudinal PBL case. Students are given a pre-test and a post-test consisting of two modified surveys. The first survey, the Cross-Cultural Care Survey, measures perceptions of preparedness for providing quality cross cultural care. The second survey, the MAKSS (Multicultural Awareness Knowledge Skills Survey), is designed to measure cross cultural knowledge, awareness and skills.

The surveys were given at the first curricular training, Colloquia 1, early in the school year and then again near the end of the school year at the final training, Colloquia 3. Data from the past four years was collected from 232 first-year medical students. Ninety percent of students were from Hawai‘i and twelve percent were Native Hawaiian. A pre- and post-test analysis was conducted utilizing paired t-tests.

Results:
When comparing the data from Colloquia 1 and Colloquia 3, significant increases were seen in the preparedness to treat people from different cultural backgrounds. Though not significant, a positive trend was seen toward an improvement in perceived abilities. However, the question of the ability to holistically assess Native Hawaiian patients was analyzed separately and did show a significant increase.

(see next page)

Key Phrases: *Cultural competency curricular assessment* *Cross-cultural training assessment*

Discussion:
This study, which looks at self-reported preparedness and perceived abilities in cross cultural interactions, is one of only a few in the U.S. medical education literature to show significant increased confidence in cross cultural interactions by students over a nine-month period. Although we cannot determine causality, our study shows that introducing a cultural competency curriculum may be beneficial for medical students. Other challenges with the study include limitations in relying on self-reported measures for ability, the lack of a control group and the fact that using the Colloquium 1 data as a baseline measure may have led to an underestimation of the increase in self-reported measures since the Colloquium 1 data was collected at the end of the colloquia and not at the beginning. The complex teaching methodologies in the curriculum pose challenges for assessment. A single teaching method would decrease confounding variables. Assessment of cultural competency training is challenging and difficult especially since, ideally, they should show how they ultimately impact patient outcomes. Nevertheless, more studies are needed to add to the literature.

Target Audience: Medical and other Health Professional schools educators looking at ways to measure efficacy of cultural competency interventions

Key Phrases: *Cultural competency curricular assessment* *Cross-cultural training assessment*

Abstract #17

Personality Preferences from the Myers-Briggs Type Indicator and their Impact on USMLE Step 1 Scores

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Introduction:
The United States Medical Licensing Examination (USMLE) Step 1 is an important national exam for medical students, testing critical knowledge in the basic sciences as applied to the practice of medicine. Personality characteristics may predict successful test performance. Aligning learning and test-taking strategies with a student's personality type may optimize academic success.

The Myers-Briggs Type Indicator (MBTI) is widely used to self-identify personality types based on one's preferences and tendencies. The MBTI classifies individuals based on opposite pairs (dichotomies) of four different preferences, which measure: focus/energy source (Extroversion or Introversion), information gathering (Sensing or Intuition), decision making (Thinking or Feeling), and lifestyles (Judging or Perceiving). This results in 16 unique personality types (e.g. ESTJ).

A person's MBTI psychological type can be used to describe how one prefers to process information and learn (Pelley & Dalley, 2008). Extroverts prefer learning with others; Introverts prefer individual studying; Sensors prefer systematically going through details; Intuitives prefer looking at the bigger picture and drawing connections. This investigation is one of the largest medical education studies to examine MBTI psychological types and their relationship to national board exam scores.

Objective:
The purpose of this study was to identify MBTI characteristics that correspond with USMLE Step 1 performance.

Methods:
This study included data from three JABSOM classes (2019-2021) and linked their MBTI results as first year medical students to their Step 1 scores. For students that took Step 1 multiple times, the initial Step 1 score was used. Two-tailed t-tests were performed to compare Step 1 results between the four MBTI preference dichotomies: Extroversion (E) vs. Introversion (I); Sensing (S) vs. Intuition (N); Thinking (T) vs. Feeling (F); Judging (J) vs. Perceiving (P), with statistical significance set for $p<0.05$. Beta error was also calculated for the 2-sample t-tests.

Results:
The average Step 1 score for the 200 medical students in the dataset was 231.8 (sd=15.9). There was a statistically significant difference (p=0.04) in Step 1 scores for students with Extroversion preferences (229.2+/-17.3) compared to those with Introversion preferences (233.9 +/- 14.4), with introverted students scoring higher on the exam. Comparisons between other dichotomies including S vs. N (232.5+/-15.0 vs. 231.3+/-16.5; p=0.61), T vs. F (233.8+/-16.0 vs. 230.0+/-15.7; p=0.09), and J vs. P (230.5+/-15.8 vs. 234.7+/-15.9; p=0.08) did not reach statistical significance. The 2-sample t-test beta error (using total sample size n=200, sd=17, and alpha=0.05, mean difference of 5) was 0.46 indicating a 46% chance of missing a mean difference of 5.

(see next page)

Key Phrases: *Academic success* *USMLE Step 1 results* *Personality Preferences*

Discussion:
Extroversion vs. Introversion was the only characteristic to show statistical significance (p=0.04), with introverts scoring higher by an average of 4.7 points. Another study of dental students (Jones, et al., 1997) similarly showed that introverted students had a significantly increased performance on the National Dental Board Examinations Part I (p=0.038). Additional research into specific Introversion attributes that contribute to improved test performance is needed.

The MBTI was completed in another study of 36 Anesthesiology residents (Schell, et al., 2012) examining the relationship with USMLE scores. The results showed that there was no association between personality preference type and performance on standardized examinations (USMLE Step 1 and Step 2). This study differed in that analysis was done in a smaller, specific group of Anesthesiology residents who trained at different medical schools compared to our larger cohort of medical students more homogenously trained with a PBL curriculum.

Limitations of the study include the self-reported nature of the MBTI data and small number of cohort samples. A more in-depth analysis of the 16 four-letter personality types against one another should also be investigated. In addition, future studies could include sampling participants from other institutions with similar PBL-based curriculums, as well as exploring correlations of MBTI results with course exam scores, tutor evaluations, and match results. Framing learning strategies around each personality type may help to promote academic success.

Target Audience: Medical educators and students

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Abstract #18

Laying the *Kahua* (foundation): Incorporating Elements of Attitude and Purpose for Student Success During Phase I of the ʻImi Hoʻola Post-Baccalaureate Program

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Context:
The ʻImi Hoʻōla Post-Baccalaureate Program (ʻImi) is a yearlong program within the Department of Native Hawaiian Health at the John A. Burns School of Medicine (JABSOM) that provides educational opportunities for students from educationally, socially and/or economically disadvantaged backgrounds who have demonstrated the ability to succeed in medical school. ʻImi accepts up to 12 students a year, and upon successful completion of the program, students matriculate to JABSOM as first-year medical students. Successful matriculants enter JABSOM equipped with a stronger foundation in the basic sciences and professionalism, familiarity with the Problem-Based Learning (PBL) process, and ability to apply specific learning and test-taking strategies to support their academic success.

Phase I Orientation and Assessment is a 5-week summer course designed to assist students as they transition into the program. During this time, they are administered learning assessments to provide them with a basic understanding of their learning preferences, as well as receive direct feedback and strategies on how to manage stress and anxiety. Students also form bonds with their classmates and their instructors through interactive team building activities.

Objectives:
Students are administered learning assessments at the beginning of Phase I. A recent program evaluation identified the significance of the Learning and Study Strategies Inventory (LASSI) and its results on the Attitude scale. According to the LASSI, Attitude is described as assessing students' attitudes and interests in college and achieving academic success. The new additions and revisions to the Phase I curriculum sets the *kahua* through sessions designed to increase attitude and purpose. Various projects, assignments, and activities, as well as individualized meetings covering learning preferences and assessment results create meaning and purpose. In addition, an individualized learning plan is discussed with the student at their student conference starting in Phase I of the curriculum. This plan is reviewed, modified, updated by the faculty, and given and discussed at each of the student conference meetings, occurring at least four times throughout the year. Each student is provided with direct feedback on how to grow as a learner and their professional development, which promotes relevance and purpose to their academic and career goals.

Key Message:
The curricular innovations in Phase I lay the *kahua*, incorporating elements of attitude and purpose needed to succeed in the rigorous 12-month ʻImi Hoʻōla program. It is observed that these students developed their self-awareness, as well as increased confidence in themselves as learners and leaders within the program and throughout medical school. They gain critical thinking and test-taking skills and are engaged in PBL sessions. A large number of ʻImi Hoʻōla alumni have taken on leadership roles and are active in social justice issues within medicine and in the medical and health care professions.

Conclusion:
The ʻImi Hoʻōla Post-Baccalaureate Program is a proven pathway for disadvantaged students pursuing careers in medicine. Future studies are needed to assess the effectiveness of the new curricular changes and revisions during Phase I, as well as how innovative and purpose-led activities can be incorporated and refined throughout the program.

Target Audience: Administrators, faculty, staff, and students of medical/health care programs interested in curricular innovations for underrepresented students in pathway programs

Disadvantaged/At-risk students *Importance of attitude and purpose* *Pre-medical students*

Abstract #19

Voluntary Community Service at the John A. Burns School of Medicine: Perceived Impact and Benefits on Medical Students

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Introduction:
Community service is defined as performing voluntary, unpaid work to benefit others (Cnaan et al). In education, it may be in the form of service learning or voluntary community service (VCS). Service learning, which entails structured learning with defined objectives, has been the focus of literature on community service in medical education. In comparison, VCS may range in degree of structure and specific learning objectives. Nonetheless, VCS may play an important role alongside service learning in impacting medical students. Here at the University of Hawai'i's John A. Burns School of Medicine (JABSOM), community service is a part of the curriculum but students often exceed requirements by engaging in VCS.

Objective:
This study sought to quantify the number of hours donated beyond curricular requirements, types of service students engaged, and the self-perceived benefits of VCS among medical students.

Methods:
Data was collected via a voluntary, non-anonymous online survey distributed to fourth-year medical students. Students were asked to report retrospective hours for VCS performed during the first three years of medical school and to assign VCS activities into categories of Patient Care, Mentoring, Teaching, Donation, Companionship, and Miscellaneous. Ten students with the highest number of hours were further surveyed for comments on perceived impact of VCS. Exclusion of curriculum-required hours and accuracy of unusually large VCS contributions were ascertained.

Results:
63 of 65 students responded to the survey. As a group, students donated 7,430.25 hours of VCS in total. Individually, students engaged four categories of service on average and contributed between 4 to 621 hours with a median of 88 hours over the first three years of medical school. Based on student comments on perceived benefit of VCS for themselves, perspective transformation and citizenship were common themes. For perceived benefit of the community, most common were transfer of knowledge, promotion of healthy lifestyles, and provision of mentorship and companionship.

Discussion:
Limitations of this study include self-reported, retrospective data and categorical assignment of community service not accounting for crossover into multiple categories. In regards to individual VCS contribution, Blue et al found that medical students who participated in VCS had significantly higher academic performance and internship ability than nonparticipants (2006). Though academic performance was not included in this study, findings from Blue et al (2006) is relevant as both studies examine VCS. Benefits of perspective transformation and citizenship noted in our study are significant because they highlight the critical role of community service in addressing socioeconomic, cultural, and political causes of health disparity in medical education (Muller et al, 2010) by instilling a sense of social justice in medical students.

(see next page)

Conclusion:
VCS allows medical students to serve the community in a flexible and diverse way. The experience at JABSOM suggests that VCS cultivates a sense of their extended roles and social responsibility by connecting them to the community and promoting self-reflection. VCS should be encouraged among medical students and further examined for possible roles in preventing burnout and in increasing self-led learning in medical education. We also recognize the need in literature to standardize how we study the impact of community service in medical education.

Target Audience: Medical education faculty, medical students, community organizations

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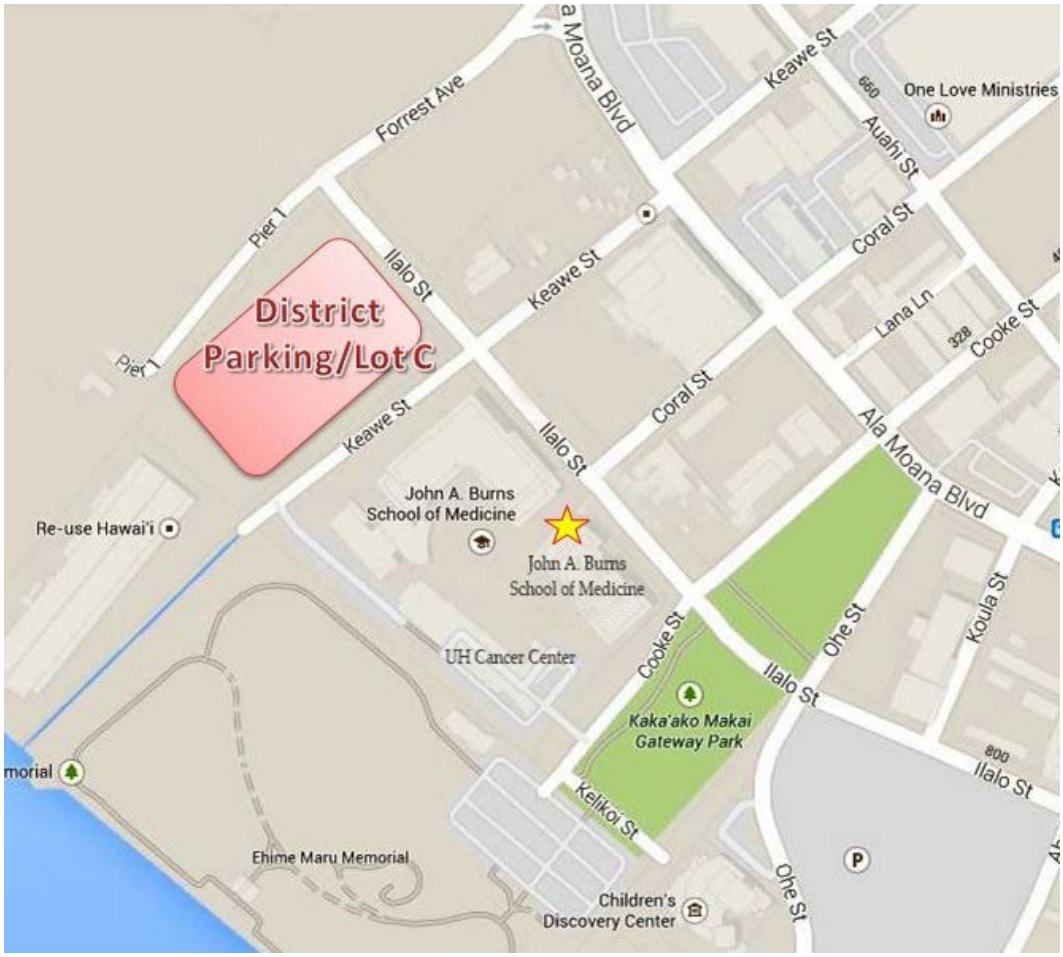
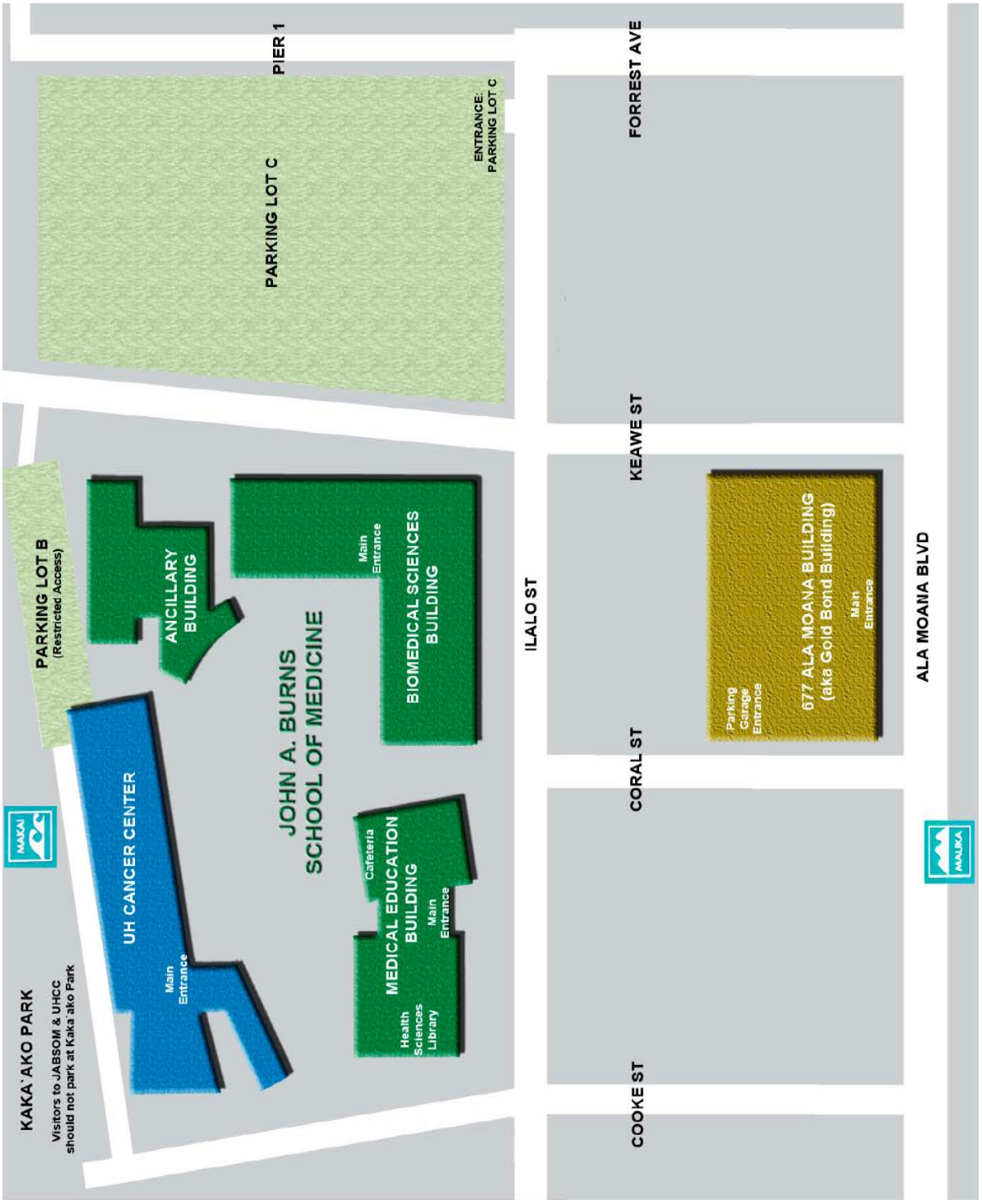
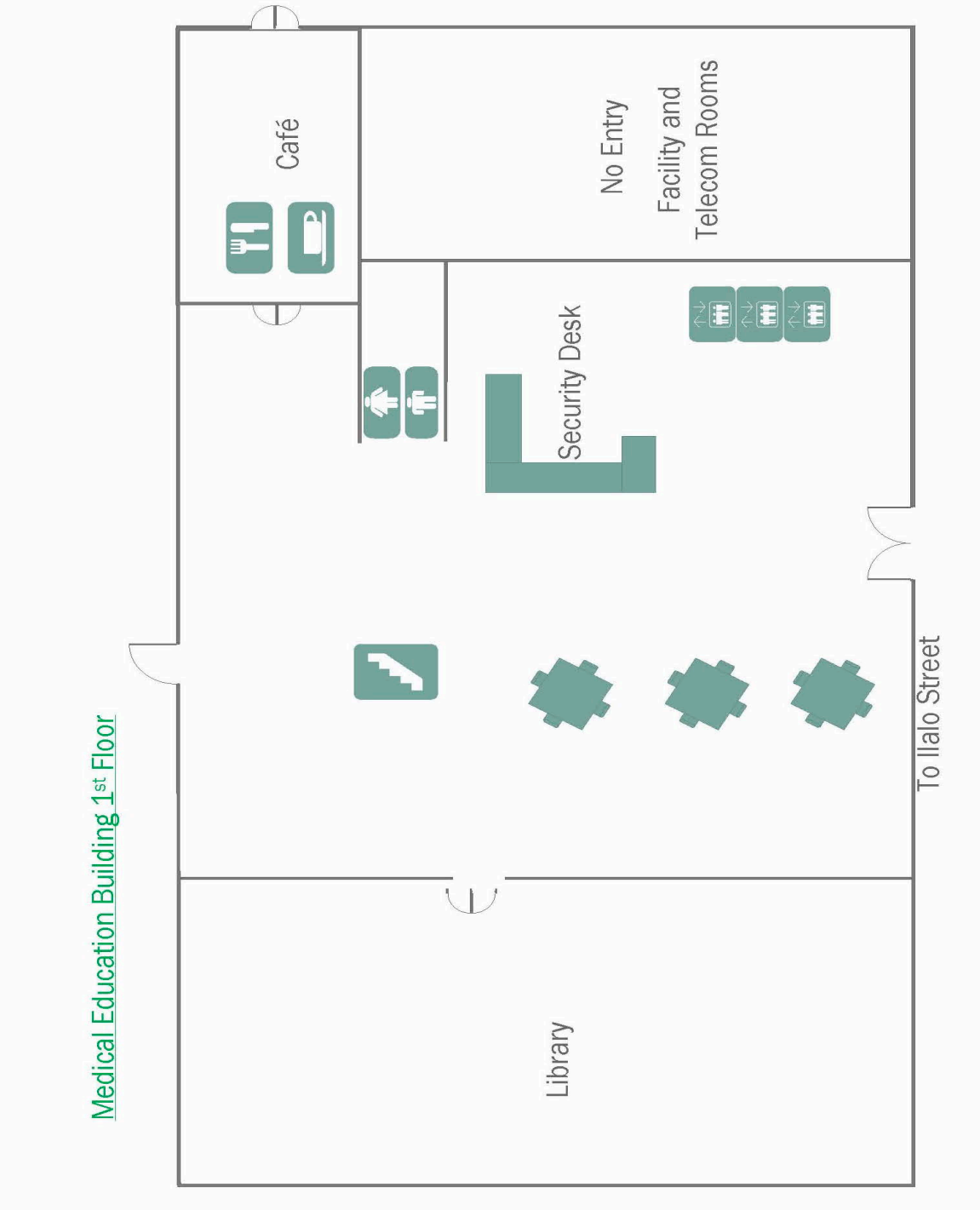


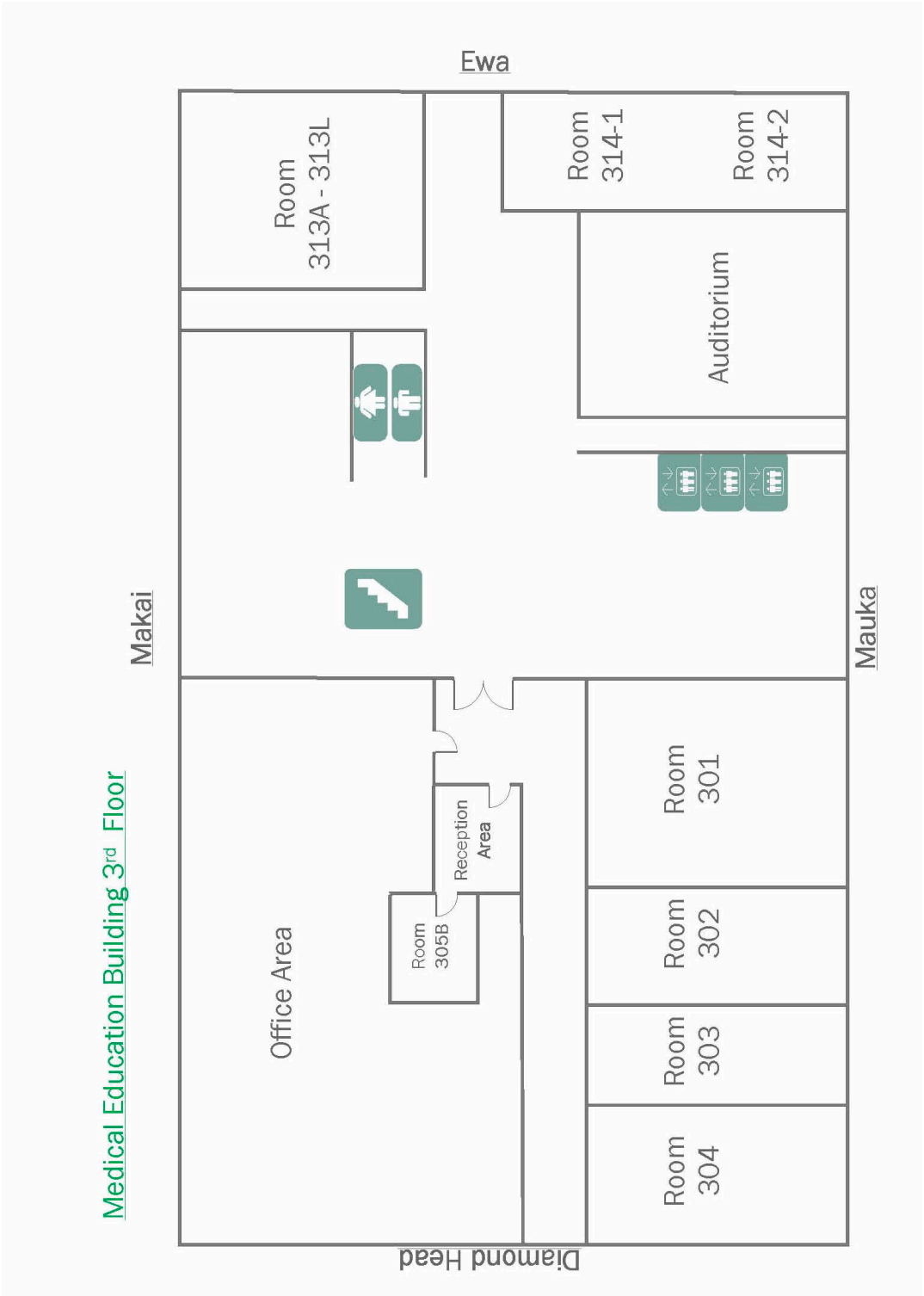
JABSOM Campus Map



JABSOM Medical Education Building – First Floor Map



JABSOM Medical Education Building – Third Floor Map



HPEC 2020 Survey

Please complete the survey at:

https://forms.gle/fAWithb8bgmEZjvN8

The survey will be extremely helpful in our planning of future HPEC conferences.

The end of the survey will collect information to provide a certificate to those who would like to claim Category 1 CME credits.

Thank you!

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All committee members had no relevant financial relationships with commercial interests that pertain to this CME activity.

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