



2022 Incentive Grant Digest

The Incentive Grant Digest
is sponsored by the
Community Pharmacy Foundation.



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Special thanks to:

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Samantha Freiter, Student Pharmacist | University of Pittsburgh School of Pharmacy

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* Rothholz Family Immunization Education Fund Recipient, † Vaccine Confidence Incentive Grant Recipient, sponsored by the CDC

2021-2022 Incentive Grant Recipients



*2021-2022 Incentive Grant Recipients at APhA Annual Meeting in San Antonio, Texas, March 2022.
Pictured in the front row, fourth from the left, is Community Pharmacy Foundation Executive Director Kelly Brock*

Executive Summary

In the 2021-2022 Incentive Grant Cohort, 33 research projects were funded for 35 individuals. This cohort of pharmacists and student pharmacists have chosen to address some of today's most pressing issues through their research. The research serves to both advance the pharmacy profession as well as provide individualized care to the patients in the communities. This year's cohort addressed a variety of focus areas, which can be summarized to include:

- Immunizations and Infectious Diseases
- Chronic Disease States
- Medication Management
- Social Determinants of Health
- Community Pharmacy Practice Innovation

A new addition to this year's Incentive Grant Program was the Learning Extension, which provided the Incentive Grant Recipients with the tools needed to conduct a successful research project and gain appropriate recognition for their work. The Learning Extension allowed for the real-time guidance of conducting meaningful community-based research projects as highly experienced pharmacists passed down knowledge to the Incentive Grant researchers.

At the 2022 APhA Annual Meeting in San Antonio, Texas, 25 Incentive Grant Recipients conducted a poster presentation of their work. In addition, 25 Recipients either have submitted or plan to submit their research to a peer-reviewed journal. [A video that highlights the Incentive Grant Recipients and their work can be found HERE.](#)

Major findings from the 2021-2022 Incentive Grant Cohort include:



3,938

Patient Care Interventions



1,249

Surveys Assessed



Introduction to the Incentive Grant Program

Established in 1994, the APhA Foundation Incentive Grants for Practitioner Innovation in Pharmaceutical Care is the APhA Foundation's longest-running program. With the generous support of the Community Pharmacy Foundation, the Centers for Disease Control and Prevention (CDC), the Daniel A. Herbert Incentive Grant Endowment, the Rothholz Family Immunization Education Fund, and proceeds from the APhA Foundation Annual Fund, the APhA Foundation Incentive Grants for Practitioner Innovation in Pharmaceutical Care provides seed funds to pharmacists and student pharmacists to support pioneering projects and concepts that advance patient care services.

To date, the Foundation has provided support for more than:



650

Incentive Grants

**In the 2021-2022 Incentive Grant Cohort,
33 research projects were funded for 35 individuals.**



Thank You

The APhA Foundation extends sincere thanks

to our 80 reviewers who evaluated the 2021-2022 Incentive Grant applications.

| | | | |
|--------------------|----------------------|-----------------------|------------------|
| Beverly Adato | Ronni Ehlers | Tracy Kitchens | Nicole Pezzino |
| Olayemi Adeoye | Frank Fanizza | Amy Leung | Valerie Prince |
| Kandis Backus | Joseph Fink | Dru Lezina | Ashley Pugh |
| Kristen Bessler | Cynthia Foslien-Nash | Christine Lin | Elaina Rosario |
| Chase Board | Meredith Goodwin | Jonathan Little | Mitchel Rothholz |
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| Linda Carver | Sobia Hasan | Alexander Maciejewski | Larry Selkow |
| Cheryl Chee | Jasmine Henley | Martika Martin | Jann Skelton |
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| Valerie Clinard | Susana Horst | Madison McDonald | Marci Steele |
| Megan Coleman | Rachel Howland | Scott McDowell | Randall Udouj |
| Wylie Crane | Amanda Huels | Hailey Mook | Ann Ungerman |
| Dana Crawford | Hansa Isokoski | Cortney Mospan | Tony Vertino |
| Yen Dang | Michelle Jeon | Payal Murhammer | Brian Wall |
| Kimberly Daugherty | Ashley Johnson | Lori Nagao | Olivia Welter |
| Amy Dunleavy | Kate Keresey | David Nau | Eileen Wilbur |
| Maya Edmond | Danielle Kieck | Kimmy Nguyen | Jennifer Wilson |
| Akesha Edwards | Harold King | Katherine Peters | Thomas Worrall |

Practice Settings

Recipients from many different pharmacy backgrounds are involved with the Incentive Grant program, including recent PharmD graduates, experienced pharmacists, pharmacy professors, and student pharmacists. The variety of pharmacy pro-

fessionals involved provides valuable perspectives and contributes to diverse and creative research projects. As shown in Figure 1 below, this year's program incorporated pharmacists working in every aspect of community pharmacy.

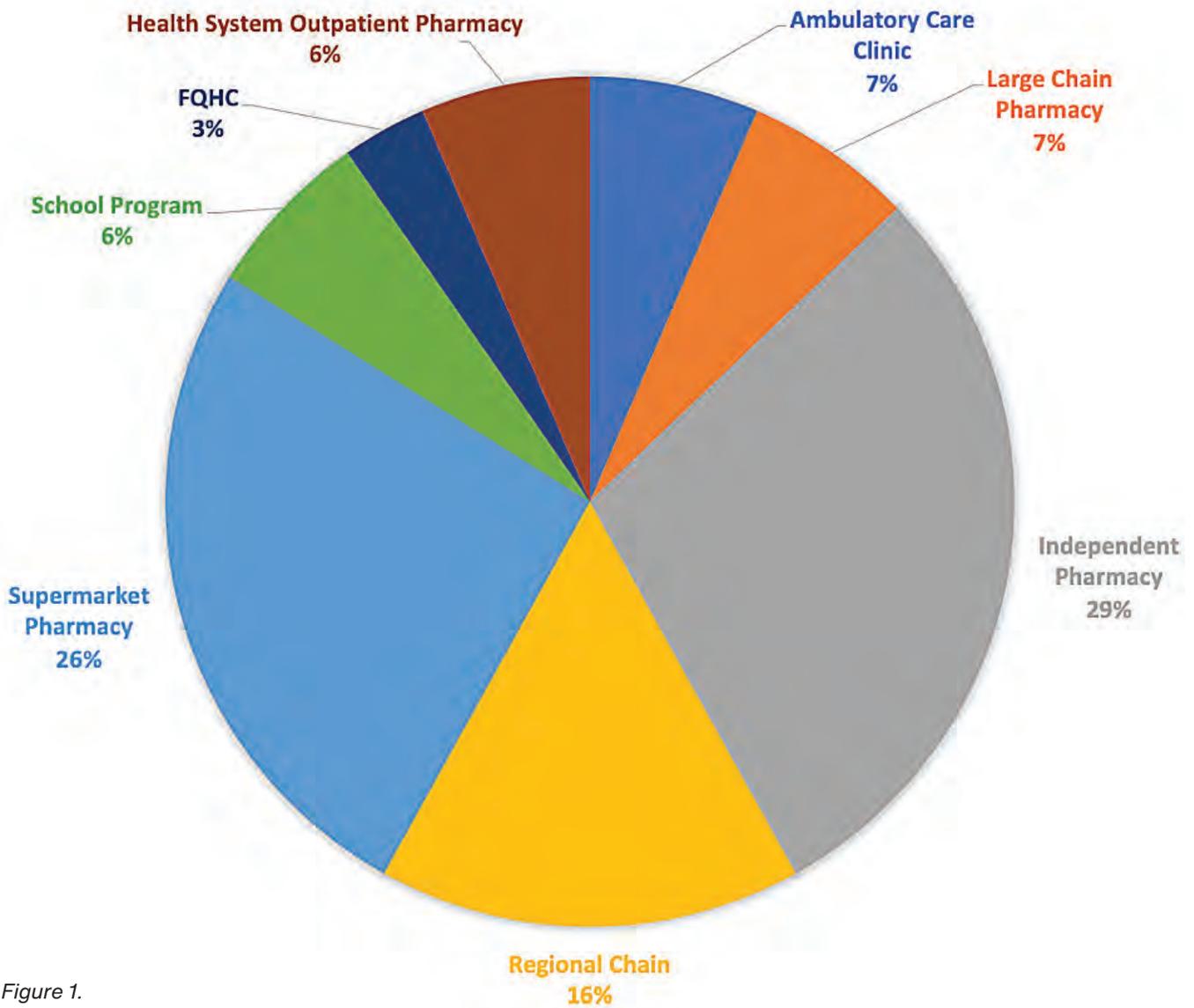


Figure 1.

Research, Presentations and Publications

The Incentive Grant research projects help Recipients to discover their passion areas of community pharmacy and determine the best next step to take in their careers. Figure 2 at right shows the Incentive Grant Recipients plans for the year after their research is conducted.

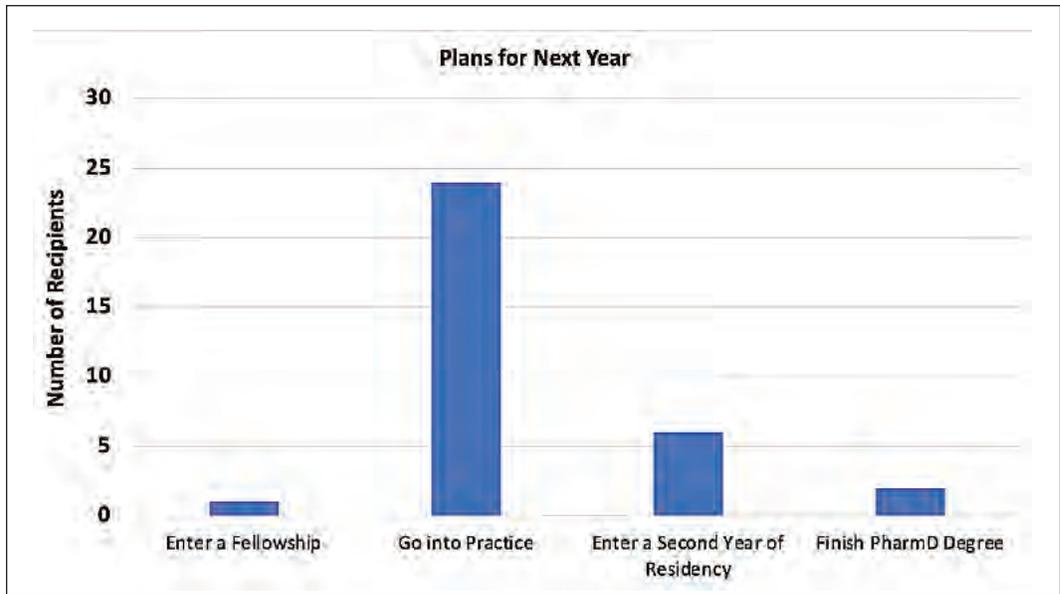


Figure 2.

The Incentive Grant program also provides an avenue for pharmacists to learn how to present their research projects, a valuable skill in itself. Furthermore, some pharmacists might seek to publish their findings in a peer-reviewed journal. Figure 3 at right shows statistics on this year's cohort poster presentations as well as publication plans.

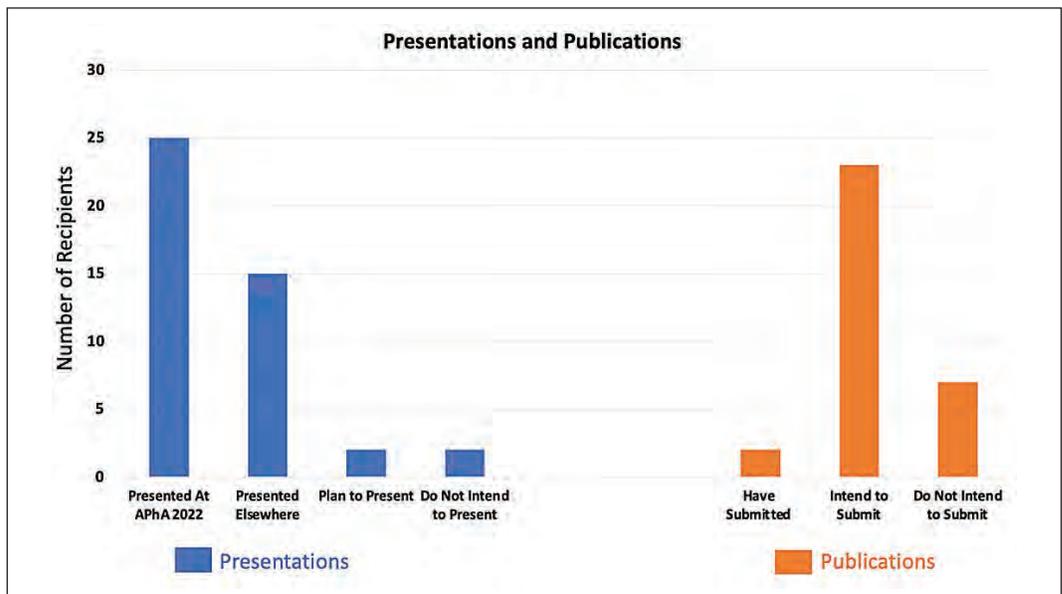


Figure 3.



Immunizations and Infectious Diseases



Immunizations and Infectious Diseases

Name: Adrianna Herrman, PharmD

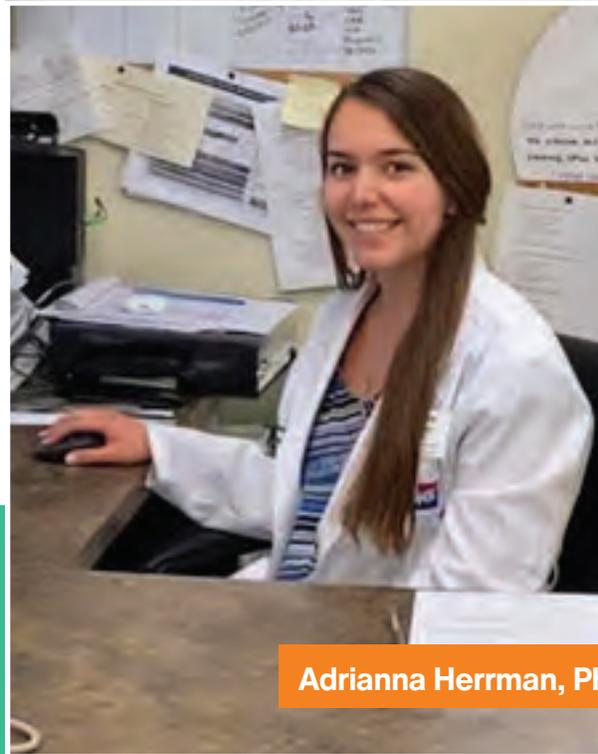
Practice Site: Balls Food Stores Price Chopper Pharmacy in collaboration with the University of Kansas School of Pharmacy

Title of Research Project: Assessing the Impact of a Pharmacy Provided Personalized Vaccination Recommendation on Immunization Rates of Adolescents

Description: The objectives of this research were to identify adolescent immunization gaps, identify the number of patients receiving recommended vaccinations at the community pharmacy, and determine how many vaccinations were administered after the intervention. Three pharmacies conducted the prospective intervention on adolescents 11-17 years old completing their primary COVID-19 vaccination series. The intervention consisted of pharmacists notifying the patient of which vaccine(s) were due to be administered, associated copays, and a vaccine education handout from the CDC.

Impact: Hundreds of patients were involved in this research study in which pharmacists reviewed the patients'

vaccination history following COVID-19 vaccination. Many caregivers reported discrepancies between the state immunization information systems and the facts about which vaccines their adolescent had received. A manuscript has been submitted to a peer-reviewed journal that contains the details and outcomes of this study, therefore the results are forthcoming. Pharmacists involved gained experience providing vaccination recommendations to caregivers of the adolescent population.



Adrianna Herrman, PharmD

Patient Care Experience:

“The most memorable experience was being able to provide individualized vaccination recommendations for the adolescent population.”



Immunizations and Infectious Diseases

Name: Jay Highland, PharmD

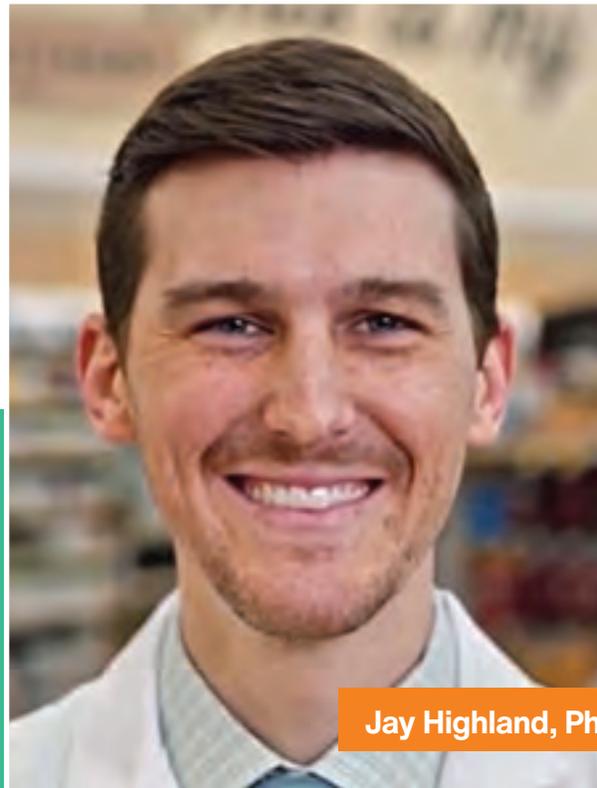
Practice Site: Family Health Partnership Clinic

Title of Research Project: Pharmacist Designed Implementation and Recruitment Program for Pneumococcal Vaccination in a Multidisciplinary Community Access Clinic for an Uninsured and Low-Income Patient Population

Description: The primary objective of this study is to improve vaccination rates for pneumococcal vaccination for low-income uninsured patients with diabetes by implementing a process for providing education and free pneumococcal vaccination through utilization of patient assistance programs. Eligible patients were provided educational handouts on the importance of pneumococcal vaccination, were given a verbal recommendation from the provider, and were given the opportunity to ask questions before vaccination.

Impact: Through this program, 31 individuals who were at an increased risk of severe pneumococcal infection and previously unvaccinated were provided pneumococcal vaccination. The program remains

ongoing and will continue to allow for access without financial & inventory barriers that occurred prior to the program implementation. The most common reason for declination of receiving the vaccine has been due to the patient assistance program requirements of providing proof of income. The impact of this program is extremely important as all patients who received this pneumococcal vaccination were high-risk adults with financial and access barriers that had prevented them from receiving these vaccinations previously. Many had indications including age, chronic health conditions such as diabetes, lung disease and being immunocompromised.



Jay Highland, PharmD

Patient Care Experience:

"The most memorable experiences were patients being thrilled that they now have access to this important preventative care. Many patients knew they needed this vaccination or had heard of it but didn't previously have the finances or access to receive this needed protection."



Immunizations and Infectious Diseases

Name: Caleb Melton, PharmD

Practice Site: Medicine Mart Pharmacy in collaboration with University of South Carolina College of Pharmacy

Title of Research Project: Impact of a Pharmacist-Led Vaccination Delivery Service on Vaccination Rates in an Elderly, Assisted-Living Population

Description: The primary objective of this study was to evaluate the impact of a pharmacist-led vaccination service in an elderly, assisted-living population. Four clinics were set up in 4 different assisted living facilities, and a pharmacist trained in motivational interviewing contacted each patient to discuss their needed vaccines and interest in attending the upcoming clinic. The pharmacists reviewed the South Carolina Statewide Immunization Online Network (SIMON) to determine which vaccines their patients in these facilities needed. The immunizations provided to patients were pneumococcal (PPSV23), herpes zoster (RZV), and tetanus diphtheria and pertussis (Tdap) vaccines. Patient satisfaction with the pharmacist-led service was evaluated.

Impact: The review of patients identified 114 eligible patients with approximately 220 total vaccines needed. In all, 27 needed vaccinations were given to 18 patients, and 11 of these patients now became fully up to date with their vaccines. The 27 vaccines consisted of 17 herpes zoster, 7 Tdap, and 3 pneumococcal. This service led to a strengthened relationship with the patient base, and \$702 in revenue for the pharmacy over the 10.5 hours worked. Additionally, all 18 patients were satisfied with service, and 14 out of the 18 patients said they were unlikely to have received these vaccines without the service offered. This study serves as a model for community pharmacists to expand vaccine services as well as improve public health. It also demonstrated the impact of a pharmacist with motivational interviewing experience on vaccine hesitancy and overall vaccination rates within a specific high-risk population.

Patient Care Experience:

“The most memorable patient care experience I had from this project was the connection I was able to build with these 18 patients. After going out to visit, anytime they would call they would specifically ask for me.”



Caleb Melton, PharmD



Immunizations and Infectious Diseases

Name: Kaitlyn Pegump, PharmD

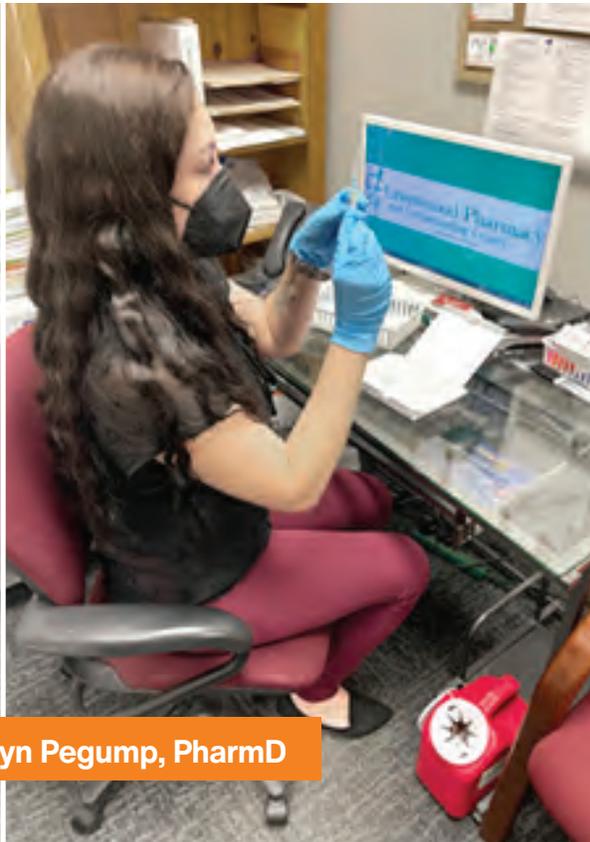
Practice Site: Greenwood Pharmacy in collaboration with University of Iowa College of Pharmacy

Title of Research Project: Hepatitis C Screening in a Community Pharmacy Setting: Patient Perspective

Description: The objectives of this project were to assess patient awareness of Hepatitis C (HCV) screenings in a community pharmacy, assess patient willingness and barriers to receive a point-of-care Hepatitis C screening in a community pharmacy, and assess patient willingness to pay for a point-of-care Hepatitis C screening in a community pharmacy. The Iowa Pharmacy Associ-

ation in collaboration with the Iowa Department of Public Health partnered with seven community pharmacies in Iowa to offer free Hepatitis C screenings to patients starting in March 2020. Greenwood Pharmacy provided surveys regarding HCV to patients born between 1945-1965 who filled a prescription with the pharmacy, as this age group is estimated to account for three-fourths of all HCV infections in the US.

Impact: A total of 200 surveys were distributed with 57 (28.5%) surveys returned. A majority (93%) of patients were not aware that there is a fingerstick test for HCV that gives results in 20 minutes, and a majority (98%) of patients were not aware that the HCV fingerstick test can be done in a pharmacy. Over half (63%) of respondents were somewhat or very interested in being tested, and this study showed a lack of awareness among survey respondents about HCV screening availability in a community pharmacy. Pharmacists' accessibility within the community as well as their knowledge and skill set make them an invaluable partner in the expansion of point-of-care testing services and providing patient education about free HCV screenings may result in increased interest in the service.



Kaitlyn Pegump, PharmD

Patient Care Experience:

“One person did return their survey in person to the pharmacy and was very interested in being screened for HCV. I was able to inform them about the CDC recommendations and why it is important to be tested at least once in their lifetime. I was also able to counsel them on the risks of HCV and how it is a curable disease.”



Immunizations and Infectious Diseases

Name: Brittany Satterly, Student Pharmacist

Practice Site: Wheeler Pharmacy in collaboration with University of Tennessee Health Sciences College of Pharmacy

Title of Research Project: My Friend Sarah Told Me... Empowering Women through HPV Vaccination Campaign

Description: “My Friend Sarah Told Me” is an educational program with the goal of increasing awareness of Human Papillomavirus (HPV), providing education on the availability of the HPV vaccine (Gardasil®9), and increasing the number of college-aged students (ages 18-24) that receive the vaccine. The project utilized in-person education and engaged individuals through social media (Instagram) on key messaging surrounding HPV statistics, the importance of the HPV vaccine for cancer prevention, and the use of screening. This was a three-part series in which education was provided via social media, to sorority women, and to health science students. Following the presentations, understanding and willingness to receive or recommend the vaccine was assessed.

Impact: Three events were held that reached 137 people in various audiences: a church, a sorority, and health science students. The impact was a greater awareness of HPV, HPV-related cancers, and the availability of a vaccine to prevent the cancers. Survey data from the 71 respondents shows that 57.4% of the participants had already completed their HPV vaccination series, and an additional 31% were likely to begin their vaccination series. Additionally, 72% of participants were very willing to talk with a friend about HPV and 97% of participants would recommend the HPV vaccine to a male. Through this work, partnerships with St. Jude and Merck were established and further projects are being implemented at the University of Memphis and University of Tennessee-Knoxville.



Brittany Satterly, Student Pharmacist

Patient Care Experience:

“The most memorable patient care experience was a female student coming up to us after the presentation to the sorority explaining her concern for going to the gynecologist. Her concern was that there were not many conversations in her family surrounding reproductive health and that she wanted to take ownership of her health but was not sure where to begin. We were able to give her information for the Kroger Pharmacy nearby so that she could have conversations until she felt ready to make appointments.”



Immunizations and Infectious Diseases

Name: Kathryn Schwaller, Student Pharmacist

Practice Site: HomeTown Pharmacy in collaboration with Cedarville University School of Pharmacy

Title of Research Project: Integration of Pharmacy Immunization Services at a Local Refugee/Immigration Center in an Urban Setting in Ohio

Description: The goal of the project was to address vaccine hesitancy specifically within the immigration population of Dayton, Ohio. Vaccine clinics were set up at the Be Hope Immigration Center, where patients could receive vaccines free of charge. In addition, patients were referred to local charitable clinics to receive other services such as dental, nutritional, optical, and other medical services.

Impact: Through this research project, 15 patients were vaccinated through the influenza vaccine clinics at the Be Hope Immigration Center. The greatest impact of this project was the realization of barriers that exist in providing

healthcare to the refugee population in this urban area. Patients expressed a lot of concerns regarding the education and logistics of the clinic setup with transportation and the time of day the clinics were held. This knowledge made the researchers aware that there is a genuine need for the vaccine clinics and health screenings, they were intentional about overcoming the barriers for this patient population.



Kathryn Schwaller, Student Pharmacist

Patient Care Experience:

“The most memorable patient care experience from this project was speaking with patients about the clinics. At times, there were patients that were so excited, that they wanted to bring in their entire family! Logistically, it did not work out well

for them, but knowing that the interest in our services existed go our team more excited about what we can do!”



Immunizations and Infectious Diseases

Name: Britney Seals Beard, PharmD

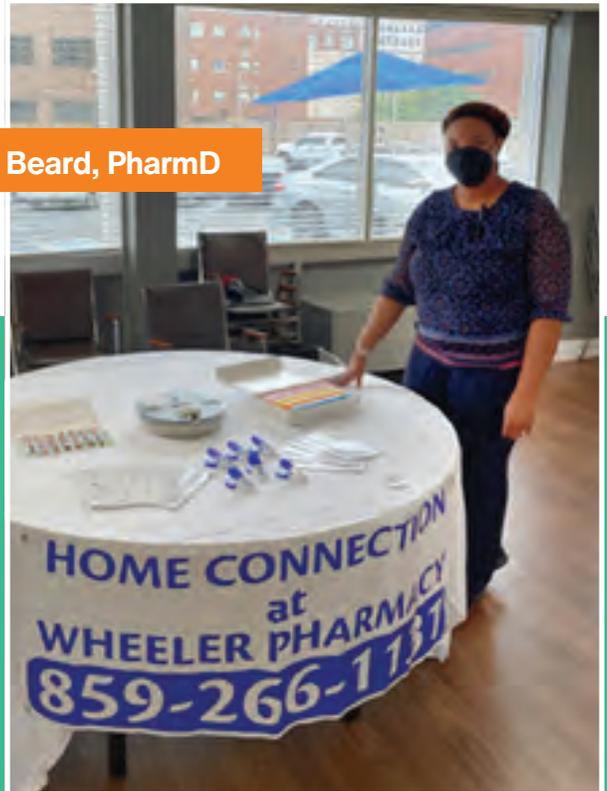
Practice Site: Wheeler Pharmacy in collaboration with University of Kentucky College of Pharmacy

Title of Research Project: Evaluation of Barriers and Facilitators to providing an Acute, Uncomplicated Urinary Tract Infection Protocol in an Independent Community Pharmacy

Description: The primary objectives of this study were to determine the feasibility of implementing an acute uncomplicated Urinary Tract Infection (UTI) Treatment board-approved protocol in a small suburban community. Kentucky allows for implementation of board-approved protocols, including UTI therapy, that pharmacists can execute within their practices with a collaborating prescriber. An additional goal was to identify potential barriers including appropriate cost, accessibility, and expectations from patients and pharmacy staff for UTI treatment at an independent pharmacy. A qualitative survey assessing interest to implement UTI treatment was distributed to adult female patients aged 18-64 encountered at Wheeler Pharmacy.

Impact: There were 42 surveys distributed and collected. 87% of women surveyed were willing to receive UTI testing and treatment at a community pharmacy. Respondents with a higher level of education versus those with no college degree or bachelor's degree were more willing to be tested for UTI at the pharmacy. Additionally, 51% of respondents said they would pay a maximum of \$20 for these services. In the key informant interviews, all pharmacy staff members expressed that the UTI protocol would be feasible to implement within the independent pharmacy. The UTI protocol implementation at a pharmacy could give patients better access to treatment for acute conditions and enhance the opportunity for impactful collaboration between pharmacists and other health care providers.

Britney Seals Beard, PharmD



Patient Care Experience:

“One memorable experience was receiving positive responses from patients about pharmacists' involvement in the UTI protocol services in Kentucky. One patient stated that she would love to be able to come to the pharmacy to get tested and treatment all in one place. It will remove the barriers of having to search for doctors, appointment availabilities, and limited access to health care services.”



Immunizations and Infectious Diseases

Name: Edwin Shamtob, PharmD

Practice Site: USC Medical Plaza Pharmacy in collaboration with University of Southern California College of Pharmacy

Title of Research Project: Completion rates of multi-dose adult and travel vaccine series with close pharmacist follow up in a community setting: A retrospective analysis of administrative data.

Description: The goal of this study was to evaluate whether intervention from a community-based clinical pharmacist results in higher completion rates of adult vaccination series, and to evaluate whether a gender-at-birth gap is present in vaccination completion rates. The prevalence of adult vaccine-preventable disease can be significantly reduced through adherence to confirmed vaccination schedules. This retrospective study examined immunization adherence, completion, timeliness rates and gender-at-birth gap differences from the University of Southern California Pharmacies and Travel Clinic,

from January 2019-December 2021 with and without pharmacist intervention and follow up, which was defined as scheduling vaccination appointments during the initial visit, and placing reminder calls one week and one day prior to the next scheduled dose.

Impact: Completion rates were statistically significantly higher across all 10 unique vaccine series studied with pharmacist intervention and follow up versus without. Over the study period a total of over 1,340 immunizations were initiated for patients receiving various vaccinations. Additionally, female-at-birth patients completed 9 out of 10 vaccines at a higher rate than their male-at-birth counterparts. With close follow up, pharmacists can play a fundamental and crucial role in helping increase vaccination completion rates among adult patients.

Pharmacist based vaccination adherence interventions can overcome vaccine noncompliance. By increasing patient counseling and education, improving access to vaccinations, maximizing patient visits, offering combination vaccines, and using electronic medical records to track vaccine schedule compliance, pharmacists have the tools and training needed to significantly improve vaccination completion rates.



Edwin Shamtob, PharmD



Immunizations and Infectious Diseases

Name: Jordan Smith, PharmD and Jymon Clark, Student Pharmacist

Practice Site: Community Clinic of High Point in collaboration with High Point University

Title of Research Project: Providing Pneumococcal Vaccinations in a Community, Free Care Clinic: A Pharmacist and Student-Pharmacist-Led Initiative

Description: This objective of this study was to provide a pharmacist and student-pharmacist-led immunization program to increase pneumococcal immunization rates among the uninsured population in High Point, North Carolina. The patient population of The Community Clinic of High Point is diverse, speaks many languages, and relies upon the clinic for both the provision and coordination of their medical care. By evaluating patients for eligibility to receive the pneumococcal vaccine, student pharmacists were able to connect with patients, improve vaccine administration technique, and share recommendations to different audiences.

Impact: This program directly increased the number of patients vaccinated with pneumococcal vaccine (PPSV23) from 8% pre-program to 34% within the program. This constituted vaccinating 28 patients with the pneumococcal vaccine within the student pharmacist-led immunization program. Without these efforts, it is unlikely the patients would have received these vaccines by other means. One of the primary benefits of this project was demonstrating that pharmacists and student pharmacists could construct and perform immunization services in the community. Student pharmacists commented on the value gained by providing counseling for vaccinations and the leadership that the program instilled, which has paved the way for further clinical efforts among the student pharmacists, faculty, and volunteers.



Jordan Smith, PharmD & Jymon Clark, Student Pharmacist

Patient Care Experience:

“Students had many memorable patient care experiences, but routinely they brought up instances of speaking with patients who didn’t even know they were eligible for pneumococcal vaccines and answering their questions, scheduling them for vaccinations, and vaccinating them in the clinic.”



Immunizations and Infectious Diseases

Name: Courtney Tigges, PharmD

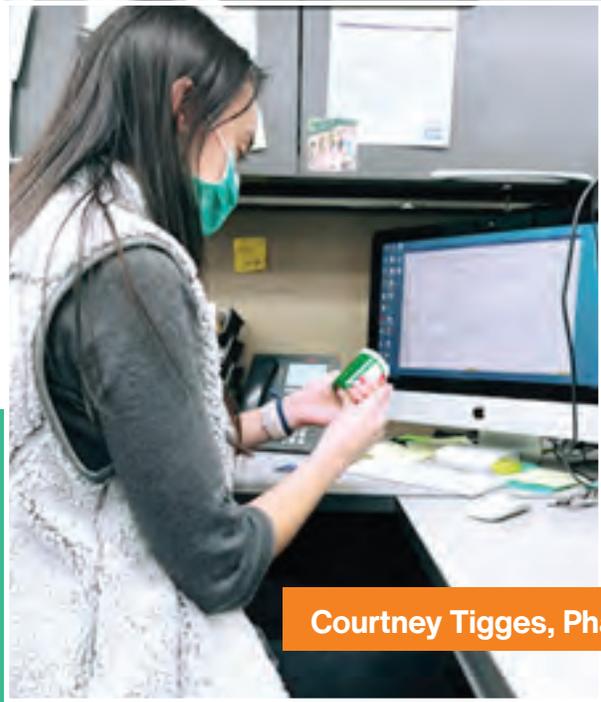
Practice Site: Towncrest Pharmacy in collaboration with University of Iowa College of Pharmacy

Title of Research Project: Evaluation of patient perspectives of point of care (POC) testing and dispensing by community pharmacists for *Streptococcus pyogenes* and influenza.

Description: The study aimed to evaluate patients' perspective of testing and treatment of influenza or strep in the pharmacy and evaluate patient acceptance, willingness to seek testing, and willingness to pay at the pharmacy. The state of Iowa recently passed legislation allowing pharmacists to implement a statewide protocol for the testing and treatment of influenza or Group A streptococcal pharyngitis infections, which permits pharmacists to dispense antiviral or antibiotic therapies after performing the appropriate point-of-care test.

Impact: 86 patients out of 152 total respondents indicated they would utilize Towncrest Pharmacy for testing and treatment. Additionally, 50 respondents were willing to

pay \$25 or less out-of-pocket for testing, and 60 respondents were willing to pay \$25 to \$49 out-of-pocket for testing. Community pharmacies are positioned to make an evidence-based contribution to the health care team by doing point-of-care testing and subsequent dispensing within the pharmacy. The role of pharmacists is evolving as pharmacists will now be able to provide point-of-care testing and dispensing under their own NPI without a collaborative practice agreement. Moving forward, point-of-care testing in pharmacies will allow patients more access options to assess for infection such as strep A and influenza.



Courtney Tigges, PharmD

Patient Care Experience:

“After one patient handed in their survey, they started to ask questions about how the service is being implemented in the pharmacy and what other services the pharmacy has to offer. This allowed for an open conversation about what pharmacist and community pharmacies can do within the community. The patient was enlightened by how much we can do and is very involved in supporting local businesses.”



Immunizations and Infectious Diseases

Name: Jennifer Um, PharmD

Practice Site: Kroger Pharmacy in collaboration with The Ohio State University College of Pharmacy.

Title of Research Project: Pharmacists as Childhood Vaccinators: A Qualitative Thematic Analysis

Description: The objective of this research was to identify community pharmacists' perceptions, confidence, and barriers in providing vaccinations to children ages 3 and older. Despite being widely trusted health care providers for decades, many pharmacists still perceive immunizing young children to be a challenge. Pharmacists were recruited from a large community pharmacy chain in Ohio, and they were interviewed to identify community pharmacists' perceptions, confidence, barriers, and solutions to providing vaccinations to children ages 3 and older.

Impact: Contributors to success identified included incentives for children and the opportunity for pharmacists to contribute to a positive vaccination experience for children. 5 pharmacists participated in a virtual focus group and shared their perceptions of vaccinating young chil-

dren. Barriers to success of providing this service within community pharmacy included insufficient time allotment and staffing. Opportunities for success included a specialized training session to discuss ideas and strategies for vaccinating children. This project was valuable to hear from pharmacists about their successes and challenges, as well as potential opportunities to make this process safer for all parties involved.



Patient Care Experience:

“Because our study population was made up of experienced, confident pharmacists, it was inspiring to hear about their most memorable experiences administering vaccinations. One pharmacist spent over 45 minutes trying to give a vaccine to a child.

Jennifer Um, PharmD

However, through a lot of patience and good communication, they were able to successfully vaccinate their patient, and continue this relationship through the rest of the patient’s booster series. At the end of the focus group, all pharmacists stated that they had benefited greatly by listening to each other’s stories and learn from them.”





Chronic Disease States



Chronic Disease States

Name: Ashley Eason, PharmD

Practice Site: Josef's Pharmacy in collaboration with Campbell University College of Pharmacy and Health Sciences

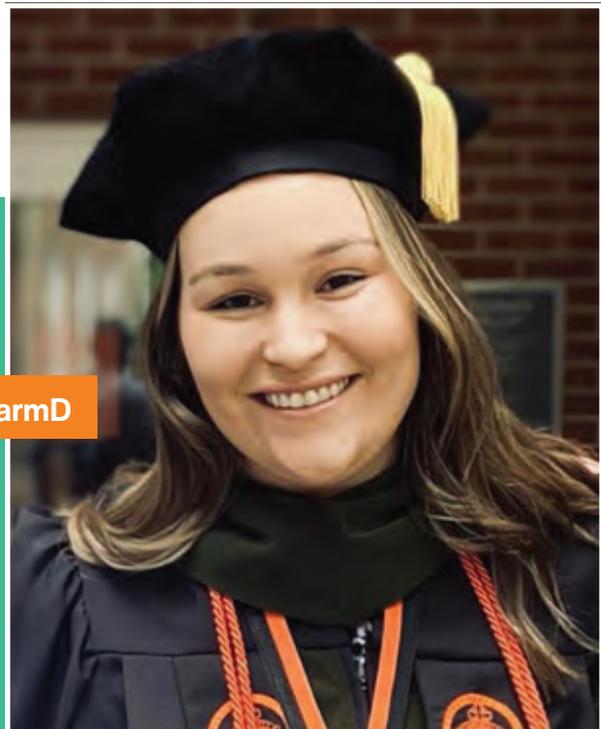
Title of Research Project: Impact of Pharmacist-Led Cardiovascular Health Monitoring and Education on ASCVD Risk Score in the Community Pharmacy Setting

Description: Cardiovascular diseases (CVDs) are the leading cause of death worldwide. Lifestyle changes such as tobacco cessation, increased physical activity, healthy diet, and medication adherence are all modifiable factors that community pharmacists can influence and can contribute to improved cardiovascular outcomes. The Healthy Heart program at Josef's Pharmacy provides education and resources to enrolled patients and consists of monthly follow-up appointments. The goals of this study are to evaluate changes in atherosclerotic cardiovascular disease (ASCVD) risk score, blood pressure, and cholesterol for patients enrolled in a cardiovascular health monitoring and education program.

Impact: The results of this study are still ongoing. At each Healthy Heart visit the investigator discusses with the patient any questions and concerns about the patient's

health. Data is collected during each visit, and a preliminary interpretation of the data is relayed to the patient. Goals for the patient's disease states and overall health will be discussed. Diet, exercise, and medication counseling will be provided in patient friendly language. Take home handouts and charts will be created and given to patients to refer to at home. Each month, on a specified date, the patient will be contacted via telephone by the primary investigator to discuss the changes being made, any questions the patient has, obstacles the patient has faced with change, and successes the patient has had with change.

By implementing the strategies discussed to overcome these barriers, less patients will be lost to transition post-discharge, and hence more patients will stay adherent to their regimen. This would result in less hospitalizations, increase in quality of life for these patients, greater success in achieving therapeutic goals, and strengthened prescriber-patient relationships. And as a bonus, this would help strengthen prescriber-pharmacist relationships and enhance patient care services provided at the community pharmacy.



Ashley Eason, PharmD



Chronic Disease States

Name: Alvine Esther Epanya Mbango, PharmD

Practice Site: Albertsons Companies in collaboration with Texas A&M University College of Pharmacy

Title of Research Project: Evaluating Providers' Barriers to Utilizing Pharmacists in the Administration of Long-Acting Injectable Antipsychotics (LAIA) in the Community Setting

Description: The objectives of this study are to identify the barriers prescribers have to utilizing a community-based pharmacist for LAIA administration and find strategies to overcome the identified barriers. In states where allowed,

pharmacists can collaborate with prescribers to administer long-acting injectable antipsychotics in the community pharmacy for the management of schizophrenia and bipolar disorder. A nationwide survey was sent to prescribers that treat patients with bipolar disorder or schizophrenia to identify the barriers they may have to utilizing a community-based pharmacist for LAIA administration.

Impact: A total of 92 surveys were analyzed. Out of the prescribers who currently or have previously collaborated with community pharmacies for LAIA administration, 92% would recommend this service to other providers. Additionally, nearly 40% of respondents were unfamiliar with the service of utilizing a community pharmacist for LAIA administration. The two the major barriers identified were a need for additional knowledge and training required for community pharmacists and additional monitoring not being available at the community pharmacy. By implementing strategies to overcome these barriers, less patients will be lost to transition post-discharge, and hence more patients will stay adherent to their regimen. This would result in less hospitalizations, increase in quality of life, greater success in achieving therapeutic goals, and strengthened prescriber-patient relationships. Furthermore, this would help strengthen prescriber-pharmacist relationships and enhance patient care services provided at the community pharmacy.

Patient Care Experience:

"The most memorable patient care experiences gained from this project were being able to interact with the patients and counseling them about their medications and drug-drug interactions."



Alvine Esther Epanya Mbango, PharmD



Chronic Disease States

Name: Taylor Mize, PharmD

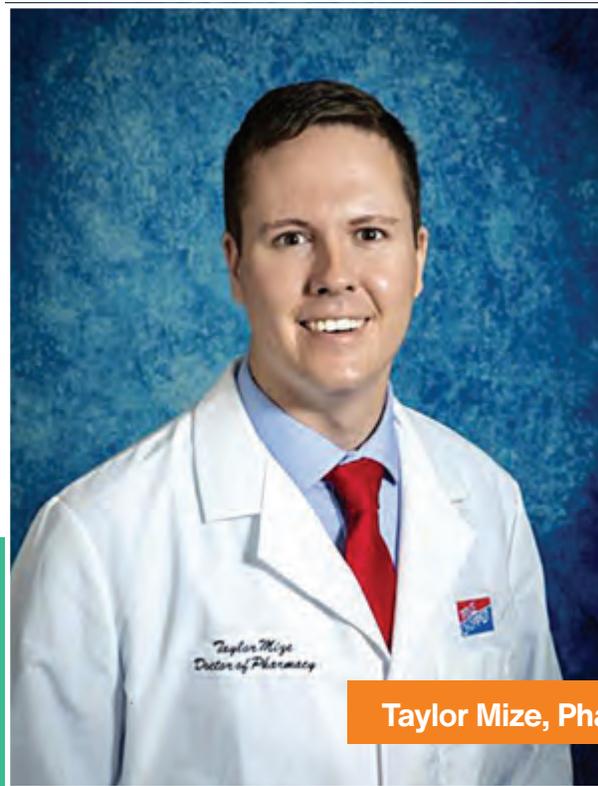
Practice Site: Price Chopper Pharmacy in collaboration with University of Missouri Kansas City School of Pharmacy

Title of Research Project: Evaluation of a pharmacist-led diabetes coaching program on clinical and economic outcomes in a self-insured grocery store chain

Description: This study aimed to quantify the hemoglobin A1c (HbA1c) lowering achieved through participation in a pharmacist-led diabetes coaching program within a self-insured company. This retrospective study included patients enrolled in the Start Now Program for Diabetes Care between July 2008 and June 2021. The primary outcome measure was change from baseline in HbA1c upon program enrollment compared to the last value documented.

Impact: A total of 355 patient charts were reviewed and included in the analysis. The average decrease in HbA1c for each patient was 0.61%, a statistically significant finding. The number of patients with HbA1c below 7% and 8% increased. The median number of visits with a pro-

gram pharmacist was 19. Additionally, improvements in LDL, systolic blood pressure, and diastolic blood pressure were observed. The impact of this project is that patients who experienced pharmacist-led intervention for diabetes experienced HbA1c lowering. Additionally, other biometric markers were improved. This helps build the case for pharmacist-led intervention, particularly in self-insured employers.



Taylor Mize, PharmD

Patient Care Experience:

“The most memorable project-related patient care experience from this project was a patient that I was able to assist with significant lifestyle changes. The patient

showed improvements in their HbA1c and other biometric markers and was able to improve their quality of life through the Start Now program.

The patient was also memorable because they expressed gratitude for the program and mentioned how unique it is to have such an involved employee wellness program.”



Chronic Disease States

Name: Madysen Moore, PharmD

Practice Site: Hen House Pharmacy in collaboration with the University of Kansas School of Pharmacy

Title of Research Project: Assessing the Effects of Pharmacist Education on Colon Cancer Screening and Access to a Stool-Based DNA Test

Description: The purpose of this study was to evaluate participants' knowledge, perceptions, and barriers of colorectal cancer screening before and after receiving pharmacist-led education in the outpatient, community pharmacy setting. In addition, the study evaluated the impact of pharmacist facilitation on screening uptake with the

stool-based DNA test. A 16-item pre/post anonymous questionnaire was developed by the researchers using a modified version of the questionnaire developed for the Behavioral Risk Factor Surveillance System and National Colorectal Cancer Roundtable Toolkit.

Impact: A total of 42 patients completed both the pre and post questionnaires. Respondent knowledge was statistically significant from pre and post survey after receiving pharmacist-led education regarding colorectal cancer screening. The three most common barriers to colorectal cancer screening that respondents mentioned were cost of screening, not being concerned with colon cancer, and lack of follow up from a physician. Out of the 42 patients, 23 were indicated for colorectal cancer screening during data collection. Of those eligible, 4 patients completed screening using the stool-based DNA test, and 1 patient scheduled a colonoscopy after discussion with their physician. Pharmacists can significantly improve patients' knowledge (and perceptions) of colorectal cancer screening with their frequency of access to patients to educate and provide take-home tests to complete preventive care screenings.



Madysen Moore, PharmD

Patient Care Experience:

"I loved following up with patients to see if they completed screening with the stool-based DNA test. I also loved talking with and providing education on such an important topic. I really learned a lot more about my patients and I'm happy to know we prevented 4 colon cancers!"



Chronic Disease States

Name: Kathryn Pearce, PharmD

Practice Site: Kroger Health in collaboration with West Virginia University School of Pharmacy

Title of Research Project: Assessment of Community Pharmacist Provided Hypoglycemia Risk Mitigation to Patients with Diabetes Taking Antidiabetic Agents with High Risk for Causing Low Blood Sugar

Description: The goal of this study was to assess the impact of hypoglycemic risk mitigation when spearheaded by a pharmacist. The incidence of diabetes in West Virginia is the second highest in the United States with 15% of adults suffering from the disease. Since community pharmacists are available at the time of dispensing agents that can cause hypoglycemia, they are uniquely advantaged to identify and create a targeted approach to provide education and strategies regarding hypoglycemic risk mitigation in persons with diabetes.

Impact: 23 patients agreed to participate in the study. Prior to investigator interventions, there were a total of 160 patient-reported hypoglycemic events over a 1-month period. After pharmacist intervention, there were a total of 90 patient-reported hypoglycemic episodes, representing a 43% decrease in frequency of self-identified hypogly-

cemic episodes. These results suggest that pharmacist interventions can improve patients' understanding of how to appropriately recognize and treat hypoglycemic events. This study group demonstrated better understanding of how to manage hypoglycemia, as evidenced by the overall decrease in self-reported hypoglycemic event frequency and the overall increase in self-reported appropriate treatment strategies.



Kathryn Pearce, PharmD

Patient Care Experience:

“One patient was prescribed a glucometer and instructed several months prior to test

his blood sugar at least once daily but he had not been checking his blood glucose because he didn't know how to use the machine. I sat down with the patient and provided him with step-by-step instructions on how to test his blood glucose, set up his glucometer for him, and tested his blood glucose at his request. The patient had a low reading and was experiencing symptoms of hypoglycemia, so I immediately provided him with treatment. He ended up enrolling in this study.”





Medication Management



Medication Management

Name: Joseph Cason, PharmD

Practice Site: Kroger Pharmacy in collaboration with University of Tennessee Health Sciences College of Pharmacy

Title of Research Project: Impact of Pharmacist-led, Primary Medication Non-Adherence Intervention Program on Prescription Refills in Underserved Patient Populations Among Four Chronic Disease States in One Regional Division of a Large Community Pharmacy Chain

Description: The goal of the study was to determine the impact of a Primary Medication Non-adherence (PMN) intervention on prescription fills in underserved patient populations encompassing multiple classes of medications. Patients from 8 different pharmacies were randomized to receive adherence education or no adherence education, and data was collected to determine the number of eligible medications or therapeutic alternatives that were obtained after a PMN intervention was initiated and if that medication was refilled. Poor medication adherence is a critical barrier to improving patient health, as medication non-ad-

herence leads to 89,000 preventable deaths and more than \$100 billion in hospitalizations yearly.

Impact: 201 patients were enrolled in the study. After the intervention period, PMN rates between the 2 cohorts were significantly different with 71.15% non-adherence in the control (usual care) arm and 47.96% non-adherence in the interventional arm. This project shows that when a community pharmacist and their patient have a relationship, primary medication non-adherence can be decreased through an educational intervention. The finding in this study suggests that when a patient is newly initiated on a medication for the treatment of a chronic disease state, they are more likely to initiate therapy when they are educated by their pharmacist. Pharmacists are integral to the proper care and management of chronic disease states, especially in underserved populations.



Joseph Cason, PharmD

Patient Care Experience:

“One patient in particular stands out to me, as I made an impactful change in her therapy. This patient was newly initiated on an ACE inhibitor for hypertension. This patient explained to me that she had experienced side effects to this medication when she used it several years ago and refused to start therapy. After hearing

this, I was able to contact her prescriber, explain the situation, and offer an alternative therapy that was approved by the prescriber.”



Medication Management

Name: Michael Coleman, PharmD

Practice Site: MercyOne Medical Center Pharmacy in collaboration with University of Iowa College of Pharmacy

Title of Research Project: Evaluation of Medication Disposal Behaviors Following Outpatient Surgery after Counseling by a Community Pharmacist and Provision of a Home Medication Disposal Kit

Description: The objective of this study was to evaluate patient medication disposal behaviors and whether these behaviors are influenced by providing an at-home medication disposal kit. Patient disposal of unused opioid medication is a public health concern because opioid misuse or diversion can result in potentially avoidable overdose deaths. Ambulatory surgery is one setting where opioid prescribing may exceed patient use, resulting in excess medication. This study took place in an outpatient community pharmacy integrated within a 179-bed hospital, and the study aimed to positively impact medication disposal behaviors in patients for the purpose of reducing the risks associated with unused or leftover opioids.

Impact: 45 patients were included in the study. Of the 14 patients that had leftover opioids and were randomly selected to receive a disposal packet, 5 (35.7%) used the disposal packet. Of the 9 patients with leftover opioids that did not receive the disposal packet, only 2 (22.2%) disposed of the opioids in a manner recommended by the pharmacist during counseling. 15 patients with leftover opioids did not dispose of them, and 6 (40%) of those patients indicated they were keeping them “just in case” they need them in the future. By implementing a service such as this, pharmacy can improve the opioid epidemic by addressing excess medication circulating in the community. This project provides good insight into the possibility of implementing a medication disposal service into the everyday workflow already offered at the pharmacy.

Patient Care Experience:

“There was one patient included in this study that did not have a nearly any baseline knowledge of safe medication disposal. I could tell that the patient was very interested in the topic and proceed to educate her. It turns out that she had several boxes of old, expired, and unused medications at home, but she just didn’t know what to do with them. Upon my follow-up with her she had disposed of all these meds safely and appropriately. This was a rewarding result for me.”



Michael Coleman, PharmD

Medication Management

Name: Christine Phan, PharmD

Practice Site: Shaver Pharmacy and Compounding Center in collaboration with Idaho State University College of Pharmacy

Title of Research Project: Assessment of feasibility and quality of a service to provide opioid disposal systems at an independent community pharmacy

Description: The objectives of this study were to determine the workflow and financial sustainability of an opioid-focused medication disposal system service in an independent community pharmacy setting. The service included motivational interviewing, education on opioids, alternative pain management options, and safe medication disposal strategies. Additionally, this study assessed the perceptions of the service via a patient, employee, and prescriber questionnaire. With a large proportion of opioid prescriptions processed through outpatient pharmacies, community pharmacists can play an important role in curbing excess opioid supply.

Impact: During the study period, a total of 23 patients were offered the service, and only 1 patient declined. 4 of 6 patients (66.7%) who had leftover opioid supply used the opioid disposal bag provided, and 100% of patients that used the disposal bag stated the bag was easy to use. Patients, employees, and prescribers generally found the service to be positive for patients, the community, public health, and most employees reported that the service required less than 3 to 7 minutes of their time. Given the generally positive response from patients, employees, and providers regarding benefit and importance of the service, the results suggest the potential of a non-dispensing, reimbursable service that may be worth implementing if pharmacies can ensure proper documentation and adjustments in workflow.



Christine Phan, PharmD

Patient Care Experience:

“The most memorable project-related patient care experience was when I followed-up with a patient about using the opioid disposal bag. When I called him, his pain was controlled and he was going to finish his supply, so he didn’t need the bag, but he did share his story about previous opioid addiction. He stated a few years ago he had a surgery and had 20-30 leftover pills that he started taking outside of pain control and eventually developed an addiction. He said if he had a disposal bag and received disposal education at that time, he likely would have used the bag and possibly would not have gone down that path. He appreciated that this service existed and said it was a great option for the community.”





Social Determinants of Health



Social Determinants of Health

Name: Christe Chen, PharmD, MBA

Practice Site: Kroger Health in collaboration with University of Tennessee Health Sciences College of Pharmacy

Title of Research Project: The Implementation of Social Determinants of Health Screenings and Conversations in the Community Pharmacy Setting in Low-Income Areas, Its Effect of Medication Adherence, and the Comfortability and Confidence Levels of Pharmacy Personnel

Description: The primary objective of this study is to implement and evaluate a screening and interventions model for social determinants of health (SDOH) to improve medication adherence for low-income patients in a community pharmacy setting. By determining patient disparities and offering the appropriate resources to help overcome them, patients will be able to afford medications, which leads to improved medication adherence and patient health. The secondary objective of this study is to explore the comfortability and confidence of frontline community pharmacy personnel when discussing topics pertaining to SDOH with patients.

Impact: A total of 35 patients were selected for SDOH screenings. Of these, 3 patients completed the screening, 20 patients refused, and 12 screenings were either incomplete or invalid. The pre-implementation survey was taken by 157 participants, including pharmacists and pharmacy technicians, and trends of the survey indicated discomfort and lack of confidence when conducting SDOH screenings. Pharmacy personnel cited inadequate training, lack of resources, and limited time as reasons they may not have had these conversations with patients. The impact of this project and its implementation allow pharmacy personnel to have a better understanding of SDOH's impact on patients, as well as assist in more confident and comfortable conversations by pharmacy personnel with patients.



Christe Chen, PharmD, MBA

Patient Care Experience:

“The most memorable project-related patient care experience from this project was speaking with patients about SDOH disparities they may have and having the ability to offer them resources that may help with those areas. Patients who

were open and willing to have these conversations were grateful and appreciative that I took the time to speak with them on these sensitive topics, as well as possibly help with their disparities.”



Social Determinants of Health

Name: Ranelle Coffman, PharmD

Practice Site: Kroger Health in collaboration with University of Cincinnati College of Pharmacy

Title of Research Project: Evaluation of Social Determinants of Health and Barriers to Medication Adherence in Patients with Chronic Medications in a Large Community Pharmacy Chain

Description: This study seeks to determine if a relationship exists between a Social Vulnerability Index (SVI) and medication adherence barriers by evaluating adherence interventions across all pharmacies in Kroger Health. Following results of the analysis, a Social Determinants of Health assessment will be incorporated into adherence interventions at five pharmacies.

Impact: During the intervention period, a total of 9,909 medication adherence interventions were completed with 2,805 documented patient-specific barriers identified. This study illustrated that forgetfulness was the most common patient-specific barrier identified by pharmacists

for medication nonadherence. Additionally, the patient-specific barrier of “directions” increased as SVI decreased. Furthermore, intervention documentation varied widely by pharmacists indicating that standardization is needed to improve barriers identified to better address medication adherence. In the future, additional research with more interventions is needed to better understand the relationship between SVI and patient-specific medication adherence barriers.



Ranelle Coffman, PharmD (2nd from right)

Patient Care Experience:

“The most memorable patient care experience from this project was talking with patients

about their medications and coming up with solutions to improve their adherence. Many patients didn’t realize how often they were forgetting to take their medications or how important their medications were for their health.

Taking the time to get to know the patients I interacted with to find the best solutions for them is part of the reason why I chose to be a pharmacist, to help people live healthier lives. Building trust and relationships with patients during these interventions really helps the patients have better health outcomes.”

Social Determinants of Health

Name: Jeremy Dow, PharmD

Practice Site: Ralph's Pharmacy in collaboration with University of Southern California School of Pharmacy

Title of Research Project: Pharmacist Impact on Gaps in Statin Therapy in Patients with Diabetes Located in Areas with High Social Vulnerability

Description: This study aimed to determine if there is an association between social vulnerability index (SVI) and the number of successful pharmacist interventions in addressing gaps in statin therapy for patients with diabetes. The study used nationwide data from a large community pharmacy chain, and pharmacies located in zip codes with the 10% highest and 10% lowest SVI were used to retrospectively compare the number of successful pharmacist interventions for gaps in statin therapy in patients with diabetes.

Impact: A total of 1,406 pharmacist interventions from 276 community pharmacies in the US were included in the data analysis. 706 pharmacist-documented successful interventions (defined as completed patient education or

provider recommendation regardless of whether an appropriate statin was prescribed) for gaps in statin therapy showed a non-significant difference between low and high SVI populations. Additionally, 646 pharmacist-documented successful interventions (defined as statin therapy prescribed within 6 weeks) showed significantly more statins added to patients' regimens in high SVI areas compared to areas of low SVI.

Community pharmacists are actively addressing gaps in medication therapy and successfully getting patients with diabetes on appropriate statin therapy with a greater success rate in populations with higher SVI. Formulating procedures for providing medication therapy management services to geographically underserved communities can improve health outcomes by addressing gaps in medication therapy. This project is a starting point to incorporate the assessment of social determinants of health when providing targeted medication therapy management services.



Jeremy Dow, PharmD



Social Determinants of Health

Name: Christina Nguyen, PharmD

Practice Site: Ralph's Pharmacy in collaboration with Western University of Health Sciences College of Pharmacy

Title of Research Project: The Effectiveness of Pharmacist-Led Social Determinants of Health Screening for Patients Living in High-scoring Social Vulnerability Indexes

Description: The objective of this study was to assess patients' utilization of community pharmacy referrals and determine the effectiveness of the referrals based on a Social Vulnerability Index (SVI). Pharmacy staff were trained to conduct the Social Determinants of Health (SDOH) screening tool as part of the CMR and other clinical interventions and provide available resources to patients to address any SDOH barriers that were identified.

Impact: A total of 63 SDOH screenings were offered, and 45 were conducted. 33 patients (73.3%) identified having zero barriers to care, and 12 patients (26.67%) identified at least one barrier to care. Of those 12 patients, 5 lived in a High-SVI area, 5 lived in a Moderate-SVI area, and 2

lived in a Low-SVI area. There was a statistically significant difference in patient's barriers to care between the patients living in High-SVI and Low-SVI areas. Only one patient successfully used the pharmacist-provided resource, so there was no statistically significant difference in the utilization of resources between high- vs low-vulnerability. SDOH screenings provide healthcare providers with information about patient-identified gaps in care and create opportunities for providers and patients to work together to further address them. The results of this study could provide insight on areas of improvement for the SDOH screening process and potentially impact patient health outcomes by reducing gaps to care.



Christina Nguyen, PharmD

Patient Care Experience:

“While a significantly larger proportion of patients living in a high-scoring SVI area identified barriers to care versus patients living in low-scoring SVI areas, there was no statistically significant difference in the utilization of community pharmacist-provided resources between these groups. Despite this, all patients in the follow-up visit reported that they hoped to use the resources in the future and found this screening to be a useful service.”



Social Determinants of Health

Name: Alexis Shook, PharmD

Practice Site: Campus Health Services in collaboration with the University of North Carolina Eshelman School of Pharmacy

Title of Research Project: A Pharmacy-led Approach to Address Social Determinants of Health in College Students

Description: The objective of this project is to identify barriers to healthcare that may be present in undergraduate Carolina Firsts and Carolina Covenant Scholars. Other objectives are to provide undergraduate students with access to pharmacist-prepared education materials regarding healthcare services, and to determine usefulness of the educational program and utilization of healthcare services during the academic year.

Impact: Data collection will be conducted that targets 6,690 students in the population of interest, with the goal of receiving 500 responses. The aim is to identify baseline barriers and social determinants of health that more traditionally vulnerable populations may face on campus. The

overarching theme of this project is that pharmacists are capable of driving a social determinants of health assessment in the college health setting. Barriers identified will be addressed with informational sessions geared towards university programs in place that can help. With educational resources in place, an assessment of the utilization of Campus Health services throughout the year will help determine whether there may be continued barriers in place to accessing care.

The results of this project will help support vulnerable populations in a proactive approach to maintaining health and thriving in a college environment. The results can also guide future development of educational sessions for these vulnerable populations regarding health care and can also be used University-wide with students of all social backgrounds.



Alexis Shook, PharmD





Community Pharmacy Practice Innovation



Community Pharmacy Practice Innovation

Name: Michelle Adgalanis, PharmD

Practice Site: HealthLinc, in collaboration with University of Purdue College of Pharmacy

Title of Research Project: Pharmacist-led hormonal contraceptive prescribing service in a federally qualified health center: initial implementation outcomes

Description: The objective of this study was to determine the acceptability, adoption, appropriateness, and feasibility of a pharmacist-led hormonal contraception prescribing service within a Federally Qualified Health Center utilizing a collaborative practice agreement. In Indiana, pharmacists may develop a Collaborative Drug Therapy Management (CDTM) protocol, under direct supervision and agreement with a provider, to manage care for a condition in which the patient has been first seen by the physician or other licensed practitioner. Patients were referred to the pharmacist through a reminder in the electronic medical record to ask patients if they would like to become pregnant in the next year to assess reproductive planning, or directly from the provider.

Impact: A short survey with open-ended questions regarding the acceptability and appropriateness of pharmacist-led hormonal contraception prescribing services was given to patients and providers. In total, eleven patients and eight providers completed the survey. All eleven patients (100%) agreed that pharmacists prescribing birth control seemed reasonable, suitable, applicable, and a good match. Seven providers (88%) agreed pharmacist prescribing birth control is reasonable and applicable, while six providers (76%) agreed it is suitable and a good match. Pharmacists prescribed or provided a referral for birth control for all patients seen during the implementation phase of the service. Pharmacists were comfortable addressing these needs through prescribing contraception, and our study showed patients were comfortable discussing birth control options with pharmacists. Pharmacists were perceived as knowledgeable and attentive listeners to patient's concerns.

Patient Care Experience:

“The most memorable patient care experiences included being able to conduct appointments to prescribe hormonal contraception for patients, decreasing accessibility barriers. Additionally, it was very rewarding to conduct interviews with patients. I was able to see the impact both I, and the other pharmacists who conducted appointments, truly had on our patients.”



Michelle Adgalanis, PharmD



Community Pharmacy Practice Innovation

Name: Sarah Chong, PharmD

Practice Site: Walgreen's Pharmacy in collaboration with University of California San Francisco

Title of Research Project: Perceptions of Pharmacist-Led Hypertension Management in a Black Barbershop

Description: This study engaged and recruited patrons of a Black-owned barbershop in the San Francisco Bay Area with the objective of exploring the perspectives and preferences of the patrons regarding healthcare services provided in these nontraditional settings. The patrons were asked by their barber or the pharmacy team if they would like to have their blood pressure taken in a private space in the barbershop, as well as if they would like to take part in the survey aimed at assessing individual attitudes and preferences towards the idea of receiving healthcare services in both traditional and nontraditional clinical settings.

Impact: Of all Black male respondents (n=17), 81% agreed or strongly agreed that they would like to receive healthcare in traditional clinics as the most preferred

healthcare setting, with the second highest response being the pharmacy at 56%, and in third the barbershop at 47%. When proposing the idea of health services offered in nontraditional clinic settings, respondents expressed concerns over privacy, authenticity, professionalism and sanitation. The highest reported barriers to receiving healthcare were insurance coverage (41%) and cost of visits (35%). Establishing and normalizing nontraditional clinical settings may allow for enhanced acceptance within the community, ultimately increasing healthcare access. These novel community-based approaches have the potential to attenuate the strongest barriers to health care (access and cost) reported by the participants of the current study.



Sarah Chong, PharmD

Patient Care Experience:

“Having open conversations with the patients involved in this project about their health and barriers that impact their ability to receive adequate care was the most memorable experience. During these conversations, our team also often provided education on insurance coverage and basic preventative care. These conversations helped both to recruit patients for our project but also allowed patients to interact with our pharmacy team members.”

Community Pharmacy Practice Innovation

Name: Mackenzie Currie, PharmD

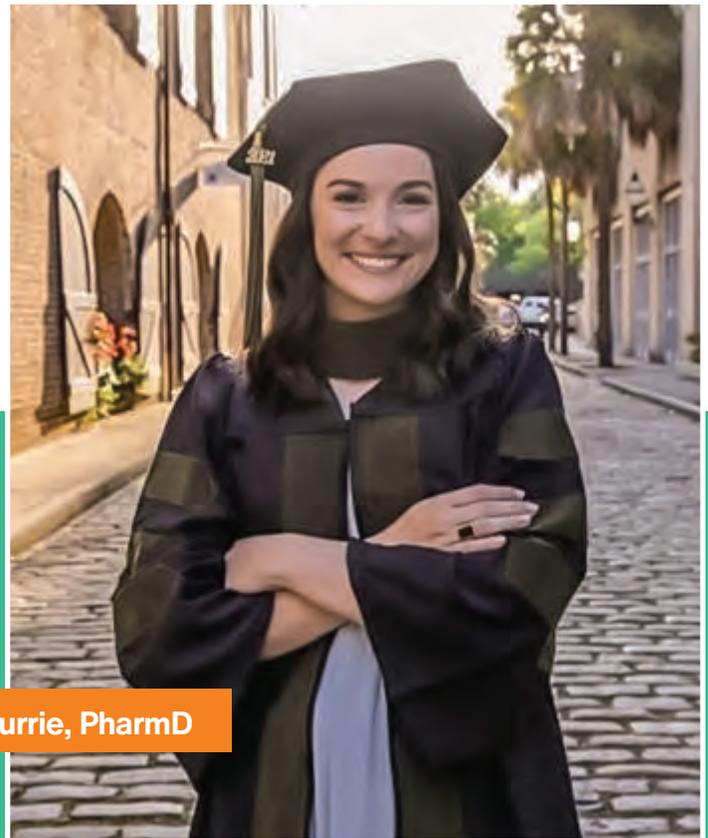
Practice Site: Hawthorne Pharmacy in collaboration with University of South Carolina

Title of Research Project: Patient and Pharmacist Perceptions of Cognitive Screening Services and their Implementation into an Independent Community Pharmacy

Description: The objectives of this study were to analyze patient perceptions of community pharmacy-based cognitive screening services, including general perceptions of cognitive screening services, pharmacist administration, and willingness to pay, and to identify community pharmacists' perceived barriers and facilitators of cognitive screening services. Two surveys were used to assess patient and pharmacist perceptions of cognitive screening services, and patients were offered the survey if they were at least 40 years old and use one of eight Hawthorne pharmacy locations.

Impact: There were 99 patients and 62 pharmacists that completed the surveys and were included in this study. 47.5% of patients indicated that they would prefer to use

a pharmacy over making an appointment with a provider for a cognitive screening, and 65.6% of patients felt confident in a pharmacist's ability to administer a cognitive screening test. 47 patients indicated that they would pay \$16 or more for a cognitive screening at the pharmacy. 66% of pharmacists believe there is a need for cognitive screening in the community pharmacy, but only 22.6% of pharmacists believe they have enough support staff to implement this service. This study shows the important role pharmacists can play in the cognitive health of patients and the confidence that patients have in their community pharmacist.



Mackenzie Currie, PharmD

Patient Care Experience:

"The most memorable experience was hearing how patients had never thought of pharmacies conducting this service, but that they think it's a great idea to make it more accessible to everyone. Our patients really trust us and hold us to a very high standard, so hearing that they think it is a great idea makes me very proud to be a community pharmacist."



Community Pharmacy Practice Innovation

Name: Ifedolapo Fasina, PharmD

Practice Site: Walgreens Pharmacy in collaboration with University of North Carolina Eshelman School of Pharmacy

Title of Research Project: Zen in the Pharmacy: An Education Session to Promote Health and Wellness Among Pharmacists and Pharmacy Technicians

Description: The objective of this study was to identify challenges and discuss strategies to promote health and well-being for pharmacists and pharmacy technicians working in outpatient pharmacy settings. Pharmacists and pharmacy technicians working in an outpatient pharmacy in North Carolina were invited via email to attend “Zen in the Pharmacy: Ten Tips to Achieve Positive Health and Wellbeing.” This was a one-hour live continuing education (CE) webinar created to identify challenges and discuss strategies to promote health and well-being for pharmacists and pharmacy technicians working in outpatient pharmacy settings.

Impact: There were 41 participants who participated in the live CE webinar and completed a pre- and post-survey. In the pre-survey, 60% of respondents indicated they were somewhat satisfied with their current position, 70% indicated they cope well with stress, 54% indicated satisfaction with their nutrition, and 60% indicated comfortability with creating a SMART goal. After completing the webinar, 89% of participants feel more comfortable creating a SMART Goal. This study increased awareness on the importance of mental health and reflection on one’s personal experiences, which could pharmacists better handle the stressors of working in a pharmacy.



Ifedolapo Fasina, PharmD

Patient Care Experience:

“I was able to give my first CE as a live webinar at the UNC Eshelman School of Pharmacy. I presented ten tips to achieve positive health and well-being. I also had my preceptor and Resident Program Director

assist me in coordinating the Zoom call. I enjoyed getting responses from other pharmacists about how they cope with stressful times in the pharmacy.”



Community Pharmacy Practice Innovation

Name: Matthew Jensen, PharmD

Practice Site: Acme Sav-on Pharmacy in collaboration with University of the Sciences, Philadelphia College of Pharmacy

Title of Research Project: Evaluation of implementation strategies and community pharmacist's perceived readiness to incorporate pharmacogenomics services into workflow

Description: This study consisted of a nationwide, electronic survey of practicing community pharmacists to assess implementation methods for the initiation or enhancement of pharmacogenomics services. This study seeks to determine the best practices for incorporating pharmacogenomics services in the community pharmacy setting by evaluating pharmacists' knowledge of pharmacogenomics, willingness to implement pharmacogenomic services, and comfort level with pharmacogenomics.

Impact: There were 174 total responses to the survey with 108 of them containing complete data that was able to be used for evaluation purposes. Most community pharma-

cists suggested that they would be willing to implement any of the proposed methods of pharmacogenomics integration into workflow, and that all of the methods would have a general degree of success. In terms of what pharmacists viewed as the most effective method for implementation of pharmacogenomics service, "utilizing educational materials in the pharmacy" received the highest response (69.7%). Pharmacists overwhelmingly indicated that they would feel comfortable with using pharmacogenomics with the more common disease states that they see on a day-to-day basis such as mental health and cardiology as opposed to oncology or hematology.

The results from this project suggest that most pharmacists would be willing to work with any type of pharmacogenomics service. It appears that the pharmacy teams are wanting for more access to information in order to best serve and care for their patients. At the end of the day, a multimodal approach to implementing a pharmacogenomics service that involves both the patients and the pharmacists should be utilized.



Matthew Jensen, PharmD



Community Pharmacy Practice Innovation

Name: Aliyah Strong, PharmD

Practice Site: Kroger Pharmacy in collaboration with University of Arkansas for Medical Sciences

Title of Research Project: Intern workshop impact on patient care services in a large community pharmacy chain

Description: The purpose of this study was to create a monthly intern workshop that provides training on clinical tasks in a large community pharmacy chain. Pharmacist interns are often underutilized to complete clinical services in community pharmacies. The primary objective was to observe the percent change in Medication Therapy Management (MTM) effective rate following a monthly intern workshop in one regional division. An additional objective was to observe the percent change in ready rate, medication synchronization, and auto-refill program enrollment.

Impact: 10 out of 22 pharmacy interns participated in the workshop series in some capacity, which focused on training for clinical services. Seven virtual workshops

were completed as well as several monthly challenges. After completing training, a 2-hour workflow in clinical services was added into the intern schedule, allowing more interns to apply the skills they learned in the workshop. This new workshop service will be continued in the future, and some pharmacy managers permanently implemented the set clinical time for interns.



Aliyah Strong, PharmD

Patient Care Experience:

“The most memorable project-related patient care experience from this project was in February when I held an in-person workshop for two newly hired interns at a store that currently did not have participating interns. The interns were very smart and engaged in the training. They were able to take the training and start performing clinical services right away. These two interns also continued to participate in the monthly workshops thereafter.”



Community Pharmacy Practice Innovation

Name: Hadley Wicker, PharmD and Kelsey Dunkin, PharmD, MBA

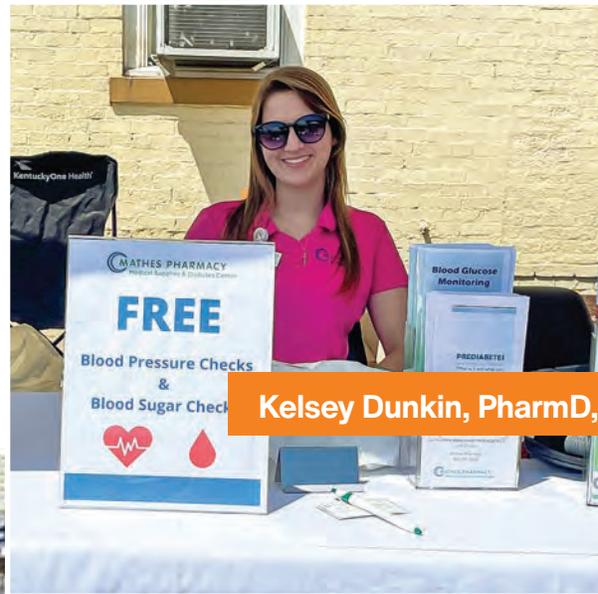
Practice Site: Topeka Pharmacy and Mathes Pharmacy, in collaboration with Purdue University College of Pharmacy

Title of Research Project: Evaluating the impact of a Flip the Pharmacy Advanced Practice Experience on student knowledge of the Flip the Pharmacy Program and their perceptions of community pharmacy

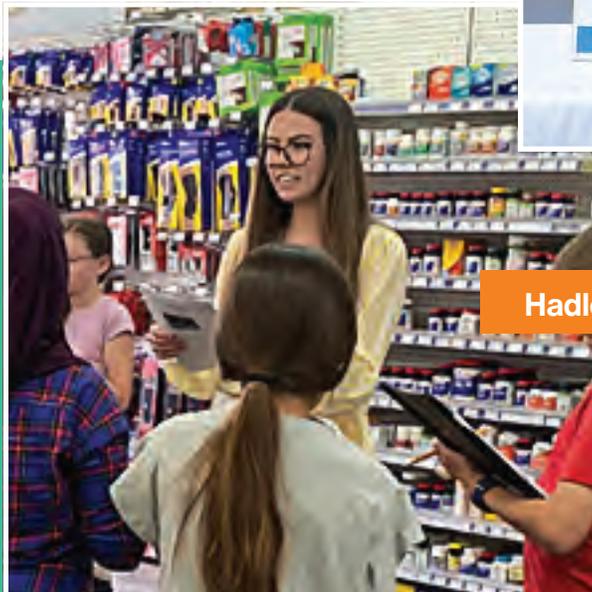
Description: The objectives of this study were to assess the impact on student attitudes and perceptions of community pharmacy practice and assess changes in student intention to pursue a position in a community pharmacy following graduation. A survey was developed to inquire as to the students' perceptions of community pharmacy before and after the Advanced Pharmacy Practice Experience (APPE) rotation based on components of the Theory of Planned Behavior (TPB).

Impact: 7 students completed the survey, and the results of the survey showed minimal change from before to after the APPE in student attitudes, subjective norms, and perceived behavioral control regarding community pharmacy as well as a limited change in intent to pursue a career in community

pharmacy. This indicates a need for additional research on students' attitudes and perceptions of community pharmacy. This project provides information about the education and training of student pharmacist and the impact that it can have. While exposure to community pharmacy advancements was expected to improve student attitudes and perceptions of community pharmacy, the results of the study reveal the work to be done in shifting students' attitudes. These feelings about community pharmacy may also be reflected in our patients and other health care providers which is an additional barrier and opportunity for future research.



Kelsey Dunkin, PharmD, MBA



Hadley Wicker, PharmD





Learning Extension



Learning Extension

The **Incentive Grant Learning Extension** was a new aspect of the program for the 2021-2022 year, which provided Incentive Grant Recipients with the tools they needed to conduct a successful research project and gain appropriate recognition for their work. Many pharmacists, especially those in the early stages of their careers, are unaware of how to enhance the quality of reporting of patient care interventions and need to be taught best practices for publishing their work. The APhA Foundation is unique in that it maintains relationships with highly experienced pharmacists with decades of experience conducting community-based research, and through leveraging the Foundation's network, knowledge can be passed on and true investments into the future of pharmacy occur.

The Learning Extension allowed for the real-time guidance of conducting meaningful community-based research projects as highly experienced pharmacists passed down knowledge to the Incentive Grant researchers. The Incentive Grant Recipients benefitted by sharing ideas of learnings through roundtable events, in-person networking, Q&A sessions, and more. The Recipients are able to take lessons from the Learning Extension with them throughout their careers as they continue to advance pharmacy practice.



Incentive Grant Recipients at APhA Annual Meeting 2022 in San Antonio, TX.



Learning Extension Schedule

| Date | Method | Activity Description |
|----------|----------------------|--|
| NOVEMBER | Virtual Meeting | Introductory meeting: What do the Recipients hope to gain from their research project? Discuss how best to engage during facilitated discussions throughout the program to achieve this goal. |
| | Email | Facilitators provide feedback on proposals via email, give suggested tweaks or areas for development as the project gets underway |
| DECEMBER | Virtual Meeting | <ul style="list-style-type: none"> • 30-minute facilitated discussion: Considerations when conducting research in the community • 30-minute Q&A • Breakouts: Updates and/or Progress |
| FEBRUARY | Virtual Meeting | <ul style="list-style-type: none"> • 30-minute facilitated discussion: Tips for High-Quality Publishing • 30-minute Q&A • Breakouts: Updates and/or Progress |
| MARCH | In-Person | APhAF & CPF Networking Event with Recipients & Facilitators and discuss how to continue practice innovation beyond this program in preparation for Innovators Forum event. |
| APRIL | Virtual Meeting | <ul style="list-style-type: none"> • Roundtable: Follow-up from the APhA Foundation Innovators Forum, how to build upon current research to transform patient care, ideas for future projects |
| | Email | <ul style="list-style-type: none"> • Facilitators provide feedback on the Interim Reports via email |
| MAY | Virtual Meeting | <ul style="list-style-type: none"> • 30-minute facilitated discussion: How to promote and advance what pharmacists can do in the community • 30-minute Q&A |
| JUNE | Virtual Meeting | <ul style="list-style-type: none"> • 30-minute facilitated discussion: Leveraging Results • 30-minute Q&A • Recipients share feedback on Learning Extension |
| JULY | Digital Product | <ul style="list-style-type: none"> • Incentive Grant Digest – Results found amongst the cohort |
| | Scaled Demonstration | <ul style="list-style-type: none"> • Recipients of the top 2 research projects will teach other pharmacists at a new community-based site how to emulate their previous work. These 2 Recipients will leverage their work over the past year to train other pharmacies to perpetuate the practice transformation. |

Experiences with the Learning Extension

The Recipients were surveyed about their experiences with the Learning Extension, as seen below in Figure 4.

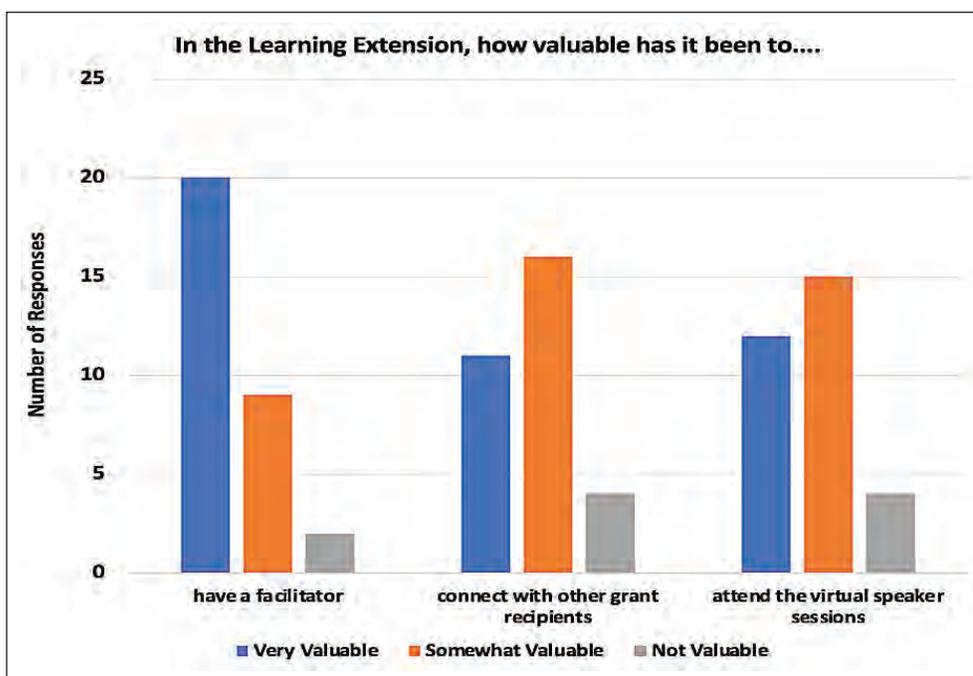


Figure 4.

Screenshot of Virtual Session #1 with speakers Kelly Goode, PharmD, BCPS and William Doucette, Ph.D.

Conducting the Study

- Follow your plan – Adjust when needed – For PCM it sometimes was difficult to determine MD response in PCM records – Added dispensing record check
- Training staff on research or intervention procedures
- Commit time to do it or work with someone or time for reminders of others – For PCM we had pharmacy students perform chart extraction



Comments from the Incentive Grant Recipients

How valuable have the virtual speaker sessions been for you thus far?

“The topics have been extremely helpful. Especially since most of us have never done a large project like this before or written a manuscript, the advice is great. The virtual speaker sessions were very helpful in emphasizing the importance of research, reviewing the research process, and details regarding publishing our research.”

What insights have you gained from engagement with this Learning Extension that helped you with your project?

“Everyone struggles with research, not just me. I enjoyed getting everyone’s point of view of how they handled certain challenges, such as balancing our many roles and residents while also getting our projects done. This has inspired me to truly take advantage of networking with other pharmacists, especially in other states. They had some brilliant and useful ideas that could change the way that community pharmacists are practicing. Learning from others is the best way for us to grow as a profession and I truly appreciated all of the meetings and time we got to spend with the other recipients.”

What challenges have you encountered during your research thus far?

“The biggest challenge with research has been receiving IRB approval. My project went through several iterations before it was finally approved, which delayed the implementation process. Additionally, communication with numerous parties and varied feedback increased the complications of producing a final product. I was unable to enroll as many participants as anticipated and I would like. It was also challenging to find time to speak with patients in the midst of an unanticipated staffing shortage and when I had unexpected absences due to clinical responsibilities and health concerns. Some of these challenges occurred during prime participant enrollment time and so it was hard to keep following up with these individuals if I was not present at the site.”

General Feedback

Please provide general feedback on the Incentive Grants Program as a whole...

“The Incentive Grants program has allowed me to look outside of my own residency bubble and has continued to remind me at every learning session that pharmacy is indeed a small world. A week before the first Incentive Grant meeting, Courtney Mospan came and spoke to my residency program, and it was refreshing to see a familiar face (although she does not know me personally). I feel honored to be a part of a program in which I am connected with other residents and hope to be able to give back later throughout my career.”

“I have found participating in the Incentive Grant program to be very valuable to my development as a resident and as a pharmacist. The program has allowed me to interface with other people who are completing similar research. Additionally, I have received valuable feedback from my facilitator to improve my project throughout the process. I have also learned from the learning extension session speakers, which has helped me immensely with the entire process of conducting a research project. Finally, I feel that my project has brought benefit to my practice site as well as my patients and pharmacy as a whole.”

“Thank you so much for this opportunity. The learning extensions and meeting with my facilitator and other recipients at the APhA annual meeting have been rewarding experiences.”

“It has been a wonderful experience. I have gained a tremendous amount of knowledge and I was even able to network with other individuals outside Los Angeles.”

“I really loved this program. I gained more experience, insight, and professional colleagues than I would have without this program. I enjoyed learning about the different APhA Foundation projects at APhA as well, and I can clearly see that there is so much opportunity for community pharmacy growth.”

“This program has been wonderful and instructive in the research process. The grant itself obviously helps in increasing interest in the research by the participants, and the foundation has been helpful in producing the project. Additionally, the meetings with different

General Feedback

speakers have been helpful in giving information to produce the final written product. My research would not be as far along or robust as it is without the incentive grant program.”

“I have enjoyed this LE program as it has been helpful and a great way to network. It does take some time but I think the sessions are well put together, fairly spread out, and informative. Olivia has done an incredible job facilitating this incentive grants program! She communicates professionally and timely to the group and has created worth-while sessions with guest speakers.”

“I have enjoyed connecting with other residents and our facilitator! It has been beneficial learning about their projects and has provided ways for me to improve my own. I think having an outside perspective to review my manuscript will be very beneficial in the upcoming months as well.”

“I am extremely grateful for the opportunity this grant has afforded myself, my practice site, and my patients. I think this program is very valuable to continue research in the pharmacy setting which is greatly needed. I hope this learning extension continues in future years.”

“The incentive grant program as a whole was a wonderful addition to being awarded the APhA Incentive Grant. I am very thankful for being given the opportunity to connect with other pharmacy residents both virtually and in person (at the APhA Conference) and getting to know all the great accomplishments we have made as a whole group. I really enjoyed how this program was very engaged with its recipients and hope this continues for the next residency class.”

“I think this program is valuable as it gave insight into other projects and different viewpoints on how to resolve common barriers that can arise during research. Also, I greatly enjoyed the networking session at APhA - it was great to meet everyone and talk about how far we have come on our projects!”

*In memoriam of
Dr. Christe Chen, who
passed away in July 2022.*





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