

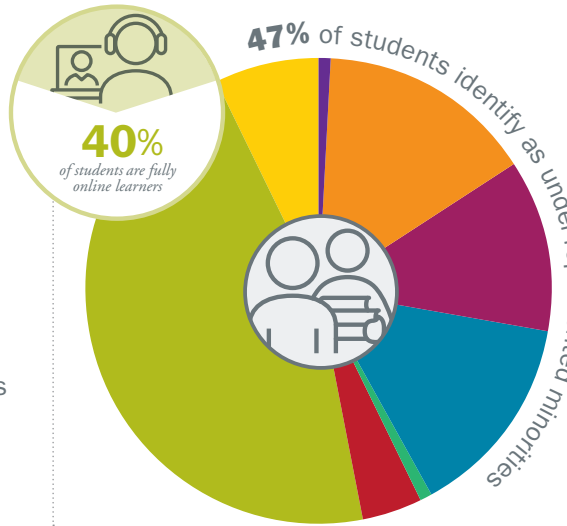


Annual Report
2019–2020

BY THE NUMBERS

 **1373**  *students enrolled*

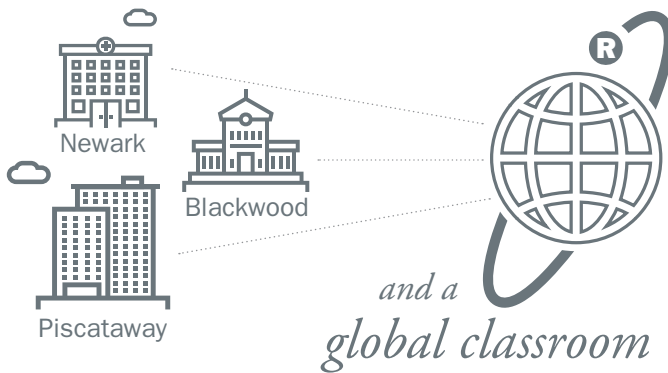
- <1%** American Indian
- 15%** Asian
- 12%** Black
- 14%** Hispanic
- <1%** Hawaiian
- 4%** Two or More Races
- 46%** White
- 7%** Unknown



151
faculty

90 
staff

3
locations



24 graduate and undergraduate degree programs








15 graduate and undergraduate certificate programs

447

Graduates in 2020



12,706
alumni

Messages from the Dean & Chancellor

When I look back at the 2019–20 academic year, the word that resonates is resilience. I am immensely proud of our faculty, staff, students, alumni, and graduates, who proved that we can rise to any challenge or call to action with passion, humility, and perseverance.

We started off the year strong:

we increased our grant submissions, revamped our educational and clinical spaces to ensure success for new programs, and intensified our recruitment efforts in-person and digitally to expand our reach to the most qualified and gifted students. We made strides in building international partnerships in health education and delivered the highest quality education for our students.



Three-quarters of the way through the school year, the world shifted dramatically. As a global pandemic sent students off campus, our faculty and staff quickly and efficiently transitioned courses online. Their talent for innovation and entrepreneurial spirit combined to deliver the same exceptional education experience that our students deserve. We understood that our response early on would shape the way many of our programs would operate through the course of the pandemic.

Our faculty and students stepped up, donating time and materials to fight COVID-19. Alumni on the front lines were putting their lives at risk to care for the most critically ill. We're honored to share their stories in this year's annual report, and to show what resilience looks like at the School of Health Professions (SHP).

I look forward to continuing on a path where we turn challenges into triumphs for the greater good.

GWENDOLYN M. MAHON, MSc, PhD
Dean, Rutgers School of Health Professions

In times of challenge, I can always count on the School of Health Professions (SHP) to fulfill the mission of Rutgers Biomedical and Health Sciences (RBHS). As the largest and most programmatically diverse health professions school in the nation, SHP continues to deliver outstanding didactic and clinical education, cutting-edge research, and outstanding patient care and community service.

The COVID-19 pandemic presented our schools with what seemed like unsurmountable obstacles to continue to educate our students efficiently and effectively in



a remote environment. SHP, being one of the first schools in the nation to offer highly ranked distance and hybrid programs over 25 years ago, took the challenge of the pandemic and quickly turned in-person classes into virtual classes without

diminishing excellence. Faculty who have perfected virtual education, assisted their colleagues in the transition, offering trainings and one-on-one assistance. In addition, faculty used innovative medical equipment and novel approaches to virtually deliver a similar student experience.

The 2019–20 academic year, while different than the rest, has shown me and the Rutgers Community that SHP can rise to any challenge as a team to continue to deliver on their important mission areas. We at RBHS are proud of SHP's accomplishments and we look forward to another successful year ahead.

BRIAN L. STROM, MD, MPH
Chancellor, Rutgers Biomedical and Health Sciences

2

Education



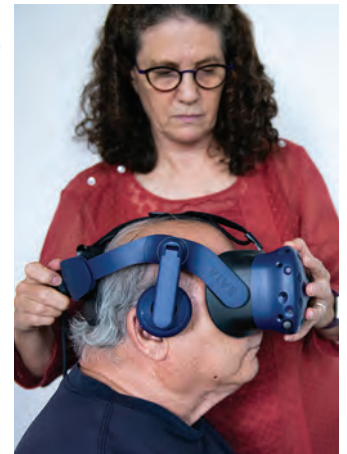
6

Community Engagement



10

Research & Scholarship



12

Alumni



16

Timeline





A Test of resilient

“No matter where you live, you should have the same access to health care as anyone else. That’s what drives me.”

KATIE WENZEL | Physician Assistant student recipient of the National Health Service Corps scholarship

The 2019-2020 academic year has been like no other for our school and all universities. It brought challenges none could have anticipated, but our faculty and students rose to meet those challenges, in many cases turning them into opportunities to learn and lead.

When the COVID-19 pandemic shut down our campus classrooms, eight weeks before the year ended, our school, along with countless others, had to quickly innovate.

We shifted programs online, trained faculty to remotely deliver courses normally taught in the classroom, and created a new student experience. This pivot was

accomplished within a week, with students on spring break.

While we were far from alone in reimagining how to deliver our curriculums, the nature of our educational programs—with their many clinical components and use of specialized technological equipment—made it critical to quickly create alternative ways to teach and learn.

In the M.S. in Cytopathology program, traditionally a hands-on, mentor-mentee experience using multi-head microscope sessions, our big challenge was how to remotely continue the microscopic teaching, which is essential to practice.

In a solution that was both quick, and required a minimal learning curve, technology was purchased connecting the instructor's iPhone to his home microscope, allowing transmission by Zoom of glass slides. Students, who left campus with microscopes, submitted results daily for cases screened remotely. Not a day of learning was lost.

When asked about their experience with online learning, students responded positively, indicating a willingness to attend classes remotely in the future, even when traditional classroom learning is available, according to a research paper on adapting the program for remote learning published by faculty member Paul Chiou.

In the Doctor of Physical Therapy program, an engaging and interactive online academic program was developed for 300 students.

With in-person lab assessments suspended, faculty videotaped demonstrations, and students practiced on “quarantine buddies.” Those without human “patients” used stuffed rag dolls, big stuffed bears and “pillow people” that faculty taught to them to build.

The department worked furiously to adjust content delivery, moving fall courses to a remote summer learning format, which allowed students to shift their planned summer clinical experiences to fall, ensuring they stayed on track for a 2022 graduation.

Because COVID-19 disrupted clinical rotations, some Physician Assistant students were short credits needed for graduation. They were offered a rare opportunity to make them up by assisting in a nationally acclaimed COVID-19 clinical study being conducted by Rutgers.

Privileged to Work in Pioneering Study

Wearing a disposable lab coat and mask, **Allison Tan** drew blood from participants, recorded data, cleaned vials, and sent samples to the lab.

A Physician Assistant student, she was assisting with a groundbreaking Rutgers University clinical study tracing the spread and consequences of COVID-19 in healthcare workers. The study had garnered national attention.

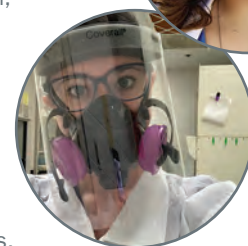
“When we were presented this opportunity, we didn’t realize how big this study was going to be,” Tan said. “I feel incredibly honored to be part of it. As a new, emerging clinician, I was initially hesitant, but it’s been great to be able to do this while I am still a student. It’s been an honor and privilege.”

When the viral outbreak sidelined PA students from their clinical rotations, leaving some short of credits needed for graduation, Program Director Matthew McQuillan arranged for students in their final year to participate in the study, with the option of earning credits.

Graduating student **Jordyn Platz** worked with participants on consent and also collected throat swabs and saliva, a role that required a higher level of protection—gowns, half-face respirators, and face shields to protect her from the virus.

She’d never worn so much protective equipment before. Nor had she been involved in a clinical research study.

“It was so interesting to see how things worked behind the scenes, and impressive to see how quickly they got the study together to respond to an urgent need,” she said. “It was really exciting and rewarding to volunteer our time for such an important research study.”



*Allison Tan (above)
and Jordyn Platz*





PA scholarship recipients Lisangi Fernandez, Alec Weiss and Katie Wenzel

“Being on a team with students from other professions such as a social worker and nurse practitioner made me recognize the importance of integrated care. The only way to provide the absolute best care for the patient is by working together. If the person’s medication isn’t right, then what I provide to them as a counselor doesn’t help them.”

GABRIELLA REDAELLI | Psychiatric Rehabilitation and Counseling student, and counselor at a Newark Clinic through an Opioid Workforce Expansion federal grant program.

Our Class of 2020 graduated and entered the healthcare workforce at an unprecedented time in our history, during a global pandemic where the stakes couldn’t be higher for providers on the front lines.

But they have been well-prepared to meet health care needs today and into the future. Weeks after students graduated from the nation’s first future-education model Entry-Level M.S. in Clinical Nutrition degree program, some were in the forefront of the viral outbreak using their skills to feed critically-ill ventilated patients.

Our students continued to shine academically. Scholarship recipients included Mercedes Aguirre, president of the Student Government Association and DPT student, who won the extremely competitive American Physical Therapy Association’s Minority Scholarship Award. And three members of our Class of 2021 Physician Assistant program were given full scholarships by the National Health Service Corps after pledging to work in

underserved communities. We are proud of their desire to give back.

As interdisciplinary care moves to the forefront of healthcare, we’re expanding opportunities for students to work across disciplines. In the fall, students from our Doctor of Physical Therapy program teamed with the School of Nursing and the Ernest Mario School of Pharmacy to screen the elderly in Newark for osteoporosis and fall risks

Through didactic and clinical experiences, volunteerism, and research opportunities, Rutgers School of Health Professions students have gained the training and tools they need to succeed.

This year tested the resilience of both faculty and students.

But with their dedication and commitment to quality care for everyone, our students leave Rutgers School of Health Professions confident, innovative practitioners, researchers, and public servants ready for whatever challenges the future brings.

“Giving Up is Not an Option”

Jessica Easton was determined to graduate from her M.S. in Health Care Management degree program regardless of the obstacles put in her pathway.

In December, she was diagnosed with Stage 4 kidney failure and spent 10 days in the hospital receiving treatment, including chemotherapy. During that time, her application to the Institutional Review Board was due for her capstone—the final step separating her from her diploma.

“I was not going to give up,” said Easton. “It was not an option. As the first in my family to obtain a college degree, let alone a master’s degree, I wanted to prove to all of us that I could accomplish my goal.”

While in the hospital, she worked tirelessly to submit her application to the IRB, even when her energy was spent.

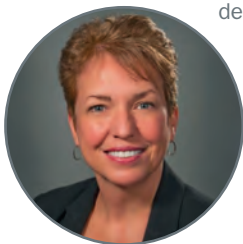
“She was an extremely strong and dedicated student,” said Dr. Tracy Davis, assistant professor and Easton’s graduate project advisor. “When she informed me that she had been hospitalized and would need to undergo treatment, I fully expected that she would take a leave of absence. To my surprise she informed me that she wanted to push forward with her project. And, she did.”



Fighting Pandemic with New Technology

For her dissertation in Biomedical Informatics, **Kathleen Mazza** studied a pilot artificial intelligence chatbot program that monitored patients after their release from the hospital.

She couldn't have known how important that knowledge would be more than a year later, when her hospital system asked her to help scale up the chatbot system to speed delivery of testing results to COVID-19 patients.



"We are also using chats now to monitor COVID positive patients at home during their two-week isolation and to identify patients who need escalation/telehealth intervention—even

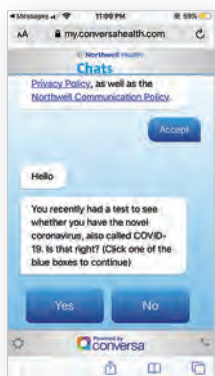
including pulse oximetry to measure oxygen blood levels for some high-risk patients," Mazza said.

Mazza's dissertation study focused on use of the chatbot system, Conversa, to reduce hospital readmissions by following up with patients for 30 days on such things as appointments, medication management, and symptom monitoring. Before the pandemic, it was used mainly for post-discharge patients.

"I understood both the power and the limitations of the technology and was able to communicate with both clinicians and technical teams to facilitate rapid delivery of the results chat," she said.

Her role as a clinical strategist for population health initiatives at Northwell Health is to use data to help reduce readmissions to hospitals and improve health outcomes.

She has been invited to participate in COVID research, an opportunity that would not have been available to her without her doctoral degree, she said.



Physician Learns Sonography

When emergency room physician **Dr. Nalin Ranasinghe** applied to the cardiovascular sonography program, the program director was puzzled: did the doctor understand it was geared toward undergraduates?

He did, and still wanted to enroll in the 15-month bachelor's program.

Working in a rural hospital, Dr. Ranasinghe wanted to be formally trained to conduct an ultrasound, learn more about the science of the important diagnostic tool, and be better prepared to provide point-of-care testing.

"It's one thing to understand anatomy from a clinical sense, but another when you are looking at ultrasound images. If you don't have that skill, you need someone to instruct you, which helps you manage the patient once the diagnosis is made," said Dr. Ranasinghe. "This program has given me insight into how to make the diagnosis itself."

He remembers the program director, Stanley Ort, being perplexed when he decided to apply.

Ort said he was impressed by how Dr. Ranasinghe managed to fulfill his requirements, scheduling his emergency room shifts around the class schedule. "He is a humble individual and acknowledged the expertise of program and clinical faculty at all times," Ort said. "I was impressed by his genuine interest in how sonography could be used to improve his care of patients."





RUTGERS

BIOMEDICAL AND
HEALTH SCIENCES



Making a **difference**

As future practitioners in many aspects of health care, our students seek opportunities to serve people from all walks of life. Their clinical rotations and volunteer work not only provide valuable learning experiences, they also fill a community need.

In October, a student-run, pro bono physical therapy clinic opened in the city of Camden where more than a third of residents are at the poverty level.

It was the culmination of work by six students in the PT program in South Jersey, who had formed a task force and obtained a grant from a community non-profit so they could offer free services.

“We’ve had a great first year. We are proud to have been able to provide pro bono services to the Camden community, as well as provide our students with hands on clinical experience,” said Michele Palmer, DPT student.

Adam Coughlan was one of the student founding members.

“We are one of the few physical therapy schools in South Jersey, and we wanted to reach out and help the underserved in Camden,” he said.

Students partnered with the Cooper-Rowan Clinic, which is run by students from Cooper Medical School and Rowan Medical School.

They treated a multicultural population with injuries such as knee pain, back pain, and rotator cuff injuries. “Many had chronic pain or injuries that went untreated because they didn’t have insurance,” Adam said.

In the Department of Psychiatric Rehabilitation and Counseling Professions,

a federal grant gave students the opportunity to work in New Jersey’s most impoverished cities with people who have substance abuse disorders.

Tameika Minor, assistant professor in Rehabilitation Counseling, who received the \$1.4 million grant, said the program is meant to improve collaboration among



“We’re preparing our students to be practitioners who can offer team-based, person-centered, culturally competent substance abuse disorder treatment to underserved and vulnerable populations.”

TAMEIKA MINOR | Assistant Professor, Rehabilitation Counseling



health care professionals treating people with substance abuse disorders through an interdisciplinary approach to care.

“Historically, mental illness among people with substance abuse disorder has been treated separately or gone untreated, even though it is often a co-occurring factor.

“We are implementing side-by-side learning and practice to prepare practitioners to offer team-based, person-centered treatment to underserved and vulnerable populations,” she said.



Performing community health screenings

The graduate internships put students at the forefront in addressing the opioid epidemic.

Student Ailiya Kirby was at Mid-State Correctional Facility, New Jersey's only substance abuse treatment prison, working to ensure that inmates—who are most at risk of relapse within 48 hours of release—get the follow-up medical, pharmaceutical and psychological care they need to stay sober.

Gabriella Redaelli worked in a team-based substance abuse setting in Newark with a social worker and nurse practitioner, counseling those struggling with addiction recovery.

“Some days I felt defeated and other days, I feel I helped someone. But I always learned something new,” she said.

Throughout the school year, our SHP community finds ways to serve, whether it is a group of medical laboratory students collecting food and clothing for Newark residents, or a physician assistant group raising money to buy easily-disinfected clogs for hospital workers going into COVID-19 isolation rooms during the height of the pandemic.

Student Puts Hobby to Use Making 3D Masks

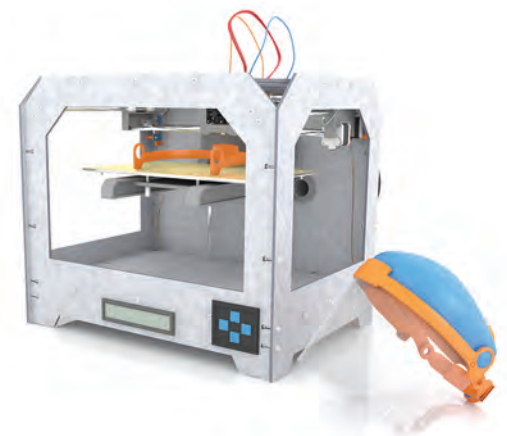
From his home, **Joseph Rodriguez** helped to fight the corona virus.

When his clinical rotation was postponed due to COVID-19, the cardiovascular sonography student used the time to make plastic face shields for hospital workers on his 3D printer.

“My friends and family who work in health-care were telling me how they are short on supplies and had to make or bring in PPE themselves. So I had plenty of motivation,” Rodriguez said.

Rodriguez uses his printers to make everything from wall art and tool hangers to toys for his niece and nephew. During the pandemic, he crafted hundreds of face shields by making thermoplastic head frames, and attaching clear plastic sheets of the type used for report covers. The lightweight face-coverings prevent bodily fluids and droplets from spraying the wearer's eyes and face.

“While he is too early in his sonography training to volunteer in a medical worker capacity, Joseph figured out a way to put his 3D printing hobby to great use in a selfless effort to help those on the front lines of this crisis,” said Stanley Ort, cardiovascular sonography program director.



Helping Others Navigate Life at “LifeTown”

The customers are often children with autism, learning to navigate a world where the slightest noise can set off hand-flapping and uncontrollable outbursts.

The people who wait on them are volunteers, patiently helping them with their routine errands.

The setting is LifeTown, a mock village in Livingston, NJ, where there is a supermarket, a bank, even a pet shop, all set up to help children and teens with autism and other disabilities practice everyday activities in a comfortable environment.

Rutgers SHP was involved with the planning and design of the village, which opened in September. It was the brainchild of Rabbi Zalman Grossbaum, with the Chabad Hasidic movement, and took seven years to complete.

“Since its inception, faculty from the Physical Therapy, Occupational Therapy Assistant, and Nutrition programs were there, reviewing plans and sporting hard hats during the construction phase as we shared ideas through each stage of development and execution,” said **Nancy Kirsch**, professor and program director of Physical Therapy.

SHP is currently working with the Lifetown team to develop a virtual platform for use during the pandemic that may be scaled up when in-person visits resume to reach people in more remote areas that cannot come to the village, according to Dr. Kirsch.

Dr. Kirsch is also one of the volunteers, recently working as a cashier in the grocery store.

“It is so exciting to be a part of an inclusive community where people are able to share meaningful life experiences in a welcoming and barrier-free environment,” she said.



PT Program Director Nancy Kirsch, left, volunteering at LifeTown

JAMES ESTRIN/THE NEW YORK TIMES/REDUX



Dawn Reinhardt-Wood

Providing Disaster Response

For 20 years, **Dawn Reinhardt-Wood** has served on her county’s disaster response crisis counseling team—during the Sept. 11 terrorist attacks, Hurricane Sandy, and episodes of school violence and suicide—but she never experienced anything like the COVID-19 pandemic.

“In this situation, everyone is affected. Everyone is at risk,” said Reinhardt-Wood.

A faculty member in Psychiatric Rehabilitation and Counseling Professions, she was a volunteer team leader for the Burlington County Disaster Response Crisis Counselors, which was activated to assist with the COVID-19 response.

In a gown, surgical gloves, an N-95 mask, and face shield, she worked six-hour shifts at a drive-up center set up in a parking lot, where she put her skills to work counseling and soothing those who were turned away, generally because they had no appointment.



Building Knowledge

“We’ve seen promising results from using a new, com-



puterized algorithm to find effective chemotherapy treatments for patients with lung cancer, lessening the number of ineffective treatment options they have to go through and saving lives.”

ANTONINA MITROFANOVA |
Assistant Professor of Biomedical Informatics

At Rutgers SHP, our faculty members conduct research and publish scholarly work that advances the body of knowledge in their respective fields. In 2019–20, faculty received 29 new grants to conduct transformative research in many facets of health care.

Our research ranges from finding the best treatment for post-traumatic stress disorder to studying the benefits of virtual reality bicycling for those with Parkinson’s Disease.

Among our faculty, Dr. Anthony Zazzarino, assistant professor, received a federal grant to expand substance abuse disorder (SUD) education into the standard curriculum of our M.S. in Rehabilitation Counseling, placing our students in the forefront of efforts to improve care for that population.

Faculty members received NJ ACTS Pilot Grant Program awards for research on such topics as using tele-rehabilitation systems to remotely assess the neuro-motor control of those recovering from stroke, looking at imaging data for markers of Alzheimer’s Disease progression, and

exploring the diet quality and cardiovascular risk factors among LGBTQ adults in Newark.

Students, too, have opportunities to make important discoveries.

Sukanya Panja, a pre-doctoral student in Health Informatics, is working on developing a computational method to identify markers of resistance in specific patients with prostate cancer. She received a two-year fellowship award from the state to carry out her work.

Our school has worked steadily to build a supportive climate to promote scholarly activity. Antonina Mitrofanova, assistant professor in Biomedical Informatics, and two of her students co-authored a study published in *Nature* on lung cancer that uses big data to predict a patient’s resistance to chemotherapy.

A manuscript on the role of the cervical spine in reducing risks of sports-related concussions was recognized with the 2019 George J. Davies–James A. Gould Excellence in Clinical Inquiry Award. The manuscript was written by Carrie Esopenko, assistant professor in Rehabilitation and Movement Sciences and corresponding author, two other program faculty, a PhD student, and a graduate, and was published in the *Journal of Orthopaedic and Sports Physical Therapy*.

Our faculty's work has earned them the reputation as experts in their field. When the COVID-19 pandemic shook the nation, they used their expertise to help people understand its impact by providing accurate, evidence-based information through the media.

Nutrition sciences faculty provided tips on maintaining proper nutrition in isolation, safely grocery shopping, and discussing which vitamin supplements might help boost immune systems. Ann Murphy, associate professor in Psychiatric Rehabilitation, provided guidance to *U.S. News and World Report* on talking to people who aren't taking the viral outbreak seriously. And Tracy Davis, assistant professor in Health Sciences who specializes in aging studies, published an op-ed on valuing the most susceptible population—our elderly.

158 unique publications by faculty



In Nepal, A New Generation of Health Risks

Until recently, the greatest challenge facing pregnant women in low-income countries like Nepal was gaining enough weight, the result of food insecurity driven by poverty. Today, doctors are seeing problems that look startlingly like issues confronting women in the West: excessive weight gain and the attendant risks of high blood pressure, gestational diabetes, and other dangerous conditions.

A pilot study headed by **Shristi Rawal**, assistant professor in Clinical and Preventive Sciences, and funded by a Rutgers Global Health Institute seed grant, is addressing this challenge by measuring its extent, analyzing the factors driving it, and charting outcomes for women and children in Nepal.

The root of the problem, Rawal says, is an “increase in easy access to cheap, energy-dense foods”—fast food and simple carbohydrates like potatoes and refined starches, coupled with insufficient physical activity. The situation is exacerbated by a belief that pregnant women need to “eat for two,” and a lack of established dietary guidelines.

Rawal's study is laying the groundwork to establish a birth cohort at the Dhulikhel Hospital of Kathmandu University, which serves a population of 1.9 million. Ultimately, the pilot project aims to establish the need for a large birth cohort study with thousands of women who seek antenatal care at the hospital.



Shristi Rawal



Poor Physical Health a Barrier to Employment for those with Mental Illness

People with serious mental illness believe their physical health problems rather than psychological health make it difficult for them to find jobs, a Rutgers SHP study has found.

The study underscores the urgent need for integrated mental health and physical health care for people with serious mental illness, especially those with long-term, chronic conditions.

“Without addressing physical health problems, people with serious mental illness will continue to experience more health problems and diseases and not seek employment that could improve their quality of life,” said lead author **Ni Gao**, associate professor in the Department of Psychiatric Rehabilitation and Counseling Professions.

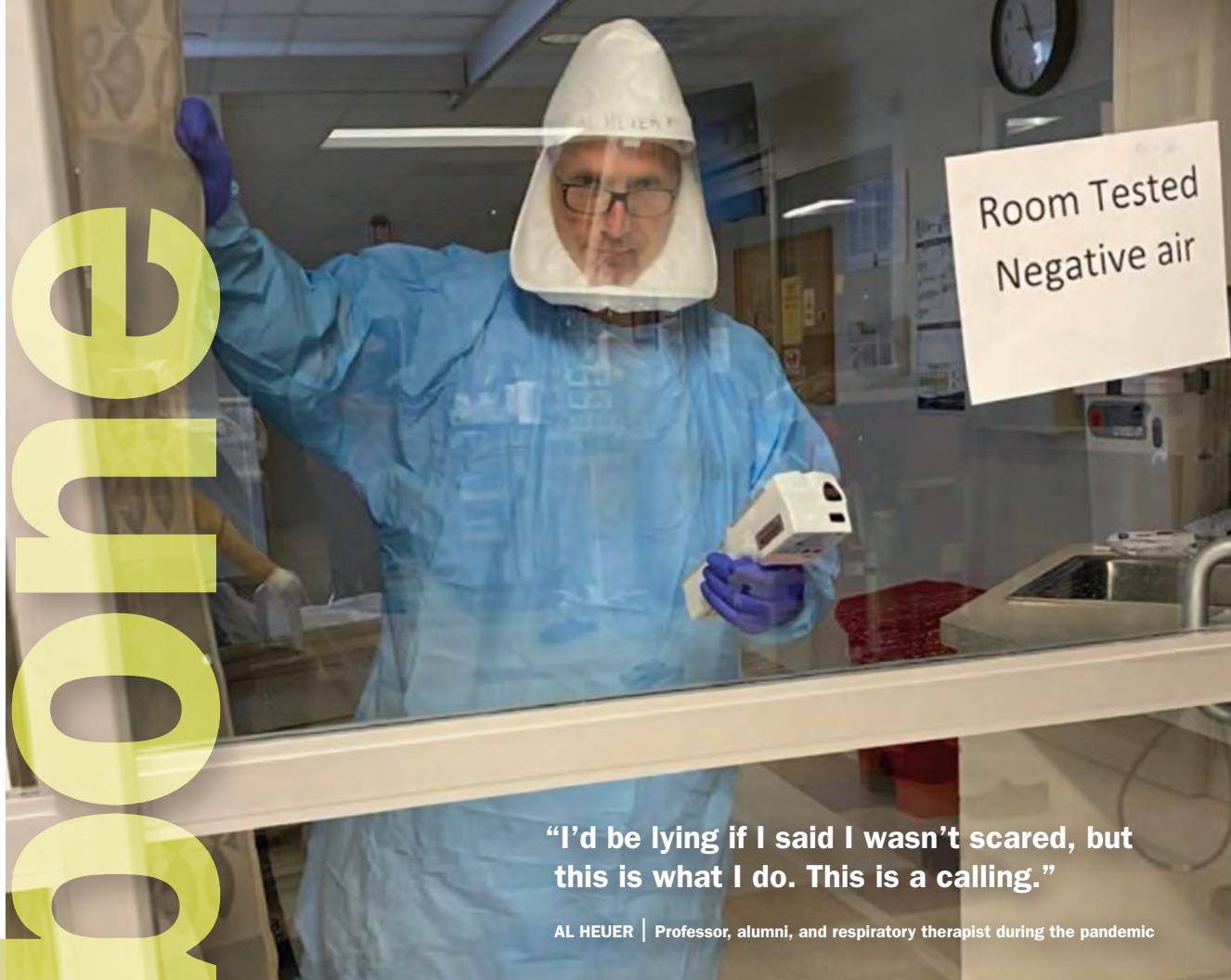
The goal of the Rutgers study, published in *The Journal of Vocational Rehabilitation*, was to better understand how a person's perception of their mental and physical health affects job seeking. The study was funded by a grant by the National Institute on Disability, Independent Living and Rehabilitation Research of the U.S. Department of Health and Human Services.

According to Gao, people with serious mental illness lack access to high-quality and affordable health care, and their physical health is under-recognized and under-treated by health care providers.



We
are
the

backbone



“I’d be lying if I said I wasn’t scared, but this is what I do. This is a calling.”

AL HEUER | Professor, alumni, and respiratory therapist during the pandemic

of health care

Rutgers School of Health Professions alumni, more than 11,000 strong, are in every part of the health care system. They are its backbone, providing services where they are most needed and finding solutions to health care problems.

Our alumni inspire our students. As adjuncts and mentors, they share their time and knowledge with students. They show how the education they received at SHP improves lives.

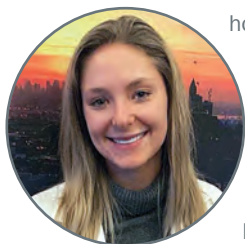
As the world faced a viral pandemic, our alumni played critical roles in the treatment and care of infected patients, despite health risks to themselves. Many worked on the front lines in the New York-New Jersey area, the hardest-hit metropolis in the country.

They were the nutritionists who fed ventilated patients, and the respiratory therapists who helped the critically ill to breathe. They were the lab scientists working long hours behind the scenes to get crucial test results out as quickly as possible. They were the physical therapists working with recovered patients who needed to regain their strength and mobility.

In the battle against the coronavirus, they are using their education and experience to save lives. They make us proud.

On the Front Lines of COVID-19

She graduated in January, passed her registered dietitian exam in February, and the following month, began work at a hospital in Brooklyn—in one of the nation's earliest pandemic hot spots.



Josie Dudzik, who was in the inaugural class of the Entry-level Master of Science in

Clinical Nutrition future-model

degree program, was at a new auxiliary coronavirus hospital. While she took every precaution, by early April, she became sick and tested positive for COVID-19.

"It was a pretty rough ten days," she said.

But she kept working from home, using charting software and calling patients and staff.

"When you work in an ICU, you see so many people who are worse off. And, I had a strong feeling of not wanting to abandon my patients and co-workers," Dudzik said.

After two weeks, she returned to the hospital, where she was tasked with finding ways to nourish patients who were too weak or ill to eat, or couldn't risk their oxygen levels dropping if their masks came off for food.

She did tube feedings and IV nutrition for patients who were sedated or intubated, and worked with speech pathologists to modify diet textures.

"I've only been working two months, and when I look back, it seems unbelievable. I haven't seen my parents or siblings in almost 60 days," she said. "It's been a little brutal. But if this is the hardest thing I face in my career, I am very happy to come out on the other side having been able to help people."



Unsung Warriors: Medical Lab Scientists Who Are Fighting COVID-19

They are the hidden heroes in the COVID-19 pandemic—the medical laboratory scientists who work behind the scenes battling the viral outbreak.

Like detectives seeking a suspect, they search for evidence of the novel corona virus in swabbed body fluids. Wearing layers of protective garb, they work long hours to get results as quickly as possible so patients receive the right diagnosis and treatment.

Alumna **Heba Hanafy, BS MLS '11**, is a microbiologist at Hackensack University Medical Center whose usual job is processing routine blood cultures and tissue specimens, conducting flu tests, and running panels to identify the best antibiotic for an illness.

During the height of the viral outbreak, she did none of that.

"Our daily routine all revolves around COVID-19 patients," she said.

Hanafy said she is super careful to protect herself from infection. She wears two pairs of gloves, an N95 mask, and two lab coats, one lab coat on backwards so that her front is fully protected. She handles specimens with her gloved hands pushed inside a fume hood, a glass booth filled with negative air pressure to prevent contaminants from escaping. With no alcohol or wipes available, she uses a bleach solution to constantly clean work surfaces.

Alumna **Melanie Rivera, BS MLS '19**, works at two different hospital labs. In addition to doing COVID-19 tests, she is also working in hematology, preparing convalescent plasma for patients who are seriously ill. The plasma comes from blood donated by those who have tested positive, and is presumed to have antibodies that can boost immunity and help ill patients fight off the infection.

Three people in one of her labs got ill with the virus. She once had to get a mask from her father when the lab ran low.

"I just take it day by day," Rivera said. "This is an experience I will never forget."



*Heba Hanafy (above)
and Melanie Rivera*



SPC. MICHAEL SCHWENK/NEW JERSEY NATIONAL GUARD

“This pandemic revealed the resiliency and dedication of our PA alumni. They are working in health care settings all over the country, caring for the sickest of patients. Many faced some of the most challenging situations of their careers and often put their own lives and families second to the needs of their patients.”

MATTHEW MCQUILLAN |
Physician Assistant Program Director

Activated to Battle COVID-19

Inspired by a sense of patriotism **Col. Stephen McKenzie**, a private-practice physician assistant, joined the Army National Guard when the military was looking for experienced people to work in emergency medicine in 1996.

A 1992 graduate of the School of Health Professions PA program, he spent a year in Iraq in a field hospital and was deployed to Kuwait and Qatar. In April, he was called up for something he couldn't have imagined—setting up and helping to operate a federal medical station in his own home state.

Col. McKenzie was asked to lead a team of about 80 medical and security personnel in establishing the field hospital in the Meadowlands in Secaucus, NJ to provide relief during the COVID-19 outbreak. Housed in a nearby hotel for nearly two months, he and his team treated 300 patients who had recovered enough from the virus to relinquish their hospital beds to others, but were not yet ready to head home.

Among them were some of the state's most vulnerable residents. “For some, it was quite simple and we were able to get them back to their families fairly safely. For others, it was a challenge. If they came from a homeless shelter or nursing home, we had to make sure we gave them enough time to be symptom-free and be off oxygen,” he said. “For the uninsured and underinsured, oxygen is expensive. So we provided an important safety net.”

Using his knowledge of field medicine, he helped to orient the civilian staff to working in austere conditions, with makeshift walls, cots, bedside commodes, IV poles, and improvised nursing stations. He said he was pleased to see the team of strangers—nurses, doctors, social workers, military personnel and those from the NJ Department of Health and Federal Emergency Management Agency—quickly coalesce in service to the American people.

“It was a pleasure to watch patients heal, and get them all home,” he said, adding that it was “hopefully, a once-in-a-lifetime experience.”



Expert in Clinical Nutrition Honored as 2020 Distinguished Alumni

A move to a different position forced nutrition doctoral student **Laura Matarese** to change her dissertation research proposal. Since she was now working with intestinal transplant patients, that would become her new topic of study.

That bit of serendipity led to her first discovery.

Noticing patients struggling to walk after their transplants, she studied their vitamin levels and saw a pattern—low levels of Vitamin B-6.

“I went to my boss, and said ‘Why are all the Vitamin B-6s low?’ And he said, ‘This is a discovery,’” said Matarese, whose subsequent study changed treatment protocols for the patients.

“When you think about it, there are very few cures in medicine that are easy and inexpensive. But this is one of them. You can go to Walmart and get vitamin B-6,” she said. “It’s one of my greatest contributions.”

Matarese, who completed her Ph.D. in Nutrition at SHP in 2007, has been named the school’s Distinguished Alumni for 2020. A tenured professor at East Carolina University, Brody School of Medicine, she is an accomplished clinician, educator, mentor, and role model.

She is internationally recognized for her expertise in clinical nutrition, having introduced new policies and procedures for nutrition interventions to optimize patient care for individuals with intestinal failure, HIV and those on parenteral and enteral nutrition.

Her interest in nutrition science began in high school, after the debate surrounding the safety of food additives caught her attention. She thought she might become a dietitian, but her first job at a Cincinnati hospital was with a pioneering surgeon in the area of total parenteral nutrition—or providing intravenous feedings to people whose bowels or GI tract are not functioning.

“It wasn’t just fruit and vegetables but grams of dextrose and grams of amino acids. I found my niche,” she said.

At East Carolina University, she was pulled into HIV clinic when a need arose. “It was unexpected and unplanned, but it’s been fascinating,” she said.

Her work in infectious diseases led to another unexpected change in her career path, COVID-19 research. She was asked to review nutrient supplementation in patients with COVID-19, concluding data doesn’t support the idea that large amounts of intravenous Vitamin C are impacting outcome at this point; the data simply are not there. She presented a lecture on the topic at a recent continuing education workshop hosted by SHP.

Matarese has been an adjunct professor in the Department of Clinical and Preventive Nutrition since 2008. When invited back to the virtual classroom, Matarese said she couldn’t say no to the faculty who helped to guide her through five years of rigorous post-doctorate study.

“You’re kind of bonded for life.”

“When you think about it, there are very few cures in medicine that are easy and inexpensive. But this is one of them. You can go to Walmart and get vitamin B-6.”

LAURA MATARESE | Ph.D. Nutrition '07



TIMELINE OF EVENTS

2019

July

Matthew McQuillan, Physician Assistant program director, becomes new vice-chair of the Accreditation Review Commission on Education of the Physician Assistant, a national advocacy organization for academic quality through accreditation.



August

Students in our **Educational Opportunity Fund program** attend a three-day annual retreat where they focus on their well-being and discover what motivates them.



September

Our new **motion analysis laboratory** begins offering gait analysis and biomechanical examinations to area orthopedists, neurologists, physiatrists, pediatricians, podiatrists, physical therapists and other specialists.



January



20 SHP students become the nation's first graduates of a future education model designed to meet changing requirements calling for a master's degree by 2024 for registered dietitian nutritionists. The trail-blazing students earned an **M.S. in Entry-Level Clinical Nutrition**.

February

Over 200 state educators meet to address mental health needs of students. The event is facilitated by **Ann Murphy**, associate professor in psychiatric rehabilitation and co-director of the Northeast & Caribbean Mental Health Technology Transfer Center, in partnership with Camden County Educational Services Commission.



March

The Association of Clinical Research Professionals welcomes M.S. Clinical Research Management Program Director **Doreen W. Lechner** as a Workforce Champion member of the Partners in Workforce Advancement. "Being part of this initiative enables our program and school to be recognized on a national level as a leader in the clinical research professional workforce development," she said.



-2020

October

Selected to represent Rutgers University, SHP student **Cynthia Orozco**, B.S. Health Information Management, attends a National Student Leadership Forum in Washington D.C. The experience left her “very inspired and motivated to help foster positive change.”



November

SHP Scholarship Recognition Reception honors 26 exceptional students, including an immigrant and mother of four from Pakistan, an Army veteran who designed an AI platform for point-of-care diagnostics, and a woman who overcame mental illness to study psychiatric rehabilitation.



December

Bianca Thompson-Owen, assistant dean for Enrollment Management and Student Success, is named president-elect of Middle States Association of Collegiate Registrars and Officers of Admission, an organization made up of more than 400 colleges.



April

With their clinical rotation suspended by the viral outbreak, our **Student Dietetic Association** gets creative and establishes an Instagram account devoted to health and wellness to help meet requirements for the MS in Entry-Level Clinical Nutrition program.



May

The 447-member **Class of 2020** graduates in our school's first virtual ceremony. Over 200 students pre-recorded short video shout-outs that were played during the event, which featured speakers and a student rendition of the National Anthem. The ceremony was viewed in 641 cities and 41 countries.



June

Amid calls for change in aftermath of George Floyd's death, **SHP Dean Gwendolyn Mahon** announces the founding of a SHP Equity Task Force. “I am committed to implementing immediate initiatives to strengthen equity and inclusion within the SHP community and its programs,” Dean Mahon said.





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