RUTGERS HEALTH
School of Health Professions

REIMAGINING

ANNUAL REPORT 2023—2024

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Message from the **Dean**

IT HAS BEEN a remarkable year for Rutgers School of Health Professions (SHP). The crowning achievement for any academic environment is the successful graduation of its students. With great pride, I had the honor of presiding over the school's convocation in May, where we celebrated more than 500 new alumni across the health professions spectrum. These graduates are a testament to our success.

As we prepare the next generation of health care professionals, we recognize the rapidly changing world and its impact on education and health care. In acknowledgment of the many ways our environment is evolving, we deliberated extensively and thoughtfully to reimagine who we are as a health professions school and where we need to set our trajectory for the next phase.

The outcome of this period of reflection and reimagination is encapsulated in our strategic plan for 2025–2030, "Accelerating Our Future." Our strategy reflects a commitment to embrace new technologies to advance our curricula and clinical experiences; bolster our research capabilities with a nearly 50 percent increase in funding from the National Institutes of Health; strengthen ties with our communities by offering culturally tailored, pro-bono clinical services that integrate more of our health professions each year; and weave innovative learning experiences for students through it all.

We have deepened our internal and external partnerships. Within Rutgers, we have formed strong relationships with centers and institutes such as the Brain Health Institute and the Institute for Infectious and Inflammatory Diseases. These offer incredible opportunities for our researchers, accelerating the impact of their work. By advancing our collaborations with health systems partners, we ensure optimal training for our students, strengthening the future health care workforce in New Jersey and beyond.

With our faculty's commitment to research, scholarship, and teaching, SHP embodies the teacher-scholar model—extending our influence from those we teach to the broader world.

Through our efforts, we maintain our place as leaders in education, research, scholarship, and service. We will continue to live our values, progress toward our vision, and encourage diversity of thought and opinion.

As the school's new dean, It has been an honor to work alongside such a strong, productive, and professional group. I look forward to working with faculty, staff, and students for many years to come to realize our mission and vision.

Jeffrey J. DiGiovanni, PhD, CCC-A

DEAN, RUTGERS SCHOOL OF HEALTH PROFESSIONS

Message from the **Chancellor**

AS WE REFLECT on this year's theme of "Reimagining," we are invited to envision health care education through a fresh lens—one that embraces innovation and creativity. This approach allows us to serve better the changing needs of society, and we are proud that Rutgers School of Health Professions is part of this effort.

At the heart of Rutgers Health's mission is the promise of health equity and access for all. Our vision for the future of health care revolves around creating a system that prioritizes not just groundbreaking discoveries, but also ensures those advancements reach every individual, regardless of their background. By engaging directly with our local communities, patients, and organizations, we are able to translate our research into real-world solutions—solutions that address the needs of the people we serve. This commitment to bridging the gap between research and patient care is the future of health care—and it positions us at the forefront of meaningful health care transformation. Further, it positions us to focus on Health care, and not just SICKcare, with a focus on keeping people healthy.

A critical pillar of this transformation is interprofessional education. By fostering collaboration between health care professionals, academic institutions, and community organizations, we create an environment rich with diverse perspectives and resources. This synergy enables us to address complex health care challenges with greater efficiency, ultimately accelerating the pace of innovation. Rutgers Health is proud of SHP's contributions to this collaborative effort, particularly in areas such as bringing nutrition into our pro-bono community-based clinics to provide holistic care and advancing team-based training for physician assistant and pharmacy students in the Ernest Mario School of Pharmacy Simulation Lab.

SHP plays a vital role in achieving Rutgers Health's broader vision of interdisciplinary collaboration. SHP graduates are uniquely positioned to represent and serve communities that mirror their own. This diversity enhances the cultural competence of our health care workforce and reinforces the critical importance of having providers who reflect the populations they serve.

As you will read more about in this report, the Rutgers School of Health Professions is an integral part of Rutgers Health's vision to reimagine the future of health care. Together, we are ensuring that the next generation of health care leaders is prepared to deliver equitable, innovative, and compassionate care to all. Thank you for being part of this vision.

Brian L. Strom, M.D., M.P.H.

CHANCELLOR, RUTGERS HEALTH

A VISION FOR THE Future

At Rutgers School of Health Professions, we're reimagining education to meet evolving health care needs. This past year has marked a period of transition and transformation. Under the leadership of our new dean, we are embarking on a thorough examination of our programs, rethinking the best ways to deliver health care education to keep pace with emerging technologies and changing demands of students and providers.

We've made notable changes in our physical therapy program, enhancing lab experiences, and reducing the overall program duration. This means our students are now better prepared and able to enter their careers more rapidly.

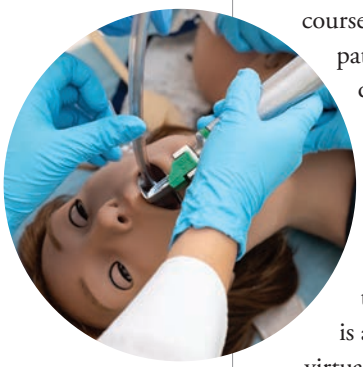
We are diving deeper into high-tech—embracing new technologies and exploring the impact of artificial intelligence on education, practice, and research. We've expanded our interdisciplinary curriculum, continuing to find new ways to collaborate with other Rutgers schools.

This year has also seen the creation of new educational programs and the further development of existing ones. We continually enhance clinical experiences, which are a cornerstone of our programs. We've expanded our rotations abroad, offering students a global perspective through a new program in Greece.

The strategic planning process initiated this year will set the stage for future transformations. Stepping into the health care arena at a critical time, our students leave SHP ready to make a significant impact where they are needed most.

Cross-disciplinary Learning

Interdisciplinary care is central to our educational approach. With nearly 40 degree and certificate programs, we're uniquely positioned to train students in team-based care. This year, we've taken a leap forward by teaching interprofessional education using gaming technology.



Every student now takes an online course featuring avatars representing patients with various medical conditions and determines an appropriate care team to diagnose and treat these virtual patients.

The course was developed by a committee led by Alma Merians, professor of physical therapy and associate dean, who is a pioneer in using robotics and virtual reality.

"The complexities of health care today require team-based solutions," she said. "This method of delivery is an innovative way to train students to work in health care teams."

In our physician assistant (PA) program, a collaboration with the School of Pharmacy has opened the door to a novel, hands-on interprofessional experience using high-fidelity simulation mannequins.

The mannequins, owned by the pharmacy school, are like real patients—they mimic heart attacks, pneumonia, brain tumors, and fevers—and can answer questions about their conditions. For students, the mannequins create a realistic clinical experience.

Working together, PA and pharmacy students evaluate a mannequin, take its medical history, conduct a physical exam, and create a care plan. The student teams are monitored from a control room by faculty, including Dipali Yeh, a physician assistant professor and Harvard-trained simulator educator, who then review their performance with them.

The experience has become entrenched in our curriculum and offered to all PA students, who, Yeh noted, are becoming an increasingly large percentage of the health care workforce.

Preparing for Practice

Clinical experiences set our students apart. They train in diverse settings, from SHP-run community clinics in Newark and Plainfield to prestigious institutions such as Weill Cornell in New York and MD Anderson in Houston. For more than 20 years, graduate and undergraduate students in psychiatric rehabilitation have trained in a non-profit residential center in New Brunswick that promotes recovery and community integration for people with serious mental health conditions.

These rotations help students perfect their clinical skills and become sought-after providers. A new clinical rotation placed nutrition student Kaeley Fiorentino at a Manhattan eating disorder clinic, leading counseling sessions, creating meal plans, coaching patients, and writing discharge summaries.

"When I left my internship, I was confident in my ability to work with those who have eating disorders," said Fiorentino, who just graduated with a master's degree in clinical nutrition and works at a Morris County treatment facility. "It was an amazing experience."

Kaeley Fiorentino

Rutgers' membership in the Big Ten Conference also offers nutrition students opportunities to work with 600 elite athletes in sports nutrition. They gain experience in a variety of sports nutrition management tasks, including cooking demos, counseling, and assessing hydration through sweat tests. "These opportunities are invaluable," said program director Jennifer Bridenbaugh.

Our students hold leadership positions in professional associations, present research at national conferences, and win prestigious scholarships.

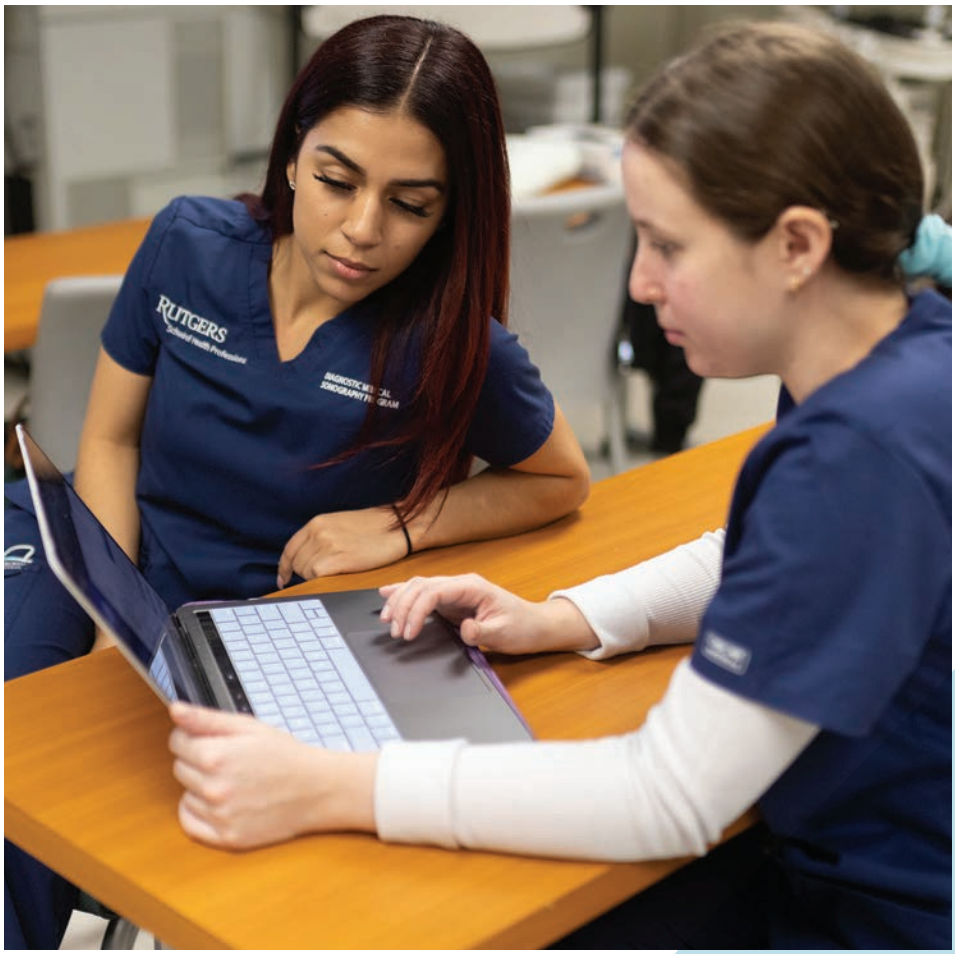
Our students' clinical experiences prepare them for real world interaction with a diverse population. A preceptorship established by a graduate of our physician assistant program allowed PA students to rotate into a primary care practice in a Philadelphia neighborhood, a multi-cultural community with a large homeless population.

"Our students develop clinical competency by working in a low-income and under-resourced community under the supervision of Noelle Mullany, who is an outstanding clinical educator," said Ryan D. White, assistant professor, and director for PA clinical rotations. "The students' only complaint is the rotation is not longer,"

Many of our students gain hands-on experience in SHP-operated pro-bono clinics in the underserved communities of Newark and Plainfield. Under supervision, they provide physical therapy, speech-language pathology services, and primary care to people who lack access to affordable health care.

When patients with brain injuries began coming in with multiple needs, speech-language pathology faculty member Kelly Pena established a summer clinic offering team-based care. Students from multiple disciplines collaborated to improve cognitive and motor functions for those affected by strokes or brain trauma—just as they would in a major rehabilitation center.

"Working with future occupational and speech pathologists was a great experience. We were able to brainstorm, plan, and provide patient care," said Alex Beekman, a physical therapy student who worked in the brain injury clinic.



Pioneering Programs

Innovative programs keep our school ahead of the curve in meeting today's health care needs.

In psychiatric rehabilitation, we've recently established a post-master's joint certificate program with the Graduate School for Applied and Professional Psychology, providing a smoother path for graduates to become licensed professional counselors, meeting the increasing post-COVID demand.

A first-of-its-kind digital badge for clinical research coordinators was created to meet a dire shortage in the field. Barbara DeMarco, senior associate dean for education, led a team that developed the badge, which provides condensed competency-based knowledge and an entry-level pathway into the field of clinical research.

With AI transforming health care, our health informatics department is introducing a graduate certificate to quickly build skills in the field. Use of electronic health records has generated vast amounts of data, ripe for AI analysis to improve health outcomes. Students will be trained to use cutting-edge techniques to analyze, evaluate, and implement advanced AI systems. A master's degree is planned in the future.

"Leveraging SHP's excellence in education and research, the certificate program is set to be immediately relevant for professionals in health care practice, education, and research," said Shankar Srinivasan, department chair.

“Rutgers has been an explosion of knowledge, connections, and opportunities.”

SHERINE SKELTON

Self-Discovery

As a first-generation Jamaican American and the first in her family to pursue higher education, Sherine Skelton has embarked on a unique academic journey.

She initially earned a bachelor’s degree in psychology and a master’s in forensic psychology, where she focused on sleep and dream research. However, her career path took a turn when she discovered the Master’s in Clinical Research Management (CRM) program at Rutgers SHP.

“Rutgers has been an explosion of knowledge, connections, and opportunities,” Skelton said. “Here, I can be my authentic self—nose ring and all—and feel truly supported.”

Skelton’s drive toward CRM was fueled by her passion for research and data, which she cultivated during her psychology studies. Despite having no background in clinical research, she excelled in the CRM program, maintaining a 4.0 GPA and earning a prestigious New Jersey Alliance for Clinical and Translational Science scholarship in her first semester. “The support at Rutgers has been so reassuring.”

She has enjoyed invaluable interprofessional experiences, such as shadowing a data manager at Rutgers Cancer Institute and learning about AI. “I’m excited for rotations and to discover whether I prefer data collection, analytics, or program setup,” she said. “My advisors and program director have guided me to areas I never knew were available.”

CLAUDE STEPHANE DESAUGUSTE

A Network of Black Physician Assistants

Two things stood out to 12-year-old Claude Stephane Desauguste after the 2010 earthquake in Haiti: the utter devastation and the predominantly white doctors and medics rushing from all over to help.

"This triggered something in me," said Desauguste, who decided then to become a physician in a profession with historically few Black men.

Green cards in hand, Desauguste and his family moved to New Jersey when he was 15. He learned about the physician assistant (PA) program while an undergraduate student in lab science at SHP and chose that path into medicine.

"Black men are in the minority, I knew that. I was not going to see other people who looked like me, but I didn't let that change my purpose," said Desauguste, a second-year PA student.

Volunteer opportunities took him to underserved communities like Newark, where he saw people lacking access to regular checkups, unaware of available resources, and misinformed about public health issues.

Desauguste realized that as a Black medical professional, he would have a unique opportunity to build trust with Black residents and work to reduce health care disparities.

To create a network of Black PAs, who now represent just 3.7 percent of the profession, he founded the Rutgers Black Physician Assistant Association, which provides support, networking opportunities, and a chance to volunteer in predominantly Black communities.

One goal is to visit elementary and middle schools. He wants them to see what he didn't. "I want to show them Black PAs exist," he said.

GIANNA SANCHEZ

Mental Health Struggles Enabled Grad to Help Others

After struggling with her mental health, Gianna Sanchez dropped out of college. Initially excited to be in the psychosocial rehabilitation program, she battled anxiety and depression amid an unstable housing situation. The COVID pandemic was the final straw, and she quit.

"It was so hard for me to be able to have that drive and passion and motivation," Sanchez said.

As she began to recover, Sanchez couldn't envision completing her degree. She decided to look for a job in the mental health field and contacted Peter Basto, program director. He not only suggested job opportunities, he encouraged her to return and finish her degree.

"He planted the seed in my head that returning to school was actually an option," she said.

Sanchez found support in her fellow students and her professors, especially one who shared his own experiences with mental illness—and his subsequent work in the field as a clinician. That helped her to see her struggles did not have to be a barrier to success.

Sanchez graduated in May with a perfect grade point average and received an academic award.

"When she returned last year, she excelled," Basto said.

The community wellness center where she did her clinical practicum hired her. She is now manager of the center, a drop-in for people with mental health conditions.

"She is providing services to people like herself and giving back to help in their recovery," Basto said. "She has a done a terrific job with her mental health recovery journey and is an inspiration to others."

SUCCESS AND BELONGING

Who We Are

At Rutgers School of Health Professions, we offer 23 graduate and undergraduate degrees and 11 certificates. We pride ourselves on being one of the most diverse health care professions schools in the country, with 57 percent of our students from underrepresented backgrounds.

As a leading health professions school, we know how important it is for health care providers to reflect the communities they serve. As our diversity increases, we've expanded our clubs and organizations in 2023–2024 to foster a sense of belonging for students from all backgrounds, according to Bianca Thompson-Owen, associate dean for enrollment management, student success and student affairs.

A new schoolwide club hosts events celebrating different cultures, like salsa dancing lessons, panels with Black health care professionals, and a celebration of Asian Pacific Islanders Month. We also started a schoolwide LGBTQ club to foster a deeper understanding of the importance of inclusivity in the health professions.

To boost enrollment of underrepresented minorities in health care, we've piloted a mentoring program for students of color in three disciplines, pairing them with alumni of similar backgrounds who check in regularly to offer support and guidance in pursuing health care careers. We plan to expand this schoolwide.

Our students range from 20 to 60 years old and from working health care professionals to first-generation college students.

PIONEERING Solutions

The field of health care is fertile ground for discoveries that can transform health care for individuals, communities, and entire populations. At SHP, our research spans a wide range, from cancer therapies, brain injuries, and mental health to addiction, nutrition, and motor function recovery.

In 2023–2024, we received more than $8 million in grant funding. We saw a 20 percent rise in federal grants and doubled our funding from the National Institutes of Health (NIH) alone. In addition, we received our first Department of Defense (DOD) award for a collaborative study with Yale University on prostate cancer.

"These types of grants position us as a national and international leader in health professions research," said Antonina Mitrofanova, associate dean for research.

Our research portfolio was boosted by the addition of five tenure-track professors and researchers in health informatics and rehabilitation sciences. These experts brought a wealth of research knowledge and prestigious grants, expanding the diversity of our clinical study research areas and strengthening our work in digital health—a field that is driving transformative changes in patient care.

Eye Gaze Not Active

243

peer-reviewed faculty publications

Expert in Aging

With four grants from the National Institute on Aging at NIH, Nima Toosizadeh, a new associate professor in the rehabilitation and movement science department, is a leading researcher in aging, cognition, and frailty.

He is investigating how to better assess frailty in older adults, which is linked to therapy complications, health care costs, and quality of life. Assessments now involve walking tests and other methods to gauge muscle weakness, cognitive issues, and cardiac function. Toosizadeh is exploring a novel sensor-based model that older adults can wear to provide a more accurate measure of frailty.

Another key area of his research is fall rehabilitation. "Falls are the main cause of traumatic injuries in older adults, and tripping is the biggest cause of falls," he explains.

Falls typically result from poor balance recovery, yet an effective method for improving sensory deficits is lacking. In his current research, Toosizadeh is using a sensor-based game that involves tracking an object on a screen by moving an ankle, allowing him to see how easily someone who trips can recover their balance. He is planning to use the game to train at-risk older adults to improve their balance.

Digital Health Solutions

Our researchers have intensified their focus on digital mobile health, employing technologies that lead to better prevention, diagnosis, and treatment of varying health conditions. Among other things, they are developing apps for underserved populations that could increase access to equitable health care.

Zhaomeng Niu, assistant professor in health informatics, is developing mobile-based health interventions to prevent skin cancer among Hispanics, who studies have shown to be at higher risk for melanoma. Funded by the NIH, her research explores sunburns and sun protection among Hispanic outdoor workers in the Northeast. Niu's goal is to encourage sun safety and skin checks through a mobile app, reducing skin cancer risks.

Shristi Rawal, assistant professor in nutritional sciences, led a team that created the first mobile health platform to manage and treat gestational diabetes in a low-income country. In Nepal, where the disease is on the rise, the smartphone app is designed to support patients in managing their treatment. Rawal's NIH-funded studies have shown that patients lack sufficient infor-

mation to manage their conditions and are frustrated by frequent hospital visits. A pilot clinical trial is underway to further explore the feasibility of the app, which gives pregnant individuals the ability to manage their gestational diabetes and track progress.

Big Data Boosts Treatment Strategies

Priya Kachroo, assistant professor in the health informatics department, was welcomed to the SHP research team in June. After battling dengue hemorrhagic fever as a child, she developed an interest in health sciences, particularly in how computer science and mathematics can challenge assumptions in molecular biology.

With NIH funding, she is using big data to identify biomarkers that can enable a precision medicine approach to treating serious lung conditions.

"Fueled by my passion and commitment to pioneering research, I hope to make a tangible difference in the lives of those affected and contribute to the scientific community," she said.

Kachroo's earlier research on corticosteroids for asthma treatment gained national and international attention by revealing other health risks, leading to the implementation of regular cortisol monitoring.

Restoring Movement by Studying the Brain

Assistant Professor Soha Saleh is one of three new faculty researchers in the rehabilitation and movement department, along with Toosizadeh and Nathan Wages, assistant professor.

A former research scientist at Kessler Foundation, Saleh has received an NIH grant to study brain plasticity and how connections in the brain correspond to movement recovery in people with strokes. Using data from MRIs and EEGs, Saleh is investigating whether new connections are being formed in the brains of people who achieve a higher rate of recovery of their motor functions.

"Some people recover, and some people don't," she said. "The main goal of this research is to look at the nonresponders to traditional physical therapy and then to find innovative ways to improve their chances."

"By understanding how connections of the brain relate to recovery, we hope to improve our approach to rehabilitation, combining traditional physical therapy with techniques that stimulate re-wiring in the brain."

DOD Grant Funds Cutting-Edge Research

Mitrofanova, who has developed cutting-edge computational algorithms for cancer research, will be furthering her prostate cancer research with a $1.6 million grant from the DOD Data Science initiative. She will work with a clinical scientist at Yale University to improve treatment response for aggressive prostate cancer by identifying novel biomarkers which can predict patients' metastatic progression and treatment response.

Her discoveries are building a foundation for personalized therapy for patients with aggressive prostate cancer and promise to improve cancer treatment and patient survival.

In the future, Mitrofanova hopes to create a digital health and rehabilitation center to provide a platform for faculty and students at Rutgers to develop, collaborate, and enhance scholarship and federal grants as well as expand educational and clinical practice opportunities.

"There is no other institution in the country better positioned than SHP to lead such initiative. Rutgers SHP is emerging as a global leader in health professions research," said Mitrofanova.

National Association Honors Alma Merians and Judith Deutsch

Two of our prominent researchers were recognized by the American Physical Therapy Association: Alma Merians for her pioneering work to enhance motor recovery through robotics and virtual reality and Judith Deutsch for exemplary work in multiple areas, including education and research.

ALMA MERIANS

Alma Merians, associate dean for strategic initiatives and interprofessional education and practice at SHP, was honored with a Catherine Worthington award, one of the highest awards in the profession.

The award is for those whose contributions significantly advance the physical therapy profession.

Merians was honored for her impressive body of research as an academic investigator whose work has led to new treatments in neuromotor rehabilitation. She was one of the first in her field to integrate disciplines such as engineering and physical therapy to chart new paths for sensorimotor rehabilitation.

Collaborating with researchers at the New Jersey Institute of Technology, Merians and her team integrated robotics, virtual reality, and gaming to improve motor recovery in clinics and in home settings. Their revolutionary work has been published in high-impact journals and has been integral to the development and clinical use of virtual reality in rehabilitation.

JUDITH DEUTSCH

Judith Deutsch, professor of physical therapy, was selected to deliver the 55th Judith McMillan Lecture Award, the association's most distinguished honor. She lectured on the importance of global collaboration to strengthen the physical therapy profession.

As director of the Research in Virtual Environments and Rehabilitation Sciences (Rivers) Lab at SHP, Deutsch's work includes the development and testing of virtual reality and gaming to improve mobility and fitness in those with neurologic health conditions.

Deutsch grew up in a multicultural and trilingual home in Mexico City. "I was raised to look at the world and consider my role in it," she said, which has deeply influenced her career as a physical therapist, clinician, educator, and scientist.

She said her work has benefited from collaborations with colleagues and students globally. A recognized leader in the field, Deutsch's Boston lecture to members of the profession called for a commitment to global engagement to "better meet our social responsibilities to the global community."

Investigating Running Injuries

SHP researchers are learning whether certain factors are predictors of running injuries with the help of high school cross-country runners across New Jersey who are wearing tracking sensors on their running shoes.

Allison Brown, assistant professor in physical therapy and principal investigator, is working on the study with collaborators Andrew Lynch, associate professor, and Brittany Lynch, adjunct faculty, in the Department of Rehabilitation and Movement Sciences. They established the Rutgers RunLab to investigate running-related injuries with the goal of preventing new injuries and making the sport safer.

The study involves runners wearing shoe-mounted sensors to track their running mechanics. The RunLab aims to use this data to identify changes in running patterns that may indicate a runner is at risk of injury. Statistics show that 15 to 20 percent of runners get injured in the first month of the season.

"There's just not enough out there on what puts high school runners at risk. We see more and more adolescents starting to run, and more are getting involved in marathon and half-marathon distance running. So, this is a really important area to consider," said Brown.

Strategy Boosts Prostate Cancer Treatment Efficacy

Nature Communications published a study led by Antonina Mitrofanova, associate professor in health informatics, that predicted which patients can benefit from a popular cancer drug and devised strategies to enhance treatment.

"This work should help doctors know which patients' prostate cancers will and won't respond to the androgen deprivation therapy enzalutamide, which can slow prostate cancer growth by disrupting androgen receptor signaling," said Mitrofanova, who is also associate dean for research and lead author of the study.

"We hope this gets effective treatment to more patients in less time, and we hope follow-up research makes the benefit that many patients receive from enzalutamide work longer."

For the study in *Nature Communications*, Mitrofanova's team developed computational algorithms to discover why the prostate cancer drug enzalutamide (sold under the brand name Xtandi) never works for some patients and why it eventually stops working in others.

The Rutgers team worked with colleagues at Northwestern University to confirm their findings with experiments on cancerous tissues and laboratory mice.

This research also examined why the drug could eventually stop working and discovered that it was possible to restore the efficacy of enzalutamide in cancers that had grown resistant to its effects.

For this work, Mitrofanova filed two provisional patents with Rutgers, one on the biomarker discovery (in collaboration with Northwestern University) and one on her novel computational algorithm.

She will be continuing her work with the Department of Defense grant, studying the role of long non-coding RNA molecules in aggressive prostate cancers—a new area of research that holds the promise of entirely new ways of targeting cancer cells.

Any improvement in prostate cancer treatment would produce widespread benefits, the researchers said. Prostate cancer is the second most common cancer in the United States and the fourth most common cancer worldwide.

Plan
me + Circle
Play

BEYOND OUTREACH: Improving Community Health

A group of high school students in Newark, mentored by SHP students and taught by our school's professors, are beginning a two-year immersive journey into the health professions.

They will learn about health care careers through simulated experiences with patients and medical cases, including following actors posing as stroke patients who go to the emergency room, into rehabilitation, and back home.

"As the students explore health careers, they will also become health ambassadors and have the potential to improve the health of their families and their communities," said Barbara DeMarco, senior associate dean for education.

The new program was created by DeMarco, along with Alma Merians, associate dean for interprofessional development and professor of physical therapy, and Bianca Thompson-Owen, associate dean for enrollment management, student success and student affairs. It aims to encourage underrepresented students to pursue health careers, while making a positive impact on the health and well-being of Newark.

The program launched in June with a grant from the Rutgers Equity Alliance for Community Health (REACH)—an initiative to improve health outcomes in three underserved New Jersey cities, including Newark.

SHP faculty received two additional REACH grants that examine social determinants—education and nutrition—impacting health in Newark.

Kristen Victorino, speech-language pathology associate professor, is collaborating with Newark schools to address challenges in identifying speech-language disorders in students of color, who are often misidentified as in need of special education services. Pamela Rothpletz-Puglia, professor in the Department of Interdisciplinary Studies, is studying factors that lead to the overconsumption of ultra-processed food among children in Newark, increasing lifelong risks of obesity and chronic disease.

PHOTO: LUCA MOSTELLO

These grants are just some of the innovative ways our school is making a difference in our local communities.

600+

patients received care in pro-bono clinics

Pro Bono Clinics

In Newark, our network of pro-bono clinics offer free physical therapy and speech-language pathology services for the uninsured or underinsured. Last year, these clinics served 303 patients, many of whom returned multiple times for treatment.

In the physical therapy clinic, our doctoral students diagnose and treat Newark residents, alleviating pain and improving function under the supervision of licensed physical therapists. The welcoming environment makes care accessible to people who might not otherwise seek help.

"Some of our patients live in shelters or have mental illness," says Sue Paparella-Pitzel, the clinic's director. "They are comfortable here because there is no judgment, no payments, no questions about living arrangements."

Our Master of Speech-Language Pathology program, designed to serve diverse and multiethnic populations, fulfills its mission in part through its pro-bono clinic in Newark, where residents are primarily Black and Hispanic. Students treat adults and children with communication and swallowing disorders,

including those with autism or who are recovering from strokes.

Expanding Services

Our mission to serve communities while giving our students a deeper understanding of health disparities continues in Plainfield. At the Health Outreach Practice Experience (HOPE) clinic, uninsured patients have free access to important primary care services. Due to high demand, the clinic expanded from one day to two days a week last year, thanks to a grant from Quest Diagnostics, increasing the number of patient visits from 400 to 700.

This year, nutrition students such as Brandon Ehrmann had the opportunity to spend time in the clinic. He said he was concerned about how to connect with non-English speaking patients but found he could engage successfully with the use of a translator and techniques like making eye contact.

He said he was able to provide nutrition tips to people who had hypertension and diabetes, recommend ways to stay hydrated to someone who drank only one glass of water a day, and explained to another who feared he wouldn't pass a physical needed for a job how to improve his overall health.

The experience made him more aware of the obstacles people in underserved communities face, from lack of health insurance to an inability to afford fresh produce.

"HOPE clinic showed me that we have the power to make a difference in public health by providing essential care to individuals who need it the most," he said.

Envisioning a Connection

As the director of the Eye2Eye program, faculty member Alicia Lukachko and her team offer telephone-based peer-to-peer services that annually support more than 300 individuals who are blind or experiencing vision loss.

The program's mission is to connect people with impaired vision to others who have also experienced vision loss and are trained to help them overcome the challenges.

This year, Lukachko, an assistant professor in the Department of Psychiatric Rehabilitation & Counseling Professions, won the Community Voice Impact award in the innovation and health equity category at New Jersey's Social Innovation Awards.

She was selected among 120 nominees in 13 categories.

"These winners are the mavericks who refuse to accept the status quo. They imagine a brighter future and set about to make that dream into a reality," said Paul DiLorenzo, award host and executive director of the Salem Health and Wellness Foundation.

Lukachko's efforts in fundraising have helped to support the program's sustainability, with grants from the Lavelle Fund for the Blind, the Fan Fox and Leslie R. Samuels Foundation, and Reader's Digest Partners for Sight Foundation, supplemented by crowd-funding initiatives. Reflecting on her work, Lukachko said, "We've come a long way in growing the program and in our continued efforts to support individuals who are blind and visually impaired achieve better mental health and overall health outcomes."

Adaptive Sports Help Those with Spinal Cord Injuries

In the summer of 2023, SHP pioneered two adaptive sports clinics for young adults with spinal cord injuries (SCI).

The clinics were part of the True Grit program, a collaboration between SHP, Robert Wood Johnson Medical Center and Bristol Myers Squibb Children's Specialized Hospital, to help the teens and young adults regain their confidence and sense of independence.

The sports clinics introduced activities like basketball and surfing to those between the ages of 16 and 21. They thrived in active clinics, gaining a sense of camaraderie and empowerment. One participant was a nationally ranked athlete before his injury, and after the clinic, joined an adaptive basketball team, giving him a purpose to leave his house.

"True Grit was born out of a recognition that young adults with SCI often lack resources tailored to their specific needs. Our program empowers participants with the skills and confidence to thrive," said Keara McNair, clinical lecturer and capstone project manager in rehabilitation and movement sciences.

The clinic relies on student volunteers from the occupational therapy doctorate program, such as Brianna Heard and Emily Cordova. During their occupational therapy doctoral capstone, Cordova and Heard trained with the inpatient spinal cord injury team at Children's Specialized Hospital and networked with other health care centers to recruit participants and develop planning for the first-ever True Grit residential summer camp held at the Rutgers Livingston campus in July 2024.

"We're providing them with hope and the ability to envision a future where they can achieve their dreams," Heard said.

Giving Those with Autism Self-Sufficiency

Frances De Cicco, who is on the autism spectrum, struggled after completing high school. At 22, she doesn't drive or work and couldn't succeed in college, yet she is considered too capable to qualify for state support services.

Her mother, Leah, worried about her daughter's future and wanted her to gain life skills and become more independent. "I won't be here forever," Leah De Cicco said.

In New Jersey, where autism rates are high, De Cicco's situation isn't uncommon. To address this gap in services, Aaron Dallman, an occupational therapy assistant professor who specializes in autism, created a unique program in Newark called Nexus.

Based on the clubhouse model of mental health care, Nexus is intended to help young adults in the Newark area gather, socialize, and develop essential skills for independence. Unlike other programs, the activities at Nexus are self-directed by the young adults themselves, with support from Rutgers students.

"There is nothing like this in New Jersey," Dallman said.

The program, which began in the spring and can serve up to 25 young adults, utilizes the school's occupational therapy program space, which includes a kitchen and living area, to teach functional skills.

"We saw the potential to leverage our existing class space to meet community needs," said Dallman. "We have students eager to learn and a community in need. We thought, 'Let's bring them together to solve this problem.'"

Nexus also benefits the graduate students, who gain valuable experience working with individuals on the autism spectrum.

When members arrive at Nexus, they are greeted by Rutgers students. Activities are decided collaboratively, whether it's resume-building or cooking. On Frances's first visit, she wanted to learn to iron. Another member asked to practice job interviewing after applying to a video game store.

Melanie Wright, an occupational therapy program graduate who helped develop Nexus, said she observed members growing more confident in making decisions.

"People don't give those with disabilities enough credit for having autonomy," she said. "We encourage them to take the lead and pursue their own ideas."

"We have students eager to learn and a community in need. We thought, 'Let's bring them together…'"

DANIEL STAATS, DPT'04

SHP Grad Wins on *Shark Tank* for Therapeutic Soap

A therapeutic soap massage bar cooked up in the kitchen of a Rutgers physical therapy graduate earned the backing of a billionaire on the TV show *Shark Tank*.

Daniel Staats, who created the soap bar in his kitchen in Point Pleasant, made it specially shaped to soothe aches and pains.

He cofounded SorSoap with David Restiano, who had been a physical therapy patient. The pair accepted a $100,000 investment offer from *Shark Tank's* Mark Cuban.

Staats, who graduated from the Doctor of Physical Therapy (DPT) program in 2004, and Restiano pitched their product on the show, which aired in April.

The idea came out of a physical therapy session.

Two years ago, Staats, who operates Staats Physical Therapy practice in Brick, was working on Restiano's hip flexor with a therapy tool. A week later, Restiano called to say that, while using soap in his shower, he had an idea for a massage bar made of soap that could be designed to replicate the therapy tool.

"He thought, this is similar to what Dr. Dan was doing. When he called me, I said that's great," said Staats. "And I started making soap in the kitchen, but there's a by-product called lye and it's highly poisonous. I had to dress in Ghostbusters protective clothing and get everybody in my family out of the house."

Using a silicone mold, he designed a bar of soap with a grip handle and curved edges that could be used while showering to soothe daily aches and pains.

He conducted a study on the effectiveness of the soap, testing it out on workers whose job is slicing deli meat repetitively. The 30-day trial showed the use of the soap significantly improved muscle and soft tissue performance and function. The study led to an article co-authored by Staats that was published in the peer-reviewed journal *Occupational Diseases and Environmental Medicine* in August 2022.

He said the *Shark Tank* producers were impressed that he could validate the results of the product with science.

Still, the first four investors on *Shark Tank* passed on the product, with one saying that it would be too difficult to mass market. But Cuban, owner of the basketball team the Dallas Mavericks, had been using the SorSoap during the pitch to massage his sore neck—and he liked the results.

"My neck has been killing me," Cuban said. "It fixed my damn neck. That's the reason I'm giving you an offer."

In addition to being a Rutgers graduate, Staats returned to the physical therapy department as an adjunct professor. Department Chair Nancy Kirsch said she loved seeing him on *Shark Tank*.

"It filled me with tremendous pride to watch a colleague and graduate of the Rutgers DPT program in the national spotlight speak so proudly of being a physical therapist," she said.

She said his entrepreneurial spirit was evident as a student when he worked on a required project. "He embraced the opportunity to be creative, and looked forward to the day that he would take his project from design to implementation."

ANNA PARKER, DCN, RDN, CDCES, FAND DCN'11, MCN'07

Working to Boost Health, Weight Loss for Patients with Diabetes

For more than 20 years, Anna Parker, a 2011 graduate and registered dietitian, has dedicated her career to researching how medical nutrition therapy (MNT) can improve outcomes for patients presenting with diabetes and obesity.

As a doctoral student in clinical nutrition at SHP, she received a research grant from the Diabetes Dietetic Practice Group of the Academy of Nutrition and Dietetics for her doctoral research on individualized MNT for pre-diabetes. The published study, which showed that the therapy can lower blood glucose levels, won a prestigious award for outstanding contributions to science literature.

Today, Parker is a clinical team lead at Anaheim Clinical Trials in California, where she supervises clinical trials and collaborates with pharmaceutical companies to integrate medical nutrition therapy with medications for diabetes and obesity.

"Registered dietitian nutritionists can enhance the efficacy of these medications, helping achieve sustainable weight loss, improve health, and minimize side effects," she said.

Her work underscores the critical role of registered dietitian nutritionists (RDNs) in clinical research. With today's emphasis on anti-obesity medications to lose weight, studies show that patient success rates with anti-obesity medications are maximized when combined with referrals to RDNs.

"Having the RDN in clinical research leads to better health outcomes. I feel fortunate to be on the cutting edge of research, particularly with anti-obesity medications," Parker said.

Now, as chair of the Diabetes Dietetic Practice Group of the Academy of Nutrition and Dietetics, Parker continues to give back to the profession. She has been an adjunct assistant professor at SHP since 2013, mentoring students and working with them to publish manuscripts.

"As adjunct, I continue to learn through the students. They challenge me. I want to keep up with current research in the field of nutrition so I can teach them cutting-edge research," she said.

A network of more than

14,000

alumni are making a difference in health care worldwide.

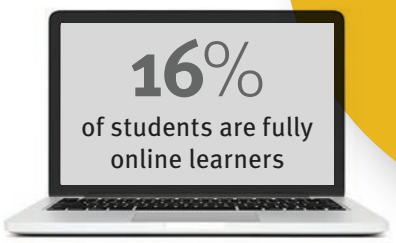
By the Numbers

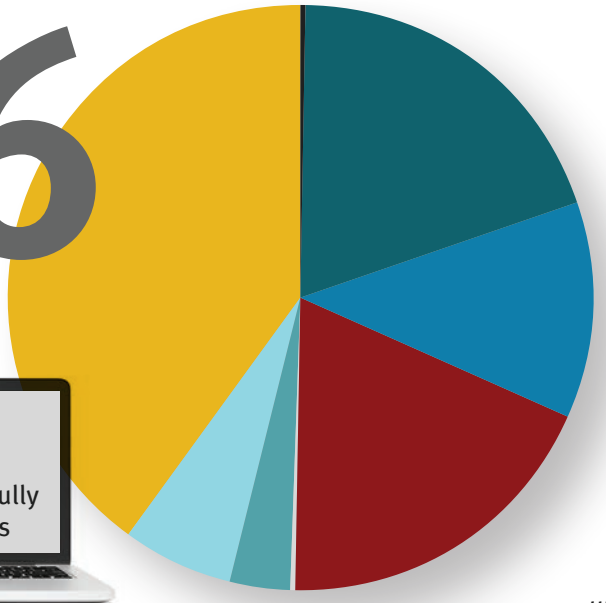
Students enrolled

1336

Full time
65%

Part time
35%





Students by Race

- **0.3%** American Indian
- **19.7%** Asian
- **11.8%** Black
- **18.6%** Hispanic
- **0.2%** Hawaiian
- **3.4%** Unknown
- **6.1%** Two or More Races
- **39.9%** White

57%
of students identify as underrepresented minorities

2 **in-person campuses**

Newark

Piscataway

+

a global classroom

23 graduate and undergraduate degree programs

11 graduate and undergraduate certificate programs

243
Publications

521
Graduates in 2024

More than
14,000
Alumni

146
Faculty

107
Staff

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