



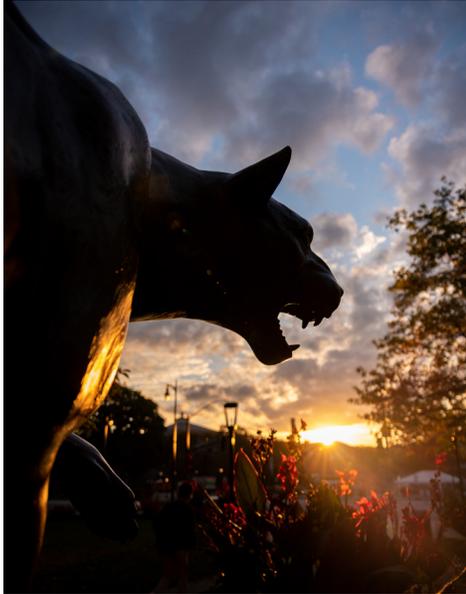
University of
Pittsburgh

School of Health and
Rehabilitation Sciences



Impact Report

2023



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I am thrilled to have you read about many of the outstanding accomplishments made by SHRS students and faculty in FY 2023. SHRS disciplines represent over half of the health care workforce and there could never be enough space to adequately show the impact our programs have made, day in and day out, in Pittsburgh and around the world, but this report highlights some of the best.

SHRS' mission is ambitious. We want to bring our high quality academic programs to more students so that communities in need will be better served, and our new hybrid and online programs are doing just that. Their enrollment continues to grow, and our continuing education programs regularly sell out as practicing clinicians from around the world come to Pitt to advance their skills to provide the best care for their patients.

Our influence doesn't end there. We are embedding ourselves in communities to provide opportunities to high school students who will be the new faces of much-needed diversity in health care. Our faculty and students lead workshops for adults in underserved areas so they can gain back the vitality they deserve. They also develop entertaining educational classes for young children to begin learning healthy living habits.

All this rewarding work is backed by our research. In FY 2023, our increase in National Institutes of Health (NIH) funding moved us into eighth place among "Schools of Allied Health" in the Blue Ridge Rankings. We've reached almost \$30-million in research expenditures, a level achieved through the reputation, collaboration and expertise of our researchers who are dedicated to team science.

Please enjoy reflecting on all that SHRS has accomplished with this report.

Anthony Delitto, Dean



New Academic Programs



Physician Assistant Studies Hybrid students at the first in-person immersion session.

SHRS' online and hybrid education initiatives continued to grow in FY 2023, paving new pathways for students of all ages and in more places to learn while meeting the evolving needs of health care. Our programs are breaking new ground in higher education, garnering the attention and admiration of our peer institutions.

The school now offers eight online/hybrid degree and certificate programs in the fields of physician assistant studies, physical therapy, occupational therapy, health informatics and rehabilitation technology. In FY 2023, SHRS accepted

its inaugural cohort of 100 students into the Physician Assistant Studies Hybrid program. In addition, the Doctor of Physical Therapy hybrid cohort increased from a little over 20 students in 2021 to almost 100 in fall of 2022.

These programs are improving access to high quality health care and leadership training for students and working clinicians across the country. Distance learning reduces several cost barriers by offering lower in-state tuition rates to online students and eliminating relocation expenses. Simultaneously, the clinical placement of students in their communities and hometowns aims to address health care shortages in rural and medically underserved areas.

Lifelong Learning

▶ Best practices aren't just for students entering their professions. Established health care professionals from around the world come to SHRS to learn current, evidenced-based research from our faculty in several of our continuing education programs.

In a little over two years, more than 370 advanced practice providers (APP) have completed the interprofessional **Advanced Practice Provider Leadership Certificate Course** created by the Department of PA Studies and the UPMC Office of Advanced Practice Providers (OAPP). Clinicians across the country develop APP leadership competencies such as diversity and inclusion, health care administration, research and governmental affairs in the online program designed to fit their demanding schedules.

Over the last three years, the **Advanced Vestibular Physical Therapy certification** has provided 180 physical therapists from 32 states and 14 countries with the skills to treat their patients with vestibular disorders. The innovative hybrid format culminates in an immersive weekend in Pittsburgh as students meet to fine tune their techniques, work with Physical Therapy faculty and expand their network around the world.

This year, the American Pharmacists Association (APhA) entered into an exclusive licensing agreement with SHRS and the School of Pharmacy to offer a groundbreaking online course to pharmacists. In 2017, Audiology faculty collaborated with with School of Pharmacy faculty to develop a course called CHAMP – Championing Hearing using Accessible Medication experts at the community Pharmacy, now known as the **Pharmacy-Based OTC Hearing Aids course**.

The advanced training program provides neighborhood pharmacists with the knowledge and skills to help the growing number of aging consumers with mild to moderate hearing loss who come to them for help selecting over the counter (OTC) hearing aids. The course has been completed by over 350 pharmacy students and 200 pharmacy professionals, nationally, and in the past year its impact has been reported by 12 national media outlets and presented at 15 national conferences.



Professor Sue Whitney and AVPT continuing education students

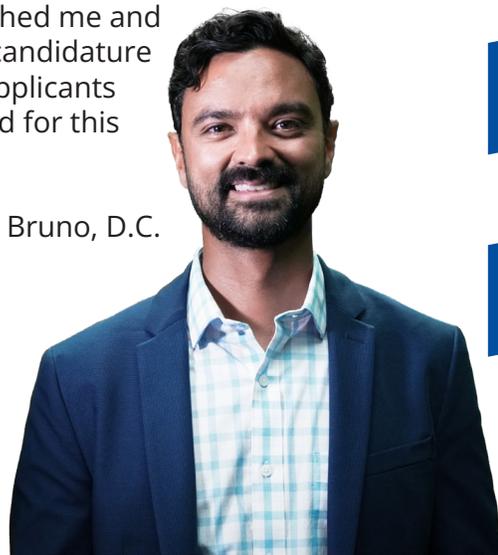


Elaine Morner, professor, Audiology, and Lucas A. Berenbrok, associate professor of Pharmacy & Therapeutics

Over the past six years, 230 clinicians have completed the **Department of Physical Therapy's Primary Spine Practitioner (PSP) certificate program**. The 2023 cohort included physical therapists and chiropractors from around the country, Europe and the Middle East. In 2023, an overview of the program and presentation on the Clinical Application of Evidenced-Based Spine Care Principles were presented at the annual American Physical Therapy Association (APTA) Combined Sections Meeting, the APTA Kentucky State Physical Therapy Meeting, the West Virginia State Annual Physical Therapy Conference, and the American Academy of Orthopaedic Manual Physical Therapists (AAOMPT) Annual Conference.

"I have commenced a clinical appointment at the Physical Medicine and Rehabilitation Department of the Caribbean Veteran's Affairs Healthcare System at the San Juan Veterans Affairs Hospital. I can assure that being a certified Primary Spine Practitioner by Pitt distinguished me and elevated my candidature over the 79 applicants that competed for this position."

- Alex Adorno Bruno, D.C.



Community Engagement:

Research has shown that our family members are healthier and live longer when they remain at home as they age or face disabilities that would otherwise place them in specialized care facilities. SHRS researchers from the Departments of Rehabilitation Science and Technology and Occupational Therapy are ensuring loved ones will have that option. A home in Oakland originally built in 1860 now known as the Pitt Healthy Home Lab (HHL) is a living laboratory where researchers from SHRS and across Pitt are designing and testing real-world, evidence-based solutions that will support community living among aging adults, people with disabilities and other vulnerable populations. The HHL brings together health care and technology experts from Pitt's Health Policy Institute, the schools of Health and Rehabilitation Sciences, Public Health, Engineering, Nursing and Medicine, as well as local community organizations such as the Community Aging in Place Advancing Better Living for Elders (CAPABLE), Women for a Healthy Environment (WHE) and the Allegheny County Area Agency on Aging (AAA).



In FY 2023, the HHL was recognized as a testbed site by the AARP AgeTech Collaborative.

The lab also received a \$918,709 grant from the Department of Housing and Urban Development (HUD) to develop assessment tools and interventions to make homes safer for vulnerable populations, and a \$5 million grant from the Association for Community Living to develop and test smart home interventions.

▲ ▲ ▲ ▲ ▲
Healthy Home Lab



Students in the Community:

The Wellness Pavilion in Pittsburgh's Homewood Neighborhood

The SHRS Wellness Pavilion in Homewood continues to shine as a community hub for healthy living. It has become a welcoming “third place” destination away from home and work where community members young and old can relax with friends, recreate in safe activities, gain confidence in their abilities and learn strategies for healthy living. Classes are offered throughout the week and are led by SHRS students under the guidance of SHRS faculty as part of their coursework, through fellowships, scholarships or volunteer positions.

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Dancing class at the Wellness Pavilion

Start Local, Think Global

▶ SHRS is leading local research efforts that have the potential to impact lives at the national and global level.

Center for Emergency Responder Wellness

Emergency responders serve the community selflessly despite exposure to frequent trauma and a myriad of occupational hazards. Such stress contributes to concerning rates of post-traumatic stress disorder (PTSD) and related mental health challenges, yet barriers exist that prevent the majority of responders from seeking help. The Pitt Center for Emergency Responder Wellness is a collaboration between the Counseling and Emergency Medicine programs that is finding success breaking down those barriers.

In FY 2023, the center provided mental health care to 30 emergency responders from Western Pennsylvania representing emergency medical, fire and law enforcement.

It also provided training and organizational consultation to local emergency response departments seeking to bolster their peer support programs.

Preliminary findings indicate high feasibility (80% treatment completion rate) and large improvements in symptoms of PTSD, depression, anxiety and functioning in key life domains, along with theory-consistent improvements in emotion regulation, among emergency responders.



Instructor Alex Cutsumbis with EM students practicing patient assessments

Our faculty and students bring people together for activities backed by evidenced-based research and designed with the intent to make an impactful difference in the participant's life with classes and events such as dancing, nutrition, babysitting and childcare training, classroom success, handwriting and bingo.

At the Wellness Pavilion, students often work with underserved populations. As they get to know the community members on a personal level, they experience first-hand the difference that can be made by sharing their expertise on healthy living habits and offering greater diversity in health care. Not only do the students reinforce their own learning by teaching to the public, but since many events are hosted by different SHRS programs, the students learn the importance of partnering across disciplines, which they carry into their professional careers.



Nutrition class at the Wellness Pavilion

SHRS is committed to increasing diversity and representation in health care and that begins with a commitment to the next generation of providers. We invest in programs that expose young people to career paths they may never have known and open doors to their future academic achievements. Our faculty, staff and graduate students act as positive role models and mentors, creating safe, fun, welcoming environments to get young people excited about their role as future health care professionals.

This year's inaugural **Neuromuscular Research Lab (NMRL) Summer Sports Science Institute** welcomed 15 middle school students from diverse backgrounds, cultures and races for a one-week camp to learn about STEM-based sports science and sports medicine. The lessons, activities and field trips with parents, mentors and SHRS alumni created a rich, enjoyable and inclusive learning environment. SHRS graduates volunteered as positive role models. The program was offered to students free of charge, and daily meals were provided through the Pittsburgh Summer Food Service Program. The NMRL generously provided the space and resources for the activities, and data was collected for various purposes such as measuring the impact of attending a one-week camp on increased interest in STEM, sports and other health-related careers.

The **Future Health Care Provider Outreach Program** is an interdisciplinary community engagement opportunity that was envisioned by students

from the Department of PA Studies to increase outreach to middle and high school students, specifically groups from underrepresented in medicine backgrounds. The program has expanded to include participants from Occupational Therapy, Emergency Medicine, Communication Science and Disorders, Physical Therapy, Counseling, Nutrition and Dietetics, and PA Studies. Its mission is to develop and deliver sustainable, experiential, career-oriented learning events and mentoring, and to

introduce the students to potential career options available in SHRS. In 2023, they held monthly career-focused, hands-on events at the Neighborhood Academy with 12 high school students, which culminated with an interactive case study with faculty in the Department of PA Studies.

In June, the Human Engineering Research Laboratories (HERL) concluded another successful 10-week session

of experiential research programs with students from around the nation and our own backyard. Students participated in one of three programs: **American Student Placements in Rehabilitation Engineering (ASPIRE)**, **VA Learning Opportunities in Research (VALOR)**, and **Experiential Learning for Veterans in Assistive Technology and Engineering (ELeVATE)**. Each student was paired with a graduate student mentor and began working on real-world projects designed to further their academic and professional abilities. The session was capped with a rousing student symposium and poster session.



Community Empowerment



SHRS extends its mission beyond campus and into the communities, working with local citizens and leaders to address their area's needs and navigate their unique challenges, empowering them with the knowledge to work towards a society free of barriers and health equality for all.

Since launching the **Training Religious Leaders in Bereavement Counseling to Upskill Treatment Experiences (TRIBUTE)** for Bereavement in Communities of Color program in March 2022, the Department of Counseling and Behavioral Health has engaged pastors from different churches in the Homewood and Wilksburg neighborhoods to determine the need for bereavement counseling, attitudes towards accessing and receiving mental health care, and their support for nominating and encouraging church members in their congregations to be trained as Community Support Advocates. After collaborating, three Community Support Advocates now see clients weekly under the supervision of licensed investigators.

The Department of Communication Science and Disorders started the **Pittsburgh Community Aphasia Support Group** to address an overwhelming need in the community. Social isolation is common in people with aphasia as friend groups tend to fall away and previously enjoyed activities are more difficult to engage in. The support group began meeting in April 2022 at the SHRS Wellness Pavilion with fewer than 10 participants and since then it has grown to over 30 regular attendees having far-reaching impact as it meets the needs of people with aphasia, their care partners and family members.

The Department of Sports Medicine and Nutrition began partnering with the Special Olympics in 1998 and now hosts two annual competitions in basketball and swimming, and a monthly partners recreation program at Pitt. The **Pitt Special Olympics Club** provides volunteer opportunities for students at multiple other competitions and events off campus throughout the year.

SHRS has brought together the Department of Athletics, Campus Recreation, the Office of Business, Hospitality and Auxiliary Services, and Facilities Management to secure in-kind goods and services so that Special Olympics athletes can participate and compete free of charge in Pitt's facilities.

A recent research project examining the feasibility of a fitness assessment battery to measure health and fitness variables among people with intellectual disabilities involves 18 students from seven different SHRS programs serving as research assistants. The project aims to increase inclusivity and opportunities for all to participate in a society free of barriers.

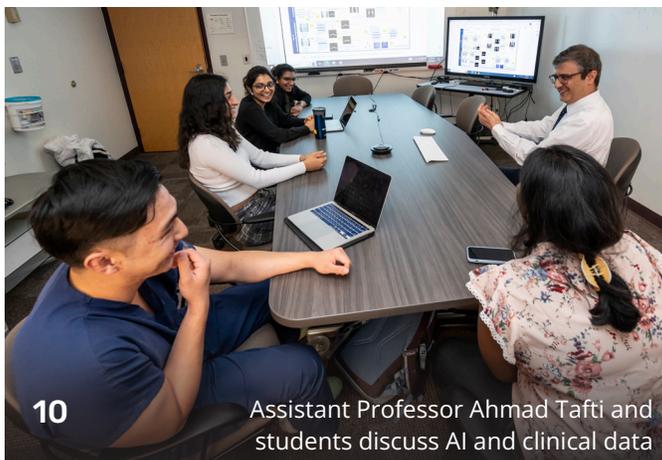
Since the first anniversary of 9/11, our Sports Medicine and Nutrition Department has led the way in paying tribute to local first responders to thank them for their service to the Pitt community with an **annual lunchtime celebration for the firefighters at Truck Company 14** in South Oakland. This event has provided a vivid reminder to everyone of the sacrifices these men and women make to protect the safety and well-being of our Pitt neighborhoods. Over the years, students have also provided special gifts to the firefighters including a high impact treadmill, a professional smoker and a customized cornhole set.



Research

SHRS is internationally recognized for the excellence and innovation of its research and consistently at the top of nationally ranked academic research institutions. In FY 2023, our NIH funding increased from \$5 million to almost \$7 million, moving us up five spots into eighth place among “Schools of Allied Health” in the Blue Ridge Rankings which compares funding between schools around the country. Once again, SHRS has reached almost \$30-million level in research expenditures, a level achieved through the reputation, collaboration and expertise of our researchers who are dedicated to team science.

At the **HexAI Research Laboratory**, researchers and scientists from AI, medical and rehabilitation disciplines have strengthened their partnerships to develop eXplainable AI (XAI) models to tackle clinical challenges ranging from total joint arthroplasty (TJA) to cognitive decline. FY 2023 demonstrated the lab’s groundbreaking research that improves the ability of physicians to provide more accurate diagnoses and effective treatments for their patients, and help rehabilitation providers assess the quality and consistency of intervention delivery in real-world settings. The lab recently received the Oracle Eureka Award in September. The HexAI lab also launched its Health and Explainable AI



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Assistant Professor Ahmad Tafti and students discuss AI and clinical data

podcast to bring health care data scientists, students and AI practitioners from across the globe together to discuss their work connecting health informatics and artificial intelligence.

In FY 2023, the SHRS interdisciplinary national training program **TiDe, Training in Diversity education for Rehabilitation Research**, recruited its first cohort of five faculty and five student trainees who represent eight universities and nine occupational and physical therapy graduate programs. The program, funded by the NIH, is the first of its kind to address significant disparities in rehabilitation access and quality by incorporating inclusion, diversity, equity and accessibility into rehabilitation research training programs.

SHRS has a longstanding partnership of research collaboration with **VA Pittsburgh**. To bolster the relationship further, researchers from SHRS and VA Pittsburgh gathered in July to discuss potential opportunities to expand research collaborations in the management of chronic conditions, health equity, health services and implementation, and healthy aging and technology. These initiatives are likely to lead to more joint projects between VA and SHRS investigators, new VA grant submissions by SHRS faculty, new postdoctoral training opportunities for SHRS graduate students, and an even stronger relationship between these nationally-recognized institutions.

Assistant Professor Allyn Bove (SHRS '20) is collaborating with other Physical Therapy and Health Information Management faculty to explore the feasibility of a hybrid, in-person and telerehabilitation approach for individuals in rural areas with knee osteoarthritis. This study, called **RAPTOR (Rural Access to Physical Therapy for Osteoarthritis Rehabilitation)**, seeks to understand if a hybrid approach can be effective for people who live in more remote areas and may have difficulty traveling to an outpatient physical therapy clinic for frequent visits.

Scan this QR code to watch a video about the RAPTOR study!





Associate Professor Alyson Stover began her three-year term as president the American Occupational Therapy Association (AOTA).



Distinguished Professor and HERL Director and Founder Rory Cooper was named one of 16 new inductees into the National Inventors Hall of Fame (NIHF).

Doctor of Physical Therapy students Brooke Pantano (DPT '23) and Carolina Marrero Rodriguez (DPT '23) served one-year terms on the 2022-2023 American Physical Therapy Association Student Association's Board of Directors.



The American Academy of Audiology bestowed one of its highest honors—the 2023 Honors of the Academy Award—on Catherine Palmer, professor and interim chair, Department of Communication Science and Disorders for her service and contributions to the profession's clinical practice, research, education and advocacy that have spanned nearly four decades.

Department of Physical Therapy Professor and chiropractor Michael Schneider was awarded the Sheikh Zayed International Award for Traditional, Complementary and Alternative Medicine (TCAM) for his academic expertise in chiropractic research and education and for contributing significantly to enhancing TCAM knowledge and practices around the world.



Current students Tana Pierro (OTD '24) and Deionte Harrilla-Gray (MPAS '23) were named Allies for Health + Wellbeing's 2023 Bright Young People, an honor given to young people in Pittsburgh who are making a difference in their communities through their work, art or activism and particularly in the areas of diversity, equity and inclusion.

In fall 2022, SHRS' Clinical Mental Health Counseling program received special recognition from the Pennsylvania Counseling Association (PCA) as the year's PCA Outstanding Counselor Education Program.

Program Rankings



In FY 2023, Pitt’s Physician Assistant Studies (PAS) program rose from #93 to #50 in the latest U.S. News & World Report rankings of the nation’s best graduate programs. PAS joins other highly ranked SHRS programs including Physical Therapy (PT) who shares the #1 spot, Occupational Therapy (OT) and Speech-Language Pathology (SLP) at #3, and Audiology at #7.



▶ No other Pennsylvania schools’ Audiology, OT, PT or SLP programs outrank those provided by SHRS.

Faculty and Staff

172 | 180
faculty | staff

352 Total

Program Enrollment

1,686

2022 Enrollment

Undergraduate: 453 | Graduate: 728
Doctorate/Professional Practice: 505

