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Forefront

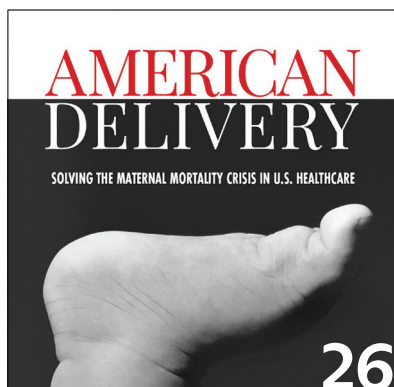
The Frances Payne Bolton School of Nursing at Case Western Reserve University

Accelerating discovery

Nursing faculty and
students leverage
advancements in
computing and data to
move the field forward



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About Forefront

This publication is produced for the alumni and friends of the Frances Payne Bolton School of Nursing at Case Western Reserve University. The *Forefront* mission is to inform readers about the school's excellence in nursing science, education, and practice and how it impacts daily lives.

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From the Dean



To the alumni and friends of Frances Payne Bolton School of Nursing,

And so, another academic year begins with excitement and anticipation. This year, we welcome 126 first-year undergraduates as they embark on their journey toward becoming nurses. During these four transformative years, they will learn the basics of patient centered care, critical thinking, clinical leadership and more. As they develop, so do healthcare and nursing knowledge, and our faculty will be at the forefront of uncovering and sharing these discoveries and changes. For over 101 years, your unwavering commitment to excellence and innovation has been what sets us apart, and for that I am truly grateful.

As nurses, we consider the entire continuum of care—from hospital to home and every transition in between. This commitment was powerfully illustrated in the film *American Delivery*, which premiered at the Cleveland International Film Festival and showcased the vital role nurses play throughout the healthcare journey (find out more on p. 26). Additionally, our nurse midwifery students recently presented on a range of women’s health issues, further highlighting our dedication to comprehensive care (see p. 11).

We are also proud to announce a renewed emphasis on critical care nursing education, particularly in our specialized flight nursing program. Student **Tanner Purnhagen** exemplifies the rigorous training and exceptional skill required to excel in this demanding field (learn more about him on p. 10).

Our School of Nursing remains at the forefront of exposing nurses to innovative models of care that incorporate cutting-edge digital technologies including artificial intelligence (see p. 12). We are also preparing our students to be resilient and to address the ever-present effects of climate change, which are impacting healthcare systems in dynamic ways (see p. 7).

As we continue to advance nursing education and practice, I am confident our collective efforts will make a lasting impact on the health and well-being of individuals and communities worldwide—and it’s all possible because of your continued dedication and support.

Carol Musil, PhD, RN, FAAN (NUR '79; GRS '91, nursing)

Dean and Edward J. and Louise Mellen Professor

Frances Payne Bolton School of Nursing

High marks

Frances Payne Bolton School of Nursing now ranks 12th in the nation among schools of nursing for research funding from the National Institutes of Health.

Rising in the research ranks



“This achievement is a testament to the unwavering dedication and talent of our faculty, predoctoral and postdoctoral scholars and staff. It’s a substantial improvement!”

—Ron Hickman, PhD, RN (CWR '00; NUR '02, '06, '13; GRS '08, nursing), associate dean for research and the Ruth M. Anderson Professor of Nursing

Frances Payne Bolton School of Nursing now ranks 12th in the nation among schools of nursing for research funding from the National Institutes of Health

Frances Payne Bolton School of Nursing’s recent NIH research funding rankings*:

2023: 12th
with 17 NIH grants totaling \$6.6 million

2022: 16th

2021: 39th

*Fiscal years

Impressive outcomes

The most recent First Destination Survey from the Career Center at Case Western Reserve University shows graduates from Frances Payne Bolton School of Nursing faring exceptionally well.

Data for the First Destination Survey—which tracks where CWRU graduates land—is collected annually by the Career Center through surveys sent to members of the graduating class, social media, and conversations with faculty and staff. This year’s survey boasts a knowledge rate of 91%—the highest rate it’s ever achieved.

Frances Payne Bolton School of Nursing, Class of 2023: by the numbers

94
graduates

93.6%
employed full time one year after graduation

14%
of all CWRU graduates

100%
completed experiential education before graduating

\$65,000-\$69,999
median salary, higher than any previous class

Spread out among **18** states working for employers such as:

- Cleveland Clinic
- University Hospitals
- Duke University Medical Center
- MedStar Health
- New York Presbyterian Hospital
- Children’s National Hospital
- Mount Sinai Health Systems
- Johns Hopkins Hospital
- Georgetown University Hospitals
- Stanford Children’s Hospital

Notable quotes

When media outlets seek well-informed insights on topical issues in the field of nursing, they often find the voices of scholars at Frances Payne Bolton School of Nursing. Here are just some of the ways these experts weighed in over the last few months.

“

“You see patients preparing for labor and delivery, going through labor and delivery. You just see this real partnership that nurses create with women and their significant others to provide safe passage of this baby to the world—because that’s really what it’s all about.”

—**Carol Musil, PhD, RN (NUR ’79; GRS ’91, nursing)**, dean of the nursing school, to *FreshWater Cleveland* about *American Delivery*, a documentary film that examines the country’s maternal mortality epidemic (read more about how nursing school faculty served as advisors for the film on p. 26)



“

“Many [people] will spend more time at work than they do at their homes, which means [those] restrooms get a lot of use, and most times employers do not clean them as often as they should.”

—**Shanina Knighton, PhD, RN (GRS ’17, nursing)**, adjunct associate professor, to *HuffPost* about how to avoid germs and stay healthy in the workplace



“

“[C]ompared to other developed countries, our statistics are alarming in that we have higher maternal mortality. We also have issues with morbidity, meaning there are complications with the birthing process that should not occur if we listened to women.”

—**Joyce J. Fitzpatrick, PhD, RN (MGT ’82)**, Distinguished University Professor and the Elizabeth Brooks Ford Professor of Nursing, to *Spectrum News* about the importance of improving maternal health and reducing infant mortality



“

“[Senior care] is a field where routines and consistency are paramount to providing stable quality care to the residents, so uncertainty is even more uncomfortable. Adapting to new procedures or environments takes time, patience, energy—all things that people tend to be short on these days.”

Marie Grosh, PhD, to *Advance Senior Care* on why change is difficult in senior care



“

“You have a third of your time to be sleeping. That third of your day that you spend sleeping is as important, if not more important, than other things that you do.”

—**Elliane Irani, PhD, RN**, assistant professor, to *Crain’s Cleveland Business* on the importance of sleep (read more about faculty members’ sleep research on p. 16)



Excellence in nursing

Faculty and students at Frances Payne Bolton School of Nursing regularly make advancements in the field of nursing through their research and leadership. Here's a look at some of their accomplishments over the last several months.



Ronald L. Hickman Jr., PhD, RN (CWR '00; NUR '02, '06, '13; GRS '08, nursing), associate dean for research and Ruth M. Anderson Professor, was

recently inducted into the International Nurse Researcher Hall of Fame by the Sigma Theta Tau International Honor Society of Nursing.



Valerie Toly, PhD, RN (NUR '90, '09), the Carl W. and Margaret Davis Walter Professor of Pediatric Nursing, was honored by the *Journal of Pediatric Health Care* with the 2024 Ellen Rudy Clore Excellence in Scholarly Writing Award for her publication, "The Impact of COVID-19 on Systems of Care for Children and Youth with Special Health Care Needs."



Maura McCall, PhD, RN, postdoctoral fellow, was honored by the Council of Graduate Studies and ProQuest with the 2023 Distinguished Dissertation

Award for her paper, "Genotypic and Phenotypic Predictors of Cancer Therapy Adherence and Symptom Trajectories in Women with Breast Cancer."



Ethan Slocum, rising fourth-year Bachelor of Science in Nursing student, was elected president of the National Student Nurses Association.

2024 Midwest Nursing Research Society Awards



Siobhan Aaron, PhD, RN (GRS '21, nursing),

assistant professor

Research Award, Palliative and End of Life Care Research Interest and Implementation Group



Christine Horvat Davey, PhD, RN, assistant professor

New Investigator Award, Symptom Science Research Interest and Implementation Group



Kyungmi Lee, PhD, RN, postdoctoral fellow

Distinguished Abstract Award for her article, "Health Behaviors and Disability in Older Adults With Multiple Sclerosis: A Mediation Analysis"



Valerie Toly, PhD, RN (NUR '90, '09), the Carl W. and Margaret Davis Walter Professor of Pediatric Nursing

Distinguished Nurse Scientist Award, Family Health Research Interest and Implementation Group



Megan L. Wenzell, PhD, RN (GRS '21, nursing),

assistant professor

Early Stage Research Award, Pediatric Research Interest and Implementation Group, and also elected to the nominating committee

Climate-conscious care

Bridging healthcare and environmental advocacy

Record-breaking heat, drought and floods, and more frequent hurricanes and tornadoes are the most visible symptoms of climate change. Less apparent are the impacts on the health and well-being of the people affected by this extreme weather: heat-related deaths; the disruption of food supply chains; the increase of food- and waterborne illnesses; new and rapidly spreading vector-borne diseases; and mental health disorders.

To address the devastating effects of climate change on human health, many healthcare experts now agree: They must—as a profession—address climate change themselves.

That's why the Frances Payne Bolton School of Nursing chose to co-host the Climate and Health Education Summit, an interdisciplinary conference aimed at addressing the intersection of climate change and healthcare. The summit, held at the Health Education Campus of Case Western Reserve and Cleveland Clinic, brought together students and practitioners from across Ohio, emphasizing the critical role climate change plays in healthcare.

Attendees benefited from the expertise of prominent figures from Case Western Reserve University's nursing and medical schools, Cleveland Clinic, University Hospitals and other institutions. These experts shared the latest research on how climate change impacts health and discussed strategies to advocate for policies that promote community well-being in the face of environmental changes.



Kim Foreman, executive director of Environmental Health Watch presenting Fresh Fest Cleveland at the Climate and Health Education Summit

“The interdisciplinary nature of the summit highlighted the wide-reaching impacts on climate health,” said **Mary Quinn Griffin, PhD, RN**, the May L. Wykle Professor and associate dean for global affairs at the School of Nursing, and one of the summit’s organizers.



Mary Quinn Griffin

Bud Isaacson, MD, executive dean of Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, noted the collaboration between the fields was especially successful.



Bud Isaacson

“There was a great partnership between nursing and medicine in planning the summit,” said Isaacson, a co-organizer. “The dialogue and building of relationships exceeded our expectations.”

Nursing professionals have an important role to play in environmental health and advocacy,



Celeste Alfes



James Sullivan, fifth-year medical student and medical fellow at the Global Consortium on Climate and Health Education, participating in a panel during the summit

said **Celeste Alfes, DNP, RN**, professor and assistant dean for academic affairs at the School of Nursing, during her plenary presentation.

Because nurses comprise about 60% of the world’s healthcare professionals, Alfes explained in her presentation, they “have the potential to change the trajectory of climate action and can be powerful advocates for climate solutions.”

And it should start with nursing education, she said. Alfes advocated for incorporating climate-related content into nursing theory, research and leadership classes, noting that some institutions have already established dedicated courses on the subject. As the effects of climate change increasingly impact patient care, equipping nursing professionals with this knowledge is crucial, Alfes said.

That sentiment resonated with attendees, with one noting in a post-event survey that, “nursing doctors and health professionals are some of the most trusted members in the community, and they can use their voices to educate and advocate for patients.”



Finding harmony in times of crisis

Exploring the role of music therapy in medical decisions

From the album you listened to on repeat as a teenager to the first song you slow-danced to with your spouse, the music you love is more than just the soundtrack to your life; it's part of who you are.

That's the theory behind a new interdisciplinary study by Case Western Reserve University researchers that investigates whether music therapy can help family members make life-or-death decisions for patients in the intensive care unit (ICU). The team hopes to use music to reduce family members' distress, help them connect with their loved one and enable them to reflect on the patient's wishes.

"These surrogate decision-makers often feel overwhelmed. They're lost, and they can't ask their loved one what to do," said **Grant Pignatiello, PhD, RN (NUR '13; GRS '18, nursing)**, assistant professor and KL2 scholar at Frances Payne Bolton School of Nursing, who was recently awarded an Impact Research Grant from the American Association of Critical-Care Nurses for the project. "Maybe we can leverage music as a means to facilitate this connection so the surrogate



Grant Pignatiello

can tap into the values of the patient and better understand the decisions they should make for them."

Even with decades of interventions aimed at easing medical decision-making for family members of ICU patients, many of these "surrogate decision-makers" still feel inadequately supported, noted Pignatiello, who serves as the project's principal investigator.

They are often grieving, sleep-deprived and reeling from their loved one's sudden medical crisis. In this state, many end up making decisions that don't align with the patient's values, such as signing off on invasive treatments that extend life at the cost of prioritizing the patient's desire for a palliative-oriented plan of care.

The experience can also be devastating for patients' family members, Pignatiello added. Studies have found around one-third of these decision-makers report symptoms consistent with post-traumatic stress disorder six months later.

"This experience can be very traumatizing, so the hope is music therapy will help them process the experience and improve their long-term psychological health," Pignatiello said.

Leading the way in music therapy research

University Hospitals, where many Case Western Reserve nursing students get clinical experience, has one of the oldest and largest hospital-based music therapy programs in the country, noted Seneca Block, PhD, the Lauren Rich Fine Endowed Director of Expressive Therapies and a board-certified music therapist at University Hospitals Connor Whole Health. But while many studies have shown that music therapy can reduce stress, anxiety and even pain in patients, much less research has been done on how it affects caregivers.

“What’s exciting to me about this project is thinking about how music has this diffuse clinical impact,” said Block, who serves as the project’s music therapist. “We think so much about treating the patient, but how else are we impacting the individuals related to the care plan? That’s something that’s often overlooked.”

The study will take place in the neurological ICU at University Hospitals and will compare results for 20 surrogate decision-makers who receive music therapy, with a control group of the same size. For the project, a music therapist will first meet with participating family members to reminisce about their loved ones and discuss the person’s favorite music. A follow-up session will involve passive listening or active music-making, Block said. Therapists may also guide family members through mindfulness and meditation techniques during the experience.

Researchers will then measure quantitative data and conduct follow-up interviews covering topics including the decision-makers’ emotional symptoms, sleep and quality of communication with the healthcare team.

Tapping “musical identities” for insights

Music can be a way to connect not just with other people but with their beliefs, thoughts and values, said **Nathan Kruse, PhD**, associate professor of music at CWRU’s

“Maybe we can leverage music as a means to facilitate this connection so the surrogate can tap into the values of the patient and better understand the decisions they should make for them.”

—Grant Pignatiello, PhD, RN



College of Arts and Sciences. Kruse, an expert who conducts sociological research on music and music education, helped create the framework for the study, designed the interview questions, and will analyze the interview transcripts for qualitative findings.

“Music itself is a powerful vehicle through which individuals construct their personal identities, starting when they’re very young,” he said.

He noted that people turn to music to understand and process their earliest experiences with independence, authority, love, belonging and loss. Over a person’s lifetime, their “musical identity” continues to evolve, with influences from music they hear at home,

in various communities they belong to and at places of worship, he added.

S. Alan Hoffer, MD, a professor of neurosurgery at CWRU School of Medicine and a neurosurgeon at University Hospitals Cleveland Medical Center, said when he learned about the premise of the project, he was excited to participate as co-investigator.

The neurological ICU specializes in caring for patients with stroke, aneurysm and other acute problems that affect their cognitive function; even when they are conscious, they are often confused and not capable of making decisions for themselves, he said. In this situation, the medical team must turn to family members for insights into their wishes.

“One of our most important roles as physicians is to help patients via their decision-makers, so we ask the family members to put aside their own feelings and speak for their loved one: If the patient could talk, what would they be telling us to do?” he said. “If we can use music to help decision-makers reflect on that person’s true self and wishes, then we are helping that patient be treated the way they want to be treated.”

—Ilima Loomis

Students pose in the School of Nursing's flight simulator



Tanner Purnhagen

Taking flight

Student-turned-teaching-assistant leads the way for aspiring nurses

When **Tanner Purnhagen (CWR '15)** takes to the skies as a flight nurse, he carries more than just medical equipment; he brings a profound commitment to easing the fears of patients while they're suffering a healthcare emergency—a dedication forged through years of intensive training and personal passion.

Purnhagen is a dual Master of Science in Nursing/Doctor of Nursing Practice student in Frances Payne Bolton School of Nursing's acute care nurse practitioner program with a flight specialty. With a focus on mechanical ventilation in critical care transport, he blends his expertise with compassion to ensure patients are well cared for on their way to the hospital.

"For me, the best part of being a nurse is helping someone during one of their worst moments," he said. "Nobody wakes up planning to be taken to the hospital by helicopter, and I hope that during that trip I can provide some comfort or relief."

Born and raised in Fairfax County, Virginia, Purnhagen was introduced to the world of flight nursing in high school by his mentor, who works in the field. After earning a Bachelor of Science in Nursing from Case Western Reserve, he swiftly immersed himself in the world of critical care—eventually joining The MetroHealth System's Metro Life Flight as a flight nurse specialist. He's also now a graduate teaching assistant in

the nursing school's Dorothy Ebersbach Academic Center for Flight Nursing, where he's inspiring future generations of flight nurses, like his mentor once did for him.

And with more than 1,000 patient transports under his belt, Purnhagen's devotion to the nursing profession lies in being a beacon of hope during one of the darkest hours of people's lives.

"The School of Nursing is leading the way in promoting and educating the next generation of advanced practice providers in critical care transport," he said. "With access to state-of-the-art equipment like our helicopter and ambulance simulators, our students are well prepared for the real world of critical care nursing."

Throughout his journey, Purnhagen has learned about more than just critical care.

"The biggest lesson I have learned while working in critical care is to enjoy the time you have with family and friends. Trauma is often sudden and unpredictable, and can affect anyone at any time," he said. "You never know how much time you have left."

—Matthew Merchant

Finding passion and purpose

Midwifery students seize opportunity for professional growth

On a chilly February day, a room of nearly 100 midwives buzzed with energy and anticipation. They were gathered for the annual American College of Nurse Midwives' Midwifery Forward conference in Findlay, Ohio, where five students from Case Western Reserve University's Frances Payne Bolton School of Nursing were about to present their most recent research.

Taylor Recinella, RN—a second-year Master of Science in Nursing (MSN) and Certified Nurse Midwifery (CNM) was one of those students.

Recinella presented about the effects of early menarche, or first menstrual period. Girls who get their first periods by age 10, she explained to her attentive audience, are more susceptible to health problems later on in life, such as endometriosis, breast cancer, multiple sclerosis and asthma. As caregivers, it's important for them to know when a patient had early menarche so they can properly intervene to reduce health complications.

"I heard a lot of side chatter and feedback about how interesting it was," said Recinella, "and how they learned something new, which was a great feeling for me!"

Recinella and four other MSN and CNM students—**Kathryn Timlin, RN**; **Kara Wargo, RN**; **Clara Medwid, RN (NUR '21)**; and **Marshae Lashley, RN (NUR '21)**—traveled to the conference with support from the School of Nursing.

All were recipients of the Graduate Student Nurses Association's Professional Growth Grant. With all expenses paid, the presenting students were able to focus on their research projects.

"It made it much more enjoyable to go knowing we were all covered and supported by the university," said Timlin.

Timlin, Recinella and their peers plan to attend the conference in the future, even after they graduate next year.

"This conference gave me more profound knowledge through all the presentations and meeting other midwives," said Recinella. "I will carry those things with me as I begin my new career."

Timlin found the entire experience to be inspiring. "It validates what [we're] doing right to make a positive impact on labor, birth, women's health—and society as whole."



From left: Kathryn Timlin, Clara Medwid, Marshae Lashley, Taylor Recinella, Kara Wargo (Photo courtesy of Lizzie Beach)

ACCELERATING DISCOVERY

Nursing faculty and students leverage advancements in computing and data to move the field forward

By Daniel Robison

AI

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HEALTHCARE TECHNOLOGY

AI

AI

As a nurse, **Megan Foradori, RN**, tried to make sure no child in need of developmental support fell through the cracks.

Across pediatric nursing roles in multiple states, she saw firsthand how babies and toddlers are screened for crucial social, speech and developmental milestones—and fiercely advocated for services for children who scored poorly.

“These services can transform their futures—especially at key periods of brain and physical growth,” said Foradori, a PhD candidate at Case Western Reserve University Frances Payne Bolton School of Nursing. “But I also saw service providers stretched too thin and doctors hesitating to deliver potentially distressing news to parents—instead hoping the child might outgrow the issue.”

The experiences inspired Foradori to focus her PhD thesis to better identify patterns on which children are screened and receive services—and determine who is being missed along the way. She is using machine learning algorithms—a form of artificial intelligence (AI)—to analyze large datasets, including the National Survey of Children’s Health from the U.S. Health Resources and Services Administration.

“Each child in the data has a unique constellation of characteristics,” said Foradori.



Megan Foradori

“Machine learning helps us drill down and see drivers of outcomes we couldn’t have seen ourselves because of the sheer volume of data and the complexity of each child.”

From her research, Foradori is aiming to create new clinical guidance to help more children receive key interventions—such as speech and behavioral therapy—before entering kindergarten, which research shows can significantly improve their long-term development.

“My personal experiences as a nurse showed me the realities of how kids can get left behind,” she said. “Now as a researcher, I can pair my nursing background with deep data analysis to find ways to help children when they need it the most.”

On the cusp

Like Foradori, several faculty members and graduate students at the nursing school are using AI-related approaches in research, practice and education.

Their applications of the technology have the potential to improve many aspects of healthcare—accelerating scientific discovery, helping physicians and nurses make better decisions, improving medical advice for patients and reducing the burden of paperwork.

“These are not necessarily new research methods or forms of statistical analysis,” said **Andrew Reimer, PhD, RN (NUR ’04; GRS ’10, nursing)**, associate professor of nursing. “But now we have the computing ability to handle larger datasets and come to deeper levels of comprehension.”



Andrew Reimer

In recent years, Case Western Reserve has created a high-performance computing cluster—available to researchers across the university—that allows for computationally intensive research using advanced servers, processors and software systems. This formidable resource enables faculty to tackle large-scale, data-intensive problems and run complex simulations and analyses more efficiently and accurately than before.

“It’s a powerful system allowing us to examine every possible combination of variables, leading to more thorough understanding of research questions—and helping us arrive at more accurate results,” said **Ron Hickman Jr., PhD, RN (CWR ’00; NUR ’02, ’06, ’13; GRS ’08, nursing)**, associate dean for research at the nursing school.



Ron Hickman Jr.

ABCs of AI

Artificial intelligence (AI) is the simulation of human intelligence processes—learning, reasoning and problem-solving—by computer systems that include a combination of hardware, software and data.

Algorithms are detailed instructions or rules that allow computers to learn from data and find patterns.

Large language models are AI systems trained on large datasets to understand and generate human-like text, including answering questions in personalized ways.

Machine learning is a branch of AI in which computers learn from data to make predictions or decisions without being explicitly programmed.

Models are computational tools that apply learned patterns from algorithms and training data—and are used to make predictions or decisions with new data.

The university's computing cluster has accelerated AI-related activity at the nursing school, leading to an array of projects that highlight both the immense opportunities and the challenges of integrating AI into healthcare discovery and practice.

"Our research is right there on the cusp of realizing what's possible using AI to improve health," said Hickman.

Rural health realities

Imagine someone in rural Ohio suffers a heart attack. The response involves multiple steps—calling 911, dispatching local emergency services and transferring the patient to a hospital—and often depends on a helicopter transporting the patient to an urban medical facility.

"Especially when dealing with these critical conditions, every minute counts," said Reimer. "Still, there are many patients moved by medical transport who don't benefit at all."

One in five Americans live in rural areas, which make up nearly 97% of the country's land. This distribution creates challenges for accessing healthcare services—particularly in emergencies—and helps explain why rural patients have the worst outcomes of any broad geographic group in the top five leading causes of death, including strokes and traumatic injuries.

Reimer is aiming to better predict transport outcomes to determine which patients should be transferred and when. Using machine learning, he's integrating disparate datasets—electronic health records (EHRs), transport information, social determinants of health and other variables—into a new platform that pinpoints the factors affecting care and so-called "transport deserts," where access is limited.

For one, data for studying the issue comes from many separate sources and serves different purposes. Each captures an aspect of the continuum of care, such as a patient's home location, municipality data on their emergency response services and closest medical helicopters.

"By layering data in new ways and fusing them together from a geographic perspective," said Reimer, "we create a more complete picture of what's happening—and how we can optimize patient transport decisions, especially when time is of the essence."

The research is informing Reimer's efforts to develop a clinical tool to help align the care appropriate for each patient's condition.

"This can lead to better distribution of the very limited emergency resources that cover vast areas of our country," he said.

From data to decisions

Vast troves of patient data—including EHRs—could contain undiscovered revelations about the multifaceted nature of human health.

By analyzing EHRs with machine learning methods, nursing school researchers are exploring predictive tools that could improve the guidance providers give to patients.

To **Nicholas Schiltz, PhD (GRS '13, epidemiology and biostatistics)**, an assistant professor at the nursing school, the possibilities have the potential to transform healthcare.



Nicholas Schiltz

"There are AI-based models that can predict things or figure out things better than a human," said Schiltz. "A lot of times they do outperform a





clinician in certain areas, especially when there's complexity and rarity involved."

Schiltz is studying how projecting likely patient outcomes—including disease trajectories for high-risk subgroups, particularly in older adults—can identify underlying causes and facilitate early intervention strategies.

"Machine learning is helping us understand optimal prevention and treatment strategies in a more nuanced way," said Schiltz. "When we can identify which health conditions are likely to occur next, given patients' current characteristics, we can find the right course."

Schiltz, who also serves as Foradori's advisor for her work analyzing large datasets to improve developmental support for children, has used machine learning techniques in multiple studies.

In research published in *Journal of General Internal Medicine*, Schiltz used Medicare claims data to identify combinations of morbidities associated with hospital readmissions. The same information also revealed that limitations in basic activities of daily living—preparing meals or housekeeping, for instance—can be used to better predict risk of re-hospitalization.

"The goal is to eventually integrate related assessments into EHRs so providers can identify at-risk patients during appointments," he said.

However, moving research to practical applications in healthcare settings can require a significant effort and expense—including testing, validation and ensuring that AI tools are effective across diverse populations.

As it stands, many genomic datasets are composed mostly of white patients with Northern European ancestry, meaning AI models trained on the information can reinforce existing biases. Plus, the resulting tools may not perform effectively for other races or ethnicities.

"Implementation science is an emerging field," said Schiltz. "It's not enough to just make evidence—we have to consider how providers will actually use these tools on a daily basis."

Companion for caregiving

Instead of flipping through textbooks or scouring the internet for reputable information, Chitra Dorai imagined there had to be a better way for dementia caregivers to quickly get answers to their questions.

Dorai knew the experience all too well. While caring for a parent with Parkinson's disease, she recalled feeling ill-prepared for the challenge. "I was not alone in needing a source of support and information," she said.

Drawing on her two-plus decades as an IBM executive, Dorai founded Amicus Brain Innovations and created an AI-enhanced

text messaging chatbot, named Keiko, to serve as a digital advisor for dementia caregivers.

Trained using large language models, Keiko “interacts in a conversational style in multiple languages and provides personalized guidance based on research,” said Dorai.

Helping dementia caregivers is also a cornerstone of the work of **Kylie Meyer, PhD**—driven by her personal experiences. During college, she held a family intervention to discuss the dementia symptoms of a close relative, who was later diagnosed with Alzheimer’s disease and primarily cared for by a spouse.



Kylie Meyer

“I got to see caregiving up close and the difficult conversations that come with it—including the costs involved,” said Meyer, an assistant professor at the School of Nursing.

To help reduce the nearly \$470 billion annual financial burden on unpaid caregivers, as estimated by the AARP Public Policy Institute, Meyer developed an intervention called CONFIDENCE. This program, featuring online group-based learning sessions and workbook exercises, aimed to offer much-needed support. However, early users suggested that the program could benefit from being more engaging.

Enter: Keiko.

Working together, Meyer and Dorai integrated the AI-powered chatbot into CONFIDENCE. Now, they are in the midst of a clinical trial with Latino caregivers, who spend a disproportionate amount—nearly half (47%) of their household income—on such expenses, compared to 26% among caregivers from other ethnic backgrounds.

“If our intervention works for Latino families, then it’s on the right track for addressing these issues for caregivers in general,” said Meyer.

While the program uses new technology, it’s rooted in the time-tested principle of resourcefulness—an approach that provides caregivers with the flexibility to learn and receive coaching in ways that fit their schedules and preferences.

“Using this tool to help people was a ‘wow moment’ for me,” said Meyer. “The tech is here now—not in some distant future.”

Smart care coordination

It’s long been established that poor care coordination—transitioning patients to the next point of treatment—can

lead to negative health outcomes and an increased economic burden on patients and society.

Still, conventional approaches have changed little in response to such evidence—often involving manually sifting through patient files and calling lists of providers to arrange transfers of care.

“Having been a nurse for many years, I’ve seen the inefficiencies,” said Hickman, who is also the Ruth M. Anderson Professor at the nursing school. “Especially given the high caseloads of care coordinators and frustration of patients, changes are needed.”

Recently, Hickman began a collaborative effort with Ashley Barrow, an entrepreneur and former care coordinator. In 2019, she founded the startup RE-Assist and is building an AI-based tool of the same name that aims to digitize and improve care coordination.

Still in development, the cloud-based software service uses algorithms to interrogate many types of EHRs to make care recommendations to hospitals and patients. The aim is to streamline coordination between them, as well as insurance companies and providers.

“AI applications like this have great potential to make us better nurses.”

—Ron Hickman Jr., PhD, RN

“It’s not meant to replace care coordinators, but to assist them,” said Hickman.

Together, he and Barrow are refining the algorithms that extract information from EHRs, while conducting simulations with anonymized patient data and gathering feedback in focus groups with patients and healthcare professionals.

It’s a lengthy process of validation that means the tool could be years away from use—but it’s worth the investment of time, Hickman said.

“AI applications like this have great potential to make us better nurses,” he said. “Researchers have a duty to lead by example—and that means using and developing new technology carefully and responsibly.”

Building better rest



A new nursing collaborative sets out to explore sleep and circadian science

By Jen A. Miller

A good night's sleep doesn't just feel good—it's critical to your quality of life. In adults, sleep helps maintain brain function as well as mental and physical health. In children, it's a key factor in growth and development. On the flip side, lack of sleep has been tied to higher risk of coronary heart disease, hypertension, impaired immune function, high blood pressure, obesity and stroke. In 2017, research into circadian rhythms won the Nobel Prize in physiology or medicine. It's just that important.

"In a 24-hour day, we spend one-third of that time sleeping," said **Elliane Irani, PhD, RN**, assistant professor at Case Western Reserve University's Frances



Elliane Irani

Payne Bolton School of Nursing. "We ought to be focused on sleep with the same emphasis as diet and physical activity when it comes to maintaining health."

That's why Case Western Reserve researchers formed the Sleep and Circadian Science Collaborative (SCSC), in October 2022. The group meets regularly to share resources and insights, and to collaborate on new research in this emerging field.

Studying sleep at all ages

When **Stephanie Griggs, PhD, RN**, and **Valerie Toly, PhD, RN (NUR '90; GRS '09, nursing)**, co-chairs of the SCSC, realized they were just two of many faculty members at the School of Nursing who were studying sleep, they decided working together was better than working apart.

Now, the six faculty members in SCSC "work across the lifespan" of patients, said Toly, the Carl W. and Margaret Davis Walter Professor of Pediatric Nursing. She, for example, studies the sleep patterns of parents of children who require around-the-clock care. Griggs, an associate professor at the nursing school, studies the sleep of young adults with Type 1 diabetes, while Irani focuses on the sleep of family caregivers of adults with chronic conditions. And Assistant Professor **Christine Horvat Davey**,



Stephanie Griggs



Valerie Toly

PhD, RN, focuses on sleep in older adults with HIV.

Despite the range of their research and who it focuses on, their work is enriched by coming together through the collective.

The group provides more than just a way to talk about research. They work to promote the collaboration of scientists and clinicians who can share their experiences and resources that will advance the field of sleep and circadian rhythm science.

By combining their efforts, they are strengthening each other's publications, grant proposals, research and interpretations of their findings. So far, with the support and collaboration of the group, members have produced 12 papers and have co-presented at conferences on topics including sleep health in caregivers of the critically ill; the impact of isolation on sleep and mental health during the first year of the COVID-19 pandemic; and sleep health's association with glycemic target achievement in young adults with type 1 diabetes.

They've also received National Institutes of Health grants to further study some of these topics, including sleep self-management in young adults with type 1 diabetes and determinants of sleep health, and cardiovascular risk among Black family caregivers.

"We're sharing ideas and brainstorming challenges when it comes to sleep research, whether it's data collection, how to approach participants and talk



Christine Horvat Davey

"We're really bringing in a rigorous systematic approach to studying sleep."

—Stephanie Griggs, PhD, RN

to them about sleep research, or how to address some of their questions related to sleep," said Irani. "At this point, it's also about how to really make sense of the data and analyze it."

The SCSC is also one of the few sleep research groups that's based in a school of nursing instead of medicine, which Griggs says makes it stand out because of nurses' holistic approach to care.

"We all have clinical backgrounds and have spent a great deal of time with people and their families...but then we also have the research aspect," Griggs said. "We're really bringing in a rigorous systematic approach to studying sleep."

Forming a leading research hub for sleep science

Less than two years in, the collaborative is also helping establish Frances Payne Bolton School of Nursing as a recognized hub for excellence in sleep and circadian science. **Megan Alder Wenzell, PhD, RN (GRS '21; nursing)**, returned to her alma mater in August 2022 to join the faculty as an assistant professor.



Megan Alder Wenzell

"I was drawn to coming back because of the strong sleep group they were forming. It's nice to have a collaborative group to bounce ideas off of," she said, even if her

work—studying sleep in children with autism—is different from that of other researchers in the group. "We can talk about different algorithms, watches, devices or other things that might be helpful to our research programs," she added.

To develop the pipeline, Griggs said, the group also started a training program for postdoctoral fellows and has a handful of PhD students who are interested in sleep and circadian science.

And because sleep is a key element of so many parts of health, the collaborative hopes to work with faculty members from all over the university. "Think of us as the glue that holds everything together," Griggs said. "We intersect with several disciplines, and the synergy this creates truly strengthens our scientific advancement."

Cross-pollination of ideas is already happening. Griggs, for example, is on a dissertation committee for a sociology student; Toly collaborates with a statistician in the Department of Population and Quantitative Health Sciences at Case Western Reserve School of Medicine; and Horvat Davey has worked with an undergraduate student in nutrition to help develop electronic sleep diaries.

"We're a very open group and very collaborative," Horvat Davey said. "If someone did have something they'd like to bring to our group to talk about and receive our feedback, we're happy to talk through some ideas, potential research projects, resources and maybe some collaborations that might benefit their work."

For more information or to collaborate, email sleepscience@case.edu.



Commencement Week 2024

Caps off to the Class of 2024

This year's graduating class of Frances Payne Bolton School of Nursing students celebrated their passage into the next chapter of their nursing journeys with friends, family and faculty to share their joy and achievement. Take a look at some of the memories they made during Commencement Week 2024.



“Nursing is not just a career choice. It is a global calling. There is much work to be done, and we know that you—as future leaders—will push those boundaries.”

—Dean Carol Musil, PhD, RN

Our graduates, by the numbers:

60

Bachelor of Science in Nursing

30

Master of Nursing

36

Master of Science in Nursing

59

Doctor of Nursing Practice

3

PhD



Bachelor of Science in Nursing students collected their diplomas—an especially significant event for many of them, as this year's commencement celebration was their first, as COVID-19 disrupted their high school graduation events in 2020



Watch the 2024 CWRU commencement recap:



The diploma ceremony keynote speaker was Kelly Hancock, DNP, RN, executive vice president and chief caregiver officer at Cleveland Clinic and the Rich Family Chief Caregiver Chair



Rounds of applause

As they made their way across the sunny Case Quad in May, members of Frances Payne Bolton School of Nursing’s Class of 2024 were flanked by faculty, staff, family and friends celebrating their graduation from Case Western Reserve for a clap out on their way to university convocation. Vinton Cerf, one of the “fathers of the internet” and now chief internet evangelist at Google, encouraged them to be bold and take risks. During the convocation keynote speech, Vinton Cerf, one of the “fathers of the internet” and now chief internet evangelist at Google, encouraged them to be bold and take risks.



Proudly pinned

Frances Payne Bolton School of Nursing’s newest graduates received their alumni pins during this year’s Pinning Ceremony, which took place during Commencement Week in May.

Here are few scenes from a day that has become a rite of passage for nursing students.



In memoriam

Includes death notices reported to the Frances Payne Bolton School of Nursing between Nov. 30, 2023 and July 2, 2024.

Mary Stitt (NUR '45) of Louisville, Ohio, died April 13, 2023. During her career, Stitt was supervisor of nursing at Aultman Hospital in Canton. Both her granddaughter and great-granddaughter followed in her footsteps by also becoming nurses.

Mary Jane Ewart (NUR '46) of Altamont, New York, died Sept. 11, 2023. After graduating, Ewart specialized in caring for tuberculosis patients and taught at both Yale University and Albany Medical Center in New York. She worked for the National League of Nursing and later served as the bureau chief for the New York State Education Department.

Ellen Paulin Emmer (FSM '49; NUR '51, '59) of Lexington, South Carolina, died Feb. 28, 2023. She was an assistant professor of nursing at St. John's College in Cleveland before continuing her practice as a nurse supervisor at Cambridge State Hospital, with a focus in psychiatric nursing.

Rose Takano Hijikata (NUR '51) of Cockeysville, Maryland, died May 28, 2023. Hijikata worked as a school nurse for 26 years in St. Paul, Minnesota, where she provided services to students facing poverty, illness, pregnancy and other conditions.

Margery Hood Hoffman (NUR '52) of Greenwood, South Carolina, died May 14. Hoffman worked as a public health nurse and school nurse in Columbus, Ohio, before earning a master's degree in health education from Ohio State University. She later taught health education in Upper Arlington and Worthington, Ohio. After retirement, Hoffman worked part time at a hospice center as well as at the Lila Doyle Post-Acute Nursing and Rehabilitation Center in Seneca, South Carolina.

Katherine Buechner (NUR '56) of Lafayette, Colorado, died Feb. 12. Buechner taught nursing courses at University of Michigan and had a 50-year career as a practicing nurse, most of which was spent at Bolles and Dunaway Family Practice in Boulder, Colorado.

Patsy Buckner Capps (NUR '58) of Fredericksburg, Texas, died April 16. Capps was a psychiatric nurse at University Hospitals in Cleveland until becoming the chief nurse in pediatric care at Yale University in 1959. She remained in that role until 1963, when she ended her nursing career.

Elizabeth Meyer Stoner (NUR '58) of Chambersburg, Pennsylvania, died April 16, 2023. Stoner served briefly as a nurse at Hagerstown Hospital in Maryland before leaving the field to raise her children. She returned to nursing in 1977 as a school nurse at James Buchanan High School in Mercersburg, Pennsylvania, where she spent 20 years providing care to students.

Janet Wiegert Riley (NUR '58) of San Antonio died Oct. 11. Riley was a surgical nurse in Cleveland before leaving the profession to raise her children.

Marjorie Cooper Geho (NUR '61) of Chagrin Falls, Ohio, died May 5.

Marilyn Herget (NUR '61, '74) of Lyndhurst, Ohio, died April 20. She led a 49-year nursing career, was a member of the Ohio Nurses Christian Fellowship and a certified diabetes educator.

Madelon Curtis (NUR '61) of Twinsburg, Ohio, died Nov. 29. Curtis, a certified gerontologist, served in administration, teaching, staff development, quality assurance and utilization review roles. Over the years, she worked at healthcare facilities throughout Cleveland, including University Hospitals, what is now The MetroHealth System, Fairhill Psychiatric Hospital, Cleveland State Hospital and The Brecksville Veterans Administration Hospital.

Carolyn Jane Whittenburg (NUR '61) of Silver Spring, Maryland, died June 18.

Elaine White Courtney (NUR '62) of Willoughby, Ohio, died June 27.

Frances Grzejka Spaeder (NUR '62) of Apex, North Carolina, died Feb. 14. After graduating from what was Western Reserve University, Spaeder became a nursing instructor at Villa Marie College in Erie, Pennsylvania, and then at Duquesne University in Pittsburgh. She later taught medical-surgical nursing at Western Pennsylvania School of Nursing, with emphasis on neurosurgical post-operative care.

Marilyn Wilmore Sanford (NUR '63) of Seattle died Feb. 14. Sanford worked as a pediatric nurse for hospitals in Cleveland and Boston, and then in Falmouth, Massachusetts, as a volunteer advocating for reproductive health. After

moving to Seattle in 1979, Sanford spent the next 19 years as a school nurse before retiring in 2003.

Barbara Rezac (NUR '65) of Citrus Springs, Florida, died Feb. 28. Rezac served as a nurse in the U.S. Air Force from 1968 until 1988, when she retired as a lieutenant colonel. In the late 1980s, Rezac was a nurse aboard the S.S. Hope, a hospital ship operated by Project HOPE, an international nonprofit that provides healthcare to communities in crisis.

Rosalie Benchot (NUR '67; GRS '98, nursing) of Norton, Ohio, died Oct. 7. In addition to her two nursing degrees from Case Western Reserve, Benchot also earned a Master of Science in Nursing from Boston University. Benchot was an assistant professor of nursing pediatrics at Kent State University until she retired as professor emeritus.

Carole Du Prey Nettle (NUR '67, '71) of Tallmadge, Ohio, died Oct. 9. Nettle taught nursing and community health at Kent State University for 35 years before retiring as professor emeritus.

Janna Louise Dieckmann (NUR '74) of Cincinnati, Ohio, died May 24, 2023. After earning her bachelor's degree from Case Western Reserve, Dieckmann worked as a visiting nurse while earning a Master of Science in Nursing and PhD from University of Pennsylvania. In 1998, she began teaching at the University of North Carolina at Chapel Hill; she retired in 2019 as a clinical associate professor of nursing.

Patricia Sue White (NUR '81) of Dayton, Ohio, died July 29, 2023. White taught gerontology nursing for St. Clair Community College in Port Huron, Michigan, before becoming a staff nurse at Dayton Veterans Affairs Medical Center, from which she eventually retired.

Linda Lee Turkovich (NUR '86) of Sandy, Utah, died Aug. 9, 2023. She was a certified oncology nurse and worked at several Salt Lake City hospitals such as St. Mark's Hospital, Holy Cross Hospital and University of Utah Hospital. Turkovich later became professor and nursing program chair for University of Phoenix in Utah.

Victoria Lauren Lupo (NUR '89) of Palm Coast, Florida, died Oct. 10.

Julianne Sedlak (NUR '95) of Cleveland died May 22, 2023. Sedlak worked as a nurse practitioner in the neonatal intensive care unit at University Hospitals Rainbow Babies and Children's Hospital, where she retired after a 20-year career.

Loretta Marie Jacob (NUR '96, '98) of San Antonio, Florida, died June 7. She began her career as a nurse at Lake East Hospital in Painesville, Ohio, and then worked in private practice and nursing homes as a family nurse practitioner. She retired in 2020 from Hospice of the Valley in Youngstown, Ohio. Jacob also taught clinical nursing at Kent State University for 20 years.

Sonya Banks (NUR '97) of Shaker Heights, Ohio, died June 1, 2023.

Kenneth Nechitilo (NUR '97) of Naples, Florida, died April 20. Nechitilo, who also served in the U.S. Army and held master's degrees in economics and business, worked as a nurse at hospitals and nursing homes in Ohio, Florida and Virginia.

Susan Cooke (NUR '02) of North Royalton, Ohio, died July 5, 2023. Throughout her nursing career, she worked for healthcare providers across the Cleveland area such as the Louis Stokes Cleveland Veterans Affairs Medical Center, Cardiovascular Clinic Inc. and what is now University Hospitals Parma Medical Center.

Susan Alexa Lisko (NUR '09) of Canfield, Ohio, died Oct. 11. She worked as a nurse on the surgical recovery team at St. Elizabeth's Hospital in Youngstown, Ohio, and was a Distinguished Professor at Youngstown State University Centofanti School of Nursing.

Kimberly Serroka Ballone (NUR '09) of Lowellville, Ohio, died Dec. 28. Ballone started her career at what used to be the Southside, Northside and Tod's Children's Hospitals of the Youngstown Hospital Association in Ohio. She was a staff nurse and an educator, later serving as a certified nurse practitioner at Mercy Health Assumption Village in Youngstown. Ballone was also a Distinguished Professor at Youngstown State University Centofanti School of Nursing, where she taught for 33 years.

Making connections

Mentoring program equips nursing students with alumni insight

As **Rachel Shen (CWR '24)** prepared to transition from student to nurse, she wondered how the perspectives of the diverse, far-reaching network of Frances Payne Bolton School of Nursing alumni could help students like her along their own journeys.

“Any nursing student could really benefit a lot from having someone older and more experienced to talk to,” said Shen, who herself had received guidance from a Case Western Reserve alum while she was working at Cleveland Clinic as a student.

So, during her fourth year at the School of Nursing, Shen—then the school’s alumni association board’s student representative—launched a program



From left: Mary Alice Dombrowski and Rachel Shen

to connect members of the board with members of the Undergraduate Student Nurses Association.

She partnered with **Mary Alice Dombrowski, ND (NUR '00, '04)**, a pediatric nurse practitioner in gastroenterology at University Hospitals Rainbow Babies & Children’s Hospital and member of the nursing school’s alumni board, to bring the two groups together.

“My time at [the nursing school] was so special. I really want to be able to give something back to the school that gave so much to me.”

—Mary Alice Dombrowski, ND

They matched 16 undergraduate nursing students with alumni association board members according to students’ special interests and mentors’ areas of expertise.

Dombrowski, who serves as engagement director on the alumni board’s executive committee, hopes the program will serve as a “place for alumni board members to share their experiences and support nursing students at any level, whether it’s finding shadowing opportunities, making connections with other alumni for jobs, or even emotional and personal support.”

Shen and Dombrowski intend to evaluate the impact of the mentorship



From left: Mentor Marie Ilse and mentee Jasmine Wang

program through alumni and student interviews, then hope to expand the program to include other alumni and students.

As one of the most recent additions to the nursing school’s alumni community, Shen hopes to take part in the program herself and help other students succeed through a relatable perspective.

“I would still love to be able to connect with the School of Nursing,” Shen said, “and see how students are doing here.”

Dombrowski said a program like this would have helped her during her time at the university, so she’s thrilled to help facilitate it now.

“My time at [the nursing school] was so special,” she recalled. “I really want to be able to give something back to the school that gave so much to me.”

—Lauren Dangel

Journey of service

Alumna reflects on a career of nursing and advocacy

After Sept. 11, 2001, **Colleen Leners**, an emergency trauma nurse in the U.S. Navy Reserve, was asked to volunteer for active duty with the U.S. Army. Answering the call, she served in the Middle East with the U.S. Army Nurse Corps as the sole female provider at an outpatient facility in Tikrit, Iraq. She remembers it as a challenging and life-changing experience.

“Nobody goes to war and comes back the same way. I saw horrific things,” Leners said. “But I also saw heroes that so few people know about.”

While serving in Iraq, Leners was awarded the Bronze Star, but it came at a cost: She developed follicular lymphoma after being exposed to toxic burn pits during military service.

Throughout her three years of cancer treatment, Leners—who holds a bachelor’s in nursing from California State University Dominguez Hills and a master’s from University of San Diego—provided care to wounded warriors at the Navy Medical Center San Diego. During this time, she went on to earn her Doctor of Nursing Practice from Case Western Reserve University.



School of Nursing students Faith Jackson (left) and Olivia Nelson (right) stand with Colleen Leners (center)

“My career has come full circle and I am caring for the people I wanted to care for when I initially went to Washington.”

—Colleen Leners, DNP



“With a nursing degree, you can pursue various career paths, such as becoming a flight nurse, hospital administrator or healthcare provider—even the FBI,” Leners said. “Having a nursing degree opens up a world of opportunities.”

Leners, DNP (NUR ’12), saw firsthand the challenges service members faced during their transition to civilian life. She became increasingly frustrated with the lack of care, and how long some veterans were forced to wait to receive it. Many were left in limbo for years, unable to move on with their lives.

“I was caring for Marines getting blown up in Fallujah and coming back with no arms or legs,” said Leners. “They needed somebody who understood what war was like. I had been there and understood.”

Even after shifting to serve roles in health policy—including a fellowship at the Robert Wood Johnson Foundation where she was the first DNP to hold the position—Leners never forgot the veterans for whom she cared and advocated. Just last year, in fact, she helped to found 1stCallHEALTH, a primary health care provider for veterans in Washington, D.C, Maryland and Virginia.

“My career has come full circle,” she said, “and I am caring for the people I wanted to care for when I initially went to Washington.”

—Amanda Brower

Breaking the silence

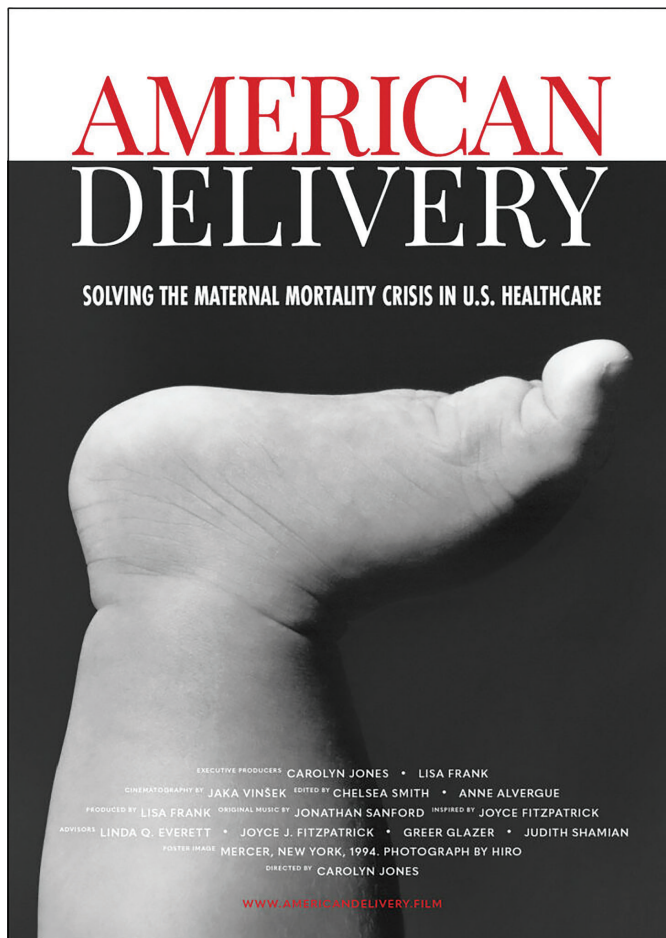
Nursing school faculty and alumni advise on award-winning film

While maternal mortality rates across the globe are dropping, there is one exception: the U.S., where the rate is 10 times higher than in Europe, according to the World Health Organization and Centers for Disease Control and Prevention. It's even worse for women of color in the U.S., whose preterm birth rate is 54% higher than white women's, and whose babies are more than twice as likely to die.

Amid this escalating crisis, a documentary debuted last spring to sound the alarm and bring attention to the power of nursing professionals on the frontlines.

American Delivery—which narrates the joys and fears of a diverse group of pregnant women during pregnancy, childbirth and the postpartum period—took home top honors at the Cleveland International Film Festival in April, winning best film and the coveted Roxanne T. Mueller Audience Choice Award.

Directed by Carolyn Jones and produced by Lisa Frank, *American Delivery* was the brainchild of a handful of faculty members at the Marian K. Shaughnessy Nurse Leadership Academy at Case Western Reserve University Frances Payne



“American Delivery highlights the foundational role of nurses and midwives in changing maternal health outcomes. Women in America deserve better care. It’s that simple.”

—Joyce Fitzpatrick, PhD, RN

Bolton School of Nursing. Dean **Carol Musil Musil, PhD, RN (NUR '79; GRS '91, nursing)** and **Joyce Fitzpatrick, PhD, RN (MGT '92)**, the Elizabeth Brooks Ford Professor of Nursing, as

well as several alumni—**Linda Q. Everett, PhD, RN (NUR '85)**, **Greer Glazer, PhD, RN (NUR '79; GRS '84, nursing)**, and **Judith Shamian, PhD, RN (GRS '98, nursing)**—acted as advisors to the film.

The documentary intimately portrays women's experiences giving birth in the U.S. and spotlights the role of nurses providing holistic maternal healthcare and the individuals who shape legislation and policy to change the trajectory of high infant and maternal mortality.

“American Delivery highlights the foundational role of nurses and midwives in changing maternal health outcomes,” said Fitzpatrick. *“Women in America deserve better care. It’s that simple.”*

Fitzpatrick believes the U.S. can draw inspiration from countries where nurse midwives play significant roles in providing care for women and are supported through systems that relies on interprofessional practice.

“This film is about possibilities for change, hope for the

future of women’s health in America and globally,” said Fitzpatrick. *“And importantly, for the power of nurses to make these changes.”*

—Amanda Brower

Save the date!

Connect, engage, be inspired
Nov. 14-17

Join us for Case Western Reserve University's Homecoming and Reunion Weekend to reconnect with classmates, engage with students, celebrate milestone anniversaries and hear what's new at the Frances Payne Bolton School of Nursing.



Explore a variety of events, including:

- Dean's State of the School address;
- alumni and faculty speakers;
- campus tours;
- opportunities to engage with fellow alumni, faculty and students;
- and much more.

Please plan to join us Nov. 14-17!

Visit case.edu/nursing/homecoming24 for more information.
Questions? Please email Susan Garcia at smg213@case.edu.



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