

## AACP REPORT

### School Poster Abstracts Presented at the 123<sup>rd</sup> Annual Meeting of the American Association of Colleges of Pharmacy, July 23-27, 2022

#### **A College of Pharmacy Tele-Based Approach to Addressing Health Equity**

Raven Jackson, *Xavier University of Louisiana*, Daezha Brooks, *Xavier University of Louisiana, College of Pharmacy*. **Objective:** Pharmacy schools have long provided tele-based services, specifically around medication therapy management (MTM), but there is now an opportunity to expand these offerings. **Methods:** In a response to current health care needs, the Xavier University Telehealth Center (XUTC) was established within the College of Pharmacy to provide chronic care management and remote patient monitoring to rural clinics in Louisiana that do not have access to a clinical pharmacist. In December 2020, clinic contracts were implemented with CareSouth Donaldsonville and Plaquemine (Louisiana) and the center began remotely seeing patients on a referral basis in January 2021. A HRSA grant was also awarded to aide in the purchase of diabetes and hypertension remote monitoring devices. **Results:** At the end of Year 1, several patients had engaged in at least one pharmacist encounter via phone or video for chronic care management or remote monitoring services. A portion of those patients also received follow up phone calls as needed. Patients reported appreciation for the medication education, a greater understanding for self monitoring, and the ease of communication provided. **Conclusions:** The XUTC has expanded its reach and now serves as a member of the Louisiana Department of Health Diabetes Project ECHO (Extension for Community Healthcare Outcomes), providing clinical pharmacy services to rural clinics. Various additional relationships have also been established through the partnership. Pharmacy schools are uniquely positioned to play an important role in the trend towards improving health equity through telehealth. The XUTC will continue its quest of collaborating with rural clinics to identify best practices related to providing the most appropriate and meaningful form of pharmacist-led telehealth to meet patient and population needs.

#### **A Commitment to Diversity and Inclusivity Through the Pandemic: The Changing Faces of Pharmacy Program**

Hira Shafeeq, *St. John's University*, Manouchkathe Cassagnol, *St. John's University*, John M. Conry, *St. John's University*. **Objective:** Diversity and inclusivity remains a challenge and opportunity for healthcare professions. Our

program was designed to create meaningful partnerships with high schools in the New York metropolitan area. This program aims to engage historically underrepresented students with information on becoming college ready, gaining an understanding of pharmacy profession and providing a mentoring opportunity with a current Doctor of Pharmacy (Pharm.D.) student. **Methods:** The program was launched in 2012 and has been offered annually. Our program was transformed to a virtual platform for the academic years 2020 – 2022 due to the pandemic. This involved creation of a webpage for recruitment and four virtual sessions. After completion of the program the students received an anonymous and voluntary evaluation survey to assess the program. We report the results from 2020-2021 program cohort. **Results:** Fifty-three applicants from 10 high schools were accepted in to the program. Approximately half, 22 (41%), of the students were from an a historically underrepresented group in healthcare [9 (17%) Black, 8 (15%) Hispanic/LatinX, 5 (9%) other]. Twenty-five (47%) students responded to the survey. All 25 (100%), reported that their knowledge of pharmacy profession increased by participating in the program. Majority, 21 (84%), reported that the program helped improve their understanding of health care professions overall and becoming college ready. All students reported a positive interaction with their mentor and expressed that their mentors were honest, compassionate and welcoming. Twenty (80%) of the students indicated they were considering applying to a pharmacy school after completing the program. **Conclusions:** Our results demonstrate that resilience, commitment and creative thinking during challenging times can result in positive outcomes for diversity, equity and inclusivity programs for Colleges of Pharmacy.

#### **A Multifaceted Approach to Promoting Professional Identity Formation**

Samantha Odem, *William Carey University School of Pharmacy*, Donna M. Adkins, *William Carey University School of Pharmacy*, Melissa A. Burmeister, *William Carey University School of Pharmacy*, Elina Delgado, *William Carey University*, Timothy K. Fincher, *William Carey University*, William Graham, *William Carey University*, Kristin Kellett, *William Carey University*, Abby J. Weldon, *William Carey University School of Pharmacy*. **Objective:** To highlight approaches utilized by William

Carey University School of Pharmacy (WCUSOP) to promote pharmacy students to think, feel, and act like a pharmacist. **Methods:** The authors assessed the curriculum and consulted with faculty to determine key ways in which the Program has helped students to develop their professional identity. **Results:** Professional identity formation (PIF) activities were identified in several areas. Specifically, these activities were nestled throughout orientation week, introductory courses, co-curricular activities, mentor-mentee meetings, individual pre- APPE meetings with the Office of Experiential Education, IPE activities, and IPPE forum. Two particularly innovative activities employed by faculty to assist students with PIF were identified. First, the students were provided with a list of pharmacist tasks, skills, and traits that are associated with a pharmacist's scope of practice. Students reflected on these traits and rated how strongly the pharmacist identity traits are reflected in their own professional identity. Second, the "Managing Oneself" co-curricular activity helps students place into perspective how their day-to-day decisions will impact their success following pharmacy school. The students were provided a copy of "Managing oneself: An essential skill for managing others" by David A. Holdford as well as a question guide to help them focus their thoughts. **Conclusions:** PIF plays an instrumental role in bridging pharmacy education and practice. WCUSOP is committed to fostering PIF by building a strong foundation in which PIF-encouraging activities are intentionally incorporated. Future efforts will include the development of a PIF plan that transcends longitudinally over the entire three years of the Program.

### **A Multipronged Approach to Build a College Culture Focused on Diversity, Equity, Inclusion, and Anti-Racism**

Beatriz Manzor-Mitryk, *University of Michigan*, Regina McClinton, *University of Michigan*, Cherie Dotson, *University of Michigan*, Sarah Vordenberg, *University of Michigan*, Pennie Rutan, *University of Michigan*, Gundy Sweet, *University of Michigan*, Bruce Mueller, *University of Michigan*. **Objective:** To foster and build a college culture focused on diversity, equity, inclusion, and anti-racism (DEIA) among all stakeholders through listening sessions, collaboration, training, and assessment. **Methods:** We are using a multipronged approach consisting of course instructor interviews, curriculum committee meetings, stakeholder assessments, and educational programming to introduce and foster DEIA concepts to faculty, staff, and students. These stakeholders collaborated on several initiatives to increase uptake of DEIA principles into curricular content and our college community. **Results:** We adopted new college values to support a culture change, and wrote a

DEIA-focused mission statement for the PharmD curriculum. Concurrently, we (1) conducted curricular mapping to identify gaps and opportunities for meaningful DEIA coursework; (2) formed a pharmacy student organization whose primary objective is providing DEIA educational programming for our college community; and (3) evaluated faculty needs to help them more confidently integrate DEIA principles and content into the curriculum. Additionally, through interdisciplinary partnerships with others on campus, we provided DEIA programming to inspire our health science community to address health inequities. The multipronged approach facilitated engagement of many stakeholders into DEIA efforts and increased community awareness of DEIA including the dire consequences of racism on social determinants of health and health outcomes. These efforts are ongoing; additional DEIA efforts are to (1) host a faculty retreat on DEIA principles and their integration into course content; (2) define curricular outcomes and identify meaningful learning opportunities; (3) expand training to adjunct faculty in the experiential setting; and (4) explore interprofessional opportunities to allow for broad impact. **Conclusions:** An intentional, multipronged approach engaged and educated our community about DEIA principles, a key step toward building a DEIA-focused college culture.

### **Advocacy, Community, and Training Immersion Program: Interprofessional Education on COVID-19 and Healthcare Disparities**

Lana Sherr, *University of Maryland Eastern Shore*, Hoai-an Truong, *University of Maryland Eastern Shore*, Allison Robinson, *University of Maryland School of Medicine*, Richard Colgan, *University of Maryland School of Medicine*. **Objective:** Considering racial injustice events and the disproportionate impact of COVID-19 on minority populations, the Advocacy, Community, and Training (ACT) Immersion Program was piloted in July 2020 to enhance the AHEC Scholars Program (ASP) with a social justice focus. **Methods:** ASP was created to facilitate interprofessional opportunities for students who are enrolled in a healthcare discipline and interested in practicing in rural or underserved areas. Thirty scholars from Central, Eastern, and Western Maryland AHEC regions were selected, representing five healthcare disciplines. Scholars participated in the ACT Immersion program by attending virtual workshops prior to their region specific two-day "Immersion Weekend". Scholars completed educational modules on COVID-19 and anti-racism training. The immersion experiences included a poverty simulation workshop, a watch-party of *The Providers* movie, a presentation on social determinants of health, food distribution, a COVID-19

vaccine clinic, mindfulness meditation, and self-reflections. **Results:** Data from the post-program surveys showed that 97% of the participants strongly agreed or agreed that they feel comfortable in their knowledge of COVID-19. All participants strongly agreed or agreed that they feel equipped with their abilities to work in underserved communities and that their professions would benefit from future interprofessional immersion experiences. **Conclusions:** The ACT Immersion Program increased the scholars' awareness of racial and ethnic disparities in healthcare, and provided them with first-hand practice experiences in underserved communities. Similar immersion programs are needed to prepare the future health workforce to work in underserved communities.

### **An Interprofessional Bridge to Pharmacy Education and Practice**

Takova Wallace-Gay, *The University of Texas at Tyler*, David Foote, *The University of Texas at Tyler*, Jose Vega, *The University of Texas at Tyler*, Elizabeth Yett, *The University of Texas at Tyler*, Tianrui Yang, *The University of Texas at Tyler*. **Objective:** The University of Texas at Tyler (UT Tyler) Ben and Maytee Fisch College of Pharmacy (FCOP) with their Student National Pharmaceutical Association (SNPhA) chapter spearheaded an interprofessional clinic under the bridge (iCIUB). Our objective is to provide service to underserved and homeless individuals in a rural community. **Methods:** We collaborate with UT Tyler School of Nursing and Clinical Psychology, UT Health Science Center Family Medicine and Psychiatry residency, and Tyler Junior College Dental Hygiene and Social Work programs to establish iCLUB which meets once monthly to care for homeless and underserved community members. Student and Resident learners, with preceptor oversight, provide screening services such as blood pressure and blood glucose checks. They also gain experience through answering medication questions and completing patient chart development, triage, and handoff. The iCLUB also provides dental products and other essential items, as needed (e.g., pregnancy tests, sanitary napkins, and masks). **Results:** Since 2020, the iCLUB has contributed to more than 300 unique patient encounters while meeting under the bridge once a month. During these patient encounters, learners and faculty have developed an interprofessional collaborative practice focused on meeting the medical needs of our underserved population. **Conclusions:** The iCLUB has demonstrated an effective way to provide patient-centered care and positively impact patient outcomes through the many healthcare specialties represented there. It is projected that pharmacy student participation will continue to

increase and services will expand because of the unique and innovative interprofessional practice setting which will aid in the translation of their education into practice.

### **Assessing Advanced Pharmacy Practice Experience (APPE) Readiness Through High-Stakes, Competency-Based Checkpoints in the PharmD Curriculum**

Katelyn A. Parsons, *Western New England University*, Courtney Doyle-Campbell, *Western New England University*, Melissa Mattison, *Western New England University*, Maria Charbonneau, *Western New England University*, Beth Welch, *Western New England University*. **Objective:** To develop an Advanced Pharmacy Practice Experience (APPE) Readiness Plan using high-stakes, embedded assessments within courses and stand-alone benchmark assessments throughout the first (PY1) through third (PY3) professional years in the PharmD program. **Methods:** An APPE readiness task force assembled to develop a plan to ensure student competency in contemporary knowledge and skills central to providing pharmacy care prior to progressing to APPEs. Faculty members of the task force were responsible for teaching various skills laboratory courses and practiced in diverse settings. The task force utilized the pre-APPE domains in Appendix A of the Accreditation Council for Pharmacy Education (ACPE) Guidance for Standards 2016, along with their experience, to identify essential knowledge and skills for APPE readiness. The task force then reviewed the pre-APPE curriculum to identify where the essential knowledge and skills were introduced, reinforced, and directly assessed to create curricular checkpoints. High-stakes skills assessments were embedded into existing courses using simulated experiences. Knowledge assessment was based on course completion, stand-alone assessments of Top 300 drugs and calculations, and a pre-determined Pharmacy Curriculum Outcomes Assessment (PCOA) score. **Results:** The APPE Readiness Plan was implemented in fall 2021 for the PY1 class. Every semester students must demonstrate competency through high-stakes knowledge and/or skills assessments in order to progress to the next semester. Students cannot pass courses without passing embedded high-stakes assessments, and students cannot progress to APPEs until successfully completing all components of the APPE Readiness Plan. The effectiveness of this plan will be evaluated yearly and upon complete execution. **Conclusions:** The APPE Readiness Plan encompasses high-stakes knowledge and skills assessments via competency-based checkpoints in each semester of the pre-APPE curriculum to provide objective evidence of APPE readiness.

### **Assessment of Faculty and Staff Perceived Knowledge and Confidence Through Implicit Bias Training**

Katherine S. Wadas-Thalken, *Creighton University*, Lou Jensen, *Creighton University*, Kevin T. Fuji, *Creighton University*, Ronette Bruner, *Creighton University*. **Objective:** To assess the perceived change in knowledge, comfort with, and behaviors related to aspects of diversity, equity, and inclusion of faculty and staff in the School of Pharmacy and Health Professions (SPAHP) after participating in a required implicit bias training. **Methods:** In Spring 2021, all faculty and staff (n=153) in SPAHP attended a one-hour, online synchronous implicit bias training. Pre- and post-training surveys assessed perceived knowledge of implicit bias and cultural humility; confidence in creating an inclusive environment; and comfort in addressing bias in the workplace/classroom. Dichotomized pre- and post-survey data were compared using a chi-square test with significance set at  $p < .05$ . Open-ended data was analyzed using thematic analysis with two researchers coding, categorizing, and identifying themes describing relationships between larger categories. A third researcher provided validation by reviewing themes and challenging findings that were resolved through group discussion. **Results:** A total 119 faculty and staff (77.8% response rate) completed the pre-training survey and 70 (45.8% response rate) completed the post-training survey. There were statistically significant positive shifts from pre- to post-survey responses in the following categories: familiarity with implicit bias and the effects it can have on others, familiarity with the concept of cultural humility, confidence in creating an inclusive environment, and comfort in speaking up when they observe bias in their workplace/classroom. Open-ended responses provided information about what aspects of the training helped increase familiarity and comfort levels. **Conclusions:** The required implicit bias training was successful in increasing perceived knowledge of implicit bias and cultural humility, confidence in creating an inclusive environment, and comfort in addressing bias. SPAHP will continue requiring the training for all new faculty and staff and integrate additional DEI development opportunities.

### **Beyond the Script: Advancing Pharmacy Practice by Bridging the Professional Divide**

Patricia Freeman, *University of Kentucky College of Pharmacy*, Adrienne W. Matson, *University of Kentucky College of Pharmacy*, Brooke Hudspeth, *University of Kentucky College of Pharmacy*, Stacy Taylor, *University of Kentucky College of Pharmacy*, Kyle Bryan, *University of Kentucky College of Pharmacy*, R. Kiplin Guy, *University of Kentucky College of Pharmacy*. **Objective:** To align

efforts among Kentucky pharmacy stakeholders and identify common goals for professional advancement across all practice settings. **Methods:** In 2012, the UKCOP convened a group of pharmacy stakeholders from academia, Board of Pharmacy, and state pharmacy organizations with the goal of creating an action plan to advance pharmacy practice in Kentucky. These stakeholders formed the Advancing Pharmacy Practice in Kentucky Coalition (APPKC), dedicated to the mission of driving practice advancement in Kentucky across all practice settings. **Results:** The APPKC action plan identified priority areas for advocacy and educational efforts which have resulted in key legislative and regulatory scope of practice changes including, naloxone dispensing per protocol, collaborative care agreement expansion, authority for protocol-driven care for 17 health conditions, and compensation for pharmacist services. To facilitate implementation of these expanded scope activities, the UKCOP Center for the Advancement of Pharmacy Practice (CAPP) and APPKC developed numerous education and training programs. To date over 3,500 pharmacists and student pharmacists have been certified to initiate naloxone dispensing, >200 pharmacists have received training to provide protocol driven-care for acute influenza and streptococcal pharyngitis infections, and 20% of independent or health-system outpatient pharmacies in Kentucky report offering protocol-driven care via a board-authorized protocol. Recent efforts have focused efforts on KY House Bill 48 (2021), which mandates commercial insurance plans compensate pharmacists for services provided. In 2021, CAPP hired a Practice Implementation Pharmacist to coordinate practice-wide implementation efforts. **Conclusions:** A decade-long collaboration among Kentucky pharmacy stakeholders has led successful practice advancement and can serve as a model for uniting pharmacy educators, practitioners, and organizations as we work to bridge pharmacy education and practice to improve patient and public health.

### **Bridging Didactic, Skills and Practice through the SARS-CoV-2 Pandemic**

Michelle Jacobs, *Northeastern University*, David Zgarrick, *Northeastern University*, Thomas Matta, *Northeastern University*, Tatiana Bronich, *Northeastern University*. **Objective: Methods:** Student pharmacists who are practice ready upon graduation have undertaken a continuum of learning, from foundational concepts in the classroom to applications of complex problem-solving skills in real world patient care experiences. The academic experiences for students at Northeastern University School of Pharmacy and Pharmaceutical Sciences (NU SOPPS) during the SARS-CoV-2 pandemic amplified the bridging of didactic and experiential learning in a time of great public

health need. **Results:** Application education: meeting the moment during the pandemic: During the height of the pandemic, second (P2), third (P3), and fourth professional year (P4) students had already received foundational course work of virology and immunization practices and had completed the American Pharmacists Association's Pharmacy-Based Immunization Delivery certificate program. Using that foundation, students utilized their knowledge and skills for public health advocacy to actively educate the public. P2 student groups developed TikTok public service announcement videos targeting the pandemic that included vaccine education, transmission/infection prevention, addressing racial and ethnic disparities, the pandemic's impact on mental health, and countering vaccine misinformation. P3 and P4 students actively participated in COVID-19 vaccine clinics on campus to help immunize first-responders, frontline health care workers, and community members with high-risk medical conditions. P4 students experienced the quick pivot that ambulatory care practice faculty had in their daily clinical responsibilities by designing and implementing COVID-19 vaccination programs at their practice sites. Student gained experience administering vaccines as well as directly applying project management and effective communication skills. **Conclusions:** The SARS-CoV-2 pandemic occurred at a time where NU SOPPS pharmacy students bridged their foundational didactic and practical skills into meaningful public health advocacy, participating on the frontlines in the efforts to combat a pandemic.

### **Bridging Education and Practice: Faculty-Led Systematic Didactic Curricular Review and Its Impact on Experiential Education**

Myrah R. Stockdale, *Campbell University CPHS*, Scott Asbill, *Campbell University CPHS*, Riley Bowers, *Campbell University*, Dustin Wilson, *Campbell University*, Michael L. Adams, *Campbell University*. **Objective:** Didactic pharmacy curricula are built by a diverse faculty body and are intended to develop the knowledge, skills, and attitudes (KSAs) necessary to succeed in experiential curriculum and in the profession. Curricular designs are meant to adjust in order to reflect the dynamic and ever-evolving nature of the pharmacy profession. This begs the question; how does a program know that their curriculum is continuously improving? The Campbell University College of Pharmacy and Health Sciences (CPHS) PharmD program, utilizes a dynamic faculty-led curricular review process called the Full Curricular Review (FCR) to capture, review, and document curricular improvements. This process was developed 5-years ago by the faculty-led Assessment Committee and received an honorable mention in 2021's Excellence in Assessment Awards. This reflexive process documents

content relevancy, vertical and horizontal integration, alignment of lectures, high-impact teaching practices, and how courses develop critical pharmacy skills. The FCR's intentional transparency has meaningfully enhanced the program's ability to adapt and navigate a changing educational environment. This poster highlights the FCR system, curricular improvements made since implementation, and examples of how the FCR process has allowed us to strengthen and improve linkages between the didactic and experiential curriculum. **Methods: Results: Conclusions:**

### **Bridging Education and Practice: Two College-Led Initiatives to Advance Clinical Practice in Utah**

Kyle Turner, *The University of Utah*, Nicholas Cox, *The University of Utah*, Erin Gurney, *University of Utah College of Pharmacy*, Casey Tak, *University of Utah*. **Objective:** While comprehensive medication management (CMM) has been shown to improve clinical and financial outcomes, sustainability and scale are challenging due to reimbursement structures and needed collaboration among providers, payers, pharmacists and patients. The purpose of this study is to describe the formation of two College initiatives: the Clinical Innovation Fellowship and the Utah Provider, Payer, Pharmacist, and Patient (UP4) Alliance. **Methods:** A fellowship program was developed in collaboration with a for-profit health system and local payer to begin clinical services. Early evaluation focused on patient and provider satisfaction and medication therapy problems (MTPs) identified. Patient satisfaction was measured through a validated survey and provider satisfaction was assessed qualitatively via semi-structured interviews. The College also convened key stakeholders who attended a series of UP4 meetings. During the encounters, interest in a formal partnership, benefits, and barriers were collected. **Results:** The fellow identified an average of 2.7 MTPs per patient for over 400 patients. Sixty-six percent of clinic providers completed interviews and themes demonstrated a positive impact on provider satisfaction. Twenty-seven percent of patients completed the survey showing overwhelmingly positive results. Due to noted benefits, the payer renewed the fellowship for multiple years and the clinic established a full-time pharmacist position. Nine interviews with payers, two half-day summits, and one follow-up meeting were held from September 2021 through March 2022. Themes emerging from the meetings included a desire to influence clinical practice, the need for short-term wins, and measuring long-term impact on cost and outcomes. **Conclusions:** The College initiatives have shown success improving patient and provider satisfaction and expanding the role of the pharmacist. The initiatives have been synergistic, with the fellowship program providing a framework for UP4 efforts.

### **Bridging Education to Practice: Integrating Board-Authorized Protocol Training within an Accelerated PharmD Curriculum**

Cassandra M. Hobbs, *Sullivan University*, Katie F. Leslie, *Sullivan University*, Emily R. Esposito, *Sullivan University College of Pharmacy and Health Sciences*, Kimberly Elder, *Sullivan University College of Pharmacy and Health Sciences*, Danielle Parker, *Sullivan College of Pharmacy and Health Sciences*, Sarah E. Raake, *Sullivan College of Pharmacy and Health Sciences*. **Objective:** In late 2017, a regulation became effective directing Kentucky pharmacists and prescribers on how to collaborate utilizing Kentucky Board of Pharmacy (Board)-authorized protocols for specific health-related conditions. The regulation outlines educational requirements, criteria, policies, and procedures that must be in place for pharmacists to initiate dispensing of non-controlled or over-the-counter-medications and related professional services. The purpose of this project was to (1) identify relevant courses that aligned with protocol topic education and (2) integrate training on these protocols into the accelerated Doctor of Pharmacy curriculum to enhance the practice-ready nature of our graduates. **Methods:** A faculty task force was formed to evaluate 13 protocols and the courses that best aligned with the delivery of content related to each protocol. A detailed curriculum mapping project was conducted to identify opportunities to enhance existing content with effective protocol training without increasing overall curriculum length. Didactic faculty were surveyed on where corresponding protocol topics were taught and assessed. If content was not present, natural points of integration were identified within courses. The initial evaluation and planning stage occurred in 2019 over a 3-month time frame with ongoing periodic review. **Results:** Content within 6 courses was identified for enhancement or revision. Most of the content aligned within our pharmacotherapeutics and patient care lab courses. Upon completion of the didactic curriculum, students receive training on 10 protocols for 2021 and 2022 graduating cohorts. **Conclusions:** This initiative within an accelerated PharmD curriculum bridges education to practice creating graduates ready to provide advanced pharmacy services and increase patient access to care in the Commonwealth of Kentucky. As additional protocols are authorized by the Board, this integrative curricular review process will continue.

### **Bridging Gaps Between Diversity, Equity, Inclusion, Anti-Racism and Education at an Urban College of Pharmacy**

Brooke D. Fidler, *Long Island University*, Suzanna Gim, *Long Island University*, Rebecca Cope, *Long Island University*, Akash J. Alexander, *Long Island University*,

Tracey Hodurski, *Long Island University*, John Lonie, *Long Island University*, Jaclyn Novatt, *Long Island University*, Janna Roitman, *Long Island University*. **Objective:** There is a current commitment among the pharmacy community including Colleges of Pharmacy and national pharmacy organizations to promote diversity, equity, inclusion, and anti-racism (DEIA) with the goal of advancing pharmacy education and improving health outcomes within communities that may be underrepresented. LIU Pharmacy, known for its diverse student population, has current and future DEIA initiatives to develop students who can recognize health disparities and work to diminish those inequities as health care professionals. Various courses in the didactic curriculum are specifically mapped to the cultural competency learning outcome with a focus on health literacy, communication strategies with diverse patient populations, breaking down cultural barriers within pharmacy, and creating public health initiatives. The co-curricular program is designed to provide a variety of experiences for students to promote their personal and professional development and many activities foster the area of DEIA. Some of these activities include student-run free clinics that provides care to the underserved or underinsured, health and wellness talks to incarcerated populations, book clubs related to racial inequity, and monthly health awareness presentations to senior centers within the NYC area. LIU Pharmacy students also have the opportunity to be involved in interprofessional experiences related to ethical principles in healthcare and embracing cultural diversity within the healthcare team and among patients. Global health initiatives at the College have additionally provided students an opportunity to be exposed to and work with diverse populations worldwide. The LIU Pharmacy DEIA committee was recently developed with the purpose of ensuring that our students, faculty, and staff have a formal mechanism to provide development in areas related to DEIA and are committed to DEIA as health care professionals. **Methods: Results: Conclusions:**

### **Bridging Interprofessional Education to Best Practice Through Collaboration with Professional Schools from Multiple Universities**

Deborah Zeitlin, *Butler University*. **Objective:** To describe the collaboration with professional health care programs to create realistic interprofessional patient care scenarios. **Methods:** The Interprofessional Education Director oversees scheduling, organization, and evaluation of interprofessional education for pharmacy students throughout the curriculum. Realistic educational exercises are created for pharmacy students to interact with health care students at other universities. Due to COVID, most interactions are

online synchronous events. At each event interprofessional student groups are paired with faculty facilitators to oversee student interactions and meet event objectives. After these events, student questionnaires are administered for evaluation, ensure objectives are met, and if changes are required. Recent interprofessional patient care scenario events included pharmacy students paired with dental students to discuss tobacco cessation management with a standardized patient, and pharmacy students interacting with physician assistant and doctor of osteopathic medicine students for a prescription writing activity. **Results:** The prescription writing activity had an 84% response rates. All post-event questions on a 7-point Likert scale showed an improvement in scores. Written responses to evaluate the value as well as suggestions for improvement were also collected. For the tobacco cessation event, the response rate was 94%, and post-event questions were on a 4- or 5-point Likert scale with minimal negative responses. Students from both events recommended more time allowed for discussion to learn about the other professions. **Conclusions:** Developing interprofessional educational experiences for pharmacy students to interact with health care students from other universities create a positive learning experience and the ability for students to learn how to effectively interact in the future.

### **Bridging Interprofessional Education with Practical Community Experiences in Rural Michigan**

Scott Sexton, *Ferris State University*, Qian Ding, *Ferris State University*, Kyle J. Schmidt, *Ferris State University*. **Objective:** Describe three real-world experiences with embedded students in interdisciplinary community projects addressing opioid use disorder. **Methods:** In 2020, the Central Michigan Recovery and Education Network (CMREN), of Ferris State University, was awarded \$1 million from the Health Resources and Services Administration (HRSA) to address prevention, treatment, and recovery with opioid use disorder (OUD) in three rural counties in Michigan. CMREN is addressing fifteen core activities over a three-year period, and student work has been critical to the success of the program. Students seeking to complete graduate capstone projects were evaluated for alignment with the fifteen core activities outlined in the grant. **Results:** In total, 3 students from PharmD, MPH, MHA, and MSW programs were selected to work within the initiative. Capstone projects were successfully integrated into the community, focusing on home medication disposal, stigma-free zones, and establishing a families against narcotics (FAN) chapter. Significant improvements in safety of home medication disposal (24.3% increase from baseline), as well as ease of use (38.2% increase from baseline) were noted because of the

medication disposal program. The anti-stigma training campaign resulted in a publicly visible certificate for businesses, following a training program, indicating a stigma-free zone for the public. Engagement with the FAN chapter has resulted in greater volunteer work promoting treatment and recovery services for individuals, families, and even inmates. **Conclusions:** This initiative represents successful alignment of educational activities with scholarly production and community health improvement. The interprofessional nature of the inclusion demonstrates an additional layer of education available to students seeking practical, professional involvement.

### **Bridging Pharmacy Education and Practice: Opportunities within a Professional Development Course Series**

Cheryl L. Clarke, *Drake University*, Erik Maki, *Drake University*, Eliza A. Dy-Boarman, *Drake University*. **Objective:** To describe lessons learned during the development and implementation of a six-semester continuing professional development (CPD) course series. **Methods:** In Fall 2017, the first cohort entered the six-semester CPD course series. Learning themes in all courses throughout the series included co-curriculum, interprofessional education (IPE), introductory pharmacy practice experiences (IPPE), and personal and professional development. Individual courses focused on unique themes such as professional engagement, pharmacy history, career exploration, professional advocacy and policymaking, preparation for advanced pharmacy practice experiences (APPE), and post-graduation planning. Standard assignments completed each semester included curriculum vitae, professional goals, personal learning plan, faculty mentor meeting reflection, co-curricular documentation assignments, IPE activity reflection, and IPPE assignments. Students completed a variety of self-awareness assessments throughout the series. The final project was the preparation and presentation of each student's APPE Readiness Poster. **Results:** The complete course series was successfully implemented in the spring semester of 2020. Continual review of course evaluations and student feedback have led to series improvements. Course modifications have included fewer written reflection assignments, enhanced classroom culture of well-being, removal of personal technology from the classroom, and linking activities to pharmacy practice. Course series challenges include credit/no credit grading, co-curricular logistics, use of two learning management systems, and student perceptions of the importance of professional development relative to other coursework. **Conclusions:** A six-semester CPD course series was successfully developed and implemented. Ongoing course

series modifications seek to optimize student engagement. Responsiveness to student feedback is critical for improving learning opportunities for student personal and professional development.

### **Building a Diverse, Inclusive and Equitable Intentional School Environment Through a Committed Task Force**

Christine Feltman, *Regis University*, Leah Behrmann, *Regis University School of Pharmacy*, Allyson Spence, *Regis University School of Pharmacy*, Latoya J. Braun, *Regis University School of Pharmacy*, Karen Smith, *Regis University School of Pharmacy*, Megan Leeds, *Regis University*, Marta J. Brooks, *Regis University*, Erika Freitas, *Regis University*. **Objective:** To strengthen the Regis University School of Pharmacy's inclusive environment by establishing a faculty, staff, and student taskforce to identify and implement diversity, equity, and inclusion (DEI) initiatives. **Methods:** The DEI Task Force (DEITF) was established by soliciting faculty, staff, and student volunteers. DEI focus areas were identified using a stepwise approach. First, DEITF members sought professional training to strengthen their skills. Second, collective expertise was used to host conversations, develop, and deliver two rounds of workshops to students. The second-round topic was informed by student feedback. Additional workshops were developed for faculty and staff. **Results:** Taskforce identification and development of DEI programming occurred over two years. The DEITF consisted of a diverse group of faculty, staff, and students. Student-directed training included introduction to DEI conversations during new-student orientation and workshops for all pharmacy student cohorts. The first round of workshops focused on promoting and applying self-awareness (e.g., start/stop/change) and broadening the definition of diversity (e.g., identity molecule). Student survey feedback and task force input informed the selection of the 'macro-impact of microaggressions' as the second-round workshop topic. Both rounds were incorporated into didactic coursework. Faculty- and staff-directed DEI initiatives included both a microaggression training and a workshop delivered by a nationally recognized DEI expert. **Conclusions:** Establishing the DEITF was a successful initial step in laying the groundwork to support a culture of inclusivity and equity within the Regis University School of Pharmacy. Fostering sustainable diversity in our dynamic environment will require further training and growth. Our next priorities include continual professional development for faculty/staff, intentional self-reflection, implementation of curricular changes, and identifying effective assessment tools.

### **Building a More Inclusive Environment: Efforts and Successes at the Philadelphia College of Pharmacy**

Tyan F. Thomas, *University of the Sciences*, Kristin Motley, *Philadelphia College of Pharmacy at Univ of the Sciences*, Isabelle Mercier, *Philadelphia College of Pharmacy at the University of the Sciences*. **Objective:** To share the process by which the Philadelphia College of Pharmacy's (PCP's) Diversity, Equity, Inclusion (DEI) Task Force was created and the Task Force's and College's early successes to enhance efforts to make all students feel included and valued. **Methods:** In 2019, the Dean called for volunteers to join the DEI Task Force. The inaugural group included four volunteers from two of the College's three academic departments and the College's Office of Experiential Programs. The Task Force, now expanded to six members, reports to the Dean and is responsible for building pathways to create and maintain an environment where faculty, staff, and students, especially those from underrepresented backgrounds, feel supported. This goal is achieved by having regular task force meetings, seeking financial support, collaborating with college and university level stakeholders, conducting surveys, creating professional development workshops, and being intentional and proactive about identifying additional ways to support inclusion at PCP. **Results:** The Task Force has organized three professional development sessions on DEI for faculty and staff; secured external funding for a peer mentoring program for students from backgrounds underrepresented in pharmacy; secured internal grant funding to create a microaggressions toolkit; advised on the inclusion of a DEI-related reflection activity for PharmD students to complete as part of their professional co-curriculum; increased student involvement in professional organizations; and secured funding to provide support for students of high financial need to travel to Advanced Pharmacy Practice Experiences within the Indian Health Service. **Conclusions:** Efforts to build a more inclusive environment must be ground-up and coupled with support from College leadership. College leaders must articulate and demonstrate consistent support for faculty and staff engagement on efforts to advance inclusion.

### **Building Better Pharmacists: Engaging in Practice Innovations**

Anandi V. Law, *Western University of Health Sciences, College of Pharmacy*, Micah Hata, *Western University of Health Sciences*, Emmanuelle Schwartzman, *Western University of Health Sciences*, Jason Wong, *Western University of Health Sciences*, Joelle G. Ayoub, *Western University of Health Sciences College of Pharmacy*,



Shawn Smith, *Western University of Health Sciences*, Pre-eti Kotha, *Western University of Health Sciences*, Daniel Robinson, *Western University of Health Sciences*. **Objective:** Innovation is ingrained in WesternU's DNA, extending from its curriculum to initiatives bridging education, research, practice and advocacy. A prominent example is its CORE group (COMMUNITY Research and Education). Founded in 2008 as a collaborative forum to advance community pharmacy practice, CORE's mission is to improve patient outcomes and pharmacist professional recognition. It includes WesternU faculty and postdocs practicing in community and ambulatory care pharmacy. **Methods:** CORE has been instrumental in introducing emerging models of practice and payment into WesternU's PharmD curriculum, including a Medication Therapy Management (MTM) certification program. CORE has been a nucleus for collaborative research projects involving pharmacy residents, fellows and external stakeholders. Topics ranging from MTM and DSM, collaborative practice, testing redesigned prescription labels in low literacy populations, and more recently, social determinants of health and telehealth. **Results:** Collaborations have resulted in 5 funded grants, 22 abstracts and 13 peer-reviewed publications. Members interface with practice innovations such as CPESN-CA, coaching 15 flip the pharmacy (FTP) participants. CORE's community outreach has included health fairs and medication disposal initiatives. During the COVID-19 pandemic, members mobilized and oversaw more than 500,000 vaccinations for Angelenos, at pods, clinics, and homeless shelters. **Conclusions:** A recent innovation through this group has been the establishment of a call center that provides adherence counseling and comprehensive medication reviews for assigned members of medical groups and commercial health plans in a financial and outcome accountability model. Student pharmacists on rotation receive training to conduct the calls and alumni participate by signing off on student documentation. Discussions and research from CORE members have segued into local, state and national level advocacy initiatives such as state-level provider status and the standard of care proposal.

### **Building Confidence in Critical Thinking and Teamwork as Students Transition to Advanced Pharmacy Practice Experiences**

Julianna Fernandez, *University of Houston*, Dhara Surati, *University of Houston*, Rania H. El-Desoky, *University of Houston*, Elizabeth Coyle, *University of Houston*. **Objective:** To utilize problem-based learning to increase student confidence in critical thinking and teamwork in navigating complex problems. **Methods:** Complex Problems is a capstone module in the integrated curriculum right before students start Advanced Pharmacy Practice Experiences

(APPEs). This course first delivered in Spring 2021, was designed to promote and assess critical thinking skills among PharmD students to ensure APPE-readiness. Students work through complex patient-related problems where there is not a well-defined solution. They are randomly assigned to teams with the objective of working through complex scenarios with guiding questions. Each team presents the process and evidence that leads them to their responses to guiding questions. Student performance is assessed utilizing a rubric focusing on the critical thinking process and integration of information rather than an absolute answer. A pre/post project self-reflection is used to assess change in student confidence in critical thinking and teamwork. **Results:** In 2021, self-reflections were completed by >95% of students enrolled (n=113). In the majority of reflection statements, there was an increase in confidence among students. **Conclusions:** The findings support this capstone course increases student confidence in critical thinking and teamwork. By providing an additional space for students to analyze and present complex scenarios with a focus on thought processes empowers students to utilize their skills and knowledge to navigate through the complexity of pharmacy practice as they transition into APPEs.

### **Building Mental Health Life Skills: From the Classroom to Practice**

Kimberly C. McKeirnan, *Washington State University*, Julie Akers, *Washington State University*, Damianne Brand, *Washington State University College of Pharmacy and Pharmaceutical Sciences*, Christina Buchman, *Washington State University College of Pharmacy and Pharmaceutical Sciences*, Anne Kim, *Washington State University College of Pharmacy and Pharmaceutical Sciences*, Jennifer D. Robinson, *Washington State University College of Pharmacy and Pharmaceutical Sciences*, Megan N. Willson, *Washington State University*. **Objective:** In the United States, 21% of the population (52.9 million people) has experience with a mental health condition in the past year. In the third year of a global pandemic, healthcare workers are experiencing an unprecedented strain on mental health. The objectives of this innovation are three-fold: to increase preparedness to engage with patients about mental health and connect to available community resources; to increase awareness and reflection of individual wellbeing; and to prepare future practitioners to utilize best practices to reduce negative outcomes related to behavioral health conditions. **Methods:** Pharmacists are on the front lines and must be prepared to engage with and support patients experiencing a mental health crisis. With this in mind, increasing behavioral health literacy and mental health first aid skills amongst

student pharmacists can have a positive impact on the health and social outcomes of future pharmacists and the individuals they serve. Faculty at Washington State University have incorporated required training sessions into the Doctor of Pharmacy (PharmD) curriculum to increase student pharmacists' knowledge, confidence, and intervention skills when engaging with patients, colleagues and caregivers experiencing mental health challenges. **Results:** This school poster describes the strategic integration of Mental Health First Aid and suicide prevention training in the PharmD curriculum and the scholarship of teaching and learning research conducted on these topics to assess student knowledge, confidence, and delivery of learned skills. **Conclusions:** By training student pharmacists who are prepared to recognize and provide care for those experiencing a mental health crisis, we are developing leaders who have the skills needed to help transform the future of pharmacy practice to be more supportive of patients and health care providers alike.

### **Catalyzing Practice Transformation through School-based Centers and Institutes**

Jennifer L. Bacci, *University of Washington*, Rachel A. Allen, *University of Washington*, Donald Downing, *University of Washington*, Alex Tu, *University of Washington School of Pharmacy*, Peggy Odegard, *University of Washington*. **Objective:** The University of Washington School of Pharmacy outlined a new Strategic Plan in 2015, which included a goal of catalyzing pharmacy practice transformation. **Methods:** The Bracken Pharmacy Learning Center (BPLC) and Institute of Innovative Pharmacy Practice (I2P2) lead the School's efforts in bridging pharmacy education and practice. Collaboration between the two organizational units is facilitated via a shared vision of practice transformation. **Results:** The BPLC is the primary learning space where PharmD students develop the essential skills to be a pharmacist provider, including patient and provider communication skills, hands-on skills, application of technology used in practice, and decision-making skills. The connection between the classroom and practice is enhanced through integrated skills and experiential courses designed with regular practitioner input, early and frequent longitudinal introductory practice experiences, and competency-based assessment and remediation based on Entrustable Professional Activities. I2P2 is the center for training, research, and advocacy promoting entrepreneurial solutions for better health and business. The Institute offers elective PharmD courses in advocacy and practice transformation to prepare tomorrow's pharmacy leaders; conducts research to evaluate the impact and advance the adoption of innovative pharmacist patient care services to improve health outcomes; and advocates for legislative

changes that establish pharmacists and pharmacies as the most efficient access to affordable and appropriate community health services. I2P2's contributions include implementation of novel pharmacy-based vaccination and contraception services and the championing of legislation requiring commercial and managed Medicaid plans to enroll pharmacists in their Washington State medical provider networks. **Conclusions:** Collaboration between the two organizational units allows for practice transformation work to be enhanced through multiple perspectives, including education with emphasis on professional identity, practice and educational research, and community-engaged service.

### **Changing our Culture: A Look at Student-Led, College-Supported DEIA Initiatives in a Rural Midwest University**

Timothy Burkart, *University of Findlay*, Nira N. Kadakia, *University of Findlay*, Sandra Earle, *University of Findlay*, Akesha Edwards, *University of Findlay*, M. Chandra Sekar, *University of Findlay*, Debra Parker, *University of Findlay*. **Objective:** This poster tracks the initial stages of the creation and implementation of diversity, equity, inclusion, and anti-racism (DEIA) initiatives at a private university's college of pharmacy in a mid-sized city in a primarily rural county in Ohio. Research question – How might DEIA initiatives be effectively implemented in a rural Midwestern university? **Methods:** In response to social justice movements of 2020, student pharmacists at the University of Findlay College of Pharmacy were moved to contact leadership to express DEIA concerns. One main request was for more education on DEIA-related topics. In response, a student-led, college-supported DEIA task force was created. **Results:** The DEIA Task Force has now become an Ad Hoc DEIA committee of the college. The DEIA Committee includes representation from students in each year of the program, faculty, and staff. The poster reveals initial college of pharmacy student, faculty, and staff survey responses related to culture and inclusion within the college, and subsequent initiatives and activities that have since taken place, including but not limited to the hosting of two former US Surgeon Generals to speak regarding health equity in the United States. Feedback has supported the benefits of these events to student learning. **Conclusions:** Early efforts of the committee have been successful. Future plans include guest speakers, conference attendance, focused training, and student-led case competitions. As DEIA efforts in pharmacy programs become more widespread, the university's DEIA committee will continue to meet regularly to organize, promote, and implement programming dedicated to meet DEIA initiatives. Success of efforts will be analyzed with further surveys.

### **Collaborative Approach to Create and Launch a Substance Use Disorder Certificate Program in West Virginia**

Casey Fitzpatrick, *Marshall University*, Brittany L. Riley, *Marshall University*, Charles Babcock, *Marshall University*, Christopher Booth, *Marshall University*, Kimberly Broedel-Zaugg, *Marshall University*, Tiffany Davis, *Marshall University*, Michael Hambuchen, *Marshall University*, Chelsea Gresham-Dolby, *Marshall University*.

**Objective:** To create and launch an innovative certificate program to provide pharmacists in West Virginia the knowledge and skills necessary to effectively treat patients with SUD. **Methods:** In 2019, Marshall University School of Pharmacy (MUSOP) was awarded funding via the State Opioid Response Grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) to combat the opioid crisis in West Virginia. Using a collaborative approach, MUSOP created an online certificate program consisting of eight separate modules related to substance use disorder. Multiple disciplines, ranging from law to physical therapy, contributed to the project and provided input for various modules. In 2021, through MUSOP's Continuing Education website, the SUD certificate program was launched and made available to West Virginia pharmacists at no charge. **Results:** MUSOP provided 394 continuing education hours related to SUD to West Virginia pharmacists and awarded 64 unique certificates to individuals who completed the program. The overall feedback from participants was extremely positive. **Conclusions:** MUSOP was able to bridge pharmacy education and practice by creating and launching a SUD certificate program for pharmacists in West Virginia. This program addressed an unmet need in West Virginia by providing pharmacists with knowledge and skills to combat the opioid crisis.

### **Collaborative Education and Interprofessional Practice Innovations Using Simulations at UNE School of Pharmacy**

Devon A. Sherwood, *University of New England School of Pharmacy*, Sydney P. Springer, *University of New England*, Rachel Mayer, *University of New England School of Pharmacy*, Stephanie D. Nichols, *University of New England School of Pharmacy*, Emily K. Dornblaser, *University of New England School of Pharmacy*, Lynn Kopack, *University of New England School of Pharmacy*.

**Objective: Methods:** Faculty and student pharmacists at the University of New England (UNE) School of Pharmacy are involved in several interprofessional education (IPE) experiences that bridge a robust didactic curriculum to best practices in healthcare. We describe three such

areas. **Results:** As part of a longitudinal course, third-year pharmacy students work with other healthcare professions on a patient case that involves dispensing naloxone. Standardized patient actors arrive at the pharmacy to pick up opioid and benzodiazepine prescriptions. After dispensing naloxone, the patient collapses in the pharmacy and students respond to the surprise situation. Another area which incorporates simulation training and student leadership is Screening, Brief Intervention, and Referral to Treatment (SBIRT) training that is integrated into curricula across 10 graduate healthcare programs. Using standardized patient actors, students can continue working interprofessionally on teams to address three separate patient encounters that increase in severity. Each two-to-three-hour session offers students an opportunity to practice motivational interviewing, education surrounding substance use disorders, and overall healthcare impact. Through the Interprofessional Team Immersion (IPTI) experience, healthcare students are offered an opportunity to work with standardized patient actors on a COVID-19 simulated case. Moving to the online simulated case allowed integration of telehealth skills into the learning experience. During this program, students infuse their scope of training in an interprofessional environment and conduct difficult conversations with patients. **Conclusions:** Our college leads the way in IPE with involvement in several educational collaboratives using patient simulations. Each interprofessional simulation experience allows students to learn from, with, and about other professionals. These opportunities allow students to break out of their "professional silos," model current healthcare practices, reduce medical errors, and improve overall patient care.

### **Comprehensive Medication Management Service within a Partner Health-System Supported by a College of Pharmacy**

Susan E. Conway, *The University of Oklahoma*, Vincent Dennis, *University of Oklahoma College of Pharmacy*, Jolaine Draugalis, *University of Oklahoma College of Pharmacy*. **Objective:** The University of Oklahoma (OU) College of Pharmacy leveraged a long-standing partnership with a local health-system to transform ambulatory care services, expand faculty positions, and enhance student experiential learning opportunities. **Methods:** The OU College of Pharmacy contracted with INTEGRIS Health in 1998 for a 50/50 co-funded faculty position to provide leadership and direct patient care in an anticoagulation clinic. In 2015 responding to declining referrals due to novel oral anticoagulants, the co-funded clinical faculty piloted innovative, comprehensive medication management (CMM) services embedded with primary care clinics of the partner,

INTEGRIS Health. The co-funded faculty played key roles in leading CMM program development, conducting outcomes-based research, presenting at national meetings/forums, and leveraging the service growth as an opportunity for increased faculty members. **Results:** The CMM service has grown from the original 1 co-funded pharmacy specialist to now a team of 11 pharmacy specialists with 4 co-funded faculty. The CMM service has continually demonstrated positive patient outcomes including an average of 2.4 medication-related problems identified and resolved per new CMM visit, an average of 2.2% A1c lowering in those with targeted CMM for diabetes, an average of 25/8 blood pressure lowering in those with targeted CMM for hypertension, and a 61 to 90% reduction in 30-day readmissions following transitional care CMM visits for high-risk patient groups. To date, the OU College of Pharmacy/INTEGRIS Health service agreement has supported experiential learning for 46 IPPEs and 54 APPEs through the CMM service. **Conclusions:** The long-standing and meaningful partnership between OU College of Pharmacy and INTEGRIS CMM service has provided optimized medication use and improved health outcomes while delivering innovative inter-professional practice models for student learners.

### **Creating a Vertically Integrated Digital Health Program to Meet Rapidly Changing Student Learning Needs**

Krista L. Donohoe, *Virginia Commonwealth University*, Apryl N. Anderson, *Virginia Commonwealth University*, Teresa M. Salgado, *Virginia Commonwealth University*, Evan Sisson, *Virginia Commonwealth University*, Dayanjan S. Wijesinghe, *Virginia Commonwealth University*. **Objective:** To describe the implementation of Digital Health (DH) initiatives at Virginia Commonwealth University (VCU) School of Pharmacy. **Methods:** Faculty members developed a vertically integrated approach to DH in the curriculum by spanning course content from the first professional year through the fourth by intentionally connecting didactic learning to experiential application. Nine required courses and two electives in the didactic curriculum cover content related to DH including: innovative devices, telehealth, and other health apps used in pharmacy practice. Additional co-curricular activities were developed, such as a new student organization - Pharmacists for Digital Health (PDH). A separate DH laboratory was designed to support the endeavors of PDH. A new experiential opportunity, a five week APPE in DH, was also created. Finally a series of digital badges and a CE program is under development to enable continuous and lifelong learning as microcredentials. **Results:** The DH curricular integrations have led to students pursuing professional development

opportunities within this rapidly changing field of pharmacy. An increasing number of students are taking part in national and international DH competitions with several winning in their categories. A student who began their involvement early has enrolled in a PharmD/PhD program to continue their data science journey. Another student has received a coveted pharmacy informatics internship. A student group also successfully created a startup creating informatics solutions to a hospital and has a paying customer. **Conclusions:** VCU School of Pharmacy has incorporated a vertically integrated approach to teaching DH in the curriculum. However, student outcomes will need to be assessed to determine if more DH integration is needed to meet student learning needs to help shape the future of pharmacy practice.

### **Creating the Curriculum that Teaches Beyond the Classroom**

Sheri Tokumaru, *University of Hawaii at Hilo*, Jarred B. Prudencio, *University of Hawaii at Hilo*, Camlyn Masuda, *University of Hawaii at Hilo*, Dana-Lynn T. Koomoa, *University of Hawaii at Hilo*, Chad Kawakami, *University of Hawaii at Hilo*, Lara Gomez, *University of Hawaii at Hilo*, Miriam Mobley Smith, *University of Hawaii at Hilo*. **Objective:** Pharmacy curriculum must produce pharmacists that meet the needs of advancing pharmacy practice in their community and beyond. Programs must remain competitive in a challenging marketplace by improving and maintaining high board pass rates, residency and jobs placement, and graduate satisfaction, while adapting to evolving accreditation standards and educational competencies. **Methods:** In Fall 2020, the college of pharmacy established the Curriculum Transformation Team (CTT). The team gathered and analyzed internal and external data, reviewed the current curriculum map, and reviewed other programs that recently revised their curriculum. The Pharmacy Practice and Pharmaceutical Sciences departments initially provided five curricular improvements per the request of the CTT. Participation was then extended to faculty, staff, students, and community pharmacy leaders, including alumni and preceptors, through workgroups to maximize ideas and concepts. Current preceptors were provided an opportunity to comment on curricular improvements via a survey. **Results:** The CTT drafted Student Learning Outcomes (SLOs) and a curriculum framework. Multiple retreats were held to provide time for workgroups to present their work and participate in activities that focused on the strengths, challenges, and ideas for the new SLOs and draft curriculum framework. Developing student ability to engage in self-directed learning and critical thinking through new and

unfamiliar topics or problems was a common theme during discussions. The draft curriculum package was presented to the faculty in March 2022 and if adopted, the revised curriculum will be implemented in Fall 2023. **Conclusions:** Curricular revisions and continuous quality improvement drives innovation allowing our program to provide the highest quality education for our students. It is critical to ensure students are able to learn beyond the classroom to provide communities with pharmacists prepared for the future.

### **Cultivating Professional Identity Development, Career Readiness, and Reflective Practice Within Personal and Professional Development Courses**

Andrew P. Longhofer, *Pacific University School of Pharmacy, Staff*, Pauline Chatnick, *Pacific University School of Pharmacy, Faculty*, Anita J. Cleven, *Pacific University Oregon, Faculty*. **Objective:** While professional identity formation, career readiness, and reflective practice were present in the PharmD curriculum, co-curriculum, and faculty mentorships, the School identified a need to emphasize and integrate these topics. The Personal & Professional Development (PPD) course sequence emerged to meet this need as the School has developed and implemented a new curriculum. **Methods:** PPD courses involve one weekly contact hour throughout the fall and spring semesters for all three years of the program, as well as P1 and P2 Orientation, career fair, and a capstone week after APPEs. A toolkit was developed from the professional identity development and career readiness topics in the legacy curriculum, along with student success, reflective practice, and personal growth activities previously housed in elective courses, co-curricular experiences, informal faculty mentorship, and program requirements. This toolkit was mapped to ACPE (2016) Standards 3 and 4. Learning is assessed via authentic evidence and longitudinal portfolio development with particular emphasis on reflective practice and integrative learning. **Results:** All P1 students are interrogating their personal values, attitudes, and beliefs as future pharmacists, exploring career options aligned with their motivations, and curating authentic artifacts that demonstrate their learning. Interactions with faculty mentors have increased. Students report that reflective assignments support metacognition, career planning, and self-awareness. Some students expressed a desire for more practical, rather than subjective, material. **Conclusions:** Students are engaging in professional identity development, career readiness, and reflective practice earlier and more deliberately than in the legacy curriculum. Assessment of faculty mentorship quality and objective measures of impact on student success, professionalism, career outcomes, and self-awareness is forthcoming.

### **Defining, Assessing and Addressing Today's Pharmacy Leadership Needs Through Development of a Leadership Institute**

Michael Cockerham, *The University of Louisiana at Monroe*, Emma M. Gautreaux, *University of Louisiana at Monroe*, Gina Craft, *University of Louisiana at Monroe*, Laurel Sampognaro, *The University of Louisiana at Monroe*, Mary Rhea, *University of Louisiana Monroe*, Larry Humble, *University of Louisiana Monroe*, Oscar W. Garza, *The University of Louisiana at Monroe*, Glenn Anderson, *The University of Louisiana at Monroe*. **Objective:** To assess the need for and develop a leadership training program for pharmacy practitioners, and to empower individuals and organizations to meet the leadership challenges of an ever-changing global environment. **Methods:** Defining the Need: Today's pharmacy students receive some leadership training, however, there is still a lack of leadership experience in today's workforce. Stakeholders report that students need more leadership training to be prepared for the responsibilities awaiting them as they assume leadership roles in the workforce. As the workforce ages, there will be a need for pharmacists to step into leadership roles, and they will require additional training. **Results:** Assessing the Need: A survey was sent to over 9000 registered pharmacists in Louisiana to determine the need for and type of leadership training to be offered. Although the response was limited, there were several trends identified in the results. Over half of respondents indicated that their formal education did not prepare them for any leadership responsibilities that they currently have or anticipated having in the workforce and 61% indicated that they had not participated in training programs, with 54% identifying a personal need for leadership training. 69% of respondents indicated that time is a potential barrier to participation with 32% indicated money as a barrier. 78% would be willing to invest time in leadership training, however, only 36% would be willing to invest more than four hours. **Conclusions:** Addressing the Need: In response to stakeholder reports and survey results, we are in the process of creating a formal business plan to ensure leadership training is convenient, relevant, innovative, and easy to implement. Training will include initial assessments, data driven methods to address needs/gaps, flexible delivery methods.

### **Designing a Longitudinal Practice Lab Sequence Bridging Education and Practice**

Ashley Castlberry, *The University of Texas at Austin*, Patrick Davis, *The University of Texas at Austin*, Renee Acosta, *The University of Texas at Austin*. **Objective:** To create and assess a Pharmacy Practice Lab (PPL) sequence

spanning all six semesters of our didactic program to decrease redundancy and increase skill development while aligning and reinforcing. **Methods:** With oversight from the PPL Subcommittee of the Curriculum Committee, a new, longitudinally-integrated laboratory sequence was designed by consolidating previous stand-alone practice lab and didactic courses. The lab sequence features engaging activities focused on skills development and providing patient-centered care paired with longitudinal threads of communications, diversity/equity/accessibility/inclusion, law/ethics, pharmacotherapy knowledge, drug information and patient assessment. The sequence is designed to incorporate hands-on skill development from the onset of the curriculum, and readily align with and reinforce didactic topics while responding to changes in the curriculum and profession. Use of simulated Electronic Health Records and Objective Structured Clinical Examinations (OSCEs) assess student progress to achieving skills and communications competencies. Working with the PPL Subcommittee, each professional year has a set of course coordinators responsible for ensuring that the longitudinal threads are addressed each semester and that content aligns with didactic courses as they are being delivered. The OSCEs are standardized and oversight provided by the OSCE Subcommittee of the Curriculum Committee. **Results:** Course and OSCE performance indicate student mastery of the desired pharmacy practice skills. Student feedback indicates that the labs are considered engaging, practical, reinforcing, collaborative and preparatory for future practice. By decreasing the number of labs and increasing collaborations, student and faculty well-being is being positively impacted. The consolidation of courses resulted in additional elective hours in the curriculum which allows for student differentiation. **Conclusions:** Careful design and implementation of longitudinal course sequences is needed to effectively educate a dynamically changing profession and student body.

### **Developing Student Pharmacists Through a Structured Professional Development Unit Program**

James D. Nash, *Husson University*, Conrad Dhing, *Husson University*, Peter McLean, *Husson University*, Aaron M. Domina, *Husson University*, Elizabeth H. Vigue, *Husson University*, Tianzhi Yang, *Husson University*, Travis Allen, *Husson University*. **Objective:** Husson University School of Pharmacy (HUSOP) has redesigned how the Doctor of Pharmacy (PharmD) program fulfills specific elements of Accreditation Council on Pharmacy Education (ACPE) 2016 Standards three and four. The objective of creating Professional Development Units (PDUs) is to deliver a purposeful program that enhances student exposure to key elements and students are required

to participate in order to progress through the program. **Methods:** The Professional Development Unit (PDU) program is a series of requirements that each student needs to complete during the Pre-Advanced Pharmacy Practice Experience (Pre-APPE) years (1 through 3) of the Doctor of Pharmacy (PharmD) program. The ten elements include: problem-solving, education, patient advocacy, interprofessional collaboration, cultural sensitivity, communication, self-awareness, leadership, innovation/entrepreneurship, and professionalism. At HUSOP, students are expected to cover all ten elements in deliberately planned PDU events. For each PDU event, students are presented with an educational element followed by a short assignment associated with the PDU event which will vary based on the key elements provided through the Learning Management System (LMS). The assignments contain questions regarding quality improvement, PDU content, and prompted personal reflection. **Results:** 2021-2022 is the first year this was rolled out to student pharmacists. A total of 59 students participated in four PDU events on the following key elements – patient advocacy, education, professionalism and communication. These events varied in activities and assignments which is described in full. **Conclusions:** The PDU program is providing the needed structure for HUSOP to meet not only elements of standards three and four but aligns with the schools visionary statement of committing to educate students to become ethical, competent and confident pharmacists supporting university values of character and humility.

### **Development of a Collaborative Platform to Impact Maternal Outcomes**

Shirlette G. Milton, *Texas Southern University*. **Objective:** To expand the longstanding relationship between Texas Southern University College of Pharmacy and Health Sciences (TSU COPHS) and the March of Dimes (MOD) to a partnership that includes a more meaningful collaboration that incorporates pharmacy practice and impacts health outcomes to promote birth equity. **Methods:** Following a needs analysis, an educational focus was identified with TSU COHS Office of Experiential Training providing accredited continuing educational credits for all pharmacists and Harris Health System for nursing with in-person participation held on the campus of TSU and virtual participation provided using Zoom. The data base for pharmacists included TSU COPHS preceptors, alumni and outreach to the Texas Consortium for Experiential Programs for Texas pharmacy schools and colleges. **Results:** Education on “Low Dose Aspirin to Prevent Preeclampsia” was identified as an educational need for pharmacists in the MOD Hypertension Workgroup for presentation during Black Maternal Health

Week. Partnership with Harris Health System was used to identify a Clinical Pharmacist Specialist and Neonatal Clinical Pharmacist for development of an accredited pharmacy continuing education (CE) and nursing continuing professional development program. An OB/GYN physician was identified for participation from Legacy Community Health Center. To promote the importance of collaborative patient care, nursing was included as well as CPHS faculty/staff, the MOD Hypertension Workgroup, and CPHS pharmacy students. **Conclusions:** The collaborative platform developed satisfies all requirements of the MOD Hypertension Workgroup to impact maternal outcomes by addressing the role of the pharmacist to promote the use of low dose aspirin in preventing preeclampsia in appropriate patient groups across Texas. Future efforts will seek to provide continued CE access, including outreach to offer the program through Texas State Pharmacy Associations.

#### **Development of a Diversity, Equity, Inclusion, and Accessibility Strategic Plan at a College of Pharmacy**

Kelly T. Epplen, *University of Cincinnati*, Pat Achoe, *University of Cincinnati College of Pharmacy and Kroger Pharmacy*, Emma C. Palmer, *University of Cincinnati College of Pharmacy*, Adwoa Sasu, *University of Cincinnati College of Pharmacy*, Elizabeth Schlosser, *University of Cincinnati College of Pharmacy*, Patricia Wigle, *University of Cincinnati College of Pharmacy*. **Objective:** Objectives: The Accreditation Council for Pharmacy Education (ACPE) 2016 standards include specific elements of cultural sensitivity and awareness which assist in preparing students to work with patients of diverse backgrounds. It also advocates for an admissions process which selects a “qualified and diverse student body.” Our objective was to develop an intentional strategic plan which encompasses our diversity, equity, inclusion, and accessibility aspirations and prepares our graduates to care for diverse patient populations. **Methods:** Methods: The University of Cincinnati James L. Winkle College of Pharmacy (JLWCOP) sent a team of faculty and staff to the American Academy of Colleges of Pharmacy (AACCP) Equity, Diversity, and Inclusion Institute with the intention of creating a plan to foster an environment that reflects the University’s principles of diversity, equity, inclusion, dignity, accessibility, and respect. Upon returning from the Institute, this team developed a strategy to recruit, retain, and promote individuals from diverse backgrounds, and implement a system of accountability to meet these objectives. **Results:** Results: A comprehensive, five-year plan was developed. Objective data were incorporated into the document, including benchmarks from the AACCP surveys, rates of enrollment and hiring of

individuals from diverse backgrounds, and measures to ensure accountability and continued implementation of college efforts. This plan was disseminated to key stakeholders and amended to incorporate feedback until final approval in 2022. **Conclusions:** Conclusions: JLWCOP is dedicated to the promotion of diversity, equity, inclusion, and accessibility as a part of our core values. The strategic plan provides a framework for integrating these values across the continuum and maintains accountability.

#### **Diversity, Equity, Inclusion, and Anti-Racism Initiatives at University of California San Diego**

Laura A. Hart, *University of California, San Diego*, Eduardo Fricovsky, *University of California, San Diego*, Dominic Cooper, *University of California, San Diego*, Rabia Atayee, *University of California, San Diego*, Jair L. Siqueira-Neto, *University of California, San Diego*, Christina L. Mnatzaganian, *University of California, San Diego*, Alex J. Luli, *University of California, San Diego*, Jennifer M. Namba, *University of California, San Diego*. **Objective:** To describe diversity, equity, inclusion, and anti-racism (DEIA) initiatives at UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). **Methods:** DEIA initiatives at SSPPS have been implemented in curriculum, outreach, and recruitment. The Health Equity and Anti-Racism Training (HEART) curricular thread is comprised of lectures and workshops addressing health equity, disparities, anti-racism, implicit bias, social determinants of health (SDOH), microaggressions, and providing inclusive care to diverse patients (eg, LGBTQIA+ community) by integrating communication skills with clinical applications. Surveys were administered pre- and post-activities. Wilcoxon signed-rank tests compared students’ perceptions and confidence. The Pharmacy Underrepresented Mentorship Program (PUMP) aims to increase classroom diversity by mentoring pre-pharmacy students committed to serving communities with health disparities and providing outreach to prospective students from Minority Serving Institutions. Descriptive statistics were used to summarize the impact of PUMP efforts. **Results:** HEART workshops significantly increased students’ perception of religious beliefs, sexual orientation, gender identity, and physical/mental disabilities as relevant factors to evaluate in most to all patients ( $p < .05$ ). Students most commonly experienced implicit bias related to race/ethnicity/cultural background (79%) and socioeconomic status (70%). Students felt confident caring for patients with different SDOH. Confidence interrupting microaggressions and supporting colleagues experiencing microaggressions significantly increased ( $p < .05$ ). Over 90% of students agreed that HEART

workshops were relevant and applicable to future practice. Of 123 pre-pharmacy students participating in 6 PUMP workshops, 81 received offers to matriculate, increasing classroom diversity by 24.8%. The majority of PUMP participants reported no prior mentorship opportunities. **Conclusions:** SSPPS DEIA initiatives have provided transformational improvements in students' perception and confidence with training committed to respecting patient diversity and advancing health equity. Outreach and recruitment initiatives increased classroom diversity.

### **Diversity, Inclusion, Equity, and Anti-Racism Efforts at Shenandoah University Bernard J. Dunn School of Pharmacy**

Rebecca Andersen, *Shenandoah University*, Nicole Slater, *Shenandoah University*, Jamie M. Huff, *Shenandoah University*, Kelsey M. Morgan, *Shenandoah University*, Pritchard I. Iain, *Shenandoah University*, Ranjani Varadarajan, *Shenandoah University*. **Objective:** Supporting AACP's Strategic Priority #3, Shenandoah University's Bernard J Dunn School of Pharmacy (BJDSOP) implemented strategies to address DEIA. Strategies included the generation and implementation of University, School, and individual faculty initiatives. **Methods:** In 2018 Shenandoah University created the President's Representatives for Inclusion, Diversity, and Equity (PRIDE) in order to lead climate assessments and provide consultations and recommendations to senior leadership. Through coordination with PRIDE all faculty and staff at the School are completing Racial Justice and Anti-Racism training. This training was created by University personnel and consists of a live introductory session followed by educational modules housed within our learning management system. In 2020 the School's curriculum committee was charged with reviewing our curriculum to ensure it supports diversity and prepares our students to actively contribute to the health equity of their patients. **Results:** To achieve this the committee formed a task force which attended AACPs Equity, Diversity, and Inclusion Institute. Following this institute, the task force identified initial and long-term priorities to address DEIA within the School. To continue this work the School formed an ongoing Guiding Coalition of faculty, staff, and students that mimics the actions and responsibilities of PRIDE at the University level. **Conclusions:** At a grassroots level, DEIA activities have been incorporated into the classroom by individual faculty. Examples include, utilizing social determinants of health in patient cases, the use of reflective practices within elective and core courses, teaching to students and residents with inclusive pedagogy principles, and teaching inclusive pedagogy principles to residents.

BJDSOP is committed to continuing to incorporate DEIA principles throughout our culture and curriculum to better serve students, faculty, and staff and the future of the profession.

### **Eight Years of Experience in Distance Learning Pharmacy Education at a Rural Diversity Campus**

Margareth Larose-Pierre, *Florida A&M University*, debora Taylor, *Florida A&M University CoPPS IPH*, Matthew Dutton, *Florida A&M University CoPPS IPH*, Jocelyn Spates, *Florida A&M University*, Marlon Honeywell, *Florida A&M University CoPPS IPH*. **Objective:** The purpose of this study is to determine if the Pharmacy curriculum delivered via Distance Learning Technologies in a rural area is equivalent to the traditional face-to-face classroom delivery within the same College. **Methods:** We retrospectively reviewed and analyzed data collected of learners from the academic years of 2012 through 2020 from the time of admission to the time of graduation. The data sets include: learner demographics, the year of graduation, course assessment grades, Pharmacy Curriculum Outcomes Assessment (PCOA) and North American Pharmacist Licensure Examination (NAPLEX) data. The PCOA and NAPLEX scores and learner's course assessment grades are compared to those of the main campus learners. Data from program surveys completed by Distance learners were also recorded. **Results:** Data gathered from the graduating classes from 2016 to 2020 showed that 114 student pharmacists matriculated to graduation, representing a population of 60% female and 40% male. Forty-nine percent of those students were Caucasian, 35% African-American, 8% Asian, 6% Hispanic and 2% as other ethnicity. A comparative analysis of PCOA scores of all learners shows that the distant learners scored a difference of 11 to 21 points higher than learners who attended the main campus. Graduates from the distance learning campus achieved a higher passing rate on the NAPLEX by 2.41% in 2019 and by 12.8% in 2020. Distant learners' NAPLEX scores were also higher than the national average score. **Conclusions:** We conclude that, based on PCOA and NAPLEX results, learners at the distance learning campus performed better than those learners at the main campus of FAMU CoPPS IPH. This study highlights that a distance learning pharmacy program can be successfully developed and administered in a rural diversity area.

### **Embracing Continuous Professional Development for Students and Faculty**

Jonathan Thigpen, *Samford University McWhorter School of Pharmacy*, Michael Kendrach, *Samford University McWhorter School of Pharmacy*, Michael Crouch,



*Samford University McWhorter School of Pharmacy.* **Objective:** Implement continuous professional development (CPD) experiences for students and faculty within the school of pharmacy. **Methods:** CPD is an essential component of health professions education. The new Practice and Team Ready curriculum at the McWhorter School of Pharmacy specifically incorporated CPD both for faculty to apply innovative and effective teaching strategies and students to begin to adopt a lifelong learner mindset. **Results:** The new curriculum requires students to complete two CPD learning modules (ie, continuing education programs) each year for all four years of the program; these are documented within the students' professional portfolio. Other activities include self-awareness projects with corresponding action plans. For example, third-year students reflect on their PCOA results and develop SMART goals to accomplish before the end of their fourth year. Furthermore, the new didactic curriculum contains a four-course series addressing professional development and wellness. For faculty, the Office of Academic Affairs created a monthly faculty professional development series covering the most effective teaching and learning practices to prepare faculty for the newly implemented curriculum. Additionally, faculty complete a six-week alignment program that utilizes Quality Matters standards to ensure alignment between pedagogic strategies, assessments, and course outcomes. **Conclusions:** Pharmacy and higher education are dynamic and require members to embrace CPD to advance their missions, grow, and be successful. CPD is critically important for faculty success, especially while implementing a new curriculum. For students, CPD should be a focus as they begin their career and professional identity formation while in school and not be delayed until after graduation.

### **Emphasis Designation: A Student's Path for Enhancement and Recognition of Professional Education**

Heather L. Lyons-Burney, *University of Missouri-Kansas City*, Erica Ottis, *University of Missouri-Kansas City*, Angela M. Brownfield, *University of Missouri-Kansas City*, Maqual Graham, *University of Missouri-Kansas City*, Eric Wombwell, *University of Missouri-Kansas City.* **Objective:** To provide a curricular track within the existing Doctor of Pharmacy degree program allowing students to focus elective studies within a specialized area of pharmacy or on specific skill training to enhance professional education. **Methods:** An Ad-hoc sub-committee of faculty and administration was formed by the curriculum committee at UMKC School of Pharmacy to investigate the need and develop the framework for an emphasis designation track. Information was gathered from external stakeholders, a

graduating student exit survey, and an assessment of future trends in the profession to guide design decisions. **Results:** The emphasis designation program includes the following tracks: Business and Administration, Research, and Public Health and Epidemiology. Utilization of existing elective coursework and faculty advising roles as well as current management software allows resources to be managed efficiently. Marketing of the program will target current first and second year pharmacy students. Interested students will apply in the spring of the P2 year to complete co-curricular, elective, and an Advanced Pharmacy Practice Experience coursework within the specific emphasis designation. In the P4 year, candidates will complete a capstone project with a faculty member or expert alumnus serving as a mentor. Student progression will be monitored by an oversight committee while the Office of Student Affairs will audit completion of program requirements. A distinction will be added to graduate diplomas. **Conclusions:** The emphasis designation program allows students to customize learning experiences and increase student marketability upon graduation. This program may enhance our ability to recruit students for the professional program as well as increase statewide engagement.

### **Emphasizing Engagement: Promoting Involvement and Co-Curricular Programming Through the Implementation of an Online Engagement Platform**

Chadwin Sandifer, *Fairleigh Dickinson University*, Anastasia Rivkin, *Fairleigh Dickinson University*, Patricia Lemmerman, *Fairleigh Dickinson University.* **Objective:** To provide an overview of the use of student engagement software for the delivery of co-curricular programming and event management. **Methods:** FDU School of Pharmacy & Health Sciences implemented the use of the student engagement software, Anthology Engage, for event management, attendance tracking, and programmatic assessment. Additionally, a cohort-based co-curricular pathway program was delivered through the online platform. Since the acquisition of the software, data has been collected on the number of events which have been offered annually, student attendance and co-curricular pathway completion. **Results:** Anthology Engage provides students with ability to track to diversify their co-curricular experience, track progress and review cumulative involvement records. Through a review of attendance data, an increase in student participation was seen since the implementation of the online platform. Based on the positive impact the software has had on engagement processes, the use of the platform has been expanded to include new student orientation, career development, and IPE pathways to track requirements and completion. **Conclusions:** The implementation and use of the

student engagement software, Anthology Engage, to deliver co-curricular programming has provided the faculty, administration and students the ability to promote program and review student involvement and pathways progress. Institutional leaders exploring event and co-curricular delivery methods could capitalize on the features of student engagement software to efficiently track and assess co-curricular programming.

### **Empowering Pharmacy Students to Lead an Interprofessional COVID-19 Community Vaccination Clinic**

Veronica T. Bandy, *University of the Pacific*, Rae R. Matsumoto, *University of the Pacific*, Tracey DelNero, *University of the Pacific*, Andrea Wamsley, *University of the Pacific*, Kyle Vo, *University of the Pacific*, Woojin Lim, *University of the Pacific*, Carissa Leung, *University of the Pacific*, Talar Yetenekian, *University of the Pacific*.

**Objective:** To empower first and second year PharmD students in an accelerated program to lead the planning, designing, and implementation of an interprofessional COVID-19 community vaccination clinic. **Methods:** First and second year PharmD student leaders (Co-Directors, Project Managers) were identified and, under the mentorship of their faculty advisor, taught to operationalize concepts and skills learned in the curriculum and co-curriculum into a transformative practice. Training materials and clinic logistics were created and approved virtually, then implemented during the height of the pandemic. Volunteers were recruited who were comprised of pharmacy and other health professional student colleagues and preceptors, as well as campus and community members. **Results:** Since January 2021, a total of 50 outdoor and drive through COVID-19 vaccination clinics were conducted, with 9671 COVID-19 and 975 influenza vaccinations administered. Clinics were led by pharmacy students and involved participation from interprofessional colleagues: physician assistants, dentists, nurses, speech language pathologists, physical therapists, athletic trainers, occupational therapists, and prepharmacy students. Volunteers had opportunities to interact with diverse patient populations which ranged from pediatric (as young as 5 years of age) to geriatric patients, utilize digital health tools (MyTurn), enhance clinical competencies (health screening, vaccine administration, effective patient communication), engage in continuing professional development (preceptors were able to garner skills such as mixing COVID-19 vaccination, timing of thawing/vaccine preparation, educating health care professionals on vaccination technique, performing vaccinations while patients seated in vehicle, vaccinating pediatric patients, vaccinating patients with

varying degrees of autism), and stimulate professional identity formation. **Conclusions:** Pharmacy students can be empowered to lead interprofessional teams that deliver transformative practice with significant impact on community health. Leadership development and accountability can be achieved with guidance during a pandemic and beyond.

### **Evaluation of Pharmacy Family Pilot Program during COVID-19**

Marina L. Maes, *University of Wisconsin-Madison*, Kaleigh Mikolichek, *University of Wisconsin-Madison School of Pharmacy*, Margaret Ford, *University of Wisconsin-Madison School of Pharmacy*, Monica Ruh, *University of Wisconsin-Madison School of Pharmacy*, Kate Rotzenberg, *University of Wisconsin-Madison School of Pharmacy*, Amanda Margolis, *University of Wisconsin-Madison*, Karen J. Kopacek, *University of Wisconsin-Madison School of Pharmacy*. **Objective:** To evaluate the impact of a school-wide community-building program on student pharmacists. **Methods:** The Pharmacy Family (PF) program was developed and implemented during the 2020-2021 academic year as an opportunity to build community and promote wellness in response to the COVID-19 pandemic. Each PF group was made up of 1 to 2 instructors and 3 to 4 students from each PharmD cohort. Groups met twice each semester through a virtual platform. Facilitator guides were provided prior to each meeting which included a list of discussion topics as well as group activities to build relationships. A survey was administered to P1, P2, and P3 students in spring 2021 to evaluate the program. **Results:** A total of 34 PF groups were formed and 136 PF meetings occurred throughout the academic year. There were 161 students (44.6%) who completed the survey. Most students agreed that the program provided a safe venue for students to share concerns (77.3%) and that they felt supported by their Pharmacy Family leaders (85.0%). Some students agreed that the program helped them to build new relationships (44.2%), that it fostered a sense of community (61.7%), and that interacting with PF groups through longitudinal meetings was valuable (59.7%). Seven themes emerged from students' written comments: meeting logistics, requirement, content and expectations, value, faculty interaction, and cross-class interaction. Quantitative and qualitative results were assessed together to explain strengths and areas for improvement. **Conclusions:** The COVID-19 pandemic provided an opportunity to implement a pilot program to improve wellness and sense of belonging among students. While some objectives were met, opportunities were identified to improve the program in the 2021-2022 academic year.

### **Expanding the Rural Health Workforce: Development and Delivery of a Rural Scholars Program**

Michelle R. Musser, *Ohio Northern University*, Emily Eddy, *Ohio Northern University*, Julia Knox, *Ohio Northern University*, Dylan McWilliams, *Ohio Northern University*, Avery Ballinger, *Ohio Northern University*, Niese Taylor, *Ohio Northern University*. **Objective:** Rural locations often lack health care providers necessary to care for patients, leaving the population underserved for medical needs. Moreover, providers in rural/underserved areas lack experience, confidence, and the unique skill set needed to provide high-quality care and address social determinants of health. A rural/underserved health training program was developed to provide health professional students with an in-depth learning experience to develop the skills needed to fill the gap in these practice areas. **Methods:** Health professional students apply for program participation and are selected to enroll in the program during the last three years of their professional program. The program consists of four one-credit hour elective courses, community health needs assessment, development of a community based project, and clinical experiences in rural and/or underserved areas. Courses consist of learning modules on rural/underserved care, leadership development, professional/community service, project development, and delivery of a community-based research project. An assessment plan has been developed to evaluate program effectiveness over time. **Results:** The initial cohort of the rural/underserved health scholars program enrolled eight pharmacy students who initiated the program in Fall 2020. A second cohort of scholars enrolled in Fall 2021 including eight pharmacy students and two BSN nursing students. Four community-based research projects are currently underway in the local area with five more in development. The current projects include a mental health education program for elementary through high school aged children, training community members in mental health first aid, a walking program for elementary children, and distribution of a dietary guide cookbook. **Conclusions:** A rural/underserved training program successfully enrolled students and is currently evaluating the impact of the program on student learning, community impact, and rural health workforce development.

### **Exploration of the Intentional Integration of Digital Health into the Required Doctor of Pharmacy Curriculum**

Nikhil Sangave, *MCPHS University, Boston*, Lana Dvorkin Camiel, *MCPHS University-Boston*, Maria D. Kostka-Rokosz, *MCPHS University-Boston*, Jennifer Prisco,

*MCPHS University-Boston*, Jana Murry, *MCPHS University-Boston*, Jennifer Goldman, *MCPHS University-Boston*.

**Objective:** The use of digital technologies is providing more opportunity to monitor health and access medical information. Although there are opportunities to take two digital health electives in our curriculum, not all students are exposed to this material. Through one model of curricular innovation, we aimed to introduce the entire cohort to emerging healthcare trends. **Methods:** To ascertain students' knowledge of healthcare trends in digital health, an introductory intentional session and weekly discussions were integrated into a required third professional year course. Students were asked about their knowledge of digital health topics, interest in additional education opportunities and trend considerations when pursuing a career. **Results:** Some students recognized emerging trends in digital health (online pharmacies, voice-activated devices, pharmacogenomics testing). Mobile health apps, smart connected devices, and social media were among the best-known topics. A small number of students planned to select digital health rotations or enroll in additional courses to gain more exposure. Over one-third were either unfamiliar with digital health trends or were not considering how to adapt to them in future career pursuits. The majority reported that digital health should be a required part of the pharmacy curriculum. **Conclusions:** Single course exposure to digital health exercises late in the curriculum was not sufficient in time and depth to make necessary connections between emerging trends and students' future clinical practice. A longitudinal approach incorporating topics earlier into required courses and the co-curricular experience may facilitate life-long learning and encourage students to become more nimble in adapting to career landscapes.

### **Four Innovative Partnerships Enrich Manchester University's Pharmacogenomics Curriculum**

Ann K. Savariar-Drummond, *Manchester University*, Teresa A. Beam, *Manchester University*, David F. Kisor, *Manchester University*, Thomas R. Smith, *Manchester University*. **Objective:** Manchester University's Pharmacogenomics programs (MUPGx) increases Pharmacogenomics (PGx) education to its students, healthcare, and industry professionals through four partnerships promoting knowledge to implement PGx into clinical care and patient practice. **Methods:** MUPGx collaborates with the 1) Personalized Medicine Coalition (PMC) to maintain a database of drug-gene pairs from the Clinical Pharmacogenetics Implementation Consortium (CPIC) guidelines and the U.S. Food and Drug Administration's Table of Pharmacogenetic Associations (FDA Table). MUPGx partners with the University of Minnesota, the lead

institution, and other organizations to create the first PGx 2) Extension for Community Healthcare Outcomes (ECHO) to share lectures, case presentations, and discussions. 3) Genemarkers, LLC partners with MUPGx to provide educational pharmacy practice and pharmaceutical research opportunities to students. 4) Agena Bioscience (AB) partners with MUPGx to offer students and industry professionals advanced training in PGx. **Results:** 1) MUPGx students maintain a database with the PMC identifying drug-gene interactions found in the CPIC and FDA Tables for implementing PGx. 2) PGx-ECHO provides learning for healthcare professionals using case and evidence-based PGx information into clinical practice. 3) Genemarkers, LLC and MUPGx provide all teacher-based instruction in applied PGx connecting classroom learning to innovations in pharmacy practice and research opportunities. 4) MUPGx provides hands on training and demonstrations with Agena Bioscience for its MassARRAY (MA) platform. AB offers customers the opportunity to obtain a master's degree or graduate certificate with MUPGx. Students will use their own PGx data throughout the curriculum using the MA system. **Conclusions:** MUPGx with its four partnerships provide innovative experiences to expand PGx education among its students, healthcare, and industry professionals to improve the field of precision medicine.

### **Get Connected: Leveraging Collaborations and Healthcare Technologies to Advance Experiential Education and Patient Care**

Courtney E. Gamston, *Auburn University*, Courtney Alexander, *Auburn University*, Pamela L. Stamm, *Auburn University*, Lena McDowell, *Auburn University*, Lynn Stevenson, *Auburn University*, Kimberly Braxton-Lloyd, *Auburn University*. **Objective:** A collaboration between the Auburn University Harrison College of Pharmacy (HCOP) and Tuscaloosa VA Medical Center (TVAMC) was developed in 2019 to improve the experiential training of student pharmacists and the care of Veterans in West Alabama. Utilizing remote healthcare technologies and population health management tools, student pharmacists gain experience with emerging models of pharmacy practice and improve the care of Veterans living in other regions. **Methods:** Second- and fourth-year student pharmacists on Introductory Pharmacy Practice Experiences (IPPEs) and Advanced Pharmacy Practice Experiences (APPEs), respectively, participate in population health-based initiatives that include chronic disease management, pharmacogenomic (PGx) evaluation and counseling, controlled substance prescription monitoring, and the facilitation of immunization receipt. Electronic medical records

(EMR) are accessed remotely, and direct patient care is delivered via telehealth technologies. **Results:** Since 2019, 1982 patients have been reviewed in the IPPEs, resulting in 900 labs ordered/recommended for patients with diabetes, 889 immunizations recommended, 512 controlled substance evaluations completed, 84 urine drug screens ordered, and 53 prescriptions for naloxone ordered/recommended. APPE students have provided care for 24 patients, resulting in 18 medication therapy changes and 131 labs ordered/recommended for patients with diabetes and/or hypertension since February 2021. In December 2021, 1458 Veterans with major depressive disorder receiving a medication impacted by PGx variation were identified, 504 of which have treatment-resistant depression. The remote TVAMC PGx clinic started March 2022 with 20 patients enrolled at the time of abstract submission. **Conclusions:** Through collaboration with the TVAMC, digital health applications including remote EMR access, telehealth technologies, and the tools of population health management are utilized by HCOP to enhance experiential training and to improve care for Veterans residing in a geographically distinct area of Alabama.

### **Implementation of a Structured Student Leadership Development Program in a New Pharmacy School**

Mohammed A. Islam, *American University of Health Sciences*, Arjun Dutta, *American University of Health Sciences*, Suhui Yang, *American University of Health Sciences*, Radhika Kumar, *American University of Health Sciences*, Elaine Nguyen, *Idaho State University*, Boris Zhang, *American University of Health Sciences*, Jasen Chau, *American University of Health Sciences*, Young il Chang, *American University of Health Sciences*. **Objective:** The objective of this study is to describe a deliberate approach of development, implementation, and assessment of student leadership development (SLD) in a new accelerated pharmacy program. **Methods:** During the early phase of the program, a taskforce comprising of Curriculum Committee (CC) and Assessment Committee members was charged with responsibility of developing an SLD framework. The taskforce first identified SLD competencies focusing leadership knowledge, personal leadership commitment, and leadership skill development. The CC utilized the "nesting" approach of curricular integration to incorporate leadership content and various leadership activities, across the curriculum and co-curriculum. The SLD content and activities were developed, delivered, and assessed by faculty across professional years 1-3 (PY1 - PY3) in 21 courses. Students participate in co-curricular activities in local churches, student-run free clinics, and health fairs. **Results:** Students learn about the

characteristics, behaviors, and leadership models in the PY1 and PY2 curriculum and during White Coat Ceremony and Leadership Workshop. The leadership skills focusing development of shared vision, collaboration with others, leading a team are achieved through structured activities including group projects, assignments, debate, journal club, policy development, legislative day activities, skill demonstration, presentations throughout PY2 and PY3 curriculum. The co-curricular experiences help students instill and promote fundamental leadership skills, including social insight, relationship building, communication, professionalism, patient advocacy, and cultural sensitivity. Students' development of leadership knowledge and skills is assessed by use of diverse assessment tools including examination questions, rubrics from projects or assignments, preceptor evaluations, faculty advisor evaluations, reflections, and portfolios. **Conclusions:** The structured SLD framework has been successfully implemented across the PharmD program. Students' achievement of knowledge and leadership skills is documented by robust curriculum and co-curriculum assessment.

### **Implementation of Academic Detailing Program at UIC**

Mary L. moody, *University of Illinois at Chicago.*

**Objective:** The goal of this program was to establish an academic detailing (AD) program to conduct educational outreach to prescribers across the State. The focus of academic detailing is to provide targeted one-on-one outreach education to prescribers. **Methods:** Faculty at the College of Pharmacy worked with legislative leaders to develop legislation for an academic detailing outreach program at the UIC College of Pharmacy. Faculty provided witness testimony to various committees of the legislature. The legislation passed both senate and house with no opposition. The Governor signed the bill into law. It took effect January 1, 2020. The program is funded through the Illinois Department of Healthcare and Family Services. The UIC Academic detailing program -ILLINOIS ADVANCE provides outreach education to prescribers in three ways. One-on-one academic detailing visits, online ACCME-approved education, and a Drug Information Hotline. After the legislation was passed, ILLINOIS ADVANCE developed a marketing program and established partnerships with various provider organizations to promote the program. Content for the visits was developed for several topics including opioid prescribing, diabetes, smoking cessation, and asthma. Students can participate in the program through an elective rotation. As a result of the pandemic, visits needed to pivot to a virtual format. AD visits

were scheduled at the convenience of the provider. Each visit provided 0.5 hours of CME credit. **Results:** ILLINOIS ADVANCE has completed over 500 visits with providers. Providers have participated in multiple visits. Prescribers state the AD visits are educational and provide useful information. Four students have participated in the elective rotation. **Conclusions:** Academic detailing is a new role for pharmacists. It is important for students to be aware of this practice.

### **Implementation of Advanced Pharmacy Practice Experiential Evaluations Based on Entrustable Professional Activities**

Jodi R. Heins, *South Dakota State University*, Alex Middendorf, *South Dakota State University*, Scout Forbes-Hurd, *South Dakota State University*, Brad Laible, *South Dakota State University.* **Objective:** To describe the design and implementation of entrustable professional activities (EPA) based Advanced Pharmacy Practice Experience (APPE) evaluations. **Methods:** In the pre-implementation phase (November 2019-April 2021), two faculty-led APPEs were piloted to determine the level of correlation between EPA-based evaluations and preceptor-reported APPE grades based on current APPE evaluation tools. In May 2021, patient care APPEs with letter grades, began utilization of EPA-based evaluation tools. Preceptors were provided a continuing education course on the new EPA-based evaluations both live and on-demand during the 2021-22 APPE year. The EPA-based evaluations provide a recommended grade, but allow the preceptor to provide an alternative letter grade with justification. Data on the number of suggested alternative grade recommendations was tracked to evaluate implementation of EPA-based evaluations in patient care APPEs with letter grades. **Results:** In the pre-implementation phase, 141 APPE evaluations were provided with paired current APPE grade evaluations. Overall, 95% of the EPA recommended grades correlated with grades assigned by the preceptor. Of those that did not correlate, four of the assigned grades were one letter grade lower than the EPA recommended grade and three of the assigned grades were one letter grade higher than the EPA recommended grade. As of March 2022, 291 APPE EPA-based evaluations had been submitted since the beginning of the 2021-22 APPE year. Preceptors recommended a grade different than the EPA-based tool suggested on three occasions. **Conclusions:** Implementing EPA-based evaluations with suggested letter grades based on the evaluation was successfully implemented with a high percentage of preceptors agreeing with the suggested grade. Targeted preceptor education will continue to address any issues with the new evaluation process.

### **Implementation of Mock Acute Care Patient Simulations Improves Performance on Advanced Pharmacy Practice Experiences**

Laura Baumgartner, *Touro University California*, Heidi Israel, *Touro University California*, Terri Wong, *Touro University California*, Debbie Sasaki-Hill, *Touro University California College of Pharmacy*, Eric Ip, *Touro University California College of Pharmacy*, Mitch Barnett, *Touro University California College of Pharmacy*.

**Objective:** The objective of this study was to compare student performance on acute care Advanced Pharmacy Practice Experiences (APPEs) pre- and post-incorporation of mock acute care patient simulations into the didactic curriculum. **Methods:** A series of mock acute care APPE simulations (MACAS) were developed and incorporated into Touro University California College of Pharmacy's curriculum for first- and second-year pharmacy students. Student performance on Acute Care I and Acute Care II APPEs were collected for students who received none, one-year, or two-years of the MACAS. Student admission characteristics and didactic academic performance were also gathered. Student characteristics and APPE performance were compared across cohorts of students who received none, one-year, and two-years of MACAS. Multivariate models were created to measure the impact of the MACAS while controlling for student characteristics. **Results:** The final cohort included 394 students. In unadjusted analyses, students with one- or two- years of MACAS received significantly higher acute care APPE scores, including an improvement in communication, professionalism, and patient care scores vs. students who received no MACAS. In multivariate models controlling for age, gender, and undergraduate GPA, one-year of MACAS increased student acute care APPE communication, professionalism, and patient care scores, relative to no MACAS. Similar increases in acute care APPE scores were seen for students who received two-years vs. no MACAS. Minimal increases were observed in acute care APPE scores between students receiving two-years vs. one-year of MACAS, suggesting a single year of MACAS may be sufficient. **Conclusions:** MACAS significantly improved acute care APPE scores relative to students who did not receive MACAS. Programs may benefit from adding MACAS to their didactic curriculum to enhance acute care APPE performance.

### **Implementing a New Curriculum and Iterative Assessment Cycles**

Edward Ofori, *Chicago State University*, Paul Fina, *Chicago State University*, Brandle Blakely, *Chicago State University*, Betty Vu, *Chicago State University*, Michael

Danquah, *Chicago State University*, Daniel Kerner, *Chicago State University College of Pharmacy*, Jeremy Hughes, *Chicago State University*, Matthew Fete, *Chicago State University*. **Objective:** To describe the process of simultaneously implementing a new curriculum and adding layered continuous quality improvement assessment mechanisms to allow for iterative curricular improvement. **Methods:** Factors related to both accreditation and the COVID-19 pandemic triggered an ultra-rapid curricular revision, beginning in March of 2020 with a new curriculum implemented in Fall 2020. A root-cause analysis of the factors associated with a decline in graduate first-time pass-rates on North American Pharmacist Licensure Exam (NAPLEX) was conducted and gaps were identified. Multiple assessment tools including course and exam performance, course maps, and stakeholder focus groups (preceptor, faculty, student), were considered by curriculum and assessment committees in a collaborative approach. A fast-tracked curriculum overhaul began in Spring 2020, with the revision and rollout conducted virtually. It was also determined that an iterative process of reviewing and updating the curriculum as necessary to identify gaps, prevent curriculum drift and bloat, engage faculty members in active reflection and assessment, and ensure that future needs would be identified earlier. **Results:** Existing assessment instruments were improved, an assessment plan revised, and new tools added, including foundational and benchmark examinations, yearly objective structured clinical examinations, and specific indicators for pharmaceutical calculations and clinical pharmacogenomics. Established cycles for recurrent assessment were initiated, including ongoing review processes for courses, syllabi, overall curricular assessment, and master assessment plan revision. Minor course and curricular revisions are made annually based on evidence from this multi-layered assessment approach. **Conclusions:** Iterative assessment strategies and shared accountability mechanisms can be used to design, rollout, and effectively improve new curriculum.

### **Inception of a College-Level Diversity, Equity, and Inclusion Task Force: More Than a Photo Op**

Nautica McCully, *NEOMED*, Momitul Talukdar, *NEOMED*, Alexander Hoffman, *Northeast Ohio Medical University*, Sarah Kwon, *Northeast Ohio Medical University*, Jodie Turosky, *Northeast Ohio Medical University*, Christine Dengler-Crish, *NEOMED*, Jaclyn Boyle, *Northeast Ohio Medical University*, Katherine M. Tromp, *Northeast Ohio Medical University*. **Objective:** Northeast Ohio Medical University (NEOMED) recognizes the importance of cultivating an environment where underrepresented

minority (URM) students can thrive academically and professionally. In 2020, the College of Pharmacy launched a Diversity, Equity, and Inclusion (DEI) Task Force to address disparities and identify strengths within the institution. This task force consists of faculty, students, staff, alumni, and preceptors, all with the goal of improving institutional culture and the URM student experience. **Methods:** The task force engaged in a multifocal evaluation of culture and curricula through the following: developing a definition, mission, and vision for DEI, which was approved by the college faculty; engaging in a holistic review of admissions, mentoring, didactics, and experiential curriculum; and developing a 3-year strategic plan that focuses on ten areas of impact, which was approved by faculty in 2022. **Results:** Recent achievements of the task force include: development and funding of a DEI internship with a local health system and the development of a standing DEI committee in college bylaws. Concerns with current practices have also been noted: on average, only 71% of URM students graduated on time in the last five years and only 3% of preceptors are self-identified as URM. **Conclusions:** Next steps include launching an URM student mentoring pilot program designed to increase student enrollment and retention and seeking funding for DEI infrastructure within the college. Increasing URM student representation will better reflect and serve the patient population of Northeast Ohio. All students should be afforded a cultivating environment in their journey to becoming a pharmacist, regardless of race, gender, class, or creed.

### **Inclusive Excellence: Fostering and Sustaining a Diverse, Equitable and Inclusive Academic and Work Environment**

Ginah Nightingale, *Jefferson College of Pharmacy, Thomas Jefferson University*, Vikas Bhardwaj, *Jefferson College of Pharmacy, Thomas Jefferson University*, Jannell Jeffers, *Jefferson College of Pharmacy, Thomas Jefferson University*, Andrea Joseph, *Jefferson College of Pharmacy, Thomas Jefferson University*, Asha Lakshmi-kuttyamma, *Jefferson College of Pharmacy, Thomas Jefferson University*, Cat-Trinh Phan, *Jefferson College of Pharmacy, Thomas Jefferson University*, Menaka Suri, *Jefferson College of Pharmacy, Thomas Jefferson University*, Rebecca Finley, *Jefferson College of Pharmacy, Thomas Jefferson University*. **Objective:** Diversity, equity and inclusion (DEI) is a priority for pharmacy education to provide equitable healthcare and serve diverse populations. This project aimed to evaluate inclusive excellence centered on three priority areas within our institution: 1) Education/awareness; 2) People; and 3) Community engagement. **Methods:** In June 2021, our college established

a DEI Council, which represented internal (i.e., students, staff, faculty, health-system partners) and external stakeholders (i.e., alumni, preceptors). We conducted a series of unstructured small group discussions centered on: DEI in the curriculum and co-curriculum; diversity and inclusive practices to recruit and retain students and faculty; and ways to increase our presence in and impact on the community we serve. These discussions were paired with literature assessments, evaluation of internal documents (e.g., curricular map, course syllabi) and other relevant data/metrics. After identifying and documenting emergent themes, we developed a prioritized list of recommendations. **Results:** Twelve faculty and staff, 16 students, 4 health-system partners, and 1 alumna and preceptor participated in the discussions. Two themes emerged for Education/awareness: the need to foster a culture that encourages faculty, staff, and preceptor participation in DEI programming and workshops to model culturally competent behavior; and the need to expand relevant, contemporary DEI content into the curriculum and the co-curriculum. Emergent themes for People included: incorporating DEI strategies to recruit and retain a diverse student body; identifying resources and initiatives to improve student success; and expanding pathways to attract prospective students. Emergent themes for Community engagement/impact included: utilizing collaborative approaches to optimize community engagement and promoting community outreach through research/scholarly activities. **Conclusions:** This project established recommendations to help foster and sustain a diverse, equitable and inclusive academic and work environment.

### **Incorporating a Novel Medication Risk Management Decision Support Tool in the Pharm.D. Curriculum**

Karl Hess, *Chapman University*, Albert Bach, *Chapman University*, Jerika Lam, *Chapman University*, Moom Roosan, *Chapman University School of Pharmacy*. **Objective:** To describe the incorporation of MedWise®, a novel decision support tool, in two pharmacy courses **Methods:** Adverse drug events (ADEs) continue to be a leading cause of death in the U.S. making it imperative that student pharmacists are trained to identify high risk patients in order to prevent serious events. At this institution, Tabula Rasa Health Care's MedWise® program was incorporated into PHRM 577: Healthcare Delivery I (HCD1) and PHRM 524L: Pharmacist Care Lab IV (PCL4). MedWise® is a unique decision support tool that helps to recognize drug-related risks; including pharmacokinetic and pharmacodynamic interactions, pharmacogenomics, and age-and disease-related comorbidities. An

overview of MedWise® and how to use the program was conducted in HCD1 and, subsequently, student pharmacists utilized the program in PCL4 to identify a high-risk simulated patient and recommend changes to the medication regimen to reduce ADE risk. **Results:** Based upon faculty observations, student pharmacists may need more time in becoming familiar with MedWise® first before simulated cases are assigned as several teams documented their interventions incorrectly in the program. Student pharmacists may also need more instruction to assess patient cases for drug-related problems and being able to make recommendations before moving on to use this unique tool. **Conclusions:** Preliminary findings from using MedWise® show the feasibility of educating student pharmacists to approach patient cases in a comprehensive manner, where they could make evidence-based medication interventions to lower the risks of ADEs. However, while MedWise® provides a novel approach to identifying, managing, and reducing risk from medications, its use in this and other courses needs to be further explored.

### **Increasing the Number of Black Men in White Coats in Pharmacy and Osteopathic Medicine**

Sarah Griffin, *Harding University College of Pharmacy*, Daniel Atchley, *Harding University College of Pharmacy*, Anissa Harris, *Harding University College of Pharmacy*, Debbie Knight, *Harding University College of Pharmacy*, Melissa Efurd, *Arkansas Colleges of Health Education*, Deepti Vyas, *University of the Pacific*, Forrest Smith, *Harding University College of Pharmacy*, Jeff Mercer, *Harding University College of Pharmacy*. **Objective:** To bridge pharmacy education and practice by promoting diversity within Harding University College of Pharmacy (HUCOP) through stimulating student and faculty self-awareness and actions that may improve the disproportionately low number of Black males in medical professions. **Methods:** In a 2021 summer retreat guided by a panel of Black faculty members, HUCOP staff and faculty reflected on Black Men in White Coats ([BMWC], 2020), a documentary about the disproportionate low number of Black men in medical professions. This session culminated in brainstorming ways to support Black men graduating from our program. The provocative success of this activity led to a virtual interprofessional experience (IPE) among 415 osteopathic medical and pharmacy students from 3 professional programs in Arkansas and California. Participants viewed BMWC and then shared their responses and reactions with colleagues in break-out groups via Zoom. A post-survey completed by 415 students included reflections and recommendations to improve diversity across the medical professions. **Results:**

Faculty and student recommendations were similar: increase outreach to minority K-12 schools and HUBUs; highlight Black students, alumni, and faculty in school visits and media; hire diverse faculty and staff; provide resources for success; and actively dismantle financial barriers. Creating an action plan based upon these recommendations may provide scaffolding to promote diversity as well as to bridge inequity in pharmacy education and practice. **Conclusions:** BMWC was a successful conduit for improving HUCOP faculty and student awareness and additionally provided opportunity for IPEs focused on improving diversity across the medical professions. This experience provided engaging discussions on diversity and equity, actionable recommendations to increase faculty and student diversity, and opportunities to improve equity and inclusion in the College through local and inter-professional partnerships.

### **Innovation in Career Pathway and Post-Graduate Education for Third and Fourth Year Pharmacy Students**

Brittany N. Palasik, *University of North Texas Health Science Center College of Pharmacy*, Abigail L. Hulsizer, *University of North Texas Health Science Center*, Taylor Benavides, *University of North Texas Health Science Center College of Pharmacy*, Crystal Howell, *University of North Texas Health Science Center College of Pharmacy*, Adenike Atanda, *University of North Texas Health Science Center College of Pharmacy*. **Objective:** The 2016 ACPE CAPE Standard 14.4 requires colleges of pharmacy to provide career pathway counseling, and a mechanism for information on post-graduate education. The University of North Texas Health Science Center College of Pharmacy (HSCCP) assessed a need for improvement in this standard and established multiple initiatives in response. **Methods:** In 2019, two faculty members established the HSCCP P4 Post Graduate Mentorship Program to provide support and expertise for career advancement and facilitate the development of professional relationships among fourth year pharmacy students and the HSCCP faculty and pharmacists in Dallas-Fort Worth. Students are assigned to an individualized mentor in their career area of interest to facilitate job placement. The program has also evolved to incorporate monthly large-group sessions focusing on different aspects of job placement such as interviewing skills, negotiation, curriculum vitae, letters of intent, and more. Additionally, a post-graduate training elective course for third year pharmacy students was established at HSCCP for students with a particular interest in residency or fellowship training. The course was modified in 2019 to align with the innovative P4 Post



Graduate Mentorship Program. **Results:** The novel P4 Post Graduate Mentorship Program has aided many fourth year pharmacy students in post-graduate job placement. The P3 elective course prepares students for networking, applications, and interviewing for residency and fellowship. **Conclusions:** The addition of these initiatives fulfill the 2016 ACPE Standard 14.4 related to career pathway counseling and providing information about post-graduate training for pharmacy students.

### **Innovative and Integrative Pathways to Facilitate Student Professional Identity Formation**

Michelle L. Blakely, *University of Wyoming*, Elliott M. Sogol, *University of Wyoming*, Michelle L. Hilaire, *University of Wyoming*, Alvin B. Oung, *University of Wyoming*, Allison M. Mann, *University of Wyoming*, Jaime Hornecker, *University of Wyoming*, Leena Myran, *University of Wyoming*, Tracy D. Mahvan, *University of Wyoming*. **Objective:** The University of Wyoming School of Pharmacy (UWSOP) provides various educational and practice pathways for students to engage in professional identity formation (PIF). This is accomplished through the relationship between faculty and students in the classroom, on rotations, and other student-faculty engagements. Our required ambulatory care and internal medicine APPEs are taught by UWSOP clinical faculty so students learn in our didactic courses from the same faculty they will work with during their rotations. UWSOP faculty-led clinical sites offer a higher level of dedicated preceptor oversight and one-on-one time with students for teaching, observing, and modeling. During Reflective Week, which occurs at three separate times during the fourth professional year, our students submit a portfolio of assignments with reflections in five domains to highlight the connections between their daily rotation work and the impact on their professional identity, practice opportunities and future career paths. Many faculty and students have also partnered with county health departments to facilitate COVID-19 vaccination clinics. This innovative partnership helps to highlight student PIF in a unique situation. In addition, our faculty and students provide healthcare services to patients on a volunteer basis at the Downtown Clinic. These are a few examples of how UWSOP is working with others to address the needs of the communities we serve. This allows us to focus on the need for students to not only observe PIF in action but begin to transform their own PIF. These pathways provide students with opportunities to observe first-hand how faculty and other practitioners incorporate features of PIF, ensuring that our students experience the benefits of a strong professional identity including its importance in advancing practice transformation. **Methods: Results: Conclusions:**

### **Integrating Systemic Racism into a First Professional Year Course with a Student-Led Symposium Capstone**

Troy Lynn L. Lewis, *Wilkes University*, Judith DeLuca, *Wilkes University*, Kimberly Ference, *Wilkes University*, Meagan Mielczarek, *Wilkes University*. **Objective:** The purpose of this study is to determine the impact of integrating a student-led symposium within a pharmacy course on student knowledge, perceptions, confidence, and opinions of systemic racism. **Methods:** First-year professional students completed a group project as part of curricular work that describes the historical context and impact of systemic racism on health outcomes. Each project included a written paper and presentation at a student-led symposium. Students received guidance on this project through class discussion, resource navigation, de-escalating conversations, and feedback on written drafts and presentation slides. Students were surveyed pre- and post-symposium to assess the impact of the project on their knowledge, perceptions, confidence, and opinions of systemic racism. Non-student audience members were also surveyed on their opinions of the symposium. Students and audience members were excluded from the study if they were unable to provide informed consent. Students were excluded if they failed to complete both pre- and post-surveys. SPSS was used to complete statistical analyses. Open-ended survey responses were analyzed with qualitative statistics. Mean composite survey scores were calculated by category and compared with a one-way ANOVA. **Results:** The student-led symposium was held on March 22, 2022, and analysis of the survey results will be completed in April 2022. **Conclusions:** The integration of this student-led symposium capstone offers a model to assess student outcomes in the context of team-based learning. The historical and current impact of systemic racism on health disparities is an essential public health topic. This experience not only explores integration within the core curriculum, but it also offers a strategy to promote health equity and delivery of culturally competent care during the first, foundational year of a doctor of pharmacy program.

### **Integration of a Professional Identity Formation Framework into the Pharmacy Curriculum**

Yolanda B. McKoy-Beach, *Howard University*, Careen-Joan Franklin, *Howard University*, Tamara McCants, *Howard University College of Pharmacy*, Ebony I. Evans, *Howard University College of Pharmacy*, la' Marcus Wingate, *Howard University*, Toyin Tofade, *Howard University College of Pharmacy*, Oluwaranti Akiyode, *Howard University College of Pharmacy*. **Objective:** To align with other health professionals in practice transformation, Howard University College of Pharmacy set out to

design a professional identity formation (PIF) track to be seamlessly integrated into the existing pharmacy curriculum at a Historically Black College or University (HBCU). **Methods:** An ad-hoc taskforce was developed in May 2021 to design the framework for PIF at the college. The taskforce consisted of faculty from Clinical and Administrative Sciences, Pharmaceutical Sciences, and the Experiential Program. As part of the creation of the framework, faculty input on what our “brand” for the College should be, impact on messaging on the teacher-student relationship, including a SWOT analysis on the current situation with PIF was gathered. The information gathered assisted in the development of our PIF mission statement which was utilized as the foundation for our framework. Furthermore, a review of the literature on PIF was conducted to identify various definitions and implementations of PIF in health professions curricula. A review of the current curriculum and potential PIF related gaps was also conducted. The taskforce reported on the initial findings at the August 2021 faculty retreat. **Results:** The assessment of our current curriculum identified the P1, and P3 Practice Readiness courses incorporated PIF while the Pharmacy Biomedical Preview Program given in the summer did not integrate PIF. **Conclusions:** Finally, the taskforce recommended a committee be established to implement all the recommendations made by the Taskforce and to continue the committee’s work.

### **Integration of Patient-and Family-Centered Care Core Concepts and Strategies in a Pharmacy Curriculum**

Batoul Senhaji-Tomza, *Touro College of Pharmacy - NY*, Martin Brown, *Touro College of Pharmacy*, Beverley Johnson, *Institute for Patient-and Family-Centered Care*, Bupendra Shah, *Touro College of Pharmacy*. **Objective:** To describe the process utilized to incrementally integrate patient- and family-centered care core concepts and strategies throughout the pharmacy curriculum. **Methods:** A five-phase project was initiated by the Touro College of Pharmacy curriculum committee to intentionally integrate Patient- and Family-Centered Care (PFCC) in the curriculum. Phase I involved holding a retreat to engage faculty in discussion about PFCC concepts and strategies. Phase II involved asking faculty to identify current status and brainstorm strategies to build and elevate PFCC concepts longitudinally within the fabric of the curriculum. Phase III, involved the formation of a task force to conduct a feasibility analysis of faculty ideas. Phase IV has involved implementing identified strategies and assessing student perspectives of PFCC into one of the core courses. Phase V will involve using learning gathered from the

forementioned course to showcase and engage faculty on how to further integrate and spiral PFCC concepts and strategies across the curriculum. **Results:** Assessment from Phase I indicated that the retreat was successful in building faculty’s understanding of PFCC and the value of involving patient and families as educators and co-designers within the curriculum. As part of Phase II, faculty identified several different mechanisms within which PFCC concepts and strategies could be integrated across the curriculum and co-curriculum. In Phase III, the task force identified how and when to meaningfully integrate PFCC concepts into courses. Phase IV is currently in process and will be followed by Phase V. **Conclusions:** In order to prepare pharmacists that are person-centered, colleges of pharmacy should be intentional in curriculum integration processes, conducting faculty buy-in, and feasibility analysis using appropriate assessment.

### **Intentionally Matched Advisor and Advisee Model: A Pilot Study**

Michelle D. Chaplin, *Wingate University*, April Robinson, *Wingate University*, Kimberly L. Nealy, *Wingate University*, Demetria Smith, *Wingate University*. **Objective:** To create and evaluate a new advising model to improve relationships with advisors and advisees through intentional matching based on advising style, desired career, and/or individual characteristics related to gender, sex, race, or spiritual beliefs. **Methods:** Students during the 2020-2021 academic year were surveyed to assess whether their advising needs were being met by a randomized advisor-advisee assignment model. For the 2021-2022 academic year, an intentional assignment process was piloted. Faculty advisors completed a questionnaire regarding personal characteristics, credentials, and career paths. For the first part of P1 year, students were advised by a success coach. P1 students then completed a survey choosing desired characteristics and specialty training of their faculty advisor and were transferred to their intentionally assigned faculty advisor in March 2022 to review their professional development plans. To evaluate the process change, the advising needs survey will be completed again upon completion of a full year with an intentionally matched advisor. **Results:** 166 students completed the initial advising survey. 22.43% of students did not feel their advisor meetings were adequate. 74.36%, 70.51% and 56.41% of students felt their advisors were concerned with their academic, professional and social development respectively. 17.31% of students did not feel comfortable discussing personal matters with their advisor. 71 of P1 students completed the survey in 2022 and were intentionally matched with faculty advisors. **Conclusions:**

Literature shows that intentional assignment of advisors and advisees improves post-graduate results, especially for women and minority students. While data on the updated process is pending, this model may be effective at other schools of pharmacy to improve professional identity formation and advising resources for diverse student populations.

### **Interprofessional Approach to Developing a Social Determinants of Health Module for an Interprofessional Education Program**

Mariann D. Churchwell, *The University of Toledo*, Michelle Masterson, *University of Toledo*, Monica Holiday-Goodman, *University of Toledo*, Heather Cleary, *University of Toledo*, Erin Mastin, *University of Toledo*, Shipra Singh, *University of Toledo*, Suzanne Lee, *University of Toledo*, Tara Cowell, *University of Toledo*. **Objective:** To develop an online module introducing the social determinants of health (SDOH) to students enrolled in the University of Toledo (UToledo) Interprofessional Education (IPE) Program. **Methods:** An interprofessional task force of the UToledo SDOH committee was charged with developing an introductory SDOH module for the IPE program required for all first-year healthcare students to ensure students receive consistent and accurate SDOH information. The module was designated for the IPE program because knowledge of the SDOH five domains align with the IPE program objectives, which are based on the Interprofessional Education Collaborative's (IPEC) four Core Competencies. The module was first delivered in fall 2020. Based on post-module quiz results and task force self-reflection, areas for improvement were identified. These included the depth and breadth of content, passive delivery modality, and methods to assess student performance. A major revision was implemented for 2021. **Results:** In fall 2020, the IPE program enrolled 676 students from 11 healthcare professions and 663 students completed the post SDOH module 11 question quiz. Students scored above 80% on one question and less than 60% on six questions. In fall 2021, 664 students were enrolled and 612 students completed the revised module with an embedded quiz using the same 11 questions. Students scored above 80% on three questions and below 60% on three questions. Overall, the first attempt quiz scores improved on six out of eleven questions. **Conclusions:** Development of an introductory SDOH module by an interdisciplinary team guided learning materials for the diverse healthcare professions in the IPE program. Knowledge of the SDOH domains and application in subsequent IPE activities may contribute to the achievement of the IPEC Core Competencies.

### **Interprofessional Education Through Underserved Community Engagement**

Rachel Klosko, *Binghamton University, The State University of New York*, Bennett Doughty, *Binghamton University School of Pharmacy*, Amanda Mogul, *Binghamton University, The State University of New York*, William Eggleston, *Binghamton University, The State University of New York*. **Objective:** Aligned with Goal Statements 3.3 and 3.4, The Rural and Underserved Service Track (TRUST) is a program designed to expand access and acceptability of the healthcare safety net for underserved patients through encouraging student and community member engagement. **Methods:** TRUST is an interprofessional, co-curricular program featuring pharmacy, medical, nursing and social work students, and rooted in direct service to rural and other underserved communities. The 160-hour (two year) program launched in fall 2020 with 35 students from a variety of programs. TRUST students are guided by interprofessional teams of faculty from Binghamton University and Upstate Medical University, healthcare professionals and community advocates. TRUST requirements for each student includes (a) five student-led health service community outreach activities at rural senior centers, community centers, homeless shelters, drug-treatment centers, etc. In addition to these service-learning activities, students participate in (b) eight learning retreats, each focused on an underserved population, a clinical case and a clinical skill all delivered by interprofessional faculty teams. **Results:** Using a combination of validated quantitative and qualitative tools, including the Interdisciplinary Education Perception Scale (IEPS) and the Readiness for Interprofessional Learning Scale, the interdisciplinary faculty have found this program strengthens a student's ability to understand underserved populations, to lead and engage with interprofessional teams, and to pursue future careers that continue serving these populations. This program has also fostered relationships with local partners to help connect the institutions with the surrounding community. **Conclusions:** It is our hope that this program will accomplish our objective by encouraging future collaboration, increased matriculation of students to underserved areas, and dissemination of knowledge of working with these populations throughout professional practice.

### **Introducing Professional Pharmacist Identity to the Public: Outcomes of a Summer High School Socialization Program**

Sheila K. Wang, *Midwestern University College of Pharmacy*, Ana C. Quinones-Boex, *Midwestern University College of Pharmacy*, Denise Kolanczyk, *Midwestern*

University College of Pharmacy, Annette Gilchrist, *Midwestern University College of Pharmacy*, Karen Nagel-Edwards, *Midwestern University College of Pharmacy*, Jaini Patel, *Midwestern University College of Pharmacy*, Sally A. Arif, *Midwestern University College of Pharmacy*. **Objective:** To motivate the prospective pharmacy student in recognizing and understanding the role of the pharmacist and their authentic practices through an introductory pharmacist professional identity (PPI) socialization program called PharmAcademy. **Methods:** A public understanding of the professional pharmacist remains underdeveloped. In response, a comprehensive summer program for high school students interested in pursuing a career in pharmacy was developed, aiming to influence the prospective student in valuing the scope and nature of a professional pharmacist and the context and cultures of their different pharmacy practice settings. A diverse roster of professional pharmacists incorporated lessons and activities throughout the program, fostering a socially interactive process for students to share, develop and reflect upon their gained knowledge and feelings of the related pharmacy topic. A voluntary anonymous post-program questionnaire served to assess the aim of the program and reveal changes in attitude and interest about a career in pharmacy. **Results:** Ninety-one of the 108 participants (84%) from the 2019 and 2020 PharmAcademy programs completed the questionnaire and 82% answered an open-ended question to gauge their perception of the professional pharmacist and their opportunities. Overall, 74% of responders to the open-ended question expressed either a personal gained awareness or a confirmed understanding of the role of the professional pharmacist and their practices after PharmAcademy. A significant change in attitude towards an interest in a career in pharmacy versus away from pharmacy (71% vs. 29%, respectively;  $P < .0001$ ) was also observed. **Conclusions:** The PharmAcademy program influenced its participants in recognizing and understanding the professional pharmacist and how they enact their practice. High school students with an early interest in a career in pharmacy may be valuable extenders of promoting PPI among the public.

### **Investing in the Community to Address Pharmacy Deserts and Improve Health Equity in Los Angeles**

Raffi Svadjian, *University of Southern California*, Dima Qato, *University of Southern California*, Steve Chen, *University of Southern California*, Kari L. Franson, *University of Southern California*, Vassilios Papadopoulos, *University of Southern California*. **Objective:** Nearly one-third of neighborhoods in Los Angeles (LA) are pharmacy deserts lacking a nearby pharmacy affecting access

to medications and pharmacy services for ~500 thousand residents living in low-income minority neighborhoods in LA. In order to directly address this problem, the University of Southern California (USC) School of Pharmacy has been planning the development of a new full-service pharmacy located in a high need pharmacy desert neighborhood. **Methods:** USC signed a 10-year lease for a 3,500 square foot building in South LA to build-out and open a new pharmacy that will provide essential pharmacy and healthcare services to the local community. Services include prescription medications, patient-centered chronic care management, vaccinations, primary care services and community wellness and health education. The business model includes community investment and partnership as key elements of its success to foster more equitable and healthier communities. **Results:** In order to open this new pharmacy location in a pharmacy desert neighborhood in South LA, the School is fully subsidizing the costs for the early years and is investing directly in the community. The pharmacy will be staffed by community residents and include pharmacy students and other trainees. Our relationships with payers such as LA Care, the growth of the California Right Meds Collaborative supported by CDC and funded through health plans, and our relationship with Keck Hospital and other community health centers will be key enablers of care provision. **Conclusions:** The South LA pharmacy will be the first model of its kind and create a USC presence, foster relationships south of the University campus, and is a direct investment locally in both service innovation and training.

### **Knowledge Assessment Quizzes Throughout Advanced Pharmacy Practice Experiences to Enhance Experiential Learning**

Jessica Lendoiro, *Palm Beach Atlantic University*, Elias Chahine, *Palm Beach Atlantic University*, Sara Trovinger, *Manchester University*, Jacintha Cauffield, *Palm Beach Atlantic University*, Erenie Guirguis, *Palm Beach Atlantic University*, Dana Strachan, *Palm Beach Atlantic University*, John Dougherty, *Palm Beach Atlantic University*, Keri DePatis, *Palm Beach Atlantic University*. **Objective:** To determine whether aligning the content of knowledge assessment quizzes with the type of Advanced Pharmacy Practice Experience (APPE) and providing weight for these quizzes on APPE grades was associated with an increase in passing rates on the quizzes and earning As on APPEs. **Methods:** Fourth-year students were required to complete a proctored quiz on the last day of each APPE. For the academic year 2020-21, each quiz consisted of 30 questions given over 45 minutes on a single topic that did not correlate with the APPE type.

Quizzes were scored but did not impact APPE grades. For the academic year 2021-22, each quiz consisted of 40 questions given over 60 minutes on topics that correlated with the APPE type. Quizzes were scored and accounted for 5% of APPE grades. A passing grade was defined as achieving at least a 70% correct rate on the quiz. Data were analyzed using a Chi-squared test. **Results:** A total of 12 quizzes were administered to 48 students throughout 2020-21 and 56 students throughout 2021-22. There were 68 quizzes with a passing score in the class of 2021 resulting in a 24% passing rate compared to 126 in the class of 2022 resulting in a 38% passing rate ( $p = .004$ ). In addition, there were 218 As on APPEs in the class of 2021 resulting in 76% As on APPEs compared to 278 in the class of 2022 resulting in 83% As on APPEs ( $p = .009$ ). **Conclusions:** Implementing quizzes that correlated with the APPE type and weighted on APPE grades resulted in better outcomes on the quizzes and APPEs. We suggest implementing knowledge assessment quizzes throughout APPEs to enhance experiential learning.

### **Laying the Foundation to Advance Diversity, Equity, and Inclusion in Pharmacy Education and Practice**

Chinenye Anyanwu, *University of Connecticut*, Isabella Hernandez, *University of Connecticut School of Pharmacy*, Amanda Idusuyi, *University of Connecticut School of Pharmacy*, Gabriela Resto, *University of Connecticut School of Pharmacy*, Angela Su, *University of Connecticut School of Pharmacy*, Adrian V. Hernandez, *University of Connecticut School of Pharmacy*. **Objective:** A commitment to diversity, equity, and inclusion (DEI) is vital to improve cultural awareness in the student body, positively impact student engagement, and ensure pharmacists are equipped to provide culturally responsive, equitable care to a growing diverse population. Our objective is to describe a multipronged approach to establishing the infrastructure necessary to advance DEI within a pharmacy school community. **Methods:** Beginning in Fall 2021, the school's Diversity Committee strategically focused its efforts. Members discussed gaps in infrastructure and existing resources that could be leveraged to build systems to foster an inclusive environment. Four key areas were prioritized—restructuring infrastructure, building capacity, collecting data, and establishing partnerships. **Results:** Three subcommittees were established: Recruitment, Professional Development, and Inclusion. Each, led by two co-chairs, respectively focus on promoting diversity within the school, bridging professional gaps rooted in systemic oppression by increasing training accessibility, and developing routine assessment for factors hindering inclusivity. Four members participated in the AACP EDI

Institute to advance their knowledge of DEI concepts and identify promising practices to develop the committee's action plan. The committee began efforts to conduct a climate assessment, to understand students, faculty, and staff members' perceptions of the school's climate-related to DEI. Findings from a school-wide survey enriched with qualitative data from student focus groups will refine the committee's action plan and the school's strategic plan. Partnerships were established with offices, schools, and centers across campus to further the committee's work. **Conclusions:** When building infrastructure, it is crucial to leverage the multidimensional nature of DEI while being attentive to the backgrounds and experiences of different communities. The committee will continue considering community-specific characteristics to develop stronger partnerships; more robust systems; and innovative, sustainable solutions.

### **Leading Pharmacy Practice Transformation and Innovation Through Patient-Centered Research, Interdisciplinary Collaboration, and Practice-Based Training**

Jared Barrott, *Idaho State University*, Renee F. Robinson, *Idaho State University*, Cara Liday, *Idaho State University*, Elaine Nguyen, *Idaho State University*, Jordin Millward, *Idaho State University*, Ali Aghazaden-Habashi, *Idaho State University*. **Objective:** Idaho's advanced practice laws and changes to Alaska laws continue to drive the practice of pharmacy forward to meet the needs of patients, students, and healthcare providers in these two under-resourced states. In 2021, the Dean of the Idaho State University College of Pharmacy charged seven-faculty members with establishing the Center for Pharmacy Practice Transformation. Innovative practice-based service models were employed to help identify unmet clinical and pharmacy-based needs. Evidence-based practice models were used to guide establishment of a mission, vision, and multifaceted, scientifically-based, strategic plan. **Methods:** To better prepare and ensure we meet the needs of the profession, the interdisciplinary team worked together to establish the mission: to lead pharmacy practice transformation and innovation through patient-centered research and interdisciplinary collaboration. ISU is well situated to lead practice transformation and innovation, currently conducting patient-centered interdisciplinary research effectively across all three-campus; however, duplications in resources and effort could be addressed with the development of the center. **Results:** It is the vision of the Center to be a nationally recognized catalyst for pharmacy practice change to benefit the health and wellness of all people, especially those in rural and underserved communities. Patients and community members are already

actively engaged in research, outreach, and programmatic change initiatives at the university, community, and statewide level - bridging existing educational and practice gaps that exist. We plan to utilize the Center to better leverage current relationships with state health agencies, community pharmacy networks, and patients to focus clinical, educational, and advocacy initiatives. Lastly, to ensure that we pursue projects and grants that align with the needs of the Center we established a set of values to guide grant, program, and project selection.

**Conclusions:**

**Making an “ImPaCT (Improving Patient Care for Tomorrow)”:** An innovation APPE to Address Practice-Based Problems

Kate Newman, *Southern Illinois University Edwardsville*, Tessa Keys, *Southern Illinois University Edwardsville*.

**Objective:** To drive practice transformation, graduates must have experience recognizing, understanding, and addressing practice-based problems. This poster describes a required, innovation based APPE focused on improving patient care referred to as “ImPaCT” (Improving Patient Care for Tomorrow). Demographics of community collaborators and dissemination rates of student work will be analyzed. **Methods:** Students collaborate with a mentor to develop a project to address real-world pharmacy issues. This provides students practical experience with problem solving and innovation, but also serves as an extender and enabler for practice transformation in a variety of settings. During the APPE module students work with their mentor, meet with a program coordinator, and participate in a peer-to-peer discussion session where they provide formative feedback on each other’s work. At the end of the APPE, students prepare a manuscript, poster and 3-minute video intended for a lay-audience. Participation in a campus poster presentation day is the culminating event; however, projects are often shared more widely through poster presentations, publication, and implementation. **Results:** Since 2009, 1051 projects have been completed. On average 35.2% of projects are mentored by external community-based partners. In the past three years, students have partnered with 39 individuals in 25 different facilities. Most external collaborations occur in the inpatient (40%) or community pharmacy (28%) settings. Since 2009, 26% of projects were presented or published (annual presentation/publication rate 7.5–41.1%). **Conclusions:** The implementation of a required, innovation based APPE gives students an opportunity to contribute to practice transformation in a real, tangible way. Dissemination rates indicate projects are of interest to the greater pharmacy community and the range of community partnerships shows this model can be employed in a variety of settings.

**Meeting the Needs of Our Communities, the CVS Health Spanish Pathway Program**

Angela Chu, *Roseman University of Health Sciences*, Trang (Susan) Nguyen, *Roseman University of Health Sciences*, Dustin Christensen-Grant, *Roseman University of Health Sciences*, David Rawlins, *Roseman University of Health Sciences*, Shelby Cato, *CVS Health*, Lindsey Wendorff, *CVS Health*. **Objective:** There is a disproportionate number of Spanish-speaking pharmacists to meet the needs of the growing Hispanic/Latino population in the United States. The CVS Health Spanish Pathway Program (SPP) aspires to increase the number of qualified pharmacy talent who speak Spanish and are devoted to providing healthcare services to Hispanic/Latino communities. **Methods:** Since 2018, RUHS has partnered with CVS Health to introduce Spanish-speaking students to pharmacy careers and recruit and retain these students. Students selected for the SPP are placed at predominately Spanish-speaking CVS Health pharmacies for their introductory pharmacy practice experiences and receive special opportunities to network with local, regional, and national CVS Health leaders. SPP students receive additional quarterly student mentoring and complete a medical Spanish certification course. Movimiento Estudiantil Roseman (MER), a university student organization, provides SPP students service activities to meet the healthcare needs of local Spanish-speaking communities. The SPP offers students opportunities in leadership and self-development with coaching from SPP faculty members. **Results:** Over the last four years, there have been 27 students enrolled in the SPP across two campuses. 86% of SPP graduates have secured employment at predominately Spanish-speaking CVS Health pharmacies. In addition, the SPP has impacted the University and College of Pharmacy with increased student MER membership and outreach and enrollment of over 200 students in our medical Spanish elective in the last two years. **Conclusions:** RUHS and the CVS Health SPP have successfully met the needs of our communities by graduating Spanish-speaking pharmacists who work in Spanish-speaking community pharmacies.

**More than Moving the Needle: Diversity, Inclusion, and Health Equity at the University of Florida**

John M. Allen, *University of Florida*, Karen Whalen, *University of Florida*, Teresa Cavanaugh, *University of Florida*, Shauna Buring, *University of Florida*, Tyisha Hathorn, *University of Florida*, Milena Ozimek, *University of Florida*, Veena Venugopalan, *University of Florida*, Chardae Whitner, *University of Florida*. **Objective:** Efforts to advance diversity, inclusion, and health equity (DIHE) have long been part of the University of Florida

College of Pharmacy's (UFCOP) values. However, in line with developing a new strategic plan, the UFCOP renewed its efforts. Recent efforts have been grounded in four dimensions: Community, Culture, Curriculum, and Collaboration (C4). The objective is to describe the implementation of UFCOP DIHE practices. **Methods:** C4 was used to advance DIHE efforts at the UFCOP. Community efforts centered on enhancing diversity and instilling collective belonging across the UFCOP community. Efforts to enhance culture sought to establish a communal norm of respect and inclusion for all UFCOP citizens. The UFCOP has also established a culture of continuous DIHE assessment and improvement, with the implementation of routine engagement with stakeholders and the development of DIHE-focused action plans. Curriculum efforts focused on preparing the UFCOP to practice cultural humility with the citizens they serve. Collaboration focused on building internal and external partnerships that integrate DIHE values into the fabric of UFCOP activities. **Results:** Efforts to expand DIHE efforts across the UFCOP have generated positive results. New programs have been developed to increase access to the UFCOP and promote academic success for historically marginalized populations. The UFCOP has intentionally increased curricular content on health inequities and the pharmacist's role in alleviating them. Additionally, we have developed a cultural norm that allows thoughtful, respectful, and responsible discussion of DIHE topics across the UFCOP. Contributions to DIHE are considered an expectation of UFCOP faculty and assessed annually. **Conclusions:** Successful integration of DIHE across the UFCOP with a focus on C4 has yielded impressive results but requires shared and enduring efforts to sustain them.

### **One Small Step Toward Competency-based Education: Multi-year Integration of the Entrustable Professional Activities**

Amanda Wilson, *Cedarville University*, Juanita A. Draime, *Cedarville University*, Ruth Pereira, *Cedarville University*, Emily Laswell, *Cedarville University*, Alexandra Hintz, *Cedarville University*, Andrew Straw, *Cedarville University*, Aleda M. Chen, *Cedarville University*. **Objective:** Competency-based education (CBE) shifts from traditional learning by ensuring that graduates are prepared for future practice through competencies rooted in societal and patient needs. Entrustable professional activities (EPAs) link competencies to practice and are tasks that can be increasingly entrusted to a learner. As a step toward CBE, the objective of this project was to describe the integration and implementation of EPAs at Cedarville University School of Pharmacy. **Methods:** EPAs were integrated with

PIs entering the 2018-2019 academic year and then progressively expanded. The didactic curriculum, the IPPE and APPE rubrics, and the annual, end-of-semester Objective Structured Clinical Examinations (OSCEs) were mapped to the EPA Core Statements. Several EPA faculty development sessions and OSCE workshops were held during monthly, 45-minute education sessions. Calibration and leveling of the rubrics were performed following annual descriptive data analysis. **Results:** Gaps in activities mapped to core statements were identified and curricular elements were added to address these gaps. Most students (84%) progressed appropriately according to the leveled entrustability for their year. EPA integration allowed the program to engage in early identification of students needing remediation and intervention when not meeting the appropriate entrustability level. **Conclusions:** This project provides perspective on an approach to EPA implementation, allowing for curricular enhancement and early identification of students who may need remediation. Continued evaluation of the calibration efforts as well as focused training of preceptors and faculty after completing a self-assessment are next steps in this project.

### **Paradigm and Strategies for Effective Teaching, Learning, and Assessment in Pharmacy Calculations**

Uyen Le, *California Northstate University College of Pharmacy*, Tarek Kassem, *California Northstate University*, Tuan Tran, *California Northstate University*, Welly Mente, *California Northstate University*, Justin Lenhard, *California Northstate University*, Jennifer R. Courtney, *California Northstate University*, Jeffrey Nehira, *California Northstate University*, Xiaodong Feng, *California Northstate University*. **Objective:** To establish a paradigm and strategies for effective teaching, learning, and assessment in pharmacy calculations. **Methods:** We have built a comprehensive and longitudinal curriculum of pharmacy calculations from the admission time to the last year of the pharmacy program. The paradigm has three phases, firstly starting with a package of pre-pharmacy calculations and primer review for newly admitted students, then continuing in both stand-alone and integrated didactic calculation courses for years 1-3, and finally ending with advanced calculation practice for year 4. Assessments are designed as low-stake self-testing and high-stake final exams at the end of courses/topics and comprehensive milestone exams after each academic year in addition to pharmacy calculation competency certificate. Longitudinal self-directed-learning and testing, supportive tutoring, and effective remediation process have been thoroughly applied in the program. **Results:** Early intervention to newly admitted

students helped identifying approximately 5-10% potential struggling students at the beginning of the program. Additional support for them including close monitoring and tutoring showed strong effects. Stand-alone and longitudinal integrated didactic calculation courses, comprising more than 80 hours, provided essential foundational training for students in mastering the calculation skills. High-stake exams significantly motivated students to advance and retain their knowledge and skills (passing >85%). The 4th year's integrated calculations for experiential practice helpfully prepared students to the licensure exams. The culture of self-learning/self-assessment had a significant impact on improving students' continuous and consistent retention of the skills. **Conclusions:** Comprehensive and longitudinal curriculum of pharmacy calculations, associated with high-stake exams and self-learning/self-assessment culture, demonstrated high effectiveness on students' learning and retention in pharmacy calculations. The program continues working closely with practice pharmacists/preceptors to fill any gaps between school teaching and experiential education.

### **Pass/Fail Grading Systems in US PharmD Programs and One School's Experience**

George E. MacKinnon, *Medical College of Wisconsin*. **Objective:** Since inception Medical College of Wisconsin School of Pharmacy adopted a pass/fail grading process throughout the entire curriculum versus traditional discretionary grading, (A to F) and GPAs, in part due to our co-teaching with other health science programs (initially medicine) and no baccalaureate degree programs. Several PharmD programs have transitioned to binary (e.g., pass/fail) grading systems across didactic, skills, and experiential curricula. Academic medicine evidence of pass/fail grading systems suggests benefits to students include increased wellbeing, increased cohort cohesion, increased intrinsic motivation, decreased stress/anxiety, decreased competition, and self-regulated learning. To investigate how US academic pharmacy programs use pass/fail grading systems in PharmD curricula and how our PharmD program would benefit from this new knowledge. **Methods:** An electronic survey with 15 selected response items and six open-ended questions was developed to gather qualitative and quantitative data. A convenience survey was distributed in 2020 to ten academic pharmacy programs known to use a pass/fail grading system. **Results:** Responses from eight programs included types of courses they used a pass/fail grading system. A variety of grade designations (honors, pass, no pass, fail, satisfactory) were used, and the minimum pass level varied by program, ranging from 70% to 90%. The type of

information shared with residency program directors (e.g., GPA, class rank, overall percentile, qualitative comments) varied between programs. **Conclusions:** Programs that use criterion-based binary assessments may benefit from engaging in dialogue to determine how consistency in terminology, passing level, percentages, grade point averages, and progression policy might be achieved as programs assess moving to competency-based education. Additional insights on how postgraduate training requirements are impacted by binary assessments as well managing interprofessional education with various assessment strategies across academies is warranted.

### **PED-Rx : Using the TEDx Model to Bridge Education and Practice**

Gardner A. Lepp, *University of Minnesota*, Kylee Funk, *University of Minnesota*, Jason Varin, *University of Minnesota*, Todd D. Sorensen, *University of Minnesota*, Kristin Janke, *University of Minnesota*. **Objective:** PED-Rx (Practice-Education Dialogue in Pharmacy) has three objectives, 1) inform students and facilitate their opinion formation regarding contemporary pharmacy issues, 2) create an engaging and memorable event for both students and the practice community in a setting similar to a professional meeting, 3) connect the learning and practice community. **Methods:** PED-Rx was developed modeling the "TEDx" format. It is designed to bring together the "learning community" of pharmacy students (P2 and P3 cohorts) with the "practice community" of pharmacists. During each event, multiple "TED style" talks focus on a common theme (e.g. Digital Health) and are followed by a practitioner-facilitated small group discussion and a full group debriefing. Practitioners are supported with a pre-session orientation session and formal discussion guides. Following the event, each student completes a writing assignment based on the theme. PED-Rx creates an environment where students can start to see the issue from a pharmacist's perspective. Including multiple cohorts at each event allows for peer-to-peer learning and networking. **Results:** Students are exposed to a variety of pharmacists across a broad spectrum of practice environments and specialties, fostering socialization into the profession. Students experience two events during their time at the college. To date, 27 keynote speakers have participated in 16 PED-Rx events held across two campuses. Each event impacts approximately 385 participants. **Conclusions:** PED-Rx fosters professional identity formulation (PIF) by modeling thinking processes of pharmacists, questions to consider, and challenges that pharmacists must confront. Pushing students toward desirable difficulties with the aid of a practicing pharmacist as a guide helps students gain



confidence in the professional discomfort they may experience during times of change.

### **Perceptions Among Student Pharmacists Across Eight Domains of Wellness as Part of Continuous Professional Development**

Holly Lassila, *Duquesne University*, Janet Astle, *Duquesne University*, Pamela Koerner, *Duquesne University*. **Objective:** Objective: Wellness is a broad, holistic concept that includes interconnected emotional, physical, occupational, intellectual, financial, social, environmental, and spiritual dimensions. It is a conscious process that requires self-awareness and deliberate choices integral to personal and professional development. This study examined the perceived wellness of student pharmacists across eight domains of wellness, activities students identified to enhance their wellness, and potential barriers that could impede implementation, as part of the Continuous Professional Development (CPD) longitudinal series of courses interwoven throughout the curriculum. **Methods:** Methods: The overall design of this research was a mixed-method cross-sectional descriptive approach. The concept of wellness was introduced to students at the beginning of the CPD fall semester courses. Students assessed their functioning across eight wellness domains using a bar graph and numerical rating. Groups of four to five students subsequently shared their assessments and explored ways to enhance wellness. A written reflection describing the personal assessment findings, activities the student would like to implement to enhance wellness, and identification of possible barriers to implementation were submitted by each student. **Results:** Results: Highest functioning scores included the intellectual and social domains; lowest functioning scores included the financial, spiritual, and emotional domains. The emergent theme related to potential barriers impeding implementation was time. **Conclusions:** Conclusions: Self-awareness is a core component of the CPD courses. Awareness of and attentiveness to wellness is integral to professional development and can readily be incorporated into these courses. Future research will follow the progression of students longitudinally to determine whether early interventions result in enhancement of the wellness domains.

### **Perceptions of an Interprofessional Education (IPE) Clinic Among Pharmacy, Optometry and Physician Assistant Students**

Joycelyn Yamzon, *Marshall B. Ketchum University*, Elvin Hernandez, *Marshall B. Ketchum University College of Pharmacy*. **Objective:** To assess changes in interprofessional collaboration-related competencies in pharmacy,

optometry and physician assistant students participating in an interprofessional education clinic. **Methods:** Pharmacy, optometry and physician assistant students at Marshall B. Ketchum University participate in four required interprofessional education (IPE) courses. An IPE clinic was created to allow students to practice in an IPE environment and help improve their interprofessional competencies including communication and effective team functioning. The Interprofessional Collaborative Competencies Attainment Survey (ICCAS) was administered via Qualtrics® to students who participated in the IPE clinic. Survey completion was voluntary and anonymous responses were collected. Demographic data were collected (professional program, year in program) and Before/After perceptions of the IPE clinic were analyzed. **Results:** 32 students completed the ICCAS, 9 (28%) pharmacy, 9 (28%) optometry and 14 (44%) physician assistant students. Most students were in their fourth year of their program (56%). Before IPE clinic participation, 44% of students rated their ability to “promote effective communication among members of an interprofessional (IP) team” as “good” on a 5-point Likert scale ranging from “poor” to “excellent.” After IPE clinic participation, 45% rated their communication as “excellent” ( $p=0.034$ ). Additionally, before IPE clinic participation, 53% of students reported that their ability to “work effectively with IP team members to enhance care” was “good” compared to 48% that reported it as “excellent” after the clinic experience ( $p=0.013$ ). **Conclusions:** Preliminary results from students participating in an IPE clinic showed positive changes in interprofessional communication and teamwork. Future analysis may determine if these improvements vary among students from different programs.

### **Pharmacy Phellowship & Phun: A Student-led Initiative to Foster Professional Identity Formation**

Kristy H. Lucas, *University of Charleston School of Pharmacy*, Alejandra Albino Ramirez, *University of Charleston School of Pharmacy*, George Chalil, *University of Charleston School of Pharmacy*, Maryheather Walsh, *University of Charleston School of Pharmacy*, Jane H. Condee, *University of Charleston*, Alice Gahbauer, *University of Charleston School of Pharmacy*, Chelsey Llayton, *University of Charleston School of Pharmacy*, Gannett Monk, *University of Charleston School of Pharmacy*. **Objective:** COVID-19 limited student opportunities to participate in health fairs. Students perceived a resulting lack of confidence in patient interaction skills and designed an event to practice in a realistic, low-pressure environment. This project assesses perceptions of this event among student attendees (SA), student non-attendees (SNA), and event facilitators, and the event’s impact on SA confidence and

professional identity formation (PIF). **Methods:** P3s designed scenarios in: counseling vaccine-hesitant patients, reassuring needle-hesitant patients, dispensing drugs perceived by patients as embarrassing, addressing a transgender patient, comforting distressed patients, and taking blood pressure and glucose measurements. Faculty and P3 standardized patients provided informal formative feedback. Post-event surveys explored SA, SNA, and facilitator perceptions and experiences. **Results:** Response rates for the SA, SNA, and facilitator surveys were 50% (n=11), 15.5% (n=16), and 100% (n=9), respectively. P1s comprised 54.5% (n=6) of SA and 31.3% (n=5) of SNA respondents. Most (90.9% SA, n=10; 87.5% SNA, n=14) had participated in at least one health fair. Desire for “hands-on” practice was motivation for 81.8% (n=9) of SA. Most SNAs cited exam schedule (75%, n=12). SAs reported confidence more than SNAs in all covered skills except counseling vaccine-hesitant patients (54.5%, n=6 vs 60%, n=9). The largest difference in SA vs SNA confidence was in counseling distressed patients (72.7%, n=6 vs 6.3%, n=1). All SA’s confidence increased after the event. All respondents would participate in a similar event in the future. Few facilitators perceived SAs as confident (11.1%, n=1). All facilitators agreed that not using rubrics made interactions more candid. **Conclusions:** Professional identity and student confidence were enhanced using peer-initiated scenarios for low-stakes practice. Survey findings will better inform future events designed to improve PIF.

### **Pharmapreneurial Partnerships by Maryland’s Center for Innovative Pharmacy Solutions Are Transforming Digital Health**

Lisa Lebovitz, *University of Maryland*, Magaly Rodriguez de Bittner, *University of Maryland*, Charmaine Rochester-Eyeguokan, *University of Maryland*, Sade Oso-timehin, *University of Maryland*, Natalie Eddington, *University of Maryland*. **Objective:** To establish a sustainable structure that advances the pharmacist role in digital health. **Methods:** The University of Maryland School of Pharmacy’s Center for Innovative Pharmacy Solutions’ e-Health Center provides oversight, implementation, and promotion of initiatives to improve patient outcomes and reduce health care costs. The Center partners with health systems and insurers to offer emocha Mobile Health’s HIPAA-compliant app for patients to video-record themselves taking medications; nurses and pharmacists reinforce adherence and intervene in medication-related problems (MRPs). Through the Maryland Quality Care Network (QCN) partnership with primary care providers and practices, pharmacists provide patients with comprehensive medication therapy and management of chronic

diseases via videoconference. The e-Health Center also partners with UM health profession schools, the UM Medical Center, and Baltimore City Fire Department through the Mobile Integrated Healthcare – Community Paramedicine (MIH-CP) initiative to connect Baltimore City residents who are frequently hospitalized chronic disease patients with a health care team including a paramedic, registered nurse, pharmacist, and nurse practitioner or physician for 30 days of free in-home transitional care. **Results:** In 2021, the emocha initiative identified 237 MRPs in 64 asthma and diabetes patients, and the QCN engaged 375 primary providers and 79 practices throughout Maryland. MIH-CP encounters identified 736 medication-related problems in 2021 including missing or omitted medication (53%), untreated indication (8%), dose adjustment (4%), care coordination (4%), incorrect administration (3%), adverse drug reactions (3%), and therapeutic duplication (2%). **Conclusions:** These pharmapreneurial initiatives successfully demonstrate the essential role of the pharmacist in value-based models and population health utilizing technology. Managing these initiatives through the e-Health Center ensures consistency and continuity, and provides APPE ambulatory care training. Future capacity will ensure telehealth training for all Maryland students.

### **Planting Roots and Spreading Wings: Nurturing Professional Identity Formation (PIF) at Feik School of Pharmacy**

Tina C. Beck, *University of the Incarnate Word*, Bradi L. Frei, *University of the Incarnate Word*, Christine Lam, *University of the Incarnate Word*, Joanne Fazio-Gosser, *University of the Incarnate Word*, Raghunandan Yendapally, *University of the Incarnate Word*, Anita T. Mosley, *University of the Incarnate Word*, David F. Maize, *University of the Incarnate Word*. **Objective:** University of the Incarnate Word Feik School of Pharmacy nurtures Professional Identity Formation (PIF) upon acceptance to our pharmacy program. **Methods:** Prior to matriculation, admitted students are hosted in our building for a one-day event in the summer called Jump Start to introduce the profession and expectations. Students are also assigned a faculty mentor to build relationships with faculty and classmates. Students are provided with five career guides to explore different career options with their faculty mentor: community, hospital, residency, research, and management pathways. PIF is continually being nurtured during the fall semester P1 year with Introduction to Pharmacy where students are exposed early in the curriculum to various avenues of pharmacy through guest lecturers, while reinforcing professional behavior expected of pharmacists through assignments and reflections.

**Results:** Throughout P1-P3 year students can join student organizations that align with different career goals. Guest speakers at various co-curricular activities raise self-awareness about students' personal and professional growth and the pharmacy profession. Students are encouraged to attend Texas Day at the Legislature to advocate for the advancement of the profession. **Conclusions:** Interprofessional Education activities with the other four health professional schools engage students and faculty in understanding their role as pharmacists. Prior to P4 experiential rotations, the Office of Experiential Programs provides an APPE Boot Camp to transition students from P3 to P4 year, emphasizing professionalism during clinical rotations. At graduation, students are inducted into the alumni association. This is the end of their formal education, but the beginning of their professional identity.

### **Practice Transformation through the Lens of a Land Grant University**

Jennifer L. Rodis, *The Ohio State University College of Pharmacy*, Bella H. Mehta, *The Ohio State University College of Pharmacy*, Stuart Beatty, *The Ohio State University College of Pharmacy*, Michael Murphy, *The Ohio State University*, Myriam Shaw Ojeda, *The Ohio State University College of Pharmacy*, Jennifer Seifert, *The Ohio State University*, Ashley M. Erdmann, *The Ohio State University College of Pharmacy*, T'Bony Jewell, *The Ohio State University College of Pharmacy*. **Objective:** Practice change requires a multifaceted approach as described by the National Alliance of State Pharmacy Associations: statute changes to recognize pharmacists as providers, payment to pharmacists for provision of care, and scope of practice to optimize pharmacy practice acts. We recognize and will describe our college's approach to engaging in the rapidly changing practice landscape. **Methods:** Land grant institutions are uniquely positioned to advance practice change through their institutional commitment in community engagement to improve lives of citizens of their states and the presence of Extension services within communities. Our college of pharmacy's mission and strategic plan identify practice transformation as one of our key goals. Leadership through the college's Office of Outreach and Engagement align practice advancement with the strategic plan of our land grant institution and priorities 1 and 2 of AACP's strategic plan 2021-2024. **Results:** Partnerships with state/national professional organizations and Extension provide capacity to influence practice growth and invigorate current and future pharmacist educational opportunities with the most current information. Our institution fosters statewide collaboration to discuss practice improvements and engage in

advocacy to affect state and federal legislation. Our continuing professional development (CPD) efforts assure certificate programs are completed by all student pharmacists and are accessible to practicing pharmacists. A student advocacy collaborative and APPE program to facilitate legislator visits to rotation sites engage the grassroots to understand and impact statute. **Conclusions:** Future directions include CPD pathway support for pharmacists in the state, connection of student advocacy collaborative across colleges in the state, and curricular alterations following mapping.

### **Prioritization and Implementation of APPE-Readiness Assessments Into the Pharmacy Curriculum**

Robin Parker, *Lipscomb University*, Sarah P. Collier, *Lipscomb University College of Pharmacy*, Tuqa Alkhatieb, *Lipscomb University*, Benjamin Gross, *Lipscomb University*, Chad Gentry, *Lipscomb University*, Susan Hamblin, *Lipscomb University*. **Objective:** To describe the methodology used by a college of pharmacy to identify, integrate, and assess advanced pharmacy practice experiences (APPE)-readiness skills deemed "high priority" by faculty and preceptors into a traditional, four-year pharmacy curriculum. **Methods:** A list of APPE-readiness competencies were compiled following a literature review, review of the Pharmacist Patient Care Process, and input from faculty members and select external preceptors. These competencies were mapped to entrustable professional activities and aimed to identify milestone skills, knowledge, and behaviors that student pharmacists should demonstrate prior to entering APPEs. The resulting APPE-readiness skills survey was administered to faculty to evaluate and prioritize skills regarding their perceived importance. The highest priority skills, or those deemed as most important, would require remediation if a student was unable to demonstrate competence during the first attempt. Skills that were marked high priority by the majority (>50%) of respondents were used to develop APPE-readiness assessments (ARAs). **Results:** Input from stakeholders resulted in 69 distinct skills to consider for integration and evaluation within the pharmacy curriculum. Twenty-three (70%) faculty completed the APPE-readiness skills survey and 33 (48%) items were deemed high priority by the majority of respondents. Upon reviewing survey results, faculty decided to integrate high-priority ARAs into a pre-existing two-semester course in the P3 year. By repurposing or replacing assignment deliverables and evaluations in the standing course, faculty ensured students in the immediate pre-APPE curriculum had access to ARAs prior to their APPEs. **Conclusions:** The prioritization of stakeholder-informed ARAs bridged the intentionality between pharmacy education and

practice and provided an opportunity to evaluate skills deemed important for our experiential learners by integration into a pre-existing course.

### **Professional Identity Formation in the Curriculum through Motivating Language and Social Provisions**

Patti L. Darbishire, *Purdue University*. **Objective:** This poster offers instructional guidance on pedagogy to actualize students' professional identity. It is based on the theoretical framework - Motivating Language Theory. The evidence is applicable in didactic, simulated and experiential learning curricula, including interprofessional education. **Methods:** The instructional information presented on this poster was derived from a review of professional identity formation literature and applied in the context of motivating language theory and social provisions of health. The information includes application and examples. **Results:** Motivating language theory provides a comprehensive model for understanding the impact of language, suggesting that strategic oral communication is an important motivational tool that can influence professional identity formation. **Conclusions:** Language that promotes attachment to the profession should be encouraged by those within all disciplines of pharmacy and during interprofessional education. Effective communication which abates insecurity and ambiguity promotes specific, assertive, empathetic identity and adds value during interactions with other health professions students.

### **Promoting Diversity, Racial Equity, and Inclusive Excellence through a New Initiative at Texas A&M University**

Amanda M. Galindo, *Texas A&M University*, Juan Bustamatne, *Texas A&M University College of Pharmacy*, George Udeani, *Texas A&M University College of Pharmacy*, Indra K. Reddy, *Texas A&M University College of Pharmacy*. **Objective:** Institutions of higher education must play a critical role in eroding the culture of silence around racism and promoting equitable learning environment for all, particularly for students of color. To that end, the Council of Deans at Texas A&M University have launched a new initiative, the Deans CARE (Deans Committed to Anti-Racism Efforts) Internship Program, which focuses on promoting diversity and strives for inclusive excellence. **Methods:** The program provides selected students the opportunity to serve for one or two-semester(s) as Deans CARE Interns and work with college/university leaders to engage in activities that build a culture of inclusion, diversity, equity, and accountability (often called DEIA). Interns also work to promote diversity within the academic environment, workforce, caring for diverse

patients or populations, and address inequities that contribute to health disparities. **Results:** In fall of 2021, the College has successfully recruited a cohort of three inaugural interns from the graduate (PhD) and professional pharmacy (PharmD) programs, who have worked together to revise/refine DEIA statement for the College of Pharmacy, which was reviewed and endorsed by the College and university leadership. Interns are currently in the process of completing their annual project goals, which include updating the college website and providing recommendations to enhance visibility and acquiring resources that are helpful for creating vibrant communities. **Conclusions:** Interns are slated to present their findings during a forum to the entire College of Pharmacy community late spring. It is our intent that Deans CARE Interns will view themselves as not only ambassadors for DEIA principles for their college, but also as future champions of the diverse and inclusive workplaces and communities they will inhabit and enhance after graduation.

### **Schools as Drivers of Practice Transformation: An Innovative Model for Diabetes Self-Management Education and Support**

Ashley E. Moody, *Notre Dame of Maryland University*, Matthew Shimoda, *Notre Dame of Maryland University*, Anne Y. Lin, *Notre Dame of Maryland University*. **Objective:** Objective: To evaluate the role of a school of pharmacy in implementing sustainable Diabetes Self-Management Education and Support programs at independent pharmacies. **Methods:** Methods: Two cohorts of independent pharmacies were recruited to implement Diabetes Self-Management Education and Support (DSMES) programs. Pharmacy faculty developed the program curriculum using Association of Diabetes Care and Education Specialists (ADCES) resources, trained pharmacists, evaluated pharmacy workflow, assisted in the development of pharmacy policies and procedures, identified strategies for patient recruitment and assisted with the application for the ADCES Diabetes Education Accreditation Program (DEAP) certification. A Maryland Department of Health consultant provided technical assistance to the pharmacies in developing processes for billing these services. ADCES accreditation was sought for cohort 1 and the School of Pharmacy applied for ADCES accreditation and served as the umbrella organization in a spoke and hub model for cohort 2. **Results:** Results: Eleven pharmacies participated in the program. One small chain independent pharmacy and the School obtained accreditation. The small chain pharmacy hired 1.0 FTE to coordinate the program. **Conclusions:** Conclusions: Pharmacists had the knowledge to deliver DSMES programs but lacked confidence

in their teaching abilities. School faculty focused on coaching and mentoring pharmacists to develop their teaching skills and increase their confidence. These pharmacists did not have the time to develop all required components of a sustainable program. The provision of a “turnkey” program by a school of pharmacy can support sustainable DSMES program implementation. The “turnkey” program also provided consistency across pharmacies and allowed for program implementation at scale in a relatively short period of time.

### **SPECific Experiences with Specifications Grading in Competency-Based Education**

Jill M. Augustine, *Mercer University*, Susan W. Miller, *Mercer University*, Lori H. Dupree, *Mercer University*, Kathryn Momary, *Mercer University*. **Objective:** To describe the implementation of specifications grading within a skills-based course series to support competency-based education (CBE), including mastery grading, student engagement, and minimum competency requirements. **Methods:** Specifications grading is a grading structure built upon the concepts of bundles, pass/fail grading, and high stakes assessments. At one college of pharmacy, students complete a skills-based course each semester from P1 to P3 years (a total of six courses). Each course incorporates specifications grading related to the learning objectives for that semester. Key skills and learning objectives in each course align with the colleges’ curricular requirements. At the end of the semester, students are expected to meet minimum competency requirements for each high stakes assessment in the course. **Results:** Using specifications grading, students practice a skill, receive feedback, and work to achieve mastery on a high stakes assessment. Based on the courses’ learning objectives, faculty adapted the specifications grading plan to the different high stakes assessments. All courses include competency-based assessments in calculations, drug knowledge, and patient counseling, with progressive expectations as students advance through the curriculum. For example, first- and second-year students must demonstrate competency in patient counseling on an over-the-counter product and a prescription medication, respectively. Challenges identified include lack of integration of grading within the learning management system (LMS) and poor student acceptance initially. **Conclusions:** Specifications grading is a grading schema that can be used within CBE, allowing students to practice and demonstrate mastery of both knowledge and skills. Challenges can be overcome with creativity, use of software products (outside LMS) to calculate grades, and open and repeated communication with students about the grading process. In CBE, specifications grading can be adapted to a variety of courses.

### **Strategic Partnership with a Pharmaceutical Manufacturer to Develop Innovative Non-Traditional Training Throughout the PharmD Curriculum**

Michaela M. Almgren, *University of South Carolina*, Jennifer L. Baker, *University of South Carolina*, Julie M. Sease, *University of South Carolina*. **Objective:** To develop a strategic partnership providing non-traditional internships, externships, research, and other training opportunities for PharmD students. The innovative educational partnership exposes students to pharmacist roles in the pharmaceutical industry expanding their awareness of diverse employment opportunities and preparing them for alternative career pathways. **Methods:** A new partnership was established with Nephron Pharmaceuticals Corporation, a pharmaceutical manufacturer and 503B compounding pharmacy in September 2018. A faculty member with previous pharmaceutical industry experience and training developed an innovative pharmacy practice model by bridging different areas within a pharmaceutical company collaborating with regulatory, pharmaceutical formulation, manufacturing, engineering, quality, marketing, research and product development departments. This resulted in a unique site providing PharmD students learning opportunities in Advanced Pharmacy Practice Experiences (APPEs), pharmacy internships, and research projects. Students are engaged in non-traditional pharmacist roles while collaborating with other professionals such as product development analysts; regulatory, quality and marketing departments; clinical support; as well as manufacturing design engineers. **Results:** Pharmacy students are involved in meaningful projects, utilizing their pharmacy skills, often seeing how their research findings impact real life solutions. This partnership resulted in 36 industry intern positions, an increase in APPE availability from three out-of-state placements to over 15 in-state placements per year, 2 post-graduate industry fellowship trainees, and 7 new pharmacist hires at Nephron. Research opportunities for students resulted in a variety of publications, including 18 posters and presentations. **Conclusions:** The partnership has been successful in creating non-traditional opportunities for student engagement. There has been an increase in scholarship, experiential learning, and career opportunities for student pharmacists. A regulatory track within the PharmD curriculum is being developed.

### **Structured Professional Certificate/Course Programs as a Pathway to Patient Centered Care**

Robert McGory, *Nova Southeastern University*, Graciela Armayor, *Nova Southeastern University*, Karen Sando Fiano, *Nova Southeastern University*, Michelle A. Clark, *Nova Southeastern University*. **Objective:** Pharmacists provide patient centered care in hospitals through

pharmacotherapy consultations, medication reconciliation, and transitions of care initiatives while community pharmacists provide immunizations and medication therapy management. Students develop these skills throughout the didactic and experiential curriculum to prepare themselves for post-graduate employment and lifelong learning.

**Methods:** A new curriculum initiated in 2018 included several professional certificates or courses to optimize student skills and improve their ability to compete for employment or residency. The curriculum has been refined to sequence with didactic topics, correspond to co-curricular activities and optimize learning in IPPE and APPE. The current sequence of certifications includes Immunization and Smoking Cessation in the P1 year, Medication Therapy Management and Test and Treat in the P2 year and Collaborative Practice Agreements and Physical Assessment in the P3 year. **Results:** The sequence of topics optimizes student ability to perform immunization and smoking cessation in IPPE and community immunization events and perform medication reconciliation in hospitals and community pharmacies. Florida recently implemented state laws to allow pharmacists to independently perform test and treat services for non-chronic conditions and establish collaboration agreements with physicians, to begin, alter and stop medications and labs for specified chronic diseases. Students will obtain the Board of Pharmacy mandated and approved training to optimize APPE experience in preparation for practice after graduation. **Conclusions:** The success in attaining student certifications has been recognized by preceptors and employers as a professional enhancement for pharmacists. An outpouring of licensed pharmacists to gain these certifications has resulted in over 1,000 pharmacists certified in Immunization, MTM, Test and Treat, and Collaborative Practice Agreements. The College of Pharmacy has elevated the local practice of pharmacy for current and future practitioners.

### **Student Personal and Professional Development: An Interdisciplinary Course Series**

Abir O. Kanaan, *MCPHS University School of Pharmacy Worcester/Manchester*, Anthony Pollano, *MCPHS University School of Pharmacy Worcester/Manchester*, Carrie Graham, *MCPHS University School of Pharmacy Worcester/Manchester*, Colleen Massey, *MCPHS University School of Pharmacy Worcester/Manchester*, Evan Horton, *MCPHS University School of Pharmacy Worcester/Manchester*, Kaelen C. Dunican, *MCPHS University School of Pharmacy Worcester/Manchester*, Valerie Coppenrath, *MCPHS University School of Pharmacy Worcester/Manchester*, Paul Belliveau, *MCPHS University School of Pharmacy Worcester/Manchester*. **Objective:** Our

commitment to student development reflects our school's mission in preparing PharmD graduates who continuously advance their personal and professional development. Our objective was to develop meaningful opportunities to promote student personal and professional development (SPPD). The approach highlights our university's collaborative community focused on promoting student success and empowerment. **Methods:** A working group of faculty from Pharmacy Practice and Pharmaceutical Sciences designed a SPPD course series which required students to 1) attend sessions; 2) complete reflective assignments; 3) participate in co-curricular activities; 4) maintain a professional portfolio; and 5) meet with faculty advisors. Faculty from Pharmacy, Healthcare Business, and Arts and Sciences, as well as career services staff collaborated to deliver class sessions. **Results:** The 3-course series covers topics linked to CAPE 3 and 4 subdomains such as professionalism, advocacy, leadership, and cultural sensitivity. Professional identity, equity and inclusion, clinical reasoning, career pathway, and enhancement opportunities such as research and postgraduate education are also discussed. Through reflective assignments, students explore how their strengths, weaknesses, aspirations, and biases influence their behaviors as persons and future pharmacists. Students complete six co-curricular activities targeting specific CAPE subdomains. To simulate pharmacist requirements for continuous education, four activities must be "live". Students develop and maintain a professional portfolio to facilitate self-assessment documentation and reflection on learning needs, plans and achievements. Students meet with faculty advisors to discuss personal and professional development topics and review portfolios and participation in co-curricular activities. **Conclusions:** The course series was implemented for the Class of 2023. The impact on student personal and professional development and their transition to pharmacy practice will be assessed.

### **Supporting Professional Identity Formation: Evolution from Thinking to Doing to Being a Professional**

Elizabeth StLouis, *University of Rhode Island*, Erica Estus, *The University of Rhode Island*, Matthew Lacroix, *The University of Rhode Island*, Katherine Orr, *The University of Rhode Island*. **Objective:** The Accreditation Council for Pharmacy Education (ACPE) standards for schools and colleges of pharmacy requires developing practice- and team-ready pharmacists. The affective elements, highlighted in standards 3 and 4, that are critical to that development are supported through involvement in intentional experiences within and alongside the curriculum through co-curricular experiences. **Methods:** The URI College of Pharmacy

implemented a co-curricular portfolio requirement to address this focus, which has evolved from professional development to a streamlined approach of personal identity formation. The initial co-curricular portfolio was modeled after the American Pharmacists Association (APhA) Ten Traits of a Professional. Students were provided examples of activities and provided autonomy to select activities within the framework of the traits of a professional by responding to reflection prompts. The co-curricular portfolio has undergone continuous review with feedback from students and faculty to assess how the program should adapt to best support individual goals of professional development.

**Results:** With a renewed eye toward creating a culture of student-driven formation of professional identity, rather than a checklist of professional development, the co-curricular portfolio has evolved to reflect that culture. **Conclusions:** Students are empowered to create and participate in activities ensuring a focus on leadership, professional and personal development, and collaboration with others. This is accomplished while including other healthcare professionals and individuals of varying backgrounds, and service to the community and the profession. Students are guided through incorporation of wellness and self-awareness to identify individual areas of growth optimal to professional identity formation through wellness workshops, self-assessments to demonstrate growth over time, and guided discussions with faculty advisors.

### **Surviving to Thriving: Adapting CPD Approaches to Meet Market Needs in a Post-Pandemic Era**

James Wheeler, *The University of Tennessee Health Science Center College of Pharmacy*, Rachel Barenie, *The University of Tennessee Health Science Center College of Pharmacy*, Kelsey Frederick, *The University of Tennessee Health Science Center College of Pharmacy*, Marie Chisholm-Burns, *The University of Tennessee Health Science Center College of Pharmacy*. **Objective:** Pharmacy practice models are rapidly changing and continuing professional development (CPD) must adapt to meet learner and market needs. We aimed to identify and develop novel approaches to programming that bridge the gaps between current practice needs and CPD activities. **Methods:** Evolving pharmacy practice models coupled with the coronavirus pandemic facilitated the need for out-of-the-box ideas for CPD. Between Fall 2020 and Spring 2022, we implemented a multi-pronged approach to elicit feedback from pharmacy practice and CPD stakeholders, including: focus groups with employers, peer-reviewed research surveys, an advisory board, and a bi-annual needs assessment of program participants. **Results:** Learners sought accessibility and flexibility in CPD. No pharmacist

primary care training programs existed and only three colleges of pharmacy offered technician training programs. We developed a new pharmacist primary care certificate program, through which 20 pharmacists applied and strengthened their primary care skillset. We launched a pharmacy technician training program in partnership with a national pharmacy education leader, registering 54 learners to date, positioning them to succeed on the national certification exam. We adapted approaches to our traditional live CPD seminars, offering a hybrid attendance option (2:1 virtual attendance) and diversified the types of programming offered, resulting in an 18% increase in participant hours awarded for FY2021. These programs have elevated scholarship in our office through posters (n=4), manuscripts (n=2) and a national presentation. **Conclusions:** CPD offices must continue to innovate. Successful approaches include offering novel, inclusive programming for all members of the pharmacy team; developing certificate programs; seeking strategic partnerships; optimizing hybrid attendance options; and engaging key stakeholders (internal and external) through continuous quality improvement. Each of these approaches have accelerated meaningful change for the pharmacy practice workforce.

### **Temple University School of Pharmacy Response to Afghan Evacuee Crisis**

Van T. Hellerslia, *Temple University*, Dan Tran, *Temple University*, Neela Bhajandas, *Temple University*, Craig Whitman, *Temple University*, Lawrence Carey, *Temple University*, Jayanth Panyam, *Temple University*. **Objective:** The City of Philadelphia welcomed 25,000 Afghan evacuees through the Philadelphia International Airport after the abrupt withdrawal of US military from Afghanistan in August 2021. Temple University School of Pharmacy (TUSP) established an emergency pharmacy operation as part of a medical response to the humanitarian crisis. The objective of this abstract is to describe the experience and role of academic and student pharmacists during this humanitarian crisis. **Methods:** A narrative description of (1) our experience establishing an emergency pharmacy operation, (2) our roles and responsibilities, and (3) challenges and mitigation strategies will be provided. **Results:** In the initial phase of Operations Allies Welcome (August 26 - Sept 10, 2021), TUSP established an emergency pharmacy operation at Philadelphia International Airport. After setting up a dispensary, local and regional networks were leveraged to provide ongoing support as we faced various challenges. Our initial roles and responsibilities were to 1) ensure safe distribution of medications and 2) proactively address contextual barriers to medication access. Major challenges included uncertainty of the volume and flow of

evacuees, lack of pharmacy personnel coverage, lack of clarity on supply chain and responsibility of non-medical related inventory, and lack of standardized operating procedures. In response, efforts were aimed at engaging with air force partners to anticipate flight volume, creating a securely shared electronic inventory, establishing an efficient recruitment and staffing process, creating an onboarding process and establishing effective communication for all pharmacy personnel, and standardizing operating procedures. **Conclusions:** Academic and student pharmacists without prior experience with emergency disaster relief can successfully establish and contribute to an emergency pharmacy operation as part of an overall medical response to a humanitarian crisis.

### **The Value of Pharmacist Collaboration with Academic Specialty Medical Clinics through Telephonic Services**

Alireza Hayatshahi, *Loma Linda University School of Pharmacy Department of Pharmacy Practice*, Sophia Dinh, *Loma Linda University School of Pharmacy Department of Pharmacy Practice*, Ami Shumway, *Loma Linda University Health*, Bryan Tsao, *Loma Linda University School of Medicine Department of Neurology*, Anthony Hilliard, *Loma Linda University School of Medicine Division of Cardiology*, Aramis Cherrington, *Loma Linda University Health*, Leticia Arreola, *Loma Linda University School of Pharmacy Department of Pharmacy Practice*, Michael Hogue, *Loma Linda University School of Pharmacy*. **Objective:** We sought to identify the value of enhancing the medical expertise of our centralized University Access Center (AC) by imbedding a pharmacy team. **Methods:** The Loma Linda University School of Pharmacy and the AC performed a pilot project with the adult Neurology and Cardiology clinics. Workflows and medication refill protocols were designed, and the AC forwarded all patient calls for medication-related questions and refill requests to the AC pharmacy team. Call service indexes were tracked from December 20, 2021 through March 20, 2022. Projected annualized cost of the pharmacy team was compared to the prior year cost of handling medication-related calls by the AC, Neurology, and Cardiology clinic staff and providers. **Results:** A total of 3,563 phone calls were managed by the pharmacy team: 1,162 (32.6%) were calls from cardiology patients, 1,620 (45.4%) from neurology patients, and 781 (22%) were outgoing calls to physicians, clinic staff, and dispensing pharmacies. For incoming calls, 57% were related to medication refill requests and 17% required clinical triage. The pharmacy team improved first call resolution rates from 0% to 36% for cardiology, 0% to 26% for neurology,

and reduced the average call handle time from 11.4 minutes to 8.5 minutes. The annualized cost of the pharmacy team exceeded the pre-existing annualized cost of the AC and clinic personnel. **Conclusions:** Integrating a pharmacy team into large academic AC showed significant improvements in medication-related patient care. The cost was partially offset with reduced work by AC and clinic personnel. This project demonstrates a successful model for imbedding pharmacists into telephonic services that lead to improved practice efficiencies, quality of care, and increased patient satisfaction.

### **Transformation Through Shared Accountability: Equity-in-Action to Prepare Students for Diverse Patient Populations**

Katie S. McClendon, *The University of Mississippi*, Meagan A. Brown, *University of Mississippi School of Pharmacy*, Jameika M. Stuckey, *University of Mississippi Medical Center*, Donna W. Strum, *University of Mississippi School of Pharmacy*. **Objective:** Many institutions have a renewed commitment to diversity, equity, and inclusion (DEI). Integrating DEI within the organization with leadership commitment can produce transformation by ensuring the foundation of engaging multiple stakeholders and shared accountability. The University of Mississippi School of Pharmacy (SOP) set to develop strategic activities to promote DEI. **Methods:** In 2018, the Dean created a Diversity & Inclusion (D&I) Task Force and in 2020, faculty made it a standing committee strategically composed of stakeholder representation. Through co-hosting and attending the inaugural EDI Institute we began implementing our Equity-In-Action (EIA) Plan as part of a university-level initiative. A key first step was the presence of DEI charges for standing committees. Additionally, our EIA Plan included goals for education and professional development, experiential education, climate assessment, and recruitment. **Results:** Among the 11 SOP Committees, 10 received a median of 2 charges each related to the EIA plan. Two strategy areas reflect the SOP's commitment to prepare students to care for diverse populations and ensure optimal environments for pharmacy practice experiences. The Curriculum Committee and Office of Experiential Programs and Experiential Affairs achieved several charges, including assessing DEI and health disparities topics in the curriculum which will allow us to identify and address gaps. The Experiential Program Manual was updated and changes were communicated. **Conclusions:** Dissemination of EIA-aligned charges has ensured that our efforts are integrated and pervasive throughout the SOP's governing structure. This institutionalized model bridges responsibilities among



committees, administrators, and faculty. Next steps include EIA Plan alignment with upcoming SOP Strategic Plan, and future committee charges to continue education and practice transformation.

### **Transformation towards Integrated Modular Pharmacy Curriculum at Qatar University College of Pharmacy**

Maguy S. El Hajj, *Qatar University QU Health College of Pharmacy*, Ahmed Awaisu, *Qatar University QU Health College of Pharmacy*, Alla El Awaisi, *Qatar University QU Health College of Pharmacy*, Ashraf Khalil, *Qatar University QU Health College of Pharmacy*, Feras Alali, *Qatar University QU Health College of Pharmacy*. **Objective:** The Bachelor of Science in Pharmacy (BScPharm) program at Qatar University (QU) College of Pharmacy was established in 2007 and received full accreditation from the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) in 2012. The program maintains high quality and accreditation standards in teaching and assessment. Nevertheless, feedback from students, faculty, and alumni and global changes in pharmacy education and practice have resulted in comprehensive curricular review and the need for restructuring towards a modular curriculum. The main reform objectives are to: 1) promote a better approach to patient care, 2) enrich student experience and, 3) optimize integration. **Methods:** We benchmarked the current curricular structure against other international pharmacy programs, which served as a major catalyst for the curricular reform. An academic consultant was hired to support the process. A series of expert seminar sessions were conducted to learn more about modular curricular reform. Faculty groups were formed to create syllabi for modules based on human organ systems. Learner's input was sought during the developmental stages. The curriculum map and modules were also shared with pharmacists, and peer-reviewers for feedback. **Results:** The new modular curriculum has 165 credit hours and includes eight four-credit modular systems-based courses. These modules merge horizontally the current courses (pathophysiology, pharmacology, pharmacotherapy, and integrated case-based learning), covering oncology, neurology, respiratory, cardiovascular and others systems. Moreover, the curriculum encompass other standalone courses such as pharmacokinetics and professional skills. **Conclusions:** The implementation of the new modular curriculum for first professional year students will start in Fall 2022. The College's Curriculum and Assessment Committee is currently working on implementation including offering faculty development sessions, piloting, and preparing contents of the modules.

### **Use of an Educational Electronic Health Record to Educate Students About the Patient Care Process**

Aaron Burton, *University of Saint Joseph*, Lisa DeGennaro, *University of Saint Joseph*, Jennifer Podoloff, *University of Saint Joseph*, Zhao Li, *University of Saint Joseph*, Alaina Rotelli, *University of Saint Joseph*. **Objective:** To investigate the use of an educational electronic health record (EHR) in a drug-induced diseases elective course. The goal is to determine if the use of an EHR system will help to better prepare pharmacy students for their introductory and advanced practice pharmacy experiences (IPPE/APPE). **Methods:** A new drug induced disease elective in the pharmacy curriculum was used to implement EHR Go, an educational electronic health record. The two credit elective met Monday through Friday for six hours a day for one week. One three hour session of the course was dedicated to training the students in the use of the educational EHR. Following the didactic sessions of the course Pass/Fail assignments including SOAP notes, vancomycin notes, and drug information questions were completed by students in the EHR. Students completed a pre and post survey of the course assessing their confidence in utilizing and navigating an EHR system and were prompted to share strengths and weaknesses of the platform. **Results:** Students who completed the course had an increase in confidence in utilizing and navigating an electronic health record system, verifying orders and completing other tasks inside of the system. Students also reported that the use of the educational EHR helped them to be better prepared for advanced practice pharmacy experiences. **Conclusions:** Educational electronic health record training is an important tool to expose student pharmacists to navigation of similar technology they may encounter in clinical practice. According to the survey students displayed an increased confidence in conducting a variety of tasks in an electronic health record after completion of the course. These results support further integration of the technology throughout the didactic portion of the curriculum.

### **Use of Mitomycin C in a Hypothermic Intraperitoneal Chemotherapy Method: A Student-Centered Pharmacokinetics Teaching Model**

Uvidelio Castillo, *Concordia University Wisconsin*, Emily Anshus, *PharmD at Aurora Health Care*, Analeah Schwind, *PharmD Student*, Austin Hribar, *MD Student*, Kyle Rehauer, *PharmD Student*. **Objective:** In order to bridge biomedical sciences and pharmacokinetics (PK), pre-pharmacy and pharmacy students participated in a pilot translational research PK study involving the administration of mitomycin C (MMC) using the Hypothermic Intraperitoneal Chemotherapy (HIPEC) Method, which is

used for the treatment of gastrointestinal cancer that has metastasized to the peritoneal cavity. Students gained skills in handling and extracting MMC for the PK analysis of MMC in a clinical setting. The goal was an integration of biomedical principles with pharmacy practice. **Methods:** Thirteen patients contributed samples for this study. HIPEC was performed at 40°C with 40 mg of MMC for 90 minutes, after which the peritoneal cavity was flushed, anastomoses created as needed, and the wound closed. The students extracted MMC according to protocol from the samples taken of the omentum, peritoneum, liver core biopsy, tumor, mesenteric fat and blood before and after HIPEC. The students performed High Pressure Liquid Chromatography (HPLC) analysis as well as computational statistical skills. **Results:** The lab teaching method was successful in improving students' analytical skills. MMC was not detected in any sample prior to HIPEC. After HIPEC, MMC was most often detected in peritoneum (12 of 13 cases) and tumor (9 of 11). MMC was less often detected in omentum (5 of 13), mesenteric fat (2 of 13), or liver (1 of 12). **Conclusions:** Competency-based education is strengthened with real-world clinical experience, which equips hospital pharmacists through translational research. The students learned a reliable method to measure MMC concentration in normal and malignant tissues, as well as the proper clinical use of HIPEC. This results in a deeper understanding of the pharmacokinetics and treatment of their future patients.

### **Using Curricular Interventions to Integrate Practice, Research, and Education in Health Disparities**

Michael J. Fulford, *The University of Georgia*, Sharon P. Osae, *The University of Georgia*, Ashley Harnings, *The University of Georgia*, Blake Johnson, *The University of Georgia*, Linda Logan, *The University of Georgia*, Henry Young, *The University of Georgia*. **Objective:** The University of Georgia College of Pharmacy (UGACOP) implemented strategies to partner with pharmacists, health systems, and fellow educators to address health disparities by engaging students in recognizing health inequities and creating solutions and interventions that address disparities in health care. **Methods:** UGACOP created labs, electives, and experiences centered on implicit bias, communication, and implementing quality improvement projects related to social determinants of health (SDH) and health disparities. P1 students engaged in a series of labs and panels integrating SDH into application of the patient care process. P2 and P3 students took an elective that introduced health disparities. The course examined SDH and interventions that professionals

integrate into care to improve public health and address health disparities. P3 students took a Pharmacy Health Services and Outcomes (PHSO) course. They learned strategies for designing and implementing quality improvement projects and connected with pharmacies to design and plan quality improvements. **Results:** Assessment data from the P1 year showed students recognize health disparities and implicit biases but their confidence engaging in these topics with various stakeholder groups varied by topic area. The health disparities elective produced 21 interventions and 3 research projects. Themes from student reflections on learning included appreciation of the safe space to explore biases, SDH, and diversity, equity, and inclusion issues in healthcare. The PHSO course produced quality improvement projects for 27 sites across the State of Georgia. The elective and PHSO course built bridges and partnerships with organizations such as the Community Pharmacy Enhanced Services Network (CPESN) and the Rural Research Alliance of Community Pharmacies (Rural-CP). **Conclusions:** Engagement in addressing health disparities throughout the curriculum increases confidence integrating SDH into the patient care.

### **Utilizing Diversity, Equity, and Inclusion Survey Results to Fulfill Gaps in the Pharm.D. Curriculum**

David J. Hutchinson, *St. John Fisher College*, Sha-Phawn Williams, *St. John Fisher College*, Amy Parkhill, *St. John Fisher College*, Matthew Zak, *St. John Fisher College*, Kelly Conn, *St. John Fisher College*, Mona Gandhi, *St. John Fisher College*, Kathryn Connor, *St. John Fisher College*. **Objective:** The inclusion of social identities, such as race, ethnicity, sexual orientation, gender identity, and socioeconomic status in current pharmacy curricula may help students understand their impact in clinical practice. Delivering evidence-based education for students that addresses diversity, equity, and inclusion (DEI) could lead to improved access to high-quality care for all patients. An initial step in the integration of social identities in a curriculum is to assess the current climate of an institution and to quantify the presence of such topics within the didactic curriculum. **Methods:** In Fall 2021, faculty, staff, and students were surveyed by our school's Diversity Committee regarding the climate and DEI within the curriculum. **Results:** A total of 107 students, 27 administration/faculty, and 6 staff responded to the survey. Most responders strongly agree/agree that the school is committed to DEI, the climate is inclusive, and there is free and open expression of ideas and sense of belonging. However, some respondents indicated that they are not always treated fairly regarding political views (42%), socioeconomic status (32%), and physical appearance/

weight (23%). Respondents also recommended that learning and cognitive abilities and socioeconomic status should be further addressed in the curriculum. In a separate curricular survey sent to faculty (n = 35), the Diversity Committee identified the need for further education on the use of interpreters in patient care and the healthcare needs of deaf patients, patients with vision loss, and veterans. **Conclusions:** The committee plans to host speaking engagements and offer opportunities of community service within these diverse populations.

### **W.I.D.E.-ning Our Reach: Initiatives to Advance Wellness, Inclusion, Diversity & Engagement at a Pharmacy School**

Nancy Cintron, *Rutgers, The State University of New Jersey*, Humberto Jimenez, *Rutgers, The State University of New Jersey*, Megan Maroney, *Rutgers, The State University of New Jersey*, Navaneeth Narayanan, *Rutgers, The State University of New Jersey*, Anita Siu, *Rutgers, The State University of New Jersey*, Christine Dimaculangan, *Rutgers, The State University of New Jersey*. **Objective:** To facilitate a climate and culture at the Ernest Mario School of Pharmacy (EMSOP) where Wellness, Inclusion, Diversity, and Engagement (W.I.D.E.) are fostered through intentional integration of initiatives designed to enhance well-being, collaboration, and sense of belonging. **Methods:** The W.I.D.E. committee consists of faculty, staff, students, and preceptors seeking to foster the committee's objectives, through programs that discuss topics such as compassion, tolerance, and empathy for all members of the EMSOP community. W.I.D.E. will encourage opportunities for dialogue and interaction with persons of diverse racial, ethnic, social, cultural, and economic backgrounds within the EMSOP community. The W.I.D.E committee was tasked with creating goals in five categories: develop a diverse community, promote inclusive scholarship and teaching, define community engagement, build leaders to create inclusive climates, and develop an infrastructure to drive change. **Results:** The W.I.D.E. committee identified nine deliverable goals to enhance the academic, student-life, and work experiences of the EMSOP community by integrating initiatives to heighten the self-awareness of faculty, staff, students, and preceptors. Deliverable goals include teaching and curricular changes to encourage more thoughtful dialogue around health inequities, improving faculty and staff competency through interactive workshops and professional development events, and mentoring programs designed to create a more diverse and inclusive community. Re-shaping didactic lectures, skills lab, and experiential learning within our

pharmacy curriculum through a diversity, equity, and inclusion lens will empower our learners to provide patient care with cultural humility and advocate for a more equitable pharmacy profession. **Conclusions:** The W.I.D.E. Committee initiatives have and will continue to provide insight on the need to widen the scope of diversity, equity, and inclusion within a school of pharmacy and its curriculum.

### **Yearlong Introductory Pharmacy Practice Experiences (IPPEs) in P3 Successfully Prepare Students to Be APPE-ready**

Roy Kanbar, *Lebanese American University*, Lamis Karaoui, *Lebanese American University*, Soumana Nasser, *Lebanese American University*, Elsy Ramia, *Lebanese American University*, Aline Bou Maroun, *Lebanese American University*, Nisrine El Hadi, *Lebanese American University*, Imad Btaiche, *Lebanese American University*, Naser Alsharif, *Lebanese American University*. **Objective:** To examine the impact of yearlong IPPEs in P3 on students' achievement of competencies required to progress into the advanced pharmacy practice experiences (APPEs). **Methods:** The Lebanese American University School of Pharmacy pre-APPE curriculum offers IPPEs in P1, P2 and P3. The yearlong P3 IPPEs provide a higher-level experience in community and institutional settings, spanning 970 intern hours. The evaluation rubrics of each experience were mapped to competencies of the ACPE pre-APPE performance domains and ability statements. Data analysis was completed based on preceptor and students' self-assessment (2019 – 2021). Performance was evaluated using a 5-point scale, and the performance indicator referred to the number of students scoring above 70% per ability statement. **Results:** The mapping exercise demonstrated that all 11 ability statements were covered in P3 IPPEs to varying extents but were complementary to each other. Direct patient-centered activities were undertaken in inpatient care settings, whereas managerial, dispensing and health promotion and wellness activities were mainly achieved in hospital and community pharmacies. Outcomes assessment results show that P3 students achieved the required competencies by scoring on average between 4.6 and 4.8 on different ability statements, with >90% meeting the performance criteria. Students' performance progressively improved when comparing start, mid and end of rotation scores. **Conclusions:** Yearlong IPPEs in P3 cumulatively prepare students to acquire the competencies necessary for APPE readiness, in compliance with ACPE standards. This assessment exercise guided the school to improve IPPEs content and expectations.