Pharmacy on the Front Lines

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28 SCHOOL PROFILE
Husson University School of Pharmacy
The Resiliency of Pharmacy and Pharmacy Education During a Pandemic

MIKE HENNESSY SR, CHAIRMAN & FOUNDER, MJH LIFE SCIENCES™

AT THE START OF THE CORONAVIRUS DISEASE 2019 (COVID-19) PANDEMIC, we watched practicing pharmacy and pharmacy education quickly adapt. Across the pharmacy spectrum, professionals, educators, and students showed readiness and preparedness in helping to mitigate the spread of the virus, as well as navigating new occupational methods, such as teleconferencing as a replacement for in-person interactions.

More than a year later, we’ve seen even greater adaptation from pharmacy staff. Pharmacists, technicians, instructors, and other industry professionals, as well as students, are not resting on their ability to adapt as new information comes to light and as safety protocols and policies are continually in flux. These health care professionals and students also resilient, continuing to show the value of pharmacists to health care, embracing opportunities that may not have been considered before the pandemic, and advocating for expanded roles.

Pharmacy has also come to the forefront across the United States as a crucial part of the country’s massive effort to vaccinate our population against COVID-19.

In this issue of Pharmacy Careers®, we highlight stories of pandemic resilience across the pharmacy landscape.

In partnership with the Idaho Immunization Coalition, students at Idaho State University are leading drive-through vaccination events in an effort to follow COVID-19 safety protocols while simultaneously helping patients stay safe from viruses. They started these events for distribution of the flu vaccine and later applied the experience to COVID-19 vaccination. Their story appears on page 10.

Interviews with pharmacy students from Midwestern University and Washington State University also revealed resiliency. In our Student Café video series, the students discuss academic challenges they’ve faced and innovative solutions, as well as hands-on training with COVID-19 testing and vaccination. These interviews are recapped on page 22.

Students and health systems seeking residency matches also were undeterred by the pandemic. According to the American Society of Health-System Pharmacists, its residency match program has continued a trajectory of annual growth despite unique challenges faced by health care this past year. Read more about the program on page 16.

Other students have pursued pharmacy opportunities in spite of the pandemic. On page 20, Marvin M. Agyeben discusses his work to increase minority representation in pharmacy and providing care in underserved communities. Justyna Sudyka provides advice on writing a successful continuing education activity, based on her experience, on page 18.

And Fatima Khaleq shares her story on page 21 about overcoming challenges associated with an autoimmune disease to becoming a pharmacist.

We hope you enjoy reading these and other stories in this issue of Pharmacy Careers® and perhaps draw inspiration from the resiliency shown by our authors and in the stories they share.

Thank you for reading.
Lessons From the Pandemic: 5 Career Skills Now Front and Center With Employers

The response to COVID-19 has elucidated the challenges and opportunities with pharmacy-provided services delivery.

By TROY TRYGSTAD, PHARMD, PHD, MBA, PHARMACY TIMES® EDITOR-IN-CHIEF

IT HAS NOT BEEN YOUR average year for the pharmacist, working during a once-in-a-generation pandemic. Coronavirus disease 2019 (COVID-19) has upended the normal way of doing things, whether in the community, at the clinic, on the floors of the hospital, or doing rounds in long-term care. From operations to patient counseling to billing, deviating from the standard has been imperative.

This deviation has highlighted the need for experienced pharmacists and technicians to acquire new skills and responsibilities, and has enabled newcomers to assume leadership roles.

SKILL 1: AGILITY AND THINKING OUTSIDE THE BOX

On March 11, 2020, the NBA canceled the rest of the season, actors and spouses Tom Hanks and Rita Wilson announced their COVID-19 infections, and the world changed forever. Pharmacists and pharmacy staff woke up the next day and found themselves in a new paradigm with questions: Do we wear masks? Should we shut the front door and deliver to the parking lot? Do we need to double our deliveries for everyone on a chronic medication? Do we partner with the local distillery to procure hand sanitizer? The most effective pharmacists and support staff were comfortable with new ways of serving patients, being resourceful, and finding solutions.

SKILL 2: PHARMACIST AND PHARMACY SERVICES DELIVERY KNOWLEDGE

First came the need to figure out how to distribute the medication to patients differently, then came the need to screen patients for COVID-19 symptoms and answer questions at a time of few data points and a lot of uncertainty. Next came the April 8, 2020, directive by the US Department of Health and Human Services authorizing licensed pharmacists to order
and administer COVID-19 testing. Then came COVID-19 mass vaccination preparation. These opportunities brought logistical challenges that stretched convention and forced planning on services delivery—even with previously “normal” dispensing operations that required appointment-based concepts for delivery and patient distancing efforts.

**SKILL 3: TECHNOLOGICAL SAVVY**

With practice model changes came new technology needs. First up was new ordering and billing systems and processing for COVID-19 collection and point-of-care testing services. Then it was the realization that a scheduling utility helped balance the staff as well as separating patients for operational capacity and patient safety. Appointments and queuing patients became even more important when COVID-19 vaccination efforts started with the demand far outstripping supply as eligibility criteria became complex and ever-changing. Building and troubleshooting templates, websites, and new technology plug-ins along with training staff have become high-demand skills.

**SKILL 4: PHARMACY SERVICES BUSINESS PLANNING**

The first goal of the pandemic response was to continue existing levels of care and then expand services. Yet, maintaining dispensing flows and extending services must be economically sustainable.

Contrary to conventional wisdom, long-time pharmacy owners are not the best equipped to generate business plans for health care service delivery. New graduates and residents have had a once-in-a-generation opportunity to meaningfully participate in revenue cycle management, expense modeling, and return on investment planning for health care services delivery.

**SKILL 5: PHARMACY SERVICES REGULATORY KNOW-HOW**

With all of the new authorizations, processes, and billing opportunities come regulatory requirements. And with service delivery comes the need for a new set of legal, policy, and documentation acumen. Once provider status and payment become available, new sources and types of risk management come into play. It is not a flashy area of practice, but pharmacists who have a comprehensive understanding of laws and regulations outside of dispensing and keep up-to-date with them will be sought-after leaders, managers, and owners.

**PUTTING IT ALL TOGETHER**

This is an opportune time to be a “positive deviant.” Pharmacy practice has for many years favored dogma and “staying in our lane.” Demand for interchangeable dispensers bereft of the skills and mind-set of new services and new ways of practicing will continue to wane, and COVID-19 has accelerated this trend.

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**ABOUT THE AUTHOR**

TROY TRYGSTAD, PHARM.D, PH.D, MBA, is vice president of pharmacy and provider partnerships for Community Care of North Carolina, which works collaboratively with more than 2000 medical practices to serve more than 1.6 million patients who are on Medicaid, Medicare, commercially insured, or uninsured. He received his PharmD and MBA degrees from Drake University and a PhD in pharmaceutical outcomes and policy from the University of North Carolina. He also serves on the board of directors for the American Pharmacists Association Foundation and the Pharmacy Quality Alliance.

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University Offers COVID-19 Vaccination Training to All Pharmacists, Technicians

By ALANA HIPPENSTEEL, EDITOR

VACCINATING MORE THAN 328 MILLION AMERICANS against coronavirus disease 2019 (COVID-19) will take many health care professionals. To accelerate the national vaccination campaign, Husson University (HU) in Bangor, Maine, has announced that it will provide training to any pharmacist, pharmacy technician, or pharmacy intern, regardless of whether they are enrolled at HU.

Pharmacists, pharmacy technicians, and interns are authorized to administer COVID-19 vaccines to the public under the Public Readiness and Emergency Preparedness (PREP) Act. HU is offering 2 nationally approved educational options to support these professionals in their vaccination efforts.

The first option is a 6-hour course designed for pharmacy technicians that teaches them how to administer the vaccine and respond appropriately to different emergencies that may arise in the pharmacy setting.

The second option is a 20-hour course available to licensed pharmacists and interns. This course also educates its participants on how to administer the vaccines and respond to potential emergencies. Additionally, it includes information on the use of the different vaccines available, as well as their indications and contraindications.

“Husson University has traditionally worked with our clinical partners to provide flu shots in past years,” said Kelsie Snow, PharmD, an assistant professor at Husson University’s School of Pharmacy, in a prepared statement. “This year, we are working in much the same way to provide the COVID-19 vaccinations to as many people as we can.”

Each course of study has an asynchronous self-study component that should be completed before attending the in-person component. An evaluation of the ability to vaccinate is later completed by Snow, who is licensed and authorized by the American Pharmacists Association (APhA) to ensure adherence.

HU is offering the courses twice a month, although the university noted that it is willing to provide additional classes at a convenient time and location based on the needs of local pharmacies and hospitals.

“We are also looking into holding these courses in different locations around the state to minimize [the] need to travel. Maine is an awfully large state, and we want to do all that we can to facilitate the response to the public health crisis,” Snow said.

Additionally, the dean of the College of Health and Pharmacy at HU, Rhonda Waskiewicz, EdD, OT, explained in an interview with Pharmacy Times® that pharmacies provide critical access to health care for communities in Maine’s rural central and northern regions.
“More than half of the 16 counties have a population density between 4 and 75 [individuals] per square mile. For many residents, pharmacies are the closest health care option, and [they] still may be a 45-minute drive. Additionally, Maine does not require pharmacy technicians to be certified, although many are, so being able to complete an [Accreditation Council for Pharmacy Education]-approved certification course for vaccination is critical,” Waskiewicz said.

For these reasons, HU School of Pharmacy chose to focus on training pharmacy technicians while also offering classes to licensed pharmacists and interns who have not been certified or who need recertification to administer vaccinations.

“We are currently holding classes on campus and are working with our regional partners to determine if and when we travel to more rural sites to provide training,” Waskiewicz said.

The ability for pharmacists and pharmacy technicians to administer vaccines was made possible by Congress in 2020 with the passage of the PREP Act. Before the PREP Act, pharmacy technicians were not authorized to administer vaccines to the public. Today, pharmacy technicians can receive the training necessary to provide this critical health care service during the COVID-19 pandemic.

Additionally, recent legislation has expanded the types of vaccines that pharmacy personnel can administer and order. Now pharmacy personnel can give routine immunizations to children, which previously was done only at pediatrician offices.

“Husson University has provided pharmacy students with training in providing immunizations for years. Now we’re expanding the training to get students involved earlier,” Waskiewicz said. “Being educated as a health care professional in such a turbulent, unprecedented time is both challenging and rewarding. This process allows pharmacists to take a more active role in patient care. One of the major challenges posed by the restrictions of COVID-19 is restricted access to care, and this is one of the ways Husson is working to eliminate those barriers.”

In an interview with Pharmacy Times®, Snow explained that HU will remain dedicated to providing these training options for as long as necessary and that faculty are willing to travel to participants to ensure they have access to the course.

“In addition to providing the accredited APhA programs for vaccination certification, we also work to put together educational materials that are more focused, if desired,” Snow said. “For instance, my colleagues Drs Brian McCullough and James Singletary are [holding] an educational talk specifically concerning the COVID-19 vaccinations via Zoom.”

Although there is the possibility of attending a portion of the courses virtually, there remains a required in-person, hands-on component that must be demonstrated in order to become certified.

“This typically entails having a pharmacist [who] is already certified to observe and evaluate the injection technique of the participant,” Snow said. “APhA has issued specific guidance and instructions that must be followed for remote participants.”

Waskiewicz noted that HU School of Pharmacy’s dedication to train and educate a COVID-19 vaccination army is mission driven.

“Husson University School of Pharmacy’s mission is to educate and mentor future practitioners in a collaborative and supportive environment to deliver and improve regional health care,” Waskiewicz said. “In this case, it translates to our faculty and administration collaborating with university, community, and regional colleagues to shape the profession’s ability to respond to COVID-19 through education and preparedness.”

For more information on enrollment and the necessary course components, contact Kelsie Snow at snowke@husson.edu.
Building a Pharmacist Brand on Social Media

More and More of pharmacists and pharmacy students are staking their ground on social media.

By JOANNA LEWIS, PHARMD, MBA

SOCIAL MEDIA PRESENCE IS AN important part of any brand or business—and pharmacy is no exception. As individuals turn to the internet and social media more frequently to seek information, digital platforms have provided great tools for both patients and health care professionals. A growing list of pharmacists and pharmacy students is expanding the number of health care professionals staking their ground on social media.

Being an influencer can also be a real job these days, though. Some of the biggest social media influencers in health care, such as Doctor Mike, ZDoggMD, and Kevin Pho, are creating personal brands and controlling the narrative around their expertise. Pharmacy influencers, such as Adam Martin from The Fit Pharmacist, Leslie Southard from The Lactation Pharmacist, and Suzanne Soliman from the Pharmacist Moms Group, have carved out niches that they use to unite and educate others about a specific topic or movement.

Because patients and consumers are able to find more information than ever, many professionals have created platforms to divulge it. Not every physician or pharmacist is in a traditional medicine space, either. Many of these professionals have branched out to wellness, fitness, skin care, or functional medicine (hello, Dr Mark Hyman!). Regardless, it’s important that no matter in what space a person lands, they use their influence to responsibly spread information, promote advocacy, and raise awareness within their niche.

As an influencer, you are a brand. You decide what is at the heart of your content and what type of tone you’d like to have with your audience, and you get to determine how much of your personal life you’re going to share.

There isn’t exactly a rule book that details how to be a top influencer—and that’s because there really is something for everyone. Ultimately, at the heart of it all is connecting with your audience.

So, let’s talk about what that means.

WHAT IS AN INFLUENCER?

According to SproutSocial, an influencer can be defined as someone who has “specialized knowledge, authority, or insight into a specific subject.”

Influencers then use this authority to connect with their target audience and give them advice, connect them with tools they can use, and promote products that the audience may be interested in. Pharmacists, pharmacy students, and other professional accounts usually fall in the microinfluencer or content creator category.

Several types of influencers exist, each with an essential role in our digital world:

Celebrities: People who have multiple platforms to reach their audience, such as television, ads, social media, and video.
**Industry experts:** People who have made a name for themselves as an expert in their niche, who have an audience who tunes in specifically to improve their own knowledge; may do in-person engagements as well as digital work.

**Microinfluencers:** People who have created a brand for themselves on social media and have amassed a large following online.

**Content creators:** Bloggers and vloggers who create content on a smaller scale, but still have an engaged audience.

**HOW DO INFLUENCERS MAKE MONEY?**
The biggest questions people usually ask are “What do you do?” “How do you start?” and “How do you make money?” Although being an influencer won’t immediately start you off with a 6-figure salary and steady work opportunities, many people use their job as an influencer to supplement their income.

Although it may look glamorous from the outside, a lot of work needs to go on behind the scenes. Over time, some can transition from working traditional full time jobs to doing social media full time instead.

Some of the outlets that influencers may use are digital products, podcasts, sponsored posts, and affiliate marketing.

**FOUR STEPS TO CONSIDER BEFORE YOU START**
Is this something you just want to play around with and see what lands? Do you want a fun hobby that supplements your career? Or do you want to make a career out of it? Ask yourself a few key questions before you start.

**Ask yourself why:** Why do you want to start a public social media presence? Don’t worry: This answer can evolve as you go. Answering this question will help you focus your brand and target your audience with content that is right for them. Some reasons may be to explore a creative interest, supplement your career, make connections, build a platform for advocacy, or build credibility in a niche field.

**Explore social platforms:** One of the first steps to becoming an online influencer is actually signing up for the same platforms that your audience uses. For some people, Instagram is the only way to connect to their audience. For others, TikTok, Twitter, or LinkedIn may work better. To set yourself up for success, do research on which platform is right for you before you start investing serious energy into this goal.

**Zoom in on your focus:** Think about what you want to be known for. Make sure that any opportunities you pursue align with that vision. It will reduce your audience’s trust if you are an influencer who focuses on health, but you suddenly decide to do a sponsorship with a fast-food company for a cheeseburger. To build an effective brand, you need to start out small and specific to gain an audience, then continue to foster that relationship. After all, it can be tempting to try to land big-brand deals, but you have to remember that your audience’s reaction is what will make or break those deals.

**Grow your expertise:** Your brand is you. Just like you wouldn’t want to be the same version of you that you were in middle school, you don’t want your brand to stay at the same level. You need to continually push yourself to learn, improve, and do more so that you can continue to grow and help your audience as well as your own expertise.

Don’t forget that one of the best things is the ability to change. How you start does not have to be where you end. The journey to becoming an influencer can allow you to manage your own career, connect with thousands of like-minded people, and build an income for yourself. Take careful first steps to make sure that you are on the right path to success and that you can meaningfully connect with your audience.

In the end, your brand and position as an influencer can be a reflection on your own expertise, and that should always help lift up the community you work with as well.

**ABOUT THE AUTHOR**
**JOANNA LEWIS, PHARMD, MBA**
has held a variety of pharmacy practice roles, including a leadership position in the Department of Pharmacy at Duke University Hospital. She is currently a 340B Compliance Coordinator at Baptist Health in Jacksonville, Florida. Lewis is passionate about precepting and mentoring new practitioners, as well as making the practice of pharmacy better.
Cedarville Pharmacy Grad Works on Development and Administration of COVID-19 Vaccine

Kofi Amoah, PharmD, has gained unique pharmacy and health care experience while working to help end the historic COVID-19 pandemic.

By ALANA HIPPMENSTEEL, EDITOR

ONLY A YEAR AFTER HIS GRADUATION from Cedarville University School of Pharmacy in Ohio, Kofi Amoah, PharmD, joined the Pfizer team developing its coronavirus disease 2019 (COVID-19) vaccine. This led to an entrepreneurship opportunity that is helping to vaccinate members of his community.

Amoah graduated from pharmacy school in May 2019 and started an internship at Cincinnati Children’s Hospital Medical Center. In August 2019, he accepted a job at Pfizer and by March 2020, he was asked to join the Pfizer COVID-19 vaccine team.

The opportunities available to him at Cedarville prepared him for the unique experience with Pfizer, Amoah said.1 “It was a huge responsibility, but it wasn’t scary,” Amoah said. “I learned at Cedarville how to collaborate with a team of people from different types of backgrounds. I knew from my education how to seek out information and how to learn from others in a collaborative setting.”

At Pfizer, Amoah works as a medical outcome specialist, acting as an intermediary for various Pfizer clinical sites. He collected and collated data on the adverse effects of the vaccine and then transferred data from 1 test site to another to ensure all investigators were following protocols during the study.1

Although he continues to work for Pfizer doing testing research, Amoah has started his own business, Sterling Rapid Response, which has been approved by the US Department of Health & Human Services as a vaccine provider for 500,000 patients. The business set up a mobile clinic at the Tri-County Mall in Springdale, Ohio, to administer the vaccine with the support of local health organizations, including Hamilton County Public Health and Springdale Health Department.1,2

Amoah reached out to Cedarville University School of Pharmacy to request the aid of students, interns, and professors during the upcoming vaccination clinics. “I’m able to hire pharmacists, pharmacist interns, pharmacy technicians, nurses, and doctors to work with public health departments, hospitals, and the community to get the vaccine out,” Amoah said.

Amoah will collaborate with public health departments to receive support in scheduling patients, and his company’s staff will administer the vaccine to patients.

Amoah noted that he has greatly appreciated the support and welcome he has received as a Cedarville University School of Pharmacy alumnus.

“I am most grateful to Cedarville,” Amoah said. “My wife, Veronica, and I both graduated from the Cedarville School of Pharmacy, and we have always been welcomed with open arms by the faculty. They are always there to help and guide you. Interim Dean Aleda Chen, [RPh, PharmD, PhD], has called me to see how things are going, and Thad Franz, [RPh, PharmD], has been following up, as well.”

Franz, the pharmacy school’s vice chair of experiential programs and an associate professor of pharmacy practice, explained that he has been encouraged to see the innovation of graduates such as Amoah as they have stepped into the pharmacy field.

“I am so proud of Kofi and all of our alumni who leave the Cedarville School of Pharmacy program with a heart toward serving our communities,” Franz said. “It is what our profession needs as we continue to face the pandemic and care well for the patients we love.” ■

REFERENCES
IN 2018, THERE WERE APPROXIMATELY 18 MILLION MILITARY VETERANS in the United States. Veterans are eligible to receive health care at both civilian facilities and Veterans Affairs (VA) sites, and so health care providers (HCPs) must be able to provide not only quality but also culturally sensitive care to this population.

Results of a mixed-methods study showed that many of the nurse participants were unsure of what financial and medical benefits veterans receive, nor did they believe they knew of all the resources available to help veterans. Results of another qualitative study showed that non-VA HCPs ranked the ability to identify veterans within their patient population as crucial to determine optimal treatment and navigate referrals for these patients. In the study, participants also expressed a lack of training in veteran culture.

These studies show a need for coordination between the VA health care system and non-VA health care practices to decrease confusion and duplication of services. Understanding the veteran population and integrating the knowledge into a pharmacy school’s curriculum may benefit both veterans and HCPs.

Veterans’ health care includes their mental health. According to a 2014 study in JAMA Psychiatry, nearly 1 in 4 active duty members showed signs of a mental health condition. Service-related stressors often lead to substance-use disorder, and many veterans have an alcohol, tobacco, or drug-related problem. Posttraumatic stress disorder is very common in veterans and has been shown to be more than 4 times higher in veterans (36%) than nonveterans (8%). Depression is also seen often in veterans, with a 14% rate of diagnosis; it is estimated that each day, 18 to 22 veterans commit suicide in the United States.

Because of the many mental health disorders in the veteran population, there is a strong need to bring awareness and additional training to HCPs.

There are many steps that can be taken to meet the goal of implementing veteran content into a pharmacy health care curriculum, including:

• providing presentations and seminars on veteran content;
• identifying specific courses to create a curriculum map showing where veteran content occurs;
• hiring faculty with veteran and military backgrounds and experiences;
• providing clinical experiences for students with veteran patients of different war eras, branches of service, and military experience backgrounds;
• providing veteran simulations and case studies;
• giving students the opportunity to develop individualized patient plans and SOAP (subjective, objective, assessment, and plan) notes that reflect the needs of veteran patients;
• using the Standardized Client Program to incorporate realistic simulation of the care of the veteran population;
• providing specific electives so students can further their knowledge in the area of veteran health; and
• planning for pharmacy students to attend clinical rotations centered around VA hospitals, TriCare clinics, and military bases.

Civilian providers without training or exposure to a military background may have less ability to provide culturally competent care, limited perception of the impact their service time has on their health status, and decreased ability to empathize with this population. Of all the possible HCPs, pharmacists are the most easily and readily accessible to patients, making this an optimal place to start implementing some of these steps.

Veterans are a special population, and reintegration into civilian life can be very complex. After they leave service, veterans no longer have a chain of command continually available for guidance, they lose contact with their peers who can empathize with the shared experience of active service, and they have difficulty figuring out “what’s next.” The transition into civilian life is not one to take lightly; a veteran’s entire world—their everyday routine for years—is flipped upside down, and they no longer have their work family by their side. It’s important to instill skills in future pharmacists to help veterans receive optimal care and empathy.

Exposing pharmacy students to veteran culture, basic military facts (eg, ranks, insurance), work responsibilities, and unique challenges of daily life will ultimately help prepare HCPs to provide the best care possible to US veterans.

ABOUT THE AUTHOR
NICOLE MEHAN is a 2021 PharmD candidate at the High Point University Fred Wilson School of Pharmacy in North Carolina.

FOR REFERENCES, GO TO PHARMACYTIMES.COM/PUBLICATIONS.
Pharmacy Students Lead Drive-Through Influenza Vaccination Event

Idaho State University partners with the Idaho Immunization Coalition to effectively and safely vaccinate patients against influenza.

By ELISE CAPSON, PHARMD CANDIDATE; DORA AGUAYO, PHARMD CANDIDATE; JAMES PARRISH, PHARMD CANDIDATE; CADEN ALDER, PHARMD CANDIDATE; RENEE ROBINSON, PHARMD, MPH, MSPHARM; AND KEVIN CLEVELAND, PHARMD

VACCINATIONS, ONE OF THE GREATEST public health achievements, prevent more than 2 million deaths worldwide every year.

Coronavirus disease 2019 (COVID-19) had a substantial impact on adult and childhood vaccination rates in 2020 by increasing interest in influenza vaccinations to avoid a dual pandemic. However, many barriers and concerns regarding vaccine administration persist, including limited accessibility and lack of safe care because of health care provider shortages.

Recognizing the need for patient education and increased opportunities to receive immunizations, the American Pharmacists Association Academy of Student Pharmacists (APhA-ASP) established the Operation Immunization program. Since 1997, more than 1.4 million individuals have been immunized by the over 17,880 certified pharmacy student immunizers from 121 schools. Methods codeveloped and implemented by pharmacy students at Idaho State University (ISU) in partnership with the Idaho Immunization Coalition were designed to effectively, safely vaccinate Idahoans against influenza, using a drive-through model of care.

METHODS

PharmD students at the ISU College of Pharmacy, in partnership with health care providers across the state, led a charge to improve access to influenza vaccine, trialing administration strategies that support social distancing measures and reduce COVID-19 transmission. Planning of the 4 drive-through immunization clinics began in July 2020. The initial step involved development and approval of protocols by the ISU-COVID Workgroup. The ISU COVID-19 response team was responsible for ensuring that the proposed protocols, safety measures, and workflows mitigated risk to health care providers, patients, and students participating in the DRIVE-RX event.

Training videos, developed by the APhA-ASP Operation Immunization team, detailed step-by-step safety protocols and required workflows such as patient screening, personal protective equipment use, and emergency procedures in the case of COVID-19 exposure and/or protester involvement. Training videos and competency assessment questions were added to the online learning platform for students to complete prior to event participation. Each ISU student volunteer was also required to attend a live online meeting that outlined the organizational workflow of the clinic, responsibilities, and roles of each station and student, and addressed potential patient concerns and questions.

The website SignUpGenius was used to schedule volunteers to assist at the 4 strategically located vaccination events in Idaho: October 3, 2020, in Meridian; November 21, 2020, in Pocatello; December 6, 2020, in Caldwell; and December 12, 2020, in Nampa. Each site chosen was accessible, well known to the community, and supported directional traffic flow, allowing for coordinated entry and exit.

All organizations and students involved helped set up the event and participated in a mock drive-through prior to the start of the clinic. Upon entering a standard parking lot, drivers were stopped for COVID-19 screening and were asked to wear masks. Patients were then directed to the first parking spot, where they filled out consent forms and told student pharmacists which vaccine they would prefer. Once the forms were completed, cars would pull forward into the next parking spot for patients to receive the vaccine. All students were monitored by a preceptor according to state guidelines. If patients had not received the vaccine before, they were instructed to wait 15 minutes to monitor for any adverse effects, such as allergic reactions or fainting. Finally, drivers were directed toward the exit (see FIGURE).

RESULTS

Idaho Governor Brad Little and First Lady Teresa Little were first in line for their influenza shots, highlighting the importance of getting immunized while encouraging community...
involvement. More than six immunizations were administered by the 98 students during the 9-hour Meridian event, 200 immunizations were administered by 20 student pharmacists during the 4-hour Pocatello event, 34 immunizations were administered by 9 students during the 4-hour Nampa event, and 140 immunizations were administered by 4 students during the 4-hour Caldwell event.

DISCUSSION

Although drive-through clinics have been done in the past, this idea is innovative because it combined the use of pharmacy students to efficiently administer influenza vaccine safely to multiple individuals. To administer vaccines more effectively and reduce the spread of COVID-19, as well as waiting times, community pharmacies have encouraged patients to make appointments online. This has led many pharmacies to implement drive-through vaccination clinics. Furthermore, rural states, such as Idaho, have limited access to health care services. Therefore, using student pharmacists can mitigate structural inequities through the provision of health care services.

The ISU clinics administered more than 1000 vaccines in 21 hours during 4 events throughout Idaho. These influenza clinics reached underserved populations and guaranteed everyone an influenza vaccine, regardless of insurance status or ability to pay. Pharmacy students are an untapped resource that can be successfully used not only in vaccination efforts but also in future COVID-19 pandemic efforts, especially in vaccination administration. These events demonstrate that this model can be applicable in both large- and small-scale events in an effective and safe manner that broadens the availability of vaccines to our communities.

Anecdotally, we found that 3 students working in each immunization bay, with 1 student working in the consent form area, is the most efficient setup for this drive-through clinic. This allowed for less overlap of responsibilities and clearly defined roles. The number of students assigned per bay was further tailored to best fit the city/town in which the event would take place.

There remains an increasing need for health care workers who are able and willing to provide vaccinations, especially the new COVID-19 vaccine, to the public. Using student pharmacists in immunization efforts not only improves vaccine access for the public but also serves as a unique opportunity for students to gain clinical experience and use their skills as trained immunizers. The success of these student pharmacist-led drive-through clinics indicates that implementation of similar events may be beneficial for COVID-19 vaccinations.

CONCLUSION

This effective and safe model of care delivery showed potential for COVID-19 immunization efforts, exponentially increasing the workforce and expediting vaccination delivery. Since implementing the drive-through influenza vaccination clinics, pharmacy students in Idaho and Alaska—where ISU operates a pharmacy program in partnership with the University of Alaska Anchorage—have been assisting in COVID-19 vaccination efforts in hospitals, clinics, and other community sites.

ABOUT THE AUTHORS

ELISE CAPSON is a PharmD candidate at Idaho State University (ISU) College of Pharmacy in Pocatello and the APhA-ASP Chapter Operation Immunization chair.

DORA AGUAYO is a PharmD candidate at ISU College of Pharmacy.

JAMES PARRISH is a PharmD candidate at ISU College of Pharmacy and the APhA-ASP Chapter president.

CADEN ALDER is a PharmD candidate at ISU College of Pharmacy and the APhA-ASP Chapter finance vice president.

RENEE ROBINSON, PHARMD, MPH, MSPHARM, is an associate professor of pharmacy at ISU College of Pharmacy.

KEVIN CLEVELAND, PHARMD, is assistant dean and director of experiential education at ISU College of Pharmacy.
Pharmacists Are Frontline Educators of Patients During COVID-19 Pandemic

By ALANA HIPPENSTEEL, EDITOR

SINCE THE START OF THE CORONAVIRUS DISEASE 2019 (COVID-19) PANDEMIC, Amy Kallo, a PharmD student at Midwestern University College of Pharmacy (MUCP) in Downers Grove, Illinois, has been a pharmacy intern. According to Kallo, working at a CVS pharmacy in Chicago, Illinois during the pandemic solidified her understanding of pharmacists’ roles as educators in their communities. “We are definitely the front line to educate patients,” Kallo said in an interview with Pharmacy Times®. Kallo explained that when she entered the field, she knew retail pharmacists had an important role. They are the most easily reachable health care providers in communities where access may be more challenging.

Kallo said that for patients, the amount of time they would otherwise wait to speak with a physician about health concerns makes pharmacists’ presence in communities a critical, unique access point within the health care system. Yet, during the pandemic, Kallo said her understanding of the retail pharmacist’s role became clearer. “When the pandemic first hit, and doctors’ offices were closing [and emergency departments] specifically became for COVID-19 patients only, I realized the value of the retail pharmacy,” Kallo said. “[I am] able to sit and tell a patient face-to-face what I know and convey to them in layman’s terms what the situation really is.”

At the beginning of the pandemic, Kallo explained, each patient would come in terrified and looking for answers. “They would ask me, ‘When is this going to end?’ That was always one of their first questions. And ‘How is it going to end?’ was another,” Kallo said.

She noted that having the education she does allowed her to assimilate information from her mentors in the field and from the medical community at large to educate frightened patients with the facts available at the time. “Having that perspective during the pandemic just made me realize the value and importance of having a pharmacist available at the drop of a hat,” Kallo said.

Kallo explained that she was also able to provide comfort to patients who were otherwise alone and unable to see their loved ones. “Just being able to console somebody who couldn’t see their grandchildren or spend their daughter’s or son’s birthday together, but [they could] spend those 2 minutes in the pharmacy with me, gowned in [personal protective equipment], and I could empathize and provide them with a little solace—this was a value of the pharmacy that I didn’t realize was as necessary as before,” Kallo said.
The importance of pharmacies during the pandemic was also amplified because many stores did not shut down as the virus spread throughout the United States, Kallo explained. “In fact, pharmacies were getting a lot busier,” Kallo said. “We were receiving a lot more patients, and we were receiving a lot more phone calls and questions because we were the first line of care access that they had.”

During the beginning of the pandemic, her classes at Midwestern abruptly halted. “When we were in person, we were all busy with school, work, family,” Kallo said. “In March, it was all brought to a halt. We had all these things planned a year, a month, or a week out, and everything was placed on pause.”

Kallo explained that this brought everyone together, professors and classmates, to figure out how to proceed. “That was the big question: ‘What do we do next?’ Kallo said. “But thankfully, we answered that question together as a class. It helped me to have my classmates on with me the entire time.”

She also noted that this had the unexpected effect of changing classroom dynamics, allowing her to become closer to her mentor and faculty adviser, Susan Cornell, PharmD, CDE, FAADE, FAPhA, associate director of experiential education at MUCCP. “I got a lot closer with Dr Cornell, who is amazing. I am so lucky to get to go to Midwestern because they have her. She is just truly a blessing,” Kallo said.

Additionally, during the pandemic, Kallo worked to collaborate with her district leader at CVS in Chicago to create drive-through influenza shot clinics. “This would invite more people who were afraid to step into buildings to still get access to a flu shot,” Kallo said. She noted that this opportunity would, hopefully, propel her pharmacy career forward, because she was able to quickly gain invaluable experience supporting these drive-through clinics during her internship at CVS.

During this time, Kallo was also working at Northwestern Medicine as a student pharmacy technician. She explained that at the beginning of the pandemic, some colleagues were worried about the potential for COVID-19 exposure when working with patients, and some were calling out from work over concern for themselves and their families.

Kallo explained that because she was a student who did not have health concerns outside of the risks of COVID-19 exposure, she continued going to work despite her personal fears. “When I continuously showed up for my shifts and proved that I am a health care worker, and I am here to help, it showed something to my pharmacy manager about my bravery and willingness to be there,” Kallo said. “Building that relationship with my pharmacy manager definitely would help me out if I were to pursue a residency with Northwestern Medicine.”

Kallo noted that despite her bravery and willingness to be there, she was still afraid in the face of the challenge before her. “It was terrifying,” Kallo said. “When it was getting really bad in April, I was waking up and the first thing I would do was read the news: how many cases, how many deaths. I would then drive to the hospital and sit there and think, ‘If I were to be here and contract the virus, how am I going to protect my family or protect myself?’ ”

Kallo said she didn’t feel these fears were helpful in view of the challenge her patients would face if she decided to not be present for them. “I knew at the end of the day that if I wasn’t there, it would be 10 times worse for the patients,” Kallo said. “If I wasn’t able to be there, then the process for certain medications could get delayed and the patients wouldn’t receive it, and it would be a whole mess.”

Kallo said thinking about the challenges patients would face in her absence kept her going. “I had to continuously think that through. That was my motivation, that was the [reason for] my dedication,” Kallo said. “I have to get up and I have to go—not for me, but for them. That’s the only thing that carried me through.”

■
High Point University’s Fred Wilson School of Pharmacy Awarded Full Accreditation Status

The institution joins 3 other ACPE-accredited pharmacy programs in North Carolina.

By AISLINN ANTRIM, ASSOCIATE EDITOR

THE FRED WILSON SCHOOL OF Pharmacy at High Point University (HPU) was recently awarded full accreditation status by the American Council for Pharmacy Education (ACPE), a process that began 6 years ago, according to Earle "Buddy" Lingle, PhD, RPh, dean of the pharmacy school.1

"Being awarded full accreditation is the result of a Herculean effort by the school of pharmacy’s faculty and staff," Lingle said in a prepared statement.

ACPE accreditation recognizes that a professional degree program leading to a doctor of pharmacy degree is judged to meet established qualifications and education standards through initial and subsequent periodic evaluations. The purpose is to judge the quality of a program and encourage continued improvement.1

According to Lingle, ACPE accreditation is the culmination of an effort that began with the end goals of developing a pharmacy program that would produce graduates who practice at the highest professional level and serve their patients and communities with compassion and commitment to their well-being.

“This is a recognition that we are meeting those goals," Lingle added.

The Fred Wilson School of Pharmacy graduated its inaugural class of 53 students in the spring of 2020. According to HPU, students who took the pharmacy licensing exam achieved a pass rate of 95%, which is 4 points higher than the national average. The graduates are now practicing in community retail, hospital, and long-term care settings or have been accepted to residencies or other graduate programs.1

"In my time at HPU’s Fred Wilson School of Pharmacy, I was provided passionate professors, encouraging administrators, a state-of-the-art facility, and invaluable practice experiences that have prepared me to excel in pharmacy practice," said Chris Powell, a current fourth-year student and president of the School of Pharmacy’s Student Council, in a prepared statement.2

The Fred Wilson School of Pharmacy joins 3 other ACPE-accredited pharmacy programs in North Carolina, including the Campbell University College of Pharmacy & Health Sciences, the University of North Carolina Eshelman School of Pharmacy, and the Wingate University School of Pharmacy.2

REFERENCES
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ASHP: Residency Match Program Continues to Grow Despite Pandemic Challenges

By SKYLAR KENNEY, ASSISTANT EDITOR

The American Society of Health-System Pharmacists' (ASHP) Pharmacy Residency Match program continued its growth trend with nearly 5500 pharmacy students and residents paired with residency positions in 2021.

In phase 1, 5121 individuals matched with 2398 pharmacy residency programs in the US. Phase 2 of the program recently concluded with more than 300 additional positions being filled, bringing the total to 5467 individuals matched with 2654 pharmacy residency programs across the country.1

“The 2021 match results demonstrate the resilience of our residency programs and applicants given the pandemic-related hardships that challenged the recruitment process this year,” Janet A. Silvester, PharmD, MBA, FASHP, vice president of the ASHP Accreditation Services Office, said in a prepared statement. “We are pleased to see the sustained growth of these critically important training programs that equip pharmacists with the necessary skills to navigate today’s challenging health care environment.”1

Over the last 5 years, postgraduate year 1 residency positions have grown by 27%, and postgraduate year 2 (PGY-2) positions have increased by 55%, with certain programs seeing explosive growth. Specifically, emergency medicine residencies grew by 108%, and pain management and palliative care residencies increased by 138%. Additionally, PGY-2 programs in ambulatory care residencies grew by 67%, infectious disease residencies by 67%, and critical care residencies by 35%.2

Residency positions have increased by 33% over the same period of time.1

“The 2021 match results for phase 1 demonstrate the sustained growth of residency programs and available positions,” said Silvester. “The expansion in PGY-2 programs is particularly encouraging as these positions are critical to support the increasing demand for pharmacists with advanced training to fill medication expert roles on the patient care team.”2

The 2-phase match process was initiated in 2016 and is a collaboration among ASHP, National Matching Services, and the Pharmacy Online Residency Centralized Application Service.1 According to ASHP, Match Day is conducted in 2 phases to meet the needs of the rapidly growing number of pharmacists and student pharmacists seeking residencies, as well as residency programs seeking applicants.2

Fifty-three positions remain in the 2021 Post-Match Scramble, which opened for applications on April 15, 2021.1

REFERENCES


Pharmacy Students Help Develop Automated Syringe-Filling Technology

The technology demonstrates the important role students can play in pushing the pharmaceutical industry forward.

By AISLINN ANTRIM, ASSOCIATE EDITOR

PHARMACY STUDENTS AT THE UNIVERSITY of South Carolina (USC) have partnered with researchers and engineers to develop an innovative, automated syringe-filling system. According to USC, the product can complete this task with small-batch products, which is known to be challenging for workers to do by hand.1

The technology demonstrates the important role students can play in pushing the pharmaceutical industry forward. The system was designed by pharmacy and engineering students, who partnered with researchers and were led by mechanical engineering professor Ramy Harik, PhD.1

Traditionally, prefilled syringes are filled by hand in clean-room environments. Strict federal regulations have made this process increasingly difficult because workers must stand for hours performing repetitive motions. The new system could not only free up health professionals’ time but also help ensure safety and efficacy.1

The collaboration began when officials at Nephron Pharmaceuticals sought out the engineering and pharmacy colleges at USC 2 years ago.2 They pursued the partnership because of issues that arose when machinery operators at their facilities called in sick or were unable to work, which led to a halt in the production process. The new automated system developed in the collaboration will solve this problem.2

In order to develop the filling system, students and researchers worked with industry partners.1 The new system uses flexible, high-speed robots developed by Yaskawa Motoman and technology from the automation company Siemens.1 Several classes at USC worked to create the technology, resulting in the development of a robot named Smithers, which a press release noted was chosen based on the character from The Simpsons.2

At USC, Harik led 3 teams of senior engineering students to create the robot, and pharmacy students ensured that the medical and sterilization aspects were safe for future human injection. Students tested about 10 designs before finding one that worked.2

The robot was installed at Nephron Pharmaceuticals’ facility in late January 2021 and is currently undergoing commercial validation. Once it receives regulatory approval, USC and Nephron Pharmaceuticals will license the technology to health care and bioscience users.1

“Partnerships like this one are a win for patients, employees, and students, not to mention for companies like ours, that continue to grow and expand our capacity to help others,” said Nephron Pharmaceuticals’ owner and CEO, Lou Kennedy, in a prepared statement. “We are excited to build on the momentum created by our work with the university, especially with Dr Ramy Harik, and I can’t wait to see what we can do in the years ahead.”1

The system consists of 4 pieces of equipment that work in tandem to mimic a human filling the syringes. Separate pieces work together to hold, fill, and seal the syringes. In an article in The State, Kennedy said she would love to see future partnerships between Nephron Pharmaceuticals and USC.2

“My dream for the university is that we could commercially market these robots for hospitals around the world,” Kennedy said in the article. “If we had the ultimate dream, it would be to sell these, and a portion of the proceeds go back to the pharmacy and engineering school and allow us to endow a scholarship for future research.”2

REFERENCES


Paths Less Traveled: Writing a Successful Pharmacy CE Activity

By JUSTYNA SUDYKA, PHARMD CANDIDATE

DURING THE SUMMER AFTER MY second year of pharmacy school, I had the unique opportunity to create a veterinary pharmacy continuing education (CE) activity. Before this, my only veterinary pharmacy exposure was a short class lecture about niche pharmacist roles.

When I saw an email from my professor about writing a CE piece about cats and dogs, I was thrilled and knew I had to do it. Learning about people and pharmaceutical care is important, but when a chance to do something different fell at my feet, I just took a leap of faith.

I worked alongside 3 other motivated student pharmacists from the University of Connecticut School of Pharmacy: Heather Honor, Raquel Mateus, and Mia Sgamboti. I’m a cat person (who likes dogs too) and decided to focus my search on feline pharmacy safety. My partner and I made the “purrrfect” duo and dove into our work, and our canine pals divided and conquered the world of man’s best friend.

Our love for animals made the individual work a breeze, but the group effort was a bit more challenging. Our writing styles varied, but our goal was to write a piece that sounded like it was written by 1 person. Ultimately, we learned that writing with “1 voice” means writing with “1 approach.”

Six rules made this team work well.

1. Set Ground Rules and Make a Checklist

Before starting anything, we had to know who would work on which animal. Once topics were determined, we made a checklist, adding to it as needed. Given our busy and sometimes unpredictable summer schedules, we chose to pick subsections as we went and emailed the group about our selections.

Sometimes a group may find it easier to have everything preassigned. The choice is up to you.

2. Use Active Voice

Using active voice means having the subject perform an action. When a writer uses passive voice, the subject is not always clear, which may cause the reader to make inaccurate assumptions.

Authors can use passive voice when they believe the person or thing acted on is more important than the subject. In our case, we determined using active voice was best.

3. Read Each Other’s Work

After finishing a section, we would send our drafts to each other. This allowed us to learn about personal findings, prevent redundancy, and familiarize ourselves with each other’s writing styles.

4. Know the Audience

The CE piece’s audience included pharmacists and pharmacy technicians. As we wrote about our discoveries, 1 question helped guide what information to include or exclude: What should our audience know or would they want to know?

5. Use a Fresh Pair of Eyes

Have you ever read what you’ve written and misread it? It’s probably because you read it the way you think you’ve written it. A fresh pair of eyes will help find your mistakes, and sometimes it even takes more than 1 pair. Throughout the project, our supervising professor, Jeannette Wick, was also our editor. She gave us feedback on content, grammar, and wordiness.

6. Do Not Fluff Your Stuff

Everyone working in the science field wants the facts, including pharmacists. A repetitive article that contains unimportant filler information dulls the reader’s mind to what’s important. When you write, think to yourself, “What would I want to read?” Be concise.

We finished the CE piece after many hours of research, writing, and editing. We gained and spread knowledge on how to keep cats and dogs safer, learned from each other’s mistakes, excelled as a team, and grew as individual writers.

My advice is this: Don’t be afraid to take a chance and try something new. And remember the words of Nelson Mandela: “It always seems impossible until it’s done.”

ABOUT THE AUTHOR

JUSTYNA SUDYKA is a 2021 PharmD candidate at the University of Connecticut in Storrs.
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Working to Increase Minority Representation in Pharmacy and Provide Care to Underserved Communities

By MARVIN M. AGYEBEN, PHARMD CANDIDATE

I’LL NEVER FORGET the summer of 2016. During a 3-month break from college, my focus for many weeks was supporting my dad, who had just suffered a stroke. My dad had never loved going to the doctor, partly from many years of medical distrust between the Black community and health care practitioners, so I could only imagine what his thoughts were during this crisis. However, some good did come out of this situation.

My dad was properly cared for and was allowed to go home, and I became passionately driven to pursue a career in pharmacy after seeing how pharmacists managed my dad’s health issues. But that unfortunate trip to the hospital, along with other visits and experiences at various health care sites, made me realize there weren’t too many people who look like my dad and me practicing pharmacy.

In my pharmacy class, which has upward of 150 students, I am 1 of 3 Black students and the only Black male. Even during my exposure to various health care sites in the Chicagoland area, I rarely see any black or minority pharmacists of underrepresented ethnic backgrounds. This lack of diversity and inclusion has always worried me. Why aren’t there more Black and minority individuals in pharmacy? What more can I do to help minority populations with my resources as a pharmacy student?

After pondering these questions, I decided I wanted to work on meaningful projects that would provide solutions to this problem. The first project came at the very start of the coronavirus disease 2019 (COVID-19) pandemic. In Chicago and around the country, civil unrest was simultaneously taking place as a result of the death of George Floyd. Many Chicagoans in areas heavily affected by the pandemic and civil unrest found themselves unable to go to the store and get essential groceries, personal protective equipment, or even school supplies for their children. With the help of my classmates and mentors, we were able to provide these materials to families, churches, and schools in need. That’s when it dawned on me: These are the meaningful projects and impacts I’ve wanted to make.

Since then, I have been able to help create an educational platform to inform minority communities about the available COVID-19 vaccines, so that those who are being disproportionately affected by the virus are more inclined to get vaccinated. One of my proudest projects has been working to create a scholarship intended for students of underrepresented minority backgrounds—Black or African American, Hispanic or Latino, Native American, and Native Hawaiian and/or Pacific Islander—to help them attend and afford pharmacy school.

I’m a son of 2 immigrant parents, both from Ghana, and we have had an uphill struggle when dealing with finances and finding helpful resources. So working toward reaching our goals in life has always been a lot harder for us than it has been for others in the United States. Being able to work on a scholarship that I knew could ease some of the weight associated with going into a professional school for a career and to give back to someone has been very valuable. I am still working on bringing this scholarship to life, and my goal is to one day award it to many different minority students who want to have a career in pharmacy, and do my part in diversifying this profession that is already giving so much back to me.

I will be starting my fourth year advanced pharmacy practice experience rotations shortly and have already come so far after 3 years of finishing up my didactic education. Pharmacy school has been a grind, but it has also given me so much opportunity and insight into the impact I want to make within the walls of my campus and the communities in my neighborhood.

Like most of us who pursue a career in health care, I want to help as many people as I can. I also want to continue to advocate for underrepresented minorities who would like a career in the field, especially a career in pharmacy where diversity is a real need. I want to keep lifting up minority communities, and provide a reason to dispel medical distrust between many minority patients and health care providers. I want to make a real difference in someone’s life the way the pharmacists did for my dad when he was in the hospital. These may seem like tall goals, but thanks to pharmacy school and the individuals I’ve met along the way, they’ve turned into my calling.

ABOUT THE AUTHOR
MARVIN M. AGYEBEN is a 2022 PharmD candidate at Midwestern University College of Pharmacy in Downers Grove, Illinois, where he is vice president of the Underserved Medicine Club and is active in other campus organizations.
How I Overcame My Battle With Autoimmune Disease to Become a Pharmacist

By FATIMA KHALEQ, PHARMD CANDIDATE

I CLEARLY REMEMBER THE DAY I received the email informing me of my acceptance into the pharmacy school of my dreams. The first person I called was my husband, and I cried tears of joy as I spoke to him about my acceptance. I had reached my goal. Many of my peers and coworkers said, “Getting into pharmacy school is the hardest part.” However, what none of us could have known was that the next chapter of my life would be far harder.

During pharmacy school, it was incredibly difficult for me to not only wake up every morning for school, but also stay awake for at least 8 hours of lectures. Sometimes, it was even hard to stay awake for 4 hours. Despite societal preconceptions of this being a sign of my laziness, it was actually just a part of my life living with an autoimmune disease; I received a diagnosis of an autoimmune disease during my second year of pharmacy school.

Autoimmune disease occurs when the body’s immune system is unable to distinguish between the body’s own cells and foreign cells, causing the body to attack its own normal cells inadvertently. There are approximately 80 different types of autoimmune diseases that can affect various parts of the body.

Most autoimmune diseases are invisible, meaning the symptoms can’t be easily “seen” by those around patients living with the disease. Although it can be difficult to explain any newly diagnosed disease to one’s family and friends for a multitude of reasons, it can be especially difficult when that disease is not widely known or understood.

After my diagnosis and throughout my journey through pharmacy school, there were numerous times that I felt alone, lost, and misunderstood for this very reason. I was also afraid to be labeled or defined by my diagnosis if my classmates and teachers knew about it. I doubted myself and my goals. I wasn’t sure how I could move forward in life, and I was worried I might need to change my dreams because of it. I questioned whether it would even be possible for me to still become a pharmacist.

Fast-forward 2 years: I have just graduated pharmacy school, and I am getting ready to take my board exam. Two years ago, I was still trying to figure out how to live with my diagnosis, which required that I determine my limits. However, in the process of figuring that out, I also learned that my disease doesn’t need to define me.

Pharmacy school was hard, but I was able to overcome it. And here’s why: My diagnosis gave me a greater purpose. It changed my goal—not away from pharmacy but toward it, by helping my pharmacy career become about much more than a degree. It’s now about becoming the person I am meant to be: a rheumatology clinical pharmacist.

During pharmacy school, I was fueled by this clear vision of my future, and I became involved on campus by joining different organizations and running and volunteering at various health clinics. I joined a mission trip to Guatemala to pursue my calling abroad and expand my horizons. I made sure that it was my passion for my career and my desire to help others that defined me, not my diagnosis.

In the past, I felt compelled to hold back on sharing my story due to stigma and biases around preexisting health conditions. However, during my clinical rotations in school, my perception changed. I was fortunate to provide care for patients with autoimmune diseases, such as lupus and ankylosing spondylitis, and they helped me realize that it’s my duty as a health care professional to make sure my patients are seen, heard, and understood. I am a patient too, and I understand that being seen and heard by health care professionals is incredibly important. I learned that I can be a voice to break bias chains.

The fear of being judged by an illness is heartbreaking. Why would we feel the need to hide an illness when it’s human to be ill? For many, facing an illness and learning to manage associated symptoms can even help build resilience, which is valuable in our professional careers. For me, I am stronger because of my illness. I am where I am today because I have to overcome the challenges my illness has posed in my life.

During my journey, I have learned it’s necessary to celebrate the good days, as this helps make the bad days easier. The bad days are OK too—we all have them. And when they arrive, my friends and family are there to help me find hope. They are what got me through the tough days.

My experience in pharmacy school helped me learn that it’s OK to ask for help when I need it, and that it’s OK to listen to my body and practice self-care and self-love. I also learned that this lesson is important for all health care professionals: Although it is critical that we listen to every patient we treat, it’s also important to listen to the needs of our bodies first, as this will allow us to better care for others.

ABOUT THE AUTHOR
FATIMA KHALEQ is a 2021 PharmD candidate at Midwestern University, Chicago College of Pharmacy.
Pharmacy Students Adapt, Meet Challenges During COVID-19 Pandemic

Despite the stressors of the past year, students said the health care crisis has only reinforced the value of the pharmacist and their desire to enter the field.

By AISLINN ANTRIM, ASSOCIATE EDITOR

ALTHOUGH THE CORONAVIRUS DISEASE 2019 (COVID-19) pandemic disrupted the normal activities of pharmacy students, recent Pharmacy Times® Student Café interviews illustrate how students adapted to the new learning environment and began searching for ways to help their communities.

Transitioning to virtual classes was stressful, said Amy Kallo, a PharmD candidate at Midwestern University’s College of Pharmacy in Downers Grove, Illinois. She relied heavily on her adviser, who told her it was difficult for faculty and staff, as well.

“I think one of the bigger things we all did was take it with a grain of salt and perform academically as best we could,” Kallo said.

Kallo said students taking pharmacy laboratory classes were affected because the labs are an important opportunity for hands-on learning. In the first year of pharmacy, Kallo said students typically learn how to prepare IVs, which drugs are compatible, and how to safely and properly use syringes. When her laboratory class was moved online, Kallo said, her professor did a live demonstration of these skills, which worked well.

Several students said that although the switch to virtual learning was intimidating at first, the spread of telemedicine during the pandemic made it an essential skill.

“We didn’t realize it, of course, at the start of the quarter, but being able to explain things through a computer to a patient, making sure that they understood—those were the sorts of labs that we did have,” Audra Melton, a PharmD candidate at Midwestern University, explained.

Students at Washington State University in Pullman said that although their academic experiences changed as a result of the pandemic, they have found ways to productively use their knowledge. Several students said they have been involved with COVID-19 testing and vaccination efforts, which helps the community and furthers their hands-on experience.

Shannon Patterson, a PharmD candidate at Washington State University, has been involved with vaccination events at the Spokane Arena. Patterson said she has worked on other vaccination outreach events as well, in assisted-living facilities and cancer centers.

“In my role with Operation Immunization, I have planned a lot of [influenza] clinics and a lot of [influenza] immunizations, so I’m familiar with these events,” Patterson said. “But COVID-19 immunization clinics have completely changed how we plan and how we use our resources. For example, at the Spokane Arena, this is the first time that some of these groups are working together... It’s put me in a different role, absolutely.”

Washington State University has been supporting students with regular immunization training and opportunities to put their knowledge into practice. Shayne Fontes, a PharmD candidate, said many students already were trained in immunization practices as well as nasopharyngeal swabbing and basic testing methods, although he said first-year students may have needed additional training to work in testing or vaccination clinics.

“We did provide online review sessions where we had one of our professors go over the nasopharyngeal swab, and how that stuff looks and how it’s done,” Fontes said. “And for those who didn’t get that hands-on training, the virtual training was the best we could provide.”

Despite the stressors of the past year, most students said the pandemic has only reinforced the value of the pharmacist and their desire to enter the field. Patterson said she believes pharmacists are one of the most important sources for information and support within a community, especially during a time such as the COVID-19 pandemic.

“The value of a pharmacist is [inestimable] right now,” Patterson said. “[Pharmacists are] able to engage with the community, help vaccinate, give them resources and education, and be the most accessible health care provider.”

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Students Should Seize the Opportunity to Host Brown Bag Consults

By JILL DRURY, PHARMD, BCOP

THE CURRENT HEALTH CARE ENVIRONMENT makes it challenging for student pharmacists to find ways to shine. But the coronavirus disease 2019 (COVID-19) pandemic has given students the opportunity to assist pharmacists with new workflow issues and prioritize patient volume.

For many, this has led to prepandemic nostalgia, not just for what was once normal, but also for more simpler times when we could smile at customers from across the counter and make casual small talk with them without wearing a mask or worrying about the virus.

Yet, despite the new stress of managing safety and well-being in the pharmacy during the pandemic, it remains critical that we know our patients. Relationships are at the core of obtaining positive patient outcomes, and the pandemic has not erased patients’ chronic medical conditions or their need for treatment.

Student pharmacists are in a unique position to reestablish the definition of patient care within the pharmacy as we emerge from the pandemic. Offering services such as brown bag consults can demonstrate the importance of pharmacy services beyond dispensing.

A brown bag consult is when a patient gathers their current medications, including any OTC, mail order, specialty, and/or herbal products, and figuratively puts them into a “brown bag.” The patient then reviews their medications with the pharmacist during the consult.

During a consult, student pharmacists can focus on supporting those who have chronic conditions, as they may be at higher risk for medical-related errors due to the quantity of different medications, a variety of health care providers, and potentially more than 1 pharmacy filling their prescriptions. When maintenance therapy needs adjustment, patients may additionally experience short- or long-term changes in their health.

Within the community, the student pharmacist is a provider with whom a patient may communicate on a consistent basis for follow-up care. Refill medication counseling is an excellent opportunity for students to identify vulnerable patients.

During refill medication counseling, students can ask open-ended questions to patients about possible concerns or changes, which makes it easy to determine if further review by the student or pharmacist is necessary.

In this way, brown bag consults provide students and pharmacists a way to offer patients extended counseling concepts such as medication therapy management (MTM). These consults are an essential safety and educational tool to help the pharmacy measure and instill quality care within the health care system.

When conducting brown bag consults with patients, the student can identify potential problems or concerns that may require additional follow-up with the pharmacist or prescriber, or they can offer an MTM session to discuss things further.

During the consult, the student pharmacist should first compare the medications in hand with those listed on a patient’s pharmacy profile. They should then check for duplication of therapy and identify any interactions. Medications need to be verified for the correct dosage strength and frequency.

The student also should identify if the patient has any outdated or discontinued medications. Providing an updated medication list to the patient at the end of the brown bag consult ensures the patient can share accurate information about their medications to any provider.

A brown bag consult is also a useful safety tool for patient adherence. Brown bag consults can show how well patients understand their conditions, their medications, associated health purpose, and any directions for taking the medication, as well as provide the pharmacist with insight into a patient’s lifestyle and quality of care.

Brown bag consults provide an opportunity to develop the patient-pharmacist relationship, which increases loyalty, trust, medical error prevention, and overall better individualized services. As value-based care initiatives grow throughout the health care landscape, brown bag consults are a proactive pharmacy-led contribution.

ABOUT THE AUTHOR

JILL DRURY, PHARMD, BCOP, is a clinical pharmacy specialist in Chicago, Illinois, and Milwaukee, Wisconsin.
5 Tips for Graduating Pharmacy Students and Recent Graduates

By JAMES WHEELER, PHARMD, BCPS

CONGRATULATIONS TO THE CLASS OF 2021. Your hard work is about to pay off as you enter the ranks of licensed pharmacists.

Although the coronavirus disease 2019 (COVID-19) pandemic has raised unprecedented challenges, compounding already-tough competition for open positions, opportunities still exist. Today, pharmacists are practicing at the top of their licenses: engaging in collaborative practice through comprehensive medication management, providing medication therapy management services, offering point-of-care testing, and immunizing the nation against the COVID-19 and other diseases. One major health care innovation company declared 2021 “the year of the pharmacist.”

Pharmacy, like many areas in health care, is undergoing rapid transformation. But with any transformation come opportunities. Whether you are looking for your first position or are a recent graduate looking to make a transition, the right approach can make the difference in your success. Here are 5 tips to help you succeed in finding the right position.

ENGAGE YOUR PROFESSIONAL NETWORK
Professional networks lead to more job and business opportunities, improve quality of work, increase capacity to innovate, and improve overall job satisfaction. Are you engaging preceptors, faculty, your college’s alumni network, and professional associations? The most potent networks are not built via casual interactions (“Hi, my name is James, and I’m looking for a job”) but through tasks that require one another’s contributions, such as patient care, committee service, and volunteer work, or tasks geared toward achieving a common goal, such as winning a sports league championship.

CONSIDER NONTRADITIONAL OPPORTUNITIES, EMERGING PRACTICE AREAS, AND RURAL AREAS
If you find the market is saturated, seek opportunities that allow you to stand out. Managed care, long-term care, drug or medical information, specialty drugs, and informatics are often overlooked areas of practice by students, but tremendous opportunities exist in each of these spaces. In addition, if metropolitan areas are saturated, be willing to explore rural areas where there is not a surplus of graduates. Your first position will not be your only position. With each position, focus on learning, earning, and contributing with the opportunities you are afforded.

CLEARLY ARTICULATE WHAT YOU CAN ADD TO THE ORGANIZATION
A well-articulated elevator pitch can lead to an interview. Set up mock interviews with your college of pharmacy or the university career services office. When preparing for interviews, remember to highlight the value you would bring to the organization. Can you initiate a new clinical service and set up billing to
offset some of your salary? Are you located near a border state and could be licensed to practice in multiple locations? Could you work with a large employer to improve outcomes in diabetes? Can you decrease polypharmacy for patients or reduce medication errors? Can you improve Centers for Medicare & Medicaid Services core measures scores? Do you have experience with telemedicine as a result of the pandemic? Whatever your skill set, make sure you are selling your employment as a value-added opportunity for the organization. During interviews, enthusiasm is contagious, but make sure it comes across as sincere.

**BUILD YOUR PERSONAL BRAND**

"Your brand is what people say about you when you’re not in the room."

This quote from Jeff Bezos, founder and CEO of Amazon, summarizes the importance of having a personal brand. Personal branding involves providing evidence that you have the skills needed to succeed in the profession, often detailed in a portfolio or on a website. Build an identity on high-traffic sites, such as LinkedIn, that display your accomplishments and professional interests. As you grow in your career, add certifications, awards, and areas of expertise. Interpersonal skills are just as crucial and contribute to your brand and reputation among colleagues.

**ENGAGE IN CONTINUING PROFESSIONAL DEVELOPMENT**

Pharmacists must be prepared for continuous learning and growth after earning their doctor of pharmacy degree. As you transition from student to practitioner, incorporate a scholarly approach in identifying problems, analyzing the literature for the best evidence-based practices, and applying this information to optimize patient outcomes.

Write down your professional goals, seek out a mentor who will hold you accountable in achieving them, and reflect on them often. Goals that are SMART (specific, measurable, agreed upon, realistic, and time related) have a higher chance of being achieved. Ultimately, never stop learning. Graduation is really only the first step of your professional development.

**REFERENCES**


**ABOUT THE AUTHOR**

JAMES WHEELER, PHARMD, BCPS, is a faculty member at the University of Tennessee Health Science Center College of Pharmacy and currently serves as the associate dean of the Knoxville campus as well as director of continuing professional development. He teaches drug information, medication safety, and pulmonary medicine coursework. His research interests include continuing professional development, workforce development, the opioid crisis, and interprofessional education.
THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY (AACP) is recognizing the University of Connecticut, 5 individuals, and a scholarly paper for their achievements, as recipients of its top awards. The organization has also named 14 early career professionals to its 2021 class of New Investigator Award (NIA) recipients. All award recipients are scheduled to be publicly honored during AACP’s upcoming annual meetings.

The AACP is a national organization that represents the interests of pharmacy education. The organization consists of 142 accredited schools with pharmacy degree programs, with membership including more than 6700 faculty, and 67,000 students.

The AACP’s top professional awards honor 5 individuals, an institution, and a scholarly paper. These awards are given in recognition of the recipients’ outstanding contributions to pharmacy education, research, patient outcomes, community service, and publication. According to AACP, the recipients of these 7 awards are at the forefront of health care professions education and through their work are advancing pharmacy innovation, enhancing patient care, and adding value to the health care system.

“In times such as the current pandemic, the impact of excellence in all dimensions becomes even more obvious and needed. AACP’s award recipients exemplify excellence in teaching, research, and service with far-reaching impact here and around the world,” said AACP Chief Executive Officer and Executive Vice President Lucinda L. Maine, PhD, RPh, in a prepared statement. According to AACP, the top awards will be presented to recipients honored at AACP’s next annual meeting, Virtual Pharmacy Education 2021, July 19-22.

The NIA provides start-up funding for independent research programs of early career faculty. Each of the 14 grants named for the 2021 cycle awarded between $7500 and $10,000 in March. All recipients have an earned terminal degree (PharmD, PhD, or equivalent) and a regular full-time faculty appointment at the assistant professor level at a US college or school of pharmacy accredited by the Accreditation Council for Pharmacy Education. Recipients also receive a travel award from AACP for attending the 2022 AACP annual meeting in Grapevine, Texas, where they will present their research findings.

Top award recipients are as follows:

- Brian Erstad, PharmD, University of Arizona, Tucson, will receive the Robert K. Chalmers Distinguished Pharmacy Educator Award for outstanding achievements as an educator and mentor, his innovations in the classroom, and his overall impact on pharmacy education and the profession.
- William R. Doucette, PhD, University of Iowa, Iowa City, will receive the Paul R. Dawson Award for Excellence in Research for outstanding achievements as an educator and mentor, his innovations in the classroom, and his overall impact on pharmacy education and the profession.
- Carston “Rick” Wagner, PhD, University of Minnesota, Minneapolis, will receive the Volwiler Research Achievement Award for his record of sustained excellence in research and entrepreneurial work in chemical biology.
- Victoria F. Roche, PhD, Creighton University, Omaha, Nebraska, will receive the Lifetime Achievement Award for her rich portfolio of accomplishments related to instruction, leadership, service, and scholarship over 25 years.
Laura Cranston, RPh, cofounder and former chief executive officer of the Pharmacy Quality Alliance, based in Alexandria, Virginia, will receive the Distinguished Service Award for her work to advance the recognition of pharmacists’ contributions to safe, effective, and high-quality patient care through quality measurement and improvement.

“A Historical Discourse Analysis of Pharmacist Identity in Pharmacy Education,” by Jamie Kellar, PharmD; Elis Paradis, PhD; and Zubin Austin, PhD, MISC, all University of Toronto, Canada; and Cees P.M. van der Vleuten, PhD; and Mirjam G.A. oude Egbrink, PhD, both Maastricht University, Netherlands, will receive the Rufus A. Lyman Award, in recognition of the best paper published in the American Journal of Pharmaceutical Education during the previous year.

The University of Connecticut, Storrs, will receive the Lawrence C. Weaver Transformative Community Service Award for its commitment to addressing unmet community needs through education, practice, and research.

**NIA recipients are as follows**:2:

- Jaclyn Cusumano, Long Island University, New York, New York; "Innovative Assessment of Penicillin Plus Ceftriaxone Against Enterococcus faecalis"
- Peter Hart, Roosevelt University, Chicago, Illinois; "Evaluating Metformin as an Immunomodulator to Inhibit Ovarian Cancer Metastasis"
- Weimin (Conrad) Hong, Butler University, Indianapolis, Indiana; "Molecular Mechanisms of Dopamine Transporter Modulation by the Sigma-1 Receptor"
- Hyeun Ah Kang, The University of Texas at El Paso; "Unintended Consequences of the 2016 CDC Guideline for Sickle Cell Disease Patients"
- Nitesh Kunda, St. John’s University, New York, New York; "Antimicrobial Peptide, Nisin-Based Inhalation Therapy for Non-Small Cell Lung Cancer"
- Sangmin Lee, High Point University, High Point, North Carolina; "Peptide Hormone Amylin Interaction With its Receptor for Next Anti-diabetic Therapy"
- Sun Lee, High Point University; "Insulin Delivery Device and Health-Related Quality of Life in Medicare Enrollees"
- Sin Yin Lim, The University of Wisconsin, Madison; "Relationship Between Immune Responses and Fentanyl Exposure in Children"
- Amanda Margolis, The University of Wisconsin; "Preceptor Perceptions of a Validated Tool to Assess APPE Interprofessional Teamwork"
- Margaret Olson, Roosevelt University; "RNA-Binding Chaperone Hfq as a Novel Target for Antibacterial Drug Development"
- Amir Nasrolahi Shirazi, Marshall B. Ketchum University, Fullerton, California; "Tamoxifen-Peptide Nanostructures for Efficient Delivery to Resistant Cells"
- Osama Shoair, The University of Texas at Tyler; "Prevalence and Healthcare Costs of Psychotropic Polypharmacy Among Dementia Patients"
- Melinda Varney, Marshall University, Huntington, West Virginia; "Deficiency of Immune Regulators IRGM, TIFAB, and miR-146 in Hematologic Cancers"
- Jacqueline Zeeman, University of North Carolina at Chapel Hill; "Better Together: Evaluating the Me and We Competencies in Interprofessional Teams"

**REFERENCES**


Husson University School of Pharmacy

School Location: Bangor, Maine
Founded Date: 2008
2021 Graduating Class Size: 42 students

Q: Please tell us about the history of the school and any notable accomplishments of its graduates.

A: Husson University School of Pharmacy [HUSOP] was founded in 2008 and graduated its first class of PharmD recipients in 2013. Its mission is to educate and mentor future practitioners in a collaborative and supportive environment, and to deliver and improve regional health care. It is the only school of pharmacy in central and northern Maine, and works collaboratively with regional health care partners to advance pharmacy education and practice.

HUSOP graduates have gone on to work all over the United States and in countries around the world. HUSOP alumni have joined the armed forces as pharmacists, started their own independent pharmacies, and worked in all levels of hospital management.

Some notable alumni include Richard Thibaut, who graduated in the class of 2015 and now owns and manages 8 pharmacies in Louisiana as well as 1 in Cameroon, Africa; Wesley Snow, who graduated in the class of 2014 and went on to work as a pharmacist in the armed forces; and Laura and Dan Burk, who met while going to HUSOP, are now married, and work together as pharmacists at the Katahdin Valley Health Center in Brownville, Maine.

Q: How has your pharmacy school helped shape pharmacy practice in your state?

A: HUSOP has helped to shape the practice of pharmacy in Maine by collaborating with our clinical partners and having alumni located throughout the state. We often say in the school that it is difficult to go to a pharmacy in Maine without meeting a HUSOP graduate who works there.

Additionally, our clinical faculty have advanced the understanding and use of pharmacy services by establishing practice sites where no pharmacist had previously worked as part of the health care team. This has expanded medical services by increasing medication adherence, resulting in improved patient care.

HUSOP faculty have also worked as part of the Maine Pharmacy Association to lobby for legislation that supports pharmacists’ efforts to be recognized as health care providers in the state. Additionally, faculty have worked to support and encourage pharmacy technicians to pursue careers as licensed pharmacists, with 33% of enrolled HUSOP students following this path.

Q: What is unique about your pharmacy school?

A: Husson University offers a program in which students can complete all prerequisites, with a bachelor of science [BS] degree in health sciences and the doctor of pharmacy degree in 6 years. Because most schools of pharmacy that offer a 6-year program do not offer a BS degree, we established our program as an option that helps students looking to maximize their time and financial investment.

At HUSOP, one-third of the clinical rotation is with faculty, which is unique to our school; most schools of...
pharmacy offer only 10% to 20% of clinical rotation with the faculty. We also offer a 10-to-1 student-to-faculty ratio, which provides the opportunity for students to have daily direct access to faculty and develop relationships that allow for opportunities to participate in faculty research. This collaborative environment supports deep connections between faculty and students.

From 2018 through 2020, HUSOP's 8 pharmaceutical science faculty members published 22 articles and 4 book chapters, many of which involved student participation and collaboration. During the COVID-19 pandemic, HUSOP has also been able to offer students the ability to stay on track for graduation while allowing them to complete all advanced pharmacy practice experience rotations on time.

**Q:** What is the teaching style or philosophy?

**A:** Faculty are provided the resources to design, deliver, and assess content to meet programmatic outcomes. Each faculty member develops, within that context, their own style and philosophy of instruction. Pharmacy faculty are trained and credentialed by the Association of College and University Educators [ACUE]. This is valuable because ACUE works to effectively prepare, credential, and support faculty to teach with the practices known to improve student achievement.

Additionally, HUSOP has worked to follow best practices in the design, delivery, and assessment of face-to-face and online classes, while continuing to support formal collaboration between faculty across disciplines in order to integrate content, and application of content, throughout the curriculum.

**Q:** What are some community outreach activities or programs the school participates in?

**A:** Husson University has a number of student activities and organizations, including chapters of Phi Lambda Sigma, Phi Delta Chi, Rho Chi, American Pharmacists Association [APhA], and American Society of Health-System Pharmacists [ASHP].

The pharmacy fraternity of Phi Lambda Sigma, a professional leadership society, focuses on developing leadership skills among all students and supports community resources, such as the Ronald McDonald House in Bangor.

The pharmacy fraternity of Phi Delta Chi, a professional fraternity, has other opportunities available to members, such as organizing bone marrow registry sign-ups and blood drives, increasing student involvement and acclimation to the university, and conducting community outreach projects to serve the local homeless community.

There is also the academic honor society of pharmacy Rho Chi available to HUSOP students. It is known in the area for its work to organize and deliver pharmacy-related programming at the Maine Science Festival.

There are other student professional pharmacy organizations available such as APhA, which regularly hosts immunization clinics, medication take-back events, fundraising events to support patient care projects, patient counseling competitions, and other educational opportunities.

Furthermore, in response to a limited workforce available to administer COVID-19 vaccines, HUSOP has conducted technician and pharmacist immunization training programs approved through the Accreditation Council for Pharmacy Education, leading to certification in administering immunizations. HUSOP has hosted several classes to date to ensure that everyone wanting to become immunization certified has the opportunity.

As part of the pharmacy curriculum, HUSOP also offers the Point of Care certification and Mental Health First Aid training programs, with other programs to benefit students and members of the community in development as well.

**Q:** What opportunities do students have for internships or co-ops?

**A:** In addition to the structured clinical rotations, many HUSOP pharmacy students are employed within the pharmacy profession. Husson University is located near 3 health systems, which regularly have many opportunities and health clinics available to HUSOP students. HUSOP encourages students to find an appropriate balance between internships, academic work, and their personal lives to ensure long-lasting success and personal development.

**Q:** What advice do you have for students who will graduate in 2021?

**A:** The advice HUSOP gives to students graduating in 2021 is to never stop learning, developing, working to improve the health care landscape, or opening their minds to new opportunities. The fact that the pharmacy profession is changing rapidly has long been understood, but the pace of change has accelerated dramatically because of the current public health crisis.

HUSOP students are in a position to very quickly become the health care leaders of tomorrow, and now is an exciting time to join health care teams. Additionally, HUSOP recommends on a personal level to never turn down an interesting opportunity, because it can take students to meaningful places in their careers.
Let your voice be heard!

**Student Voices** empowers student pharmacists to lead the conversation through articles, videos, and social media.

Students who wish to participate in Student Voices are encouraged to submit articles to be featured in *Pharmacy Careers*® and on PharmacyTimes.com, and can be featured in a video interview. To submit an article or express interest in an interview, please send an email to AHippensteele@mjhlifesciences.com.

Visit our Student clinical role page on PharmacyTimes.com for more news and resources for student pharmacists!

#PharmacyStudentVoices