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2019 ANNUAL REPORT

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First. That is the word that keeps coming up when we talk about 2019 at WVU Medicine. Both at our flagship hospital, J.W. Ruby Memorial Hospital and across the state, WVU Medicine has continued to demonstrate the ability to innovate and offer new technologies.

We made history this year when WVU Medicine became the first multi-organ transplant center in West Virginia and again when the WVU Heart and Vascular Institute and the WVU Transplant Alliance performed the state's first heart transplant. But, we didn't stop there. The WVU Rockefeller Neuroscience Institute was the first in the state and one of 15 in the country to use MR-guided focused ultrasound to treat essential tremor, was first in the U.S. to use deep brain stimulation to fight opioid addiction, and was first in the world to test a new aneurysm treatment device.

We opened the WVU Medicine Center for Hope and Healing, a residential substance use treatment facility, to continue to push back against the opioid epidemic and offer not only a place for people to receive treatment, but to find a way forward after they complete the program.

Our footprint continued to expand, as we welcomed new hospitals into our health system, uniquely positioning ourselves to provide critical care and ensure that the people of West Virginia and the surrounding region do not have to travel far to receive the care they need.

We continued to receive national rankings and top accreditations. Our faculty continued to push the boundaries of what is medically possible to find new treatments for conditions such as cancer, heart disease, and neurological disorders.

It is humbling to have the opportunity to serve our state and region in such an impactful way, and we continue to be grateful for that privilege.

Albert L. Wright, Jr. (left)
PRESIDENT AND CEO
West Virginia University Health System

Judie Charlton, MD (center)
CHIEF MEDICAL OFFICER
WVU Medicine

Clay B. Marsh, MD (right)
VICE PRESIDENT AND EXECUTIVE DEAN
West Virginia University Health Sciences

WHO WE ARE

WVU MEDICINE

MEMBER SYSTEM HOSPITALS

- 1. **BRIDGEPORT**
United Hospital Center
- 2. **BUCKHANNON**
St. Joseph's Hospital
- 3. **GASSAWAY**
Braxton County Memorial Hospital
- 4. **GLEN DALE**
Reynolds Memorial Hospital
- 5. **KEYSER**
Potomac Valley Hospital
- 6. **MARTINSBURG**
Berkeley Medical Center
- 7. **MORGANTOWN**
J.W. Ruby Memorial Hospital and WVU Medicine Children's
- 8. **PARKERSBURG**
Camden Clark Medical Center
- 9. **RANSON**
Jefferson Medical Center
- 10. **RIPLEY**
Jackson General Hospital
- 11. **SUMMERSVILLE**
Summersville Regional Medical Center

MANAGED HOSPITALS

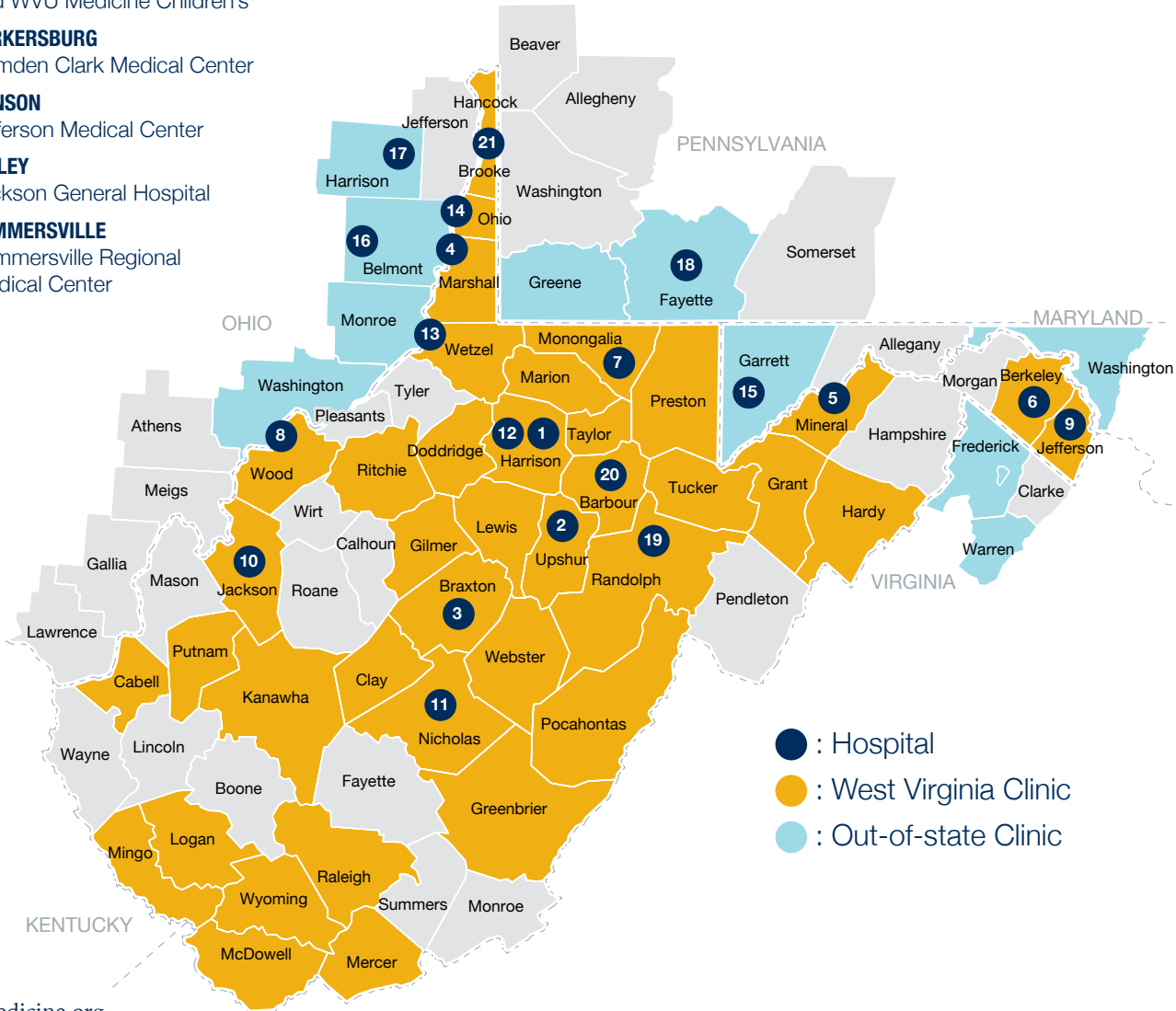
- 12. **CLARKSBURG**
Highland-Clarksburg Hospital
- 13. **NEW MARTINSVILLE**
Wetzel County Hospital
- 14. **WHEELING**
Wheeling Hospital
- 15. **OAKLAND, MARYLAND**
Garrett Regional Medical Center
- 16. **BARNESVILLE, OHIO**
Barnesville Hospital
- 17. **CADIZ, OHIO**
Harrison Community Hospital
- 18. **UNIONTOWN, PENNSYLVANIA**
Uniontown Hospital

AFFILIATE HOSPITALS

- 19. **ELKINS**
Davis Health System
- 20. **PHILIPPI**
Broaddus Hospital
- 21. **WEIRTON**
Weirton Medical Center

INSTITUTES

- WVU Cancer Institute
- WVU Critical Care and Trauma Institute
- WVU Eye Institute
- WVU Heart and Vascular Institute
- WVU Rockefeller Neuroscience Institute



WEST VIRGINIA UNIVERSITY HEALTH SCIENCES

- / School of Dentistry
- / School of Medicine
- / School of Nursing
- / School of Pharmacy
- / School of Public Health

HEALTH CAMPUSES

- / Morgantown
- / Charleston
- / Martinsburg

WEST VIRGINIA UNIVERSITY HEALTH SYSTEM / BOARD OF DIRECTORS

OFFICERS

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- / CHAIR
E. Gordon Gee
- / VICE CHAIR
Patrick D. Deem
- / TREASURER
Thomas Heywood
- / SECRETARY
Kathy Eddy

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| / Joe Campbell | / John P. Keeley | / H. Wood Thrasher |
| / Terry Capel, MD | / Clay B. Marsh, MD | / Bernie Twigg |
| / Ellen S. Cappellanti | / Jocelyn Moore | / Dennis Xander |
| / Judie Charlton, MD | / Michael A. Morehead, MD | |

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| / BOG VICE-CHAIRMAN
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| / W. Marston (Marty) Becker | / James R. (JR) Rogers | / STUDENT REPRESENTATIVE
Kate Dye |
| / Charles Capito, Jr. | / Benjamin M. Statler | |
| / Elmer F. Coppoolse | / Kimberly Weaver, PhD | |
| / Kevin Craig | / William D. Wilmoth | |

WHAT WE DO

11 + 7 + 3 [5]
MEMBER HOSPITALS
MANAGED HOSPITALS
AFFILIATE HOSPITALS
INSTITUTES

INPATIENT SURGERIES
22,160
MRI
10,801
LAB SERVICES
2,618,552

OUTPATIENT SERVICES
46,075
MRI
33,480
LAB SERVICES
4,245,714

/ EMPLOYEES: 20,177
/ NEW HIRES: 5,212
/ STUDENTS: 8,028
/ UNDERGRAD: 2,263
/ PROFESSIONAL PROGRAMS: 1,274
/ GRADUATE: 477
/ MEDICINE: 2,120
/ NURSING: 805
/ PHARMACY: 556
/ DENTISTRY: 291
/ PUBLIC HEALTH: 242

1,378,035
Clinic Visits

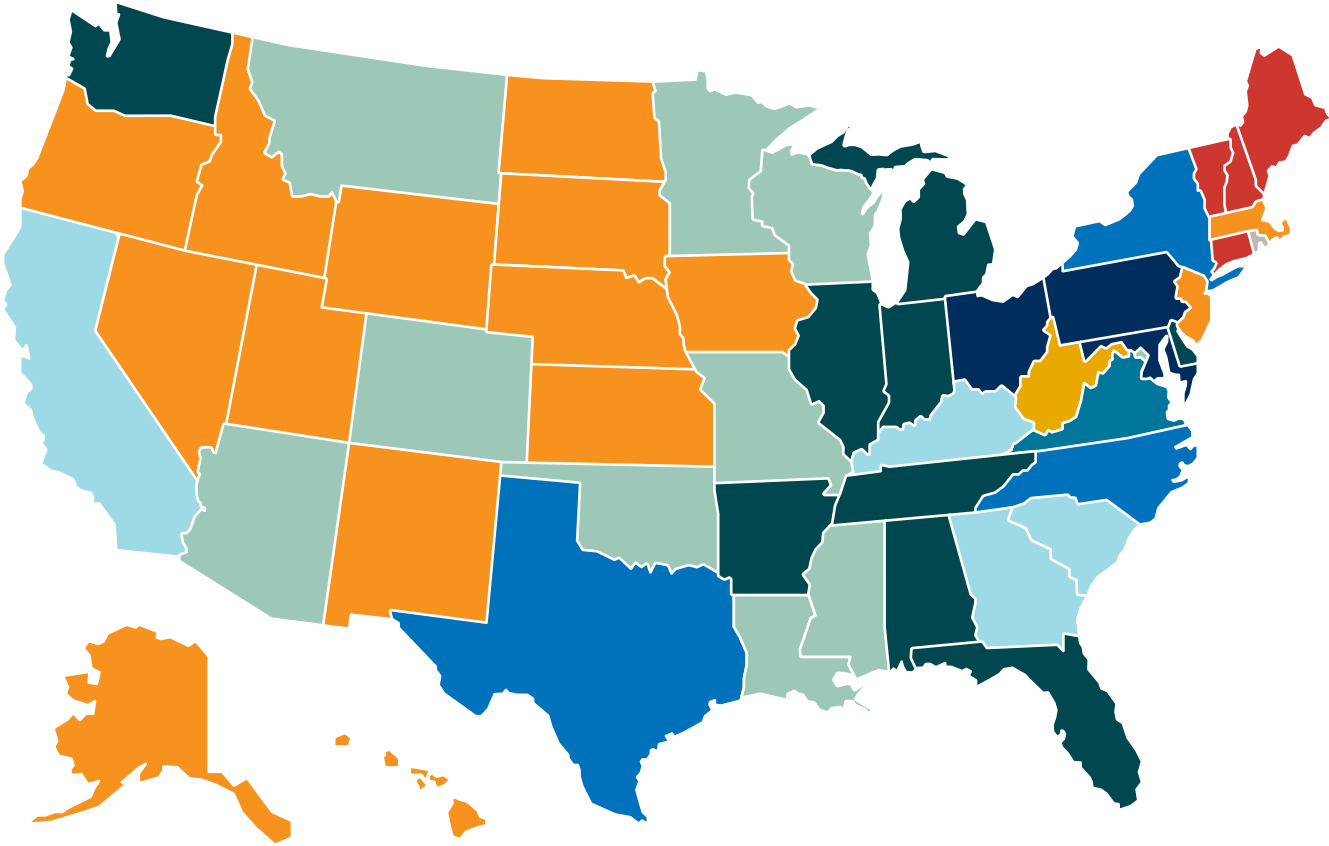
1,782
Beds

303,985
ED Visits

5,693
Births

109,067
Discharges

NATIONWIDE PATIENT REACH
PATIENTS CAME TO US FROM
49 STATES AND WASHINGTON, D.C.



PLUS

/ CANADA
/ GUAM
/ MEXICO
/ PUERTO RICO
/ ARMED FORCES:
– AFRICA
– CANADA
– EUROPE
– MIDDLE EAST

COMPLETED CLINIC VISITS AND INPATIENT / OBSERVATION DISCHARGES

• : ≤ 10
• : 11-100
• : 101-250
• : 251-500
• : 501-1,000
• : 1,001-3,000
• : ≥ 15,000
• : ≥ 90,000
• : 2,594,746

WVU HEALTH SYSTEM



WVU Medicine becomes multi-organ transplant center, performs state’s first heart transplant

In October, WVU Medicine received approval from the United Network for Organ Sharing (UNOS) to offer kidney transplants, making it West Virginia’s first and only fully functional multi-organ transplant center, and one month later, the WVU Heart and Vascular Institute and WVU Transplant Alliance performed the state’s first heart transplant.

“In September, we received approval from UNOS to offer heart transplantation, and we are thrilled to receive approval to also offer kidney transplantation. As the state’s leading academic medical center, we are charged with providing West Virginians and all we serve with the care they need,” Michael Shullo, PharmD, WVU Medicine associate vice president of transplant services, said. “By becoming the state’s first multi-organ transplant center, we are able to offer life-saving care to people who previously had to leave the state to find it.”

On Saturday, Nov. 2, Robert Parsons, a 61-year-old male from Chesapeake, Ohio, got a new lease on life when he underwent a heart transplant at J.W. Ruby Memorial Hospital.

The operation took a total of six hours and concluded at noon. By 4 pm, Parsons was stable and taken off the ventilator. He was sitting up and visiting with his siblings from Huntington.

The transplant team included heart surgeons Vinay Badhwar, MD, Muhammad Salman, MD, and Chris Cook, MD; heart failure cardiologists Christopher Bianco, DO, George Sokos, DO, and Marco Caccamo, DO; anesthesiologists Matthew Ellison, MD, and John Bozek, MD; surgical assistants; transplant coordinators; nurses; pharmacists; social workers; dietitians; and perfusionists.

“On behalf of the tremendous team of your WVU Heart and Vascular Institute, it is an honor and privilege to bring access to this much-needed and precious, life-saving therapy to our patient today,” Dr. Badhwar, transplant surgeon and executive chair of the WVU Heart and Vascular Institute and the WVU Department of Cardiovascular and Thoracic Surgery, said.

“We have opened the doorway to a new future for West Virginians, who no longer have to travel out of state for heart transplantation.”

The WVU Medicine program has several more patients in need currently on a waiting list for heart transplantation.

“This heart transplant was the first ever in West Virginia’s 156-year history, and it marked a pivotal moment for the Institute as it continues to establish itself as one of the premier heart and vascular programs in the United States,” Albert L. Wright, Jr., president and CEO of the West Virginia University Health System, said. “We are proud of the team of dedicated professionals who made this surgery a success, and we are honored to bring this critical service to the people of West Virginia and all we serve.”



Four new hospitals welcomed to health system

The WVU Health System welcomed four new hospitals in 2019.

Braxton County Memorial Hospital in Gassaway officially joined the West Virginia University Health System (WVUHS) on Jan. 1.

Barnesville Hospital in Belmont County, Ohio, entered into a management agreement and clinical affiliation with WVU Hospitals and the WVUHS effective June 1.

Under the terms of the agreement, David Phillips, president and CEO of Barnesville Hospital, became an employee of WVU Hospitals and remains as president of Barnesville Hospital.

The Boards of Directors of Wheeling Hospital and the WVUHS announced June 20 that they entered into a management services agreement and named Douglass E. Harrison as Wheeling Hospital’s new chief executive officer.

Summersville Regional Medical Center officially joined the West Virginia University Health System on July 1.

WVU Hospitals entered into a management agreement with the City of Summersville Building Commission in June 2018. On July 1, a subsidiary of WVU Hospitals, The West Virginia Health Care Cooperative, Inc. d/b/a Summersville Regional Medical Center, began operating the hospital and now leases the facility from the City of Summersville Building Commission.

Albert L. Wright, Jr., president and CEO of the WVU Health System, addresses the crowd at Braxton County Memorial Hospital.

Urology again ranked by U.S. News & World Report

Five WVU Medicine hospitals were recognized by U.S. News & World Report as part of its 2019-20 Best Hospitals in the United States.

J.W. Ruby Memorial Hospital was ranked 37th in Urology and 30th in Pediatric Urology. This marked Urology’s third consecutive national ranking.

“The rankings reflect the hard work by all members of the Urology team and the entire hospital staff,” Stanley Zaslau, MD, chairman of the WVU Medicine Department of Urology, said. “We are working harder each and every day to deliver the highest quality of care possible for our patients. We are honored to be recognized by this prestigious publication for our efforts.”

Ruby and four additional hospitals under the WVU Medicine umbrella – Berkeley Medical Center, Camden Clark Medical Center, United Hospital Center (UHC), and Wheeling Hospital – were ranked as High Performing in Specialties and Common Adult Procedure and Condition Ratings.

Ruby received High Performing ratings for specialties in Nephrology, Neurology and Neurosurgery, Chronic Obstructive Pulmonary Disease (COPD), and Heart Failure in Common Adult Procedure and Condition Ratings. Berkeley was rated as High Performing in COPD; Camden Clark in COPD and Heart Failure; UHC in COPD; and Wheeling Hospital in COPD and Heart Failure.

For the 2019-20 rankings, U.S. News evaluated more than 4,500 medical centers nationwide in 25 specialties, procedures, and conditions. In the 16 specialty areas, 165 hospitals were ranked in at least one specialty.

The U.S. News Best Hospitals methodologies in most areas of care are based largely or entirely on objective measures from data obtained from the Centers for Medicare and Medicaid Services, and annual surveys conducted by the American Hospital Associations and the Hospital Consumer Assessment of Healthcare Providers and Systems.

WVU HEALTH SYSTEM



WVU Medicine’s Charlton listed among *Becker’s* ‘100 hospital and health system CMOs to know’ for 2019

Judie Charlton, MD, chief medical officer for WVU Medicine, was listed as one of the “100 hospital and health system CMOs to know” in *Becker’s Hospital Review*.

The list features physician leaders dedicated to strengthening their organizations through leadership development, patient safety initiatives, health IT, and quality improvement. Many have served as department heads and continue to practice medicine, while others focus on process improvement and patient advocacy.

The *Becker’s* editorial team accepted nominations for this list and selected CMOs and other equivalent titles through an editorial review process.

Dr. Charlton, who began serving as chief medical officer in 2011, is WVU Medicine’s primary physician executive and is responsible for the organization’s clinical services. She also serves as vice dean for clinical affairs in the WVU School of Medicine and chief executive of University Health Associates, the physician practice plan.

Charlton is a 1981 graduate of the WVU School of Pharmacy and a 1985 graduate of the WVU School of Medicine. She completed post-graduate training at Mercy Hospital and WVU. She joined the faculty of the WVU Department of Ophthalmology in 1989 and served as chair from 2008-2011.

THRIVE HERE

West Virginia Chamber of Commerce honors WVU Medicine with Five Diamond Award

WVU Medicine was recognized as a Five-Diamond Employer by the West Virginia Chamber of Commerce. This designation recognizes outstanding companies in the areas of employee policies, continuing education, community service participation, and empowerment of employees.

In 2018, WVU Medicine improved employee benefits by integrating paid time off, disability, and leave management programs, as well as retirement programs across the system. In 2019, WVU Medicine implemented a system-wide career ladder for nursing and create career ladder and clinical advancement programs for other areas.

The Five Diamond Award was presented in April at the Chamber’s annual Human Resources Conference in Charleston. Other awardees included Cabell Huntington Hospital, The Health Plan in Wheeling, Mon Power in Fairmont, Arnett Carbis Toothman in Charleston, Pierpont Community and Technical College in Fairmont, REO Logistics in Huntington, Service Wire in Culloden, The Thrasher Group in Bridgeport, UniCare Health Plan of West Virginia in Charleston, and West Virginia American Water in Charleston.



Chief pharmacy officer named

Todd Karpinski, PharmD, an experienced leader in pharmacy operations, was announced as chief pharmacy officer for the West Virginia University Health System in January.

Dr. Karpinski is responsible for the strategic planning, development, and operations of all WVU Medicine pharmacy services across the West Virginia University Health System. His charge includes identifying and growing opportunities for business development and clinical services, as well as managing operations, pharmacy data analytics, and pharmacy procurement. He also directs strategic initiatives aimed at driving cost-reduction efforts and achieving the highest in clinical quality and customer service across all WVU Medicine facilities.

Karpinski joined WVU from his position as national director of ambulatory pharmacy for The Resource Group, a component of Ascension Health. The Resource Group is a business consulting organization that provides contracting, operations and logistics, and integrated management strategies and implementation services to clients across the United States.

As director, he was responsible for developing and maintaining high quality, patient-focused ambulatory pharmacy services in alignment with clients’ strategic planning priorities. He identified opportunities for clients in infusion therapy and specialty pharmacy, as well as pharmacy services in physician offices and clinics. His role included the strategy, direction, and business decisions in these areas.

Karpinski was formerly chief pharmacy officer and associate dean for health system practice at Froedtert and Medical College of Wisconsin. During his 10-year tenure there, he helped lead and create an extensive ambulatory pharmacy model that included 12 retail pharmacies, a large specialty pharmacy program, mail-order services, and home infusion and integrated pharmacists into primary and specialty practice clinics.

Karpinski serves as a board member with the American Society of Health Systems Pharmacists and is a current fellow with the American College of Health System Executives. In 2013, he received the Pharmacist of the Year from the Pharmacy Society of Wisconsin. He earned his Doctor of Pharmacy degree from Drake University and his Master of Science in Hospital Pharmacy from the University of Kansas.

J.W. RUBY MEMORIAL HOSPITAL



Orthopaedic surgeons offer cartilage repair procedure

Orthopaedic surgeons at WVU Medicine are now offering a procedure for the treatment of full thickness cartilage defects of the knee.

Matrix-impregnated autologous chondrocyte implantation, known as MACI, provides surgeons with a technically improved way to rebuild damaged and missing cartilage. WVU Medicine J.W. Ruby Memorial Hospital is the only hospital in the state to offer this procedure.

In the two-stage procedure, surgeons perform a biopsy of healthy cartilage tissue from a non-weight bearing area of the knee to be sent to the Vericel lab, where chondrocytes, the building blocks of cartilage, are extracted and grown on a collagen matrix.

The prepared matrix is then sent to the surgeon, who implants it into the knee to completely fill the defect.

This procedure is appropriate for patients ages 18 to 55 who have cartilage defects due to trauma and is not available as a treatment for arthritic knee pain.

Patients can expect to return to full weight bearing six-to-eight weeks after the procedure and may require a recovery period of nine months or longer before returning to high impact athletic activity.

Surgeons improve quality of life for patients with amputations

Surgeons at WVU Medicine performed the state’s first target muscle reinnervation (TMR) procedure, a technique that transfers residual nerves from an amputated limb into new muscle, allowing patients to control new bioelectric prosthetics.

In addition to allowing patients to use more functional prosthetics, targeted muscle reinnervation can be used to treat pain from phantom limb and neuromas, a painful formation of scar tissue at the end of a nerve. By creating a pathway for the nerves in the reinnervated muscle, it is less likely that they will develop painful scar tissue, a common problem for patients who have had amputations.

The procedure can be performed either during the original amputation or at a later time, in order to improve functionality and reduce pain.

According to Jack Gelman, MD, WVU Medicine plastic surgery associate program director, researchers are developing prosthetics that not only restore functionality but allow the patient to feel. These prosthetics will relay nerve signals either through electrodes or wireless technology.

WVU Center for Reproductive Medicine celebrates 1,000th patient start

In October, the WVU Center for Reproductive Medicine celebrated its 1,000th in vitro fertilization (IVF) patient start since its opening in 2002. The Center has seen growth each year, performing nearly 200 in vitro fertilization cycles in 2018.

The WVU Center for Reproductive Medicine is one of two IVF programs in the state and is the

only program in the state to offer preimplantation genetic testing, a process that allows for the detection of genetic anomalies in embryos prior to implantation, improving the chances of success. It is also the only Society for Assisted Reproductive Therapy member clinic in the state.

Mon Health System and WVU Hospitals formalize partnership to establish emergency response ambulance service

A formal agreement effective July 1 was signed by Monongalia Health System, Inc. (Mon Health System) and WVU Hospitals to combine the assets of Monongalia Emergency Medical Services (Mon EMS) and HealthTeam Critical Care Transport, establishing a single countywide emergency medical system to better serve the needs of Monongalia and Preston county residents.

Under the terms of the agreement, HealthTeam’s operations in Monongalia County were transferred to Mon EMS, which is now jointly managed and operated by Mon Health System and WVU Hospitals. This partnership between Mon Health System and WVU Hospitals makes emergency medical services in

Monongalia County more efficient under a consistent, cost effective, and rapid response model that offers basic and advanced life support throughout the region.

Mon EMS continues to have ambulances based at the Mon EMS headquarters, the Gateway complex, Cheat Lake VFD, Clinton District VFD, and Clay-Battelle Health Center. Other locations may be added in the future and are under review. The Mon EMS ambulances are co-branded and display the name “Monongalia EMS.” The logos of Mon Health and WVU Medicine are jointly displayed to show the partnership of these two longstanding quality providers.

WVU Medicine named among Newsweek World’s Best Hospitals

WVU Medicine was recognized by Newsweek as part of its inaugural list of the World’s Best Hospitals.

According to Newsweek, the World’s Best Hospitals 2019 ranking listed the best hospitals in 11 countries: USA, Canada, Germany, France, United Kingdom, Switzerland, South Korea, Japan, Singapore, Australia, and Israel. The countries were mainly selected based on standard of living/life expectancy, population size, number of hospitals, and data availability.

The list was based on three data sources: recommendations from medical experts, results from patient surveys, and medical key performance indicators on hospitals.

Pediatric neurosurgeons provide life-changing interventions

Pediatric neurosurgeons at WVU Medicine Children's and the WVU Rockefeller Neuroscience Institute are making it possible for patients and their families to receive treatment for epilepsy and other neurological conditions without leaving the state.

Mark Lee, MD, chair of WVU Medicine Neurosurgery, came to Morgantown in 2018, expanding the Department's capability to offer surgical treatment for epilepsy. Traditionally, epilepsy has been treated with medication, but medication is ineffective for 40 percent of epilepsy patients. Surgical options provide a long-term solution for these patients, frequently eliminating all symptoms with a single treatment.

According to Dr. Lee, early medical intervention is the best way to help children with epilepsy reach the developmental milestones needed to live a normal life.

The techniques for surgically treating epilepsy have evolved since they were first attempted in the 1940s, but they still operate on the premise of removing the epilepsy-affected part of the brain. Modern techniques allow for minimally invasive procedures that require much shorter recovery times and less risk of damaging unaffected areas of the brain.

One of WVU Medicine's newest technologies for the treatment of epilepsy is laser ablation. This technique allows neurosurgeons to access the affected part of the brain through a small hole in the skull using computer guidance and burn away the portion of

the brain that is causing the child's seizures. This reduces the potential for damage to the portions of the brain that are not affected, while providing a potentially curative treatment.

Lee said he sees families being more open to less invasive epilepsy surgery as an alternative to a lifetime of controlling seizures using medication. He said that, while surgery may be expensive up front, the cost will be reduced over the lifetime of the patient when compared to prescriptions, emergency room visits, and hospital stays.

The capabilities of the Pediatric Neurosurgery team at WVU Medicine reach beyond the treatment of epilepsy. Whether a condition is caused by sudden trauma or an underlying condition, the pediatric neurosurgeons at WVU Medicine are able to provide care for these patients in their own communities.



Mark Lee MD

State's first dedicated pediatric rheumatologist joins staff

Paul Rosen, MD, MPH, MMM, joined WVU Medicine Children's as the state's first dedicated pediatric rheumatologist.

Dr. Rosen also serves as medical officer for the Transforming Clinical Practice Initiative (TCPI) at the Centers for Medicare and Medicaid Services (CMS). Previously, he served as the clinical director of service and operational excellence at the Nemours Children's Health System.

Rosen received his medical degree from the State University of New York at Buffalo. He then received a master's in public health from Harvard University and a master's in medical management from Carnegie Mellon University. He completed an internship and residency in pediatrics at Mount Sinai Medical Center in New York followed by a fellowship in pediatric rheumatology at Cincinnati Children's Hospital.

Rosen, a professor of pediatrics, is board certified in pediatric rheumatology.



Paul Rosen MD, MPH, MMM



WVU Heart and Vascular Institute first to implement technology for non-invasive detection of heart disease

The WVU Heart and Vascular Institute was the first academic medical center to install Genetesis CardioFlux FAC magnetocardiography (MCG) cardiac imaging technology. The FDA-cleared system measures and displays the signals produced by the heart's electrical activity without the use of radiation, medications, or exercise, allowing doctors to quickly and accurately diagnose heart disease.

This technology has initially been used as part of a clinical trial led by Partho Sengupta, MD, Abnash C. Jain Chair and division chief of Cardiology at the WVU Heart and Vascular Institute. The trial studies patients presenting for

cardiac stress testing using traditional methods, such as single photon emission computed tomography, cardiac CT angiography, or cardiac catheterization. These patients also receive imaging using MCG before their traditional testing.

Unlike other cardiac imaging offerings, which require exposure to radiation, the use of pharmaceuticals, and exercise, the MCG scan takes less than 90-seconds and neither uses nor exposes the patient to radiation.

Study uses machine learning to improve treatment of aortic stenosis

A new study by a team of researchers, including **Partho Sengupta, MD**, Abnash C. Jain Chair and division chief of Cardiology at the WVU Heart and Vascular Institute, utilized machine learning to predict the clinical presentations and treatment outcomes of patients with aortic stenosis, a narrowing of the blood vessels.

This study used data from 246 patients to develop a timeline of disease risk and progression both with and without medical intervention. This data was compared to a model developed using a mouse study in which aortic stenosis progresses rapidly and showed similar results.

This model showed that modern computational techniques using machine learning can help doctors with new insights to understand how aortic stenosis presents and progresses in a predictable way. Medical interventions can place the patient at an earlier stage on the timeline, though long-term damage has already been done.

Genetesis CardioFlux FAC magnetocardiography (MCG) cardiac imaging technology
Left: Peter Farjo, MD, cardiology fellow at the WVU Heart and Vascular Institute
Right: Partho Sengupta, MD, Abnash C. Jain Chair and division chief of Cardiology at the WVU Heart and Vascular Institute

Internationally renowned robotic thoracic surgeon joins staff

Alper Toker, MD, an experienced thoracic surgeon who is internationally recognized for his expertise in minimally invasive/robotic thoracic surgery, joined the WVU Heart and Vascular Institute and the Department of Cardiovascular and Thoracic Surgery of the WVU School of Medicine.

Dr. Toker has held many leadership positons in various international societies, most recently as president of the European Society of Thoracic Surgery. He also serves on the editorial board of thoracic and cardiovascular journals and has published close to 200 scientific publications in various international journals.

He is one of the pioneers of the robotic surgery for myasthenia gravis, a chronic autoimmune disease in which the skeletal muscles that are responsible for breathing and moving parts of the body, such as the arms and legs, become weak, resulting in difficulty swallowing, double vision, unsteady gait, and drooping of the eyelids and mouth. Thymectomy, the surgical removal of the thymus gland, can be curative for this condition.

At WVU Medicine, Toker leads the tracheal surgery program, robotic thymus/mediastinal surgery, extended surgery for lung cancer, the mesothelioma program, and the chest wall surgery program. He sees patients in both the WVU Heart and Vascular Institute and the WVU Cancer Institute.



Alper Toker MD

Cardio-Oncology Clinic provides specialized care for cardiovascular disease in cancer patients

The WVU Cancer Institute and the WVU Heart and Vascular Institute joined forces to improve cardiovascular outcomes for cancer patients. The new WVU Cancer Institute Cardio-Oncology Clinic assists with the prevention, detection, monitoring, and treatment of cardiovascular toxicities related to cancer therapy and provides optimal care to those with cancer and established cardiovascular disease.

The Clinic gives patients the opportunity to receive specialized preventive cardiovascular care by incorporating cardiologists into their cancer treatment team. Patients have access to advanced cardiovascular imaging, cutting-edge diagnostic services, and advanced treatment modalities provided in collaboration with the WVU Medicine Advanced Heart Failure Program.



Christopher Bianco DO



George Sokos DO



VAD coordinator recognized by Society of Thoracic Surgeons

Monica Thomas, RN, BSN, WVU Heart and Vascular Institute ventricular assist device (VAD) coordinator, received the Society of Thoracic Surgeons (STS) National Database Sherri Ann Wissman Memorial Excellence Award, which recognizes and rewards an outstanding VAD coordinator for his/her dedication, selflessness, nurturing, patience, and overall contribution to the field of mechanical circulatory support.

Vinay Badhwar, MD, executive chair of the WVU Heart and Vascular Institute, accepted the award on Thomas's behalf at the 2019 STS Intermacs Meeting.

VADs provide circulatory support. They serve as a bridge-to-transplant to help patients survive until a donor heart becomes available or as a destination therapy to provide long-term support for patients who are not eligible for a heart transplant. By the time patients meet Thomas, they are already in end-stage heart failure and have exhausted nearly all treatment options. She helps them start the process of determining whether they are a candidate for a VAD and continues to follow their care after implantation.

Thomas said her job can be difficult at times because a VAD is often the last treatment for her patients. She said her team supports her through the difficult times and helps her cope with the loss of patients. Despite the challenges of the role, Thomas said she still finds motivation to keep providing care for this patient population.

"I didn't win this award by myself," Thomas said. "My team keeps me going. They are available whenever I need them. I'm on call all the time, and I know I can call any of those doctors any time I have a concern about patients."



Vinay Badhwar, MD, executive chair of the WVU Heart and Vascular Institute, presents Monica Thomas, RN, BSN, WVU Heart and Vascular Institute VAD coordinator, with the Society of Thoracic Surgeons National Database Sherri Ann Wissman Memorial Excellence Award.



RNI first in U.S. to use deep brain stimulation to fight opioid addiction


The WVU Rockefeller Neuroscience Institute (RNI) and WVU Medicine announced the launch of a first-in-the-U.S. clinical trial using deep brain stimulation for patients suffering from treatment-resistant opioid use disorder on Nov. 5.

Funded through a grant from the National Institute on Drug Abuse, the clinical trial is led by principal investigator Ali Rezai, MD, executive chair of the RNI, and a multidisciplinary team of neurosurgical, psychiatric, neuroscience, and other experts.

The team successfully implanted a Medtronic DBS device in the addiction and reward center of the brain. The trial's first participant is a 33-year-old man, who has struggled with substance use disorder, specifically excessive opioid and benzodiazepine use, for more than a decade with multiple overdoses and relapses.

The first phase of this clinical trial involves four participants. To qualify, patients will have failed standards of care across multiple levels of WVU Medicine's comprehensive inpatient, residential, and outpatient treatment programs that include medication, as well as psychological and social recovery efforts.

DBS, or brain pacemaker surgery, involves implantation of tiny electrodes into specific brain areas to regulate the structures involved in addiction and behavioral self-control. This study will also investigate the mechanism of the addiction in the brain. The U.S. Food and Drug Administration has approved DBS for treating patients with Parkinson's disease, essential tremor, dystonia, epilepsy, and obsessive-compulsive disorder. The RNI team routinely uses DBS to treat patients with these disorders.

 Dr. Ali Rezai, executive chair of the WVU Rockefeller Neuroscience Institute, asks questions and receives answers from DBS patient Gerod Buckhalter. The answers guide adjustments to the DBS implant.

Institute receives \$150K grant for research on concussions, traumatic brain injury

The Rockefeller Neuroscience Institute has received a grant worth \$150,000 from the Chuck Noll Foundation for Brain Injury to support research in concussions and traumatic brain injury.

The grant is part of the Foundation's second round of funding for research seeking to improve patient care for those with neurological disease or traumatic brain injury.

A team of researchers led by Joshua Hagen, PhD, Scott Galster, PhD, Victor Finomore, PhD, and Ali Rezai, MD, will study automatic nervous system monitoring and the use of neuromodulation technology, such as flotation tanks, in concussion treatment and recovery. The study will be conducted with athletes, military members, and clinical patient populations.

"The scientists and researchers at the Rockefeller Neuroscience Institute, under the leadership of Dr. Ali Rezai, are committed to transforming the lives of individuals who suffer from debilitating brain disorders and injuries, and we are proud to support the incredibly important work that they do," Arthur J. Rooney II, chairman of the Foundation Board, said.

The Chuck Noll Foundation was established in 2016 by the Pittsburgh Steelers in honor of former head coach Chuck Noll.

Researchers first to test aneurysm treatment device

Doctors at the WVU Rockefeller Neuroscience Institute (RNI) have treated the first patients in the world in a clinical trial to collect real-world, post-marketing data on the use of a new device for the endovascular treatment of cerebral aneurysms.

It has been 25 years since the U.S. Food and Drug Administration has allowed an investigational device to undergo a U.S. clinical trial prior to its approval outside the U.S.

Ansaar Rai, MD, neurointerventional radiologist and professor of Neuroradiology and Neurosurgery at the RNI, serves as national principal investigator of the trial. He and his team are among five other sites to participate in this initial feasibility and safety study. Based on the results, the FDA may grant permission to move forward with a larger study of the device.

"The opportunity to test this device in the U.S. is novel," Dr. Rai said. "When people come here, they can know that they are able to get the same care as they would anywhere else in the world and may have access to therapies not available anywhere else. To be chosen to conduct these high-end, innovative trials demonstrates that we have a base of excellence and a tradition of leadership in the field."



Ansaar Rai MD



Haut named to new leadership position

Marc W. Haut, PhD, was chosen to serve in a new leadership role as vice chair and director of clinical research and education for the WVU Rockefeller Neuroscience Institute (RNI). Dr. Haut is also professor in the Departments of Neuroscience, Neurology, and Radiology and the WVU Cancer Institute. He previously served as chair of the Department of Behavioral Medicine and Psychiatry.

In his new role, Haut is responsible for leading all clinical trials research and will manage the clinical research investigators for the RNI. He directs population health research initiatives, acts as liaison on clinical research initiatives, and serves as the clinical research lead on the RNI Research Steering Committee.

Haut earned his bachelor's degree in psychology from Rhodes College, his master's degree in clinical psychology from Murray State University, and his doctorate degree in clinical psychology from University of North Dakota. He is board certified in clinical neuropsychology by the American Board of Professional Psychology.

Haut's special clinical interests include ALS, brain tumors, Alzheimer's disease and other dementias, Parkinson's disease, and psychiatric disease. He is an active researcher with numerous peer-reviewed publications and book chapters, and his current research interest is in the study of human brain plasticity using MRI. He has received numerous honors and awards related to research and teaching.

James H. Berry, DO, associate professor and vice chair in the Department of Behavioral Medicine and Psychiatry and director of addiction services, was named interim chair of the Department. Dr. Berry is board certified in both general psychiatry and addiction psychiatry. He received his medical degree from Michigan State University College of Osteopathic Medicine and completed a general psychiatry residency at WVU and an addiction psychiatry fellowship at the University of Hawaii.



Dedication held for Innovation Center

The WVU Rockefeller Neuroscience Institute (RNI) unveiled its new Innovation Center in May.

The 78,000-square-foot Innovation Center is a dedicated building featuring the latest technology for rapid applied human research. This unique facility has unparalleled capabilities in Human Performance and Recovery, Neuromodulation, Virtual Reality, Imaging, and Neuroscience Predictive Data Analytics – all under one roof.

The Center is working with national and international experts in a variety of public-private partnerships designed to accelerate discoveries and translate them into real-life applications.

The dedication featured remarks from the RNI founder, Sen. John D. “Jay” Rockefeller IV; WVU President E. Gordon Gee; WVU Health System President and CEO Albert L. Wright, Jr.; Clay B. Marsh, MD, vice president and executive dean for WVU Health Sciences; and Ali Rezai, MD, executive chair, WVU Rockefeller Neuroscience Institute.

The event was followed by a reception and tours.

The next day, the RNI convened its inaugural Summit, “Breaking Barriers,” at the Morgantown Marriott at Waterfront Place. It gathered leading experts from across to world to explore the latest breakthroughs in neuroscience with a focus on combating public health challenges and optimizing brain health, performance, and wellness.

From left: WVU President E. Gordon Gee; Clay B. Marsh, MD, vice president and executive dean for WVU Health Sciences; WVU Health System President and CEO Albert L. Wright, Jr.; Ali Rezai, MD, executive chair, WVU Rockefeller Neuroscience Institute; and Sen. John D. “Jay” Rockefeller IV.



Institute now offering new, non-invasive treatment for movement disorders

The WVU Rockefeller Neuroscience Institute (RNI) is the only site in West Virginia and one of just 15 sites in the United States utilizing MR-guided focused ultrasound – a new, FDA-approved treatment for essential tremor and tremor-dominant Parkinson’s disease that requires no surgery or exposure to radiation.

MR-guided focused ultrasound uses non-audible sound waves instead of incisions, brain implants, or radiation. The ultrasound waves from more than 1,000 probes travel through the brain and converge precisely on a pinpointed area in the thalamus to stop the tremor during a single treatment session.

The RNI performed its first MR-guided focused ultrasound procedure for essential tremor on June 18. The first patient was Don Wahl, a 71-year-old male with progressively worsening tremor that impacted all aspects of his life and function. The procedure took two hours and resulted in the immediate resolution of the tremor. Patients spend one night in the hospital for observation and are discharged the next day.

Don Wahl (seated) gives a thumb’s up after undergoing MR-guided focused ultrasound for essential tremor at the WVU Rockefeller Neuroscience Institute. He is pictured with the team that performed the procedure.



10th Annual Night of Recognition held

The WVU Medicine Jon Michael Moore Trauma Center recognized three patients and those who participated in the various stages of their care at the 10th Annual Night of Recognition in October at the Morgantown Event Center.

At the event, each patient’s story was told, and those who participated in their care were presented with a Cornerstone of Recovery Award. Approximately 70 awards were presented.

“This is a highly anticipated event every year, but this year is even more special because it’s our 10th event. Over the last 10 years, we’ve recognized dozens of patients and hundreds of individuals who participated in their care,” Alison Wilson, MD, executive chair of the WVU Critical Care and Trauma Institute, said.

“At the heart of this event is the recognition that many people, who often go uncredited, participate in each trauma patient’s care, and without all of these professionals, these trauma victims would not go on to become trauma survivors. It is our honor to celebrate these hardworking individuals.”

Patients recognized at previous Night of Recognition celebrations were also in attendance.

Through sponsorship and ticket sales, proceeds from the Night of Recognition provide crucial funds to the WVU School of Medicine’s Department of Surgery to help support the Trauma Center’s Injury Prevention Outreach Programs, which provide education to people of all ages.

The Jon Michael Moore Trauma Center was created in the 1980s with the assistance and support of the late U.S. Sen. Robert C. Byrd. It is named for Byrd’s grandson, who died as a result of an automobile crash. Each year, the Trauma Center treats more than 3,000 patients from all over West Virginia, as well as those from Ohio, Pennsylvania, and Maryland.



Top: Michaelyn Davitian is presented a Cornerstone of Recovery Award by Alison Wilson, MD, executive chair of the WVU Critical Care and Trauma Institute and Jarrid “Jay” Collins, First Sergeant, U.S. Army Special Forces (Ret.).

Bottom: Timmy Eads, WVU’s 2019 Mountaineer mascot



Goldberg announces retirement, Hazard-Jenkins named interim director

Rich Goldberg, MD, director of the WVU Cancer Institute and Laurence S. and Jean J. DeLynn Chair of Oncology, announced his intent to step down from those positions and transition toward retirement.

The recruitment process for a successor has begun with the assistance of an executive search firm.

Dr. Goldberg's 35-year academic career encompassed caring for thousands of patients, educating trainees and physicians from around the world, conducting research, and managing the Cancer Institute.

Following his retirement, he plans to continue to play a supportive role in mentoring faculty and serving as a resource to the Cancer Institute's leadership. He and his wife, Lynda, expect to continue to reside in Morgantown.

Hannah Hazard-Jenkins, MD, associate chair of surgery for cancer services, was named interim director of the WVU Cancer Institute, effective January 2020.

As the director of clinical services for the Mary Babb Randolph Cancer Center, Dr. Hazard-Jenkins manages clinical affairs and outpatient services as well as the Cancer Institute's statewide network of cancer care.

Hazard-Jenkins has earned several accolades over the years due to her service to patients and trainees, including being named Clinician of the Year, the Bernard Zimmerman Outstanding Attending Surgeon, and the Ron Albuquerque Medical Student Teaching Award.

She completed her residency training in general surgery at WVU and a fellowship in breast diseases at Northwestern University in Chicago. She is board certified in surgery by the American Board of Surgery.

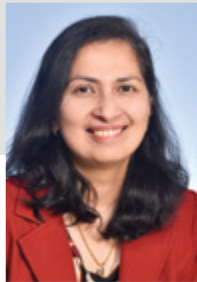
First patients enrolled in breast cancer vaccine trial

The WVU Cancer Institute enrolled two of the first three patients in a national clinical trial for a novel breast cancer vaccine.

The trial, sponsored by the National Surgical Adjuvant Breast and Bowel Project (NSABP) Foundation, will examine the recommended biologic dose of a vaccine in combination with pembrolizumab, an immunotherapy drug that is used to fight certain cancers, in the treatment of patients with advanced triple-negative breast cancer.

"This vaccine works differently than traditional vaccines by helping to stimulate an immune response, which will enable the immunotherapy agent to uncloak and attack the cancer," Sobha Kurian, MD, WVU Medicine hematologist/oncologist and primary investigator of the study, said. "The immunotherapy by itself may not work against certain cancers because the cancer cells cloak themselves and often cannot be detected by the immune system, but this vaccine may help to overcome this problem."

The WVU Cancer Institute joins 10 other cancer centers across the country in recruiting 29 patients for this study.



Sobha Kurian MD



Surgeons implant robotic liver infusion pump

Surgeons at the WVU Cancer Institute have performed a robotic-assisted surgery to implant a hepatic artery infusion pump to treat a patient with colon cancer that spread to the liver. This was the first time this surgery had been performed robotically in the state.

Hepatic artery infusion pumps allow oncologists to deliver chemotherapy directly to the liver through the hepatic artery, the main blood supply to the liver. This direct delivery method greatly reduces the side effects patients would experience from the systemic delivery of chemotherapy. The pump is filled every two weeks and continuously delivers chemotherapy to the liver.

"A robotic approach allows us to complete both portions of the operation, the pump placement and colon resection, through the same small incisions, avoiding a large abdominal incision," Brian Boone, MD, WVU Cancer Institute surgical oncologist, said. "This has the potential to reduce recovery time and postoperative pain and allows for a quicker return to treatment."

Dr. Boone robotically placed the hepatic artery infusion pump while Emily Groves, MD, WVU Cancer Institute surgical oncologist, simultaneously removed the primary tumor from the patient's colon.



Brian Boone MD



Emily Groves MD

Cervical cancer prevention focus of new \$11 million grant

A major public health initiative aimed at preventing cervical cancer in at-risk Appalachian families from West Virginia, Ohio, Kentucky, and Virginia is underway with support from an \$11 million National Cancer Institute grant.

The WVU Cancer Institute is collaborating with 10 health systems throughout Appalachian Ohio, Kentucky, Virginia, and West Virginia to conduct this research in close partnership with Ohio State University (the lead institution), the University of Kentucky, and the University of Virginia.

Led by a team of investigators, including WVU's Stephenie K. Kennedy-Rea, EdD, this new initiative builds upon a long history of collaborative research and community partnerships. The effort will focus on reducing the burden of cervical cancer in at-risk Appalachian communities by specifically targeting the primary causes of cervical cancer: tobacco smoking, human papillomavirus (HPV) infection, and lack of cervical cancer screening.

This new project will test the effectiveness of an integrated cervical cancer prevention program implemented by clinics/health centers consisting of three interventions:

- pharmacotherapy and smoking cessation counseling services,
- a method of at-home HPV screening, and
- a medical practice-based intervention to improve HPV vaccination rates among patients age 11-to-12 and 13-to-26 years of age in Appalachia-based health centers.



Stephenie K. Kennedy-Rea EdD



Fentanyl deaths up 122 percent in West Virginia

In a recent study funded by the National Institutes of Health, WVU researchers Gordon Smith, MD, Marie Abate, PhD, and doctoral student Zheng Dai found that fentanyl-related deaths are on the rise in West Virginia, even as deaths related to prescription opioids decline.

By analyzing all drug-related deaths, researchers discovered that between 2015 and 2017, deaths from fentanyl were 122 percent of what they were between 2005 and 2014.

In contrast, prescription opioids played a role in 75 percent fewer deaths between 2015 and 2017 than over the previous 10 years, which researchers contribute to an increase in illegal fentanyl imports from China and fentanyl's potency.

One problem is when dealers sell fentanyl as counterfeit opioids or blend it into heroin. Another problem is that the amount of fentanyl in any sample sold on the street can vary widely. In addition, illegal labs in the United States can make chemical modifications to fentanyl and produce other very potent analogs.

According to the CDC, West Virginia leads the nation in fentanyl-related deaths. It also has the highest per capita rate of overdose deaths overall.

However, it is exceptional for a more optimistic reason: its medical examiners pinpoint the cause of every drug-related death, and the relevant facts populate a statewide forensic drug database maintained at the WVU Health Sciences Center. The database includes such information as the decedent's demographic information, cause of death, toxicology testing results, other medical conditions present, and recent prescriptions for controlled substances.

The database can help direct public-health resources to where they can do the most good — and promptly enough that they're worthwhile. For instance, the data may suggest which towns need greater access to naloxone to treat a preponderance of overdoses. They may even help scientists decipher the chemical makeup of brand-new fentanyl analogs as soon as they hit the street.

27 West Virginia hospitals file lawsuit against opioid manufacturers and distributors

In April, 27 hospitals in West Virginia and 10 affiliated hospitals in Kentucky filed a lawsuit in Marshall County against opioid manufacturers, distributors, and their co-conspirators.

This blockbuster lawsuit opens a new front in the war against opioids, as it shifts the focus to West Virginia and the Appalachian region, the epicenter of the opioid epidemic. The complaint sets forth evidence of criminal conspiracy that has devastated West Virginia and tens of thousands of its families.

As a result, the hospitals included in the suit believe that justice should come to West Virginia, where the epidemic has done so much harm.

The hospitals include:

- West Virginia University Hospitals, Inc.
- Charleston Area Medical Center Health System, Inc.
- Appalachian Regional Healthcare, Inc.
- Bluefield Hospital Company, LLC
- City Hospital, Inc. (dba Berkeley Medical Center)
- Camden-Clark Memorial Hospital Corporation
- Charles Town General Hospital (dba Jefferson Medical Center)
- Davis Health System, Inc.
- Broaddus Hospital Association
- Davis Memorial Hospital
- Grafton City Hospital, Inc.
- Greenbrier Valley Medical Center, LLC
- Monongalia County General Hospital Company (dba Mon Health Medical Center)
- Monongalia Health System, Inc.
- Oak Hill Clinic Corp.
- Potomac Valley Hospital of W.Va., Inc.
- Preston Memorial Hospital Corporation
- Reynolds Memorial Hospital, Inc.
- St. Joseph's Hospital of Buckhannon, Inc.
- Stonewall Jackson Memorial Hospital Company
- United Hospital Center, Inc.



Center for Hope and Healing opens

WVU Medicine and the WVU Department of Behavioral Medicine and Psychiatry held a grand opening March 1 for the new WVU Medicine Center for Hope and Healing, a 29,305-square-foot addiction treatment facility that offers 12 beds for subacute medically managed withdrawal residential care and 30 beds for residential care up to 28 days.

The Center works to support adults struggling with substance use disorders through medically managed withdrawal stabilization and residential treatment. WVU Medicine and the WVU Department of Behavioral Medicine and Psychiatry already offer a comprehensive menu of outpatient services for people with substance use disorders, and the addition of withdrawal management and 28-day rehabilitation completes the in-house continuum of care for these disorders.

The comprehensive person-centered treatment program offered at the Center includes:

- Detoxification
- Residential treatment
- Medication-assisted treatment
- Family support services
- Individualized treatment plans
- Trauma-informed care
- Mindfulness-based practices
- Specialized programming for recent overdose survivors and pregnant women

The facility serves as a single regional referral point for assessment of patients following discharge from local emergency rooms, inpatient detox units, and other referral sources. It also accepts self-referrals and referrals from community providers.

In addition to celebrating the opening of the Center, officials also celebrated the receipt of a generous gift that has been made to support patient care at the Center for Hope and Healing.

Douglas M. Leech, founder and CEO of Ascension Recovery Services, established the Center for Hope and Healing Patient Care Fund with a gift of \$60,000. The fund, which offsets the cost of treatment, benefits patients seeking care at the Center for Hope and Healing.



From left to right: Ali Rezai, MD, executive chair of the WVU Rockefeller Neuroscience Institute; Douglas M. Leech, founder and CEO of Ascension Recovery Services; Amy Bush-Marone, RN, BSN, MBA, WVU Medicine vice president of clinical operations; Clay B. Marsh, MD, vice president and executive dean of WVU Health Sciences; and James Berry, DO, director of addiction services, WVU Medicine Chestnut Ridge Center, and interim chair, WVU Department of Behavioral Medicine and Psychiatry, were among those gathered to celebrate the opening of the WVU Medicine Center for Hope and Healing.



CDC award to curb vaping and opioid abuse, improve health outcomes in West Virginia

WVU’s efforts to address chronic disease and substance abuse prevention, growing concerns related to vaping, and youth mental health issues will be bolstered by an award from the Centers for Disease Control and Prevention to fund the West Virginia Prevention Research Center (WVPRC) in the School of Public Health.

One of just 25 such centers in the nation to receive this funding, the award provides \$750,000 in the first year and has additional support from the WVU Research Office and Health Sciences Center Office of Research and Graduate Education as they collectively provide \$100,000 per year to support the WVPRC’s research efforts.

The grant will also allow community members to become active participants in the research process, which is a key component

of its primary 2019-2024 project, the Integrated Community Engagement (ICE) Collaborative – a prevention model aimed to combat the state’s devastating cycle of opioid abuse.

The ICE Collaborative integrates substance abuse prevention activities for youth into local communities, focusing on building local capacity and infrastructure, with the expectation that the locally tailored approach will decrease rates of youth substance use and foster community resilience.

In addition to continuing its collaboration with the Community Partnership Board, the WVPRC will work with the West Virginia Division of Health Promotion and Chronic Disease to ensure its research, evaluation, and training activities reflect the state’s health priorities.

Researchers spearhead collaborative opioid treatment program in rural counties

WVU’s expertise in combating the opioid epidemic will be utilized in a federally-funded program targeting seven rural West Virginia counties.

The project, supported by a \$1 million U.S. Department of Health and Human Services award, aims to strengthen opioid abuse prevention, treatment, and recovery services in Calhoun, Gilmer, Pleasants, Ritchie, Roane, Jackson, and Tyler counties.

The WVU Institute for Community and Rural Health is spearheading the project, called the Rural Communities Opioid Response Program, a multi-year opioid-focused initiative by the Health Resources and Services Administration that focuses on rural areas due to the limitations to healthcare access and community resources in those regions.

Through the program, WVU researchers will help address the epidemic through multiple angles such as alternative chronic pain management programs, eliminating or reducing treatment costs for uninsured and underinsured patients, and stigma reduction training and workforce development.

Recovery services may include access to transportation, housing, peer recovery, case management, employment assistance, and childcare.

WVU is partnering with several agencies, including the Mid-Ohio Valley Rural Health Alliance, Mid-Ohio Valley Health Department, Minnie Hamilton Health System, Northern West Virginia Rural Health Education Center, and Westbrook Health Services.

HIV epidemic partially fueled by national opioid crisis

Infectious diseases expert Sally Hodder, MD, director of the West Virginia Clinical and Translational Science Institute and associate vice president for clinical and translational science at WVU, was part of a national team that published “AIDS in America – Back in the Headlines at Long Last,” a perspective that provides detailed information about the ongoing HIV epidemic.

The 2019 State of the Union address issued a national call to end the HIV epidemic in the United States leaving many listeners surprised. Most believe that HIV is a problem of the past.

Dr. Hodder stated that current estimates place 1.1 million Americans living with HIV, and that more than 15,800 people with diagnosed HIV died in 2017.

This epidemic is partially fueled by the nation’s current opioid epidemic, according to Hodder, and no state is more familiar with this problem than West Virginia, which has the highest opioid overdose death rate in the nation and its first HIV cluster where intravenous drug use is the main risk factor.

The perspective, published in the *New England Journal of Medicine*, attributes a variety of social, economic, and cultural barriers as factors that need to be addressed in order to combat the ongoing public health crisis. While Hodder admits this remains a serious concern for West Virginia and the nation, she believes ending HIV as a public health threat in the U.S. is achievable.



Sally Hodder MD

Research suggests conflicting drug laws may keep contaminated needles in circulation, contribute to hepatitis C infections

A team of WVU School of Public Health researchers wanted to pinpoint what makes obtaining clean needles — and responsibly getting rid of used ones — difficult. To find out, they surveyed 100 people who attend needle exchange programs. Respondents cited one obstacle more than any other: fear of arrest.

West Virginia is one of few states that does not outlaw the purchase or possession of drug paraphernalia, including syringes and hypodermic needles. As the Centers for Disease Control and Prevention reports, sharing needles is the number one reason people get hepatitis C today. The problem is pernicious in rural Appalachia.

This research project, led by Steve Davis, PhD, an associate professor in the School of Public Health, is the first to quantify the barriers to using new needles obtained from needle exchange programs in Appalachian locations. The survey respondents were selected from

two programs in West Virginia: one in Cabell County and one in Monongalia County. Previous studies focused on large metropolitan populations.

Dr. Davis suggested that unambiguously decriminalizing syringes and hypodermic needles could make needle exchange easier and curtail hepatitis C infections. He also recommended reframing needle exchange as a method to keep police officers and their families healthy, rather than as a means of enabling addiction or condoning illegal activity.



Steve Davis PhD





Researchers study effects of new opioid law on doctors, pharmacists, patients

School of Medicine researchers Treah Haggerty, MD, and Cara Sedney, MD, are studying how a new West Virginia law has changed the way healthcare providers prescribe opioids. Working with the state's Board of Pharmacy, they're examining prescription practices before and after the law took effect on June 7, 2018, and pinpointing differences.

They'll also interview healthcare providers, pharmacists, and patients across West Virginia to understand how the law has shaped their experiences prescribing, dispensing, and taking opioids.

The National Institute on Drug Abuse, a division of the National Institutes of Health, has funded their project. Drs. Sedney and Haggerty also receive support from the West Virginia Clinical and Translational Science Institute.

To see how the law has influenced opioid prescribing, Haggerty and Sedney will assess prescription data from the Board of Pharmacy. The data will encompass the 15 months that preceded the law's enactment and the 15 months that followed it. The researchers will track the number of opioid prescriptions, the number of pills in each prescription, and other factors over time.

They will also interview patients, pharmacists, and healthcare providers to discern how the policy changes have affected them individually.

What Sedney and Haggerty learn may suggest ways policymakers — in West Virginia and elsewhere — can assist people in pain while also preventing opioid dependence and the "misery" of withdrawal.



Treah Haggerty MD



Cara Sedney MD

The economics of opioids: Fentanyl has a steep price tag in lives, lab costs, and resources

Researchers at WVU have studied the overwhelming, detrimental effects of opioid abuse on this state and the nation, and a new wave of the epidemic may be the most daunting yet.

Paul Speaker, PhD, a professor of finance and an adjunct associate professor of economics at the WVU John Chambers College of Business and Economics, said the new wave is that of synthetic drugs. Having studied the economic impact of the opioid epidemic, Dr. Speaker said the presence and easy accessibility of the synthetic drugs fentanyl and carfentanil have had devastating economic effects on West Virginia and other states.

From budgetary and economic perspectives, Speaker also said there is a substantial shift in resources to address the epidemic. That shift causes delays in other investigative areas, meaning that other crimes are not investigated as quickly. In the meantime, he said toxicology and drug chemistry expenses in high-death states are growing 7-to-12 percent annually; however, the budgets of those labs are only seeing three percent annual growth.

When it comes to helping West Virginia and other states address the opioid epidemic, Speaker said he is more convinced than ever that states should tackle the problem from a health and wellness angle. He said this perspective is far more affordable than simply handling the crisis through the criminal justice system.

Frontline training against opioid and substance abuse disorders to be provided

Educators and clinicians at the WVU School of Medicine will train the next generation of frontline healthcare providers with more interdisciplinary educational experiences when it comes to battling substance use disorders and the myriad related medical and psychological services that accompany those cases.

Through a three-year, \$710,000 grant from the Department of Health and Human Services, Barbara Cubic, PhD, director of behavioral health and clinical psychologist in the WVU Department of Family Medicine, will implement a training model to improve access to care while preparing trainees to assess, diagnose, and treat addictions.

Clinical psychology students from the Eberly College of Arts and Sciences will train at four WVU Medicine practicum sites that include:

- Comprehensive Opioid Addiction Treatment Program (COAT)
- Inpatient Family Medicine Service
- Outpatient Family Medicine Clinic
- Center for Hope and Healing

At each site, psychology trainees will work alongside medical residents specializing in family medicine to provide clinical services to patients. They will train under the joint supervision of licensed clinical psychologists and attending physicians.

This project is/was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under D40HP33379 from the Graduate Psychology Education Programs (\$710,308 awarded, 0 percent financed with nongovernmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS, or the U.S. Government.



Partnership with Pitt, Penn State to study opioid use in Appalachia

West Virginians may gain better access to investigational approaches to managing and preventing substance abuse disorders related to the ongoing opioid epidemic as part of a collaborative \$5.8 million grant from the National Institutes of Health.

In partnership with researchers at UPMC and Pennsylvania State University, Judith Feinberg, MD, of the WVU Department of Behavioral Medicine and Psychiatry and the Department of Neuroscience, will establish the Appalachian Node of the National Institute on Drug Abuse Clinical Trials Network to conduct substance use-related research in the region over the next five years. The emphasis will be placed on reaching rural and other underserved populations.

As a Clinical Trials Network Node, the team will use its funding to work with individual clinical practices throughout West Virginia

and southwestern Pennsylvania to enroll patients in national studies related to drug use and treatment. On their own, these clinics would lack the infrastructure to conduct such research, but support from this grant will allow them to contribute data that is critical to understanding the opioid epidemic and its impact on central Appalachia.

The Appalachian Node team plans to propose and facilitate studies that will use existing resources, including local pharmacists, peer recovery coaches, and digital technology, in new ways with the goal of extending more advanced care into areas with limited resources. They ultimately hope to use their findings to inform state policymakers, local practitioners, and community members about evidence-based improvements in care for opioid use disorder.



Fighting opioids with an unlikely supplemental painkiller: anti-itch medicine

WVU researcher Shane Kaski is investigating whether an anti-itch medication that targets a specific part of our nerve cells can make morphine — which targets a different part — more effective.

According to his research, doctors may be able to prescribe lower doses of morphine by supplementing it with nalfurafine and still soothe their patients’ pain.

Morphine is a classic, widely used opioid. Using less of it could mean fewer morphine-related side effects — such as constipation and nausea — and a lower risk of addiction.

In his study, which the National Institute of Drug Abuse (NIDA) funded, Kaski used animal models to test how well morphine treated pain on its own and in combination with nalfurafine. He administered the drugs in different amounts

to determine which relieved the most pain at the lowest dose. Then he compared each regimen’s effectiveness as a pain reliever.

He discovered that using a small supplement of nalfurafine alongside a lower dose of morphine reduced pain as dramatically as using a large dose of morphine alone. His findings appeared in the *Journal of Pharmacology and Experimental Therapeutics*.

If future studies affirm Kaski’s results, doctors may be able to combat the opioid epidemic by prescribing nalfurafine as a supplemental painkiller. That’s especially significant for West Virginia, which leads the nation in opioid-related deaths, according to NIDA.

Researchers highlight dangers of opioids in hospitalized patients

A team of researchers lead by Sunil Sharma, MD, section chief of Pulmonary, Critical Care, and Sleep Medicine and director of the WVU Medicine J.W. Ruby Memorial Hospital Medical Intensive Care Unit and Pulmonary and Sleep Medicine Program Development, recently reported that 41 percent of patients admitted for congestive heart failure received opioids during their hospitalization, resulting in escalation of care.

The study shows that 26 percent of the high risk patients with heart failure and undiagnosed sleep apnea who received opioids required urgent transfer to the Intensive Care Unit during their hospitalization as opposed to only 4 percent of those not receiving opioids.

The study appears in the *Annals of American Thoracic Society Journal* and highlights the unrecognized dangers of opiates and narcotics in a hospitalized setting. Opioids can precipitously drop oxygen level especially in presence of unrecognized sleep apnea.

The authors recommend screening of high risk population for sleep apnea in hospitalized settings and judicious use of narcotics along with non-invasive ventilation support to improve patient safety in hospitalized patients.



Sunil Sharma MD



Services, outreach expanded through telemedicine

WVU Medicine has expanded telemedicine services across the state and beyond its borders in order to better provide high quality care in patient’s communities. These services allow access to specialty care without the need to travel long distances for consultation and follow-up care.

According to Albert L. Wright, Jr., WVU Health System president and CEO, a move toward more fully integrating telemedicine will change how providers will approach their clinical days. As the number of clinic visits continues to rise, providers will conduct a projected quarter of their clinic appointments through telemedicine.

The WVU Health System expanded partnerships in 2019 to increase access to telemedicine, resulting in greater access to neonatal intensive care, pain management, infectious diseases, neurology, Comprehensive Opioid Addiction Treatment, otolaryngology, pediatrics, and adult critical care services.

Facilities that have added or expanded telemedicine services include Wheeling Hospital, St. Joseph’s Hospital, United Hospital Center, Barnesville Hospital, Wetzel County Hospital, Jefferson Medical Center, and Summersville Regional Medical Center. WVU Medicine also created partnerships with Mon Health System, Preston Memorial Hospital, Roane County Hospital, Stonewall Jackson Memorial Hospital, and First Steps Pediatrics.

TELE-STROKE: 546

TELE-NEURO: 13

NICU/NURSERY: 11

VICU: 472

INPATIENT DIETITIAN: 5

ID INPATIENT: 1

BEHAVIORAL MEDICINE: 5,566

NEPHROLOGY: 112

HEART & VASCULAR INSTITUTE: 54

PEDIATRIC SPECIALTIES: 1,335

MATERNAL-FETAL MEDICINE: 5

E-VISITS: 2,625

MYCHART VIDEO VISITS: 16

REMOTE HOME MONITORING: 451

NURSE ON-CALL: 3,757

POST OPERATIVE: 4

E-CONSULT: 37

(PROVIDER TO PROVIDER)

2019 TOTAL: 15,010



Researchers use telehealth to head off hospitalizations and ER visits

WVU researcher Steve Davis, PhD, is piloting an intervention program that uses telehealth to connect rural West Virginians with nurses who can help them manage and prevent heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke. The program will focus on individuals being discharged from long-term care facilities as they transition to life back at home.

The year-long program will start accepting participants this fall. The approximately 30 people who enroll will be rural West Virginians who are receiving services through Medicaid traumatic brain injury or aged and disabled waiver programs. They will have recently left a long-term care facility, such as a nursing home or an inpatient rehabilitation center, and they will likely have a range of conditions they must manage at home, including diabetes, hypertension, and obesity.

Each patient will be given a scale, a thermometer, and devices to track glucose levels, blood pressure, and blood oxygenation. Those at risk of falling will also get a fall monitor. The patients' medical team will help them set up the equipment and instruct them how and how frequently to use it.

All of the devices will transmit data to nurses charged with monitoring the patients' health. If any metric deviates from a healthy range or if a patient falls, a nurse will be notified day or night so he/she can take appropriate action to prevent a trip to the emergency room.

At the end of the pilot program, the researchers will assess its cost-effectiveness based — in part — on the number of times patients are hospitalized, readmitted to long-term care facilities, and seen at the emergency department or an urgent care clinic. The team expects telehealth to drive these numbers down.

When the pilot program concludes, the researchers will also survey the patients and healthcare providers to determine their satisfaction with the service and how it could be improved.

What the study reveals can suggest ways to overcome these logistical obstacles and fulfill the promise of telehealth.

WVU Medicine East welcomes plastic surgeon

WVU Medicine East announced the addition of Mohamed K. Barry, MD, to WVU Medicine Cosmetic and Plastic Surgery in Martinsburg.

Dr. Barry, a plastic and reconstructive surgeon, received his medical degree from Stony Brook School of Medicine at The State University of New York in Stony Brook, New York. He completed residencies in surgery at New York University School of Medicine in New York City and Mercy Catholic Medical Center in Darby, Pennsylvania. He is board certified by the American Board of Surgery.

Barry completed a fellowship in burn and critical care surgery at Jacobi Medical Center in Bronx, New York, and a fellowship in plastic and reconstructive surgery at The Wayne State University School of Medicine and Detroit Medical Center in Michigan. He then completed a fellowship in upper extremity and hand surgery at The Hand Center of San Antonio and University of Texas Health Sciences Center in San Antonio, Texas.

As a WVU Medicine physician, Barry will serve as an assistant professor for the WVU School of Medicine and as a member of the medical staff at both Berkeley and Jefferson Medical Centers.



Mohamed K. Barry MD

BERKELEY AND JEFFERSON MEDICAL CENTERS

Berkeley Medical Center opens new operating room

Berkeley Medical Center (BMC) in Martinsburg expanded its surgical capacity with the addition of five new operating rooms,

According to Anthony P. Zelenka, BMC president and CEO, the new operating rooms range from 600-to-921 square feet making them much larger than traditional 380-to-450 square foot operating rooms. The larger size rooms are able to accommodate the latest innovative technology. Two of the rooms will support the da Vinci Intuitive Xi®, the latest minimally invasive robotic technology.

Some of the minimally invasive robotically assisted procedures that will be offered at BMC with the da Vinci include kidney and bladder surgery; gynecological surgery, including no-stitch total hysterectomy; hernia repair; and other laparoscopic surgical procedures.

The third new operating room is dedicated to orthopaedic surgical procedures, including anterior total hip replacement.

The fourth operating room is a state-of-the-art integrated vascular thoracic Stryker iSuite, which will provide BMC's thoracic surgeon and future vascular surgeon with the latest technology for general minimally invasive surgical procedures.

The fifth new operating room is the neurosurgery iSuite that houses the latest cutting-edge neurosurgical technology, including the Mazor X™ robot. BMC was the first hospital in West Virginia to acquire the Mazor X to perform robotic spine surgery. With the addition of the Medtronic SteathStation Navigator, the neurosurgeons at BMC have the latest technology for performing minimally invasive spinal and craniotomy surgery.



Harpers Ferry Family Medicine Center recognized as first CenteringPregnancy site in West Virginia

The WVU Rural Family Medicine Residency program at Harpers Ferry Family Medicine Center has been recognized by the Centering Healthcare Institute as the first CenteringPregnancy site in West Virginia.

Centering is group prenatal care designed to bring women with similar due dates out of the exam room and into a comfortable group settings for fully comprehensive care. Group sessions include standard health assessments, interactive activities, guided discussions, and explorations of relevant topics, such as nutrition, stress management, and breastfeeding. This protocol follows the recommended schedule of 10 prenatal visits, but each visit lasts between 90 minutes and two hours, allowing for more interaction and in-depth care.

“We are thrilled to be recognized as the first CenteringPregnancy site in West Virginia,” Angela Cherry, MD, Maternal Child Health fellowship director, said. “This system will not only allow patients to spend significantly more time with their providers, but will welcome them into a supportive group of women sharing an amazing experience. This program gives us the opportunity to change healthcare in our state by providing better care with better health outcomes.”

CAMDEN CLARK MEDICAL CENTER



Gargodhi leading new pain management practice

Camden Clark Medical Center announced July 29 that Galal Gargodhi, MD, joined the Camden Clark Physician Corporation to lead a specialized clinic focusing on interventional pain management.

Dr. Gargodhi emphasizes listening to and having patience for his patients. He takes pride in accurate and thorough physical examinations as a key to diagnosis and treatment of chronic pain syndromes.

According to Gargodhi, pain management requires an interdisciplinary approach, including referring doctors, neurologists, and physical therapists.

Gargodhi completed an internal medicine residency at Morehouse School of Medicine in Atlanta and a residency in anesthesiology and fellowship training in interventional pain medicine at Tufts University, Saint Elizabeth Medical Center in Boston. Gargodhi was previously an assistant professor of anesthesiology and pain medicine at the University of Massachusetts School of Medicine.

Cardiac Cath Lab receives accreditation

The American College of Cardiology (ACC) has awarded Camden Clark Medical Center (CCMC) with Cath Lab Accreditation. CCMC is the first in the WVU Medicine system and the second in the state to achieve this accreditation.

Hospitals receiving Cath Lab Accreditation from the ACC must undergo a multifaceted clinical process that involves identification of opportunities for improvement, development and implementation of impactful primary investigator projects, a rigorous on-site review, and monitoring for sustained success.

This accreditation validates CCMC's commitment to the highest standards of care in invasive cardiology and recognizes its team members for their outstanding care.

Marietta urgent care practice acquired

Camden Clark Physician Corporation acquired the QuickCare urgent care practice in Marietta, Ohio, effective May 1.

"We are excited about the opportunity to serve Marietta and Washington County area residents in our new urgent care location. Our mission is to meet the healthcare needs of our community for a lifetime and this offers new access to the WVU Medicine brand of healthcare to this community," Steve Altmiller, president and CEO of Camden Clark, said.

CCMC announces new ENT service line

Camden Clark Medical Center (CCMC) announced Dec. 12 that it is increasing its healthcare services by adding Mark Nenow, MD, to lead a new clinic providing a full spectrum of ear, nose, and throat services to all residents of the Mid-Ohio Valley.

Dr. Nenow came to CCMC with more than 25 years of experience in his field. Through a combination of using the latest industry equipment and technology and creating a collaborative care plan with all members of a patient's medical team, he is passionate about generating exemplary outcomes for all patients.

Nenow is board certified and completed his medical education at Rush Medical College in Chicago. He completed a general surgery internship and an otolaryngology, head and neck surgery residency at the Medical University of South Carolina.



Mark Nenow MD

CAMDEN CLARK MEDICAL CENTER



WVU Heart and Vascular Institute expands services in Parkersburg

Cardiothoracic surgeon Geoffrey Cousins, MD joined the WVU Heart and Vascular Institute at Camden Clark Medical Center (CCMC) in January.

Dr. Cousins received his medical degree from the University of Michigan and completed his residency and internship in general surgery at the St. John Hospital and Medical Center in Detroit, Michigan. He completed his fellowship in cardiothoracic surgery at the Medical College of Virginia in Richmond, Virginia. He is board certified in surgery and cardiothoracic surgery. A native of West Virginia, Cousins is the

youngest of 11 children from McDowell County. He has spent the last 20 years practicing in West Virginia.

Cousins will work alongside Parkersburg Cardiology Associates. This practice of seven cardiologists and five nurse practitioners will continue to care for patients on the CCMC campus in a new state-of-the-art, two-story facility.



Geoffrey Cousins MD

POTOMAC VALLEY HOSPITAL



Potomac Valley Hospital and Garrett Regional Medical Center awarded \$600,000 grant for innovative pain clinic

Garrett Regional Medical Center (GRMC) and Potomac Valley Hospital (PVH) will both be the site of Integrative Pain Centers that will help patients struggling with chronic pain find relief through alternative treatment methods due to a \$600,000 grant through the Health Resources and Services Administration’s Federal Office of Rural Health Policy.

The clinics were conceived through a partnership aimed at dramatically limiting the use and availability of opioids in the region. A goal of the centers is to help reduce the number of opioid prescriptions in the area through the use of alternative approaches to pain management. Patients will also have access to ancillary services shown to have an impact on reducing patients’ pain severity and frequency.

GRMC and PVH also partnered in the grant application with WVU Medicine, by which GRMC is clinically managed and PVH is owned.

The two clinics, one in Oakland and the other in Keyser, will accept patients referred from area physicians and will provide holistic approaches to treatment. Treatments will include nerve blocks, SPG blocks, Botox® injections, spinal cord stimulation, and radio frequency ablations, among other approaches.

One of the important aspects of these centers is the focus on education and training. Potomac Valley Hospital recently sponsored a CRNA, Kellon Smith, MHS, CRNA, NSPM-C, to become a board-certified non-surgical pain management specialist. Smith is the first CRNA in West Virginia to be board certified in this field, of which there are only 60 in total in the entire nation. Because of the additional training he received through Harvard Medical, he will be one of the only providers in the region offering unique procedures like craniofacial injections, along with spinal injections to relieve back pain.

The clinics will also offer acupuncture, massage therapy, and meditation. Counseling services and consults with certified dietitians will also be part of the program. The goal for patient treatments will be to identify the root causes of the pain in order to effectively address the real problems versus the symptoms.

For patients whose conditions respond only to opioid-based drugs, the Integrative Pain Centers will work with patients to help monitor their opioid intake while encouraging them to participate in ancillary services. The hope for such patients is to significantly limit their need for opioids and keep their dosages low and highly monitored as they go through treatment.

Front row, left to right: Kendra Thayer, chief operating officer at Garrett Regional Medical Center, and Amy Boothe, chief operating officer at Potomac Valley Hospital
Back row, left to right: Mark Boucote, president and CEO of Garrett Regional Medical Center and Potomac Valley Hospital; Kellon Smith, chief certified registered nurse anesthetist at Potomac Valley Hospital; and Kimi-Scott McGreevy, assistant vice president of marketing and development at Garrett Regional Medical Center

REYNOLDS MEMORIAL HOSPITAL

Respiratory and Occupational Lung Disease Clinic to open

Reynolds Memorial Hospital announced plans to open a Respiratory and Occupational Lung Disease Clinic in February 2020. This clinic will focus on lung disease attributed to coal mining or other workplace exposures.

The closure of East Ohio Regional Hospital left a gap in the treatment of these conditions, and this clinic will serve the population affected by the closure.

The Respiratory and Occupational Lung Disease clinic will provide pulmonary function tests, arterial blood gas analysis, EKGs, and chest X-Rays. Patients will also be assisted in the completion of worker’s compensation claims.

New mobile MRI unit utilized by two area hospitals

A new mobile magnetic resonance imaging unit is serving patients at Reynolds Memorial Hospital and Wetzel County Hospital.

The large trailer housing the new MAGNETOM Aera system equipment is available five days a week at Reynolds Memorial Hospital and two days a week at Wetzel County Hospital. The system is more technologically advanced than the previous MRI unit used at the hospitals, and the stronger magnet produces highly detailed images and faster exam results.

RMH to fill regional behavioral medicine needs

Renovations to accommodate an adult inpatient behavioral medicine unit at Reynolds Memorial Hospital (RMH) are underway. The construction carries a hefty \$5 million price tag, but David Hess, MD, RMH president and chief executive officer, says it is an investment that is well worth the cost.

A regional mental health crisis emerged in September when Ohio Valley Medical Center (OVMC) in Wheeling closed, taking with it Hillcrest Behavioral Health Services, the area’s only inpatient behavioral health facility. The Robert C. Byrd Child and Adolescent Behavioral Health Center also closed its doors at the same time leaving patients nowhere to turn locally.

The construction is not something that can happen overnight. There are strict guidelines that must be followed to be in compliance with Joint Commission standards for inpatient behavioral medicine facilities.

Creating a space for the inpatient behavioral medicine floor meant eliminating the Skilled Nursing Care Unit, which Dr. Hess said was a difficult decision to make, however, he feels it was the right decision for the community.

Hess said the behavioral medicine floor should be opened by late summer or early fall. In the interim, office hours began at RMH in January 2020 for outpatient treatment for adult, child, and adolescent patients.

RMH hired three psychiatrists – two adult, Paul Papadimitriou, MD, Alber Ghobrial, MD, and one child and adolescent psychiatrist, Nihit Gupta, MD – displaced by the OVMC closure.

ST. JOSEPH’S HOSPITAL

St. Joe’s among nation’s Top 100 Critical Access Hospitals

WVU Medicine St. Joseph’s Hospital has been named among the nation’s Top 100 Critical Access Hospitals by the Chartis Center for Rural Health and is the only hospital in the state to receive this award.

Regarded as one of the industry’s most significant designations of performance excellence, the annual Top 100 Critical Access Hospitals award is based upon the results of the Hospital Strength INDEX® from iVantage Health Analytics.

Now in its ninth year, the INDEX leverages 50 rural-relevant indicators across eight pillars of hospital strength – inpatient market share, outpatient market share, cost, charge, quality, outcomes, patient perspective, and financial stability – to determine an overall score for each hospital. Each of the INDEX’s 50 indicators is culled from publicly-available data sources.



New 3D mammography system installed

St. Joseph’s Hospital installed new GE Senographe Pristina 3D mammography equipment.

This state-of-the-art system is designed to offer a more comfortable exam, higher quality images, and more accurate results. It offers comfort features, including soft armrests and rounded edges, so women can relax during the exam.

Left to right: Skip Gjolberg, president; Kay Ling, Nancy Dale, and Toni Snyder, mammography technicians; Russ Plywaczynski, director of finance; Kimberly Farry, MD; Tom Nestor, director of Radiology; and Rodney Baker, vice president of ancillary services and physician practices



Businessman Mike Ross donates to Every Heartbeat Matters campaign

Mike Ross, St. Joseph’s Hospital Foundation board member and Mike Ross, Inc. and Ross and Wharton Gas Company president, presented a generous donation to the St. Joseph’s Hospital Foundation.

The gift was earmarked for the Every Heartbeat Matters campaign, which will be used to purchase a transesophageal ultrasound probe, a GE bike stress-echo tilt table to provide a stress testing mechanism for patients with limited mobility or who have trouble walking, and cardiac rehabilitation equipment.

Mike Ross presents a donation to Skip Gjolberg, president of St. Joseph’s Hospital.



Long receives Human Rights Award

Susan Long, MD, general surgeon at St. Joseph’s Hospital, received the Human Rights Award from the West Virginia Church Women United States Assembly for her work with Hands and Hearts for Christ.

Hands and Hearts for Christ does most of its work in Belize and Guatemala, where it has performed more than 1,000 surgeries for underprivileged patients. The group works all year to raise funds and supplies to make its work possible. Dr. Long has been active with the organization for 22 years.

Long received her medical degree from the University of Vermont College of Medicine. She then completed residency training in general surgery with the New Hanover Regional Medical Center in affiliation with the University of North Carolina School of Medicine. She is certified by the American Board of Surgery.

UNITED HOSPITAL CENTER



New bladder cancer diagnosis technology available

United Hospital Center is the first medical center in the region to offer Blue Light Cystoscopy with Cysview® bladder cancer diagnostic technology. This technology has proven to more reliably visualize cancerous cells.

Bladder cancer is the sixth most commonly diagnosed cancer in the United States. The American Cancer Society estimates that 81,190 new cases of bladder cancer are diagnosed in the U.S. each year. Up to 50 percent of patients will have their bladder cancer recur, the highest recurrence rate of any form of cancer.

White light cystoscopy has long been the preferred method for detecting suspicious lesions during transurethral resection of bladder tumor procedures. Often, bladder cancer lesions are hard to see and can be missed.

Blue Light Cystoscopy has provided a more accurate way for providers to diagnose bladder cancer.

UNITED HOSPITAL CENTER



Baby-Friendly designation received

United Hospital Center has been granted international recognition as a designated Baby-Friendly hospital by Baby-Friendly USA, Inc. The Baby-Friendly Hospital Initiative is the authority for the implementation and a universal program, sponsored by the World Health Organization and the United Nations Children’s Fund.

The initiative encourages and recognizes hospitals and birthing centers that offer the optimum level of care for breastfeeding mothers and their babies. UHC is only the fourth hospital out of 24 birthing hospitals in West Virginia to receive this recognition and joins more than 600 Baby-Friendly designated hospitals nationwide.

This award recognizes that UHC offers breastfeeding mothers the information, confidence, and skills needed to successfully begin and sustain breastfeeding their babies.

UHC has received this designation for the last five years.

Vascular testing accredited by the IAC

United Hospital Center has been granted a three-year term of accreditation by the Intersocietal Accreditation Commission in Vascular Testing in the areas of Peripheral Venous Testing, Peripheral Arterial Testing, and Extracranial Cerebrovascular Testing.

Accreditation by the IAC indicates that United Hospital Center has undergone an intensive application and review process, is found to be in compliance with the published Standards, and demonstrates a commitment to quality patient care in vascular testing. Comprised of a detailed self-evaluation followed by a thorough review by a panel of medical experts, the IAC accreditation process enables both the critical operational and technical components of the applicant facility to be assessed, including representative case studies and their corresponding final reports.

IAC accreditation is a seal of approval that patients can rely on as an indicator of consistent quality care and a dedication to continuous improvement.



BRAXTON COUNTY MEMORIAL HOSPITAL

Gold Honors Achievement Award received

Braxton County Memorial Hospital received the West Virginia Hospital Association Gold Honors Achievement Award for outstanding work in the Commitment to Excellence Honors Program.

Hospitals that receive this honor demonstrate a commitment to:

- Antibiotic Stewardship
- Breastfeeding Initiative
- Care Transitions
- Emergency Department Information Exchange (EDIE)
- Hospital Improvement Innovation Network (HIIN)
- Influenza Vaccination
- Opioid Stewardship
- Tobacco Cessation Assistance
- WVHA Discharge Data Program

“I am proud of BCMH physicians and staff for achieving the award of excellence, an achievement that demonstrates the quality of healthcare provided to this community,” Karen Bowling, Braxton County Memorial Hospital CEO, said.

JACKSON GENERAL HOSPITAL



Jackson General Hospital celebrates membership in WVU Health System

More than 200 people came together in Ripley to celebrate Jackson General Hospital’s membership in the WVU Health System at a “Welcome to the Family” Celebration on Nov. 12.

Jackson General Hospital and WVU Health System administration members as well as local political figures addressed the crowd, sharing their vision for the hospital.

Jackson General Hospital, which was founded in 1964, is a 25-bed non-profit critical access hospital that employs more than 300 people. It provides inpatient, outpatient, primary, and emergency

care; specialty services, including ophthalmology, orthopaedics, general surgery, urology, and interventional pain; infusion, physical, and respiratory therapies; and imaging and laboratory services.

SUMMERSVILLE REGIONAL MEDICAL CENTER

Members of West Virginia Hospital Association and State Legislature welcomed to hospital

Summersville Regional Medical Center (SRMC) managers and administrative staff had the opportunity to enhance their knowledge about discussion topics for the November legislative sessions, when members of both the West Virginia Hospital Association (WVHA) and the West Virginia Legislature were welcomed to SRMC for a legislative outreach meeting.

Sponsored by the hospital and the West Virginia Hospital Association, the hour-long meeting included a presentation of the WVHA’s legislative agenda for 2020 as well as a discussion of key issues directly impacting SRMC and other rural hospitals.

Following a presentation provided by Joe Letnaunchyn, WVHA President and CEO, questions and comments were welcomed from attendees, which included Sen. John Pitsenbarger and Del. Jordan Hill, who both agreed on the value the hospital adds to the community.



First-responder app tailored to improve stroke outcomes

Amelia Adcock, MD, associate director of the WVU Stroke Center, is customizing an app that helps first responders in West Virginia efficiently triage stroke patients when they respond to a 911 call.

The free app, JoinTriage, was created by Allm, Inc., a Japanese software developer. It guides paramedics, emergency medical technicians and other first responders through an assessment of stroke symptoms’ severity. An algorithm considers multiple factors — such as the patient’s age, when symptoms started, and whether the patient has arm or facial weakness — and rates the stroke’s severity on a scale of 1 to 9. Based on that score, the app recommends the most appropriate type of stroke center for the patient and presents a map of the closest options.

If the app’s algorithm determines an ischemic stroke is likely, it might recommend a

primary stroke center that offers TPA if the patient can be seen in time. Otherwise, it might recommend a comprehensive stroke center or another hospital where cerebrovascular interventionalists can perform more invasive treatment.

WVU Medicine launched its telestroke program in 2015 to connect rural hospitals throughout the state with its neurologists. By working together, they can diagnose and treat strokes faster.

As part of the program, Dr. Adcock and her team members have been gathering treatment data from participating hospitals, including what treatments WVU Medicine neurologists recommend and why, how many patients receive noninvasive treatments, and how often patients are transferred from one hospital to another. Inputting information like this into the app will make the app’s recommendations more reliable.

Expanded CHIP services aim to help low income mothers, babies

The West Virginia Children’s Health Insurance Program (CHIP) added coverage for maternity services — a move that can greatly improve the health of the state’s low-income mothers and their babies, according to a WVU Medicine Children’s pediatrician.

Lisa Costello, MD, an assistant professor in the WVU School of Medicine Department of Pediatrics, who was appointed by Gov. Jim Justice as a citizen member of the state CHIP board, said the breadth of the coverage is especially important. Coverage under the expansion includes medical, pharmacy, dental, vision, behavioral health, and prenatal care.

Smoking cessation can be addressed under the expanded CHIP coverage, and mothers with substance use disorder can also receive treatment under the expanded services.

According to the West Virginia Department of Health and Human Resources, current WV CHIP members are eligible for maternity services through age 18. The expanded coverage allows pregnant women over age 19, with no other health

insurance coverage and an income between 185 and 300 percent of the federal poverty line, to receive maternity services and other health coverage from CHIP as well.

The mother is eligible for continued services for 60 days after delivery, and the newborn is eligible for services up to one year.

During the 2019 regular session, an overwhelming majority of members of the West Virginia Legislature supported Senate Bill 564 to expand CHIP coverage for pregnant women. Gov. Justice signed the bill into law on March 25.



Lisa Costello MD

WVU HEALTH SCIENCES CENTER

Simulation center earns full accreditation, joining less than 3 percent of centers worldwide

Students on the WVU Health Sciences campus now have the opportunity to learn hands-on patient care at one of the world’s only fully accredited healthcare simulation centers.

The David and JoAnn Shaw Simulation Training and Education for Patient Safety (STEPS) attained full accreditation by the Society for Simulation in Healthcare’s accreditation council.

STEPS is the first and only center in West Virginia to be accredited in every area by the Society for Simulation in Healthcare. More than 700 centers worldwide are registered with the Society for Simulation in Healthcare, but less than 3 percent are accredited in all five areas.

WVU’s center has been accredited in Core, Teaching, and Assessment since 2014 and has now added Systems Integration and Research to its achievements.

STEPS, which will soon celebrate its 10-year anniversary, aims to improve patient safety by creating an environment in which students can learn, practice, and measure clinical skills.

The center helps clinical learners improve their analytical, diagnostic, communication and crisis-intervention skills by utilizing a variety of patient simulators that can blink, breathe, have a heartbeat, and react to medications. Additionally, standardized patients, played by actors, portray complex realistic scenarios beyond the capabilities of manikins.

WVU HEALTH SCIENCES CENTER

WVU Health Sciences awarded \$1.9M for pre-doctoral training in behavioral and biomedical sciences

The WVU Health Sciences Behavioral and Biomedical Sciences (BBS) pre-doctoral training program was awarded a five-year, \$1.9 million grant by the National Institute of General Medical Sciences to prepare behavioral scientists for leadership roles related to the nation’s biomedical, behavioral, and clinical research needs.

The program is designed to provide partial tuition support and full stipends, in addition to various professional development activities, for eight trainees per year. WVU’s BBS program is one of only five programs in the country supported by this T32 award mechanism.

Trainees are selected for appointment through a competitive application process after their first year of graduate study. Since its creation in 2008, a total of 27 students have completed the BBS program, and 23 have successfully defended their doctoral dissertations.

Researcher studies how nursing homes can accommodate obese residents

WVU researcher Nicholas Castle is part of a team investigating how nursing homes can best meet obese residents’ healthcare needs. The Agency for Healthcare Research and Quality, a division of the Department of Health and Human Services, has awarded the team nearly \$2 million for the project.

The five-year project also involves John Engberg of the RAND Corporation and is led by John Harris of the University of Pittsburgh.

A previous study conducted by the research team suggested that high concentrations of obese residents correlate to lower staffing levels.

Building on those findings, the researchers will conduct a national survey of nursing homes to identify the concerns that surround caring for obese residents and determine how nursing homes are responding. Strategies may include increasing staffing levels, buying specific equipment or making architectural changes, such as widening doorways. The team will also observe care delivery at approximately 50 nursing homes, where they will interview caregivers, administrators, residents, and their family members to better understand the measures nursing homes are using and what they mean for obese residents.

Using national data, Castle and his collaborators will then examine the relationship between different types of strategies and negative health outcomes — such as pressure ulcers, urinary tract infections, and hospital readmissions — in obese residents.

By identifying the commonalities among nursing homes where obese residents have exceptionally good outcomes, the researchers will develop a toolkit to help nursing homes accommodate the obese.

Their discoveries may also help guide consumers toward nursing homes that are especially adept at caring for obese residents.



Nicholas Castle

Study with NIOSH looks at ways to prevent lung disease in dentistry professionals

Fotinos Panagakos, DMD, PhD, associate dean of research at the School of Dentistry, is collaborating with Randall Nett and Brie Blackley from the National Institute for Occupational Safety and Health (NIOSH) to study how microscopic, airborne particulates and gases might be generated during dental procedures. NIOSH, a division of the Centers for Disease Control and Prevention, is funding the project.

Researchers will measure the size and concentration of particulates in real time during common dental procedures at five WVU teaching clinics and 29 private dental clinics that collaborate with the School’s Department of Dental Practice and Rural Health. They will also characterize the composition of the particulates and gases and evaluate the ventilation system at the participating clinics.

Interest in the topic began when several dental professionals were diagnosed with the same chronic lung condition — idiopathic pulmonary fibrosis — at a single Virginia clinic. IPF is characterized by scarring in the lungs. It makes patients progressively short of breath and can result in the need for supplemental oxygen, mechanical ventilation, or a lung transplant. It’s commonly fatal within two-to-five years and has no cure.



Fotinos Panagakos
DMD, PhD

SCHOOL OF DENTISTRY



School instrumental in cancer diagnosis and care

The School of Dentistry Department of Diagnostic Sciences has developed a team of specialists aimed at raising awareness about oral cancer. The efforts include educating the public about the causes of oral cancer while promoting prevention and regular oral exams. In addition, the team maintains an active biopsy service staffed by pathologists trained specifically in the diagnosis of tumors of the mouth.

Juan Bugueno, DDS, MS, Diplomate of the American Board of Oral Medicine, is the newest member to join the Department. He was hired as an assistant professor in May 2019. He joined oral and maxillofacial pathologists Jerry Bouquot, DDS, MSD, and Hiba Qari, BDS, MSD, and the interim Department Chair Steven Whitaker, DDS.

Part of the appeal for the experts coming to West Virginia’s only dental school is the opportunity to work with colleagues in Oral and Maxillofacial Surgery and

Otolaryngology. The staff members are skilled clinicians in examination of the mouth and jaws for abnormalities.

As the School’s team strengthens so does its collaboration with WVU Medicine’s services, including the WVU Cancer Institute, the Center for Integrative Pain Management, and the Department of Otolaryngology.

“We are very fortunate in that all of our faculty are board certified, having completed residency training at world-renowned programs. Each has continued their education through fellowships and, in some cases, additional specialties,” Dr. Whitaker said. “Whether in the lab, clinic, or classroom, these experiences add a degree of expertise that is unique among departments across the nation.”

SCHOOL OF DENTISTRY



Fellowship prepares graduate to treat challenging oral rehab cases

When School of Dentistry resident Matthew Harper, DDS, says he does not care if his work goes unnoticed, he means it.

The 2016 Doctor of Dental Surgery graduate completed a graduate degree and residency in prosthodontics at the School in May 2019.

He then moved to Rochester, Minnesota, to attend the Mayo Clinic’s College of Medicine. Dr. Harper was accepted to the Maxillofacial Prosthetics and Dental Oncology Fellowship program in the school’s Department of Dental Specialties. The ultimate goal is for Harper to return to the exact clinics and classrooms he has called his second home.

Upon completing his dental degree, Harper was drawn to prosthodontics, a specialized type of dentistry requiring a lot of vision.

Harper has already fabricated uniquely designed prostheses. He recalled hinged dentures and stacked dentures for patients with limited ability to open their mouths due to medical conditions.

With the rapid expansion of the WVU Cancer Institute, the School wants to continue to provide services for those individuals who have undergone radical cancer surgeries of the head and neck regions.

Harper’s fellowship will be completed in July 2020. The road home will bring him back to WVU for a maxillofacial prosthetics career following the completion of his fellowship.

Matthew Harper, DDS, and Moe Ghalichebaf, DDS, pose in the Health Sciences Center.

Partnership with United Concordia offering expanded coverage to patients

The School of Dentistry and WVU Dental Corporation established a participating dentist agreement with United Concordia for services provided within the faculty practice clinic.

As an in-network provider, WVU charges will not exceed United Concordia’s Maximum Allowable Charge for covered services.

Faculty dentists provide general, advanced, and comprehensive oral healthcare targeting disease diagnosis and treatment.

United Concordia insurance will be accepted by faculty practicing at the WVU Health Sciences Center and Suncrest Towne Centre.

Office of Continuing Medical Education receives reaccreditation

The School’s Office of Continuing Medical Education received reaccreditation with commendation from the Accreditation Council for Continuing Medical Education (ACCME).

The goal of the Office of Continuing Medical Education is to offer activities to physicians and other healthcare providers in West Virginia and the surrounding region. These activities, offered at primary clinical campuses, outreach sites, and other various locations, aim to assist providers in maintaining and enhancing their clinical competence in order to promote high quality healthcare.

The most recent annual data submitted to the ACCME from the School includes 133 individual activities, offering 2,525 hours of instruction, 23,097 physician participants, and 10,307 non-physician learners.

Accredited organizations are responsible for demonstrating that they meet requirements for delivering independent CME that accelerates learning, change, and improvement in healthcare. The ACCME accredits organizations that provide continuing medical education for physicians.

The School’s accreditation with the ACCME is valid through Nov. 30, 2025.

SCHOOL OF MEDICINE



Fourth-year medical student earns national honors for leadership, dedication to rural healthcare

Quintin Brubaker, a fourth-year medical student, received the 2019 Student Leadership Award from the National Rural Health Association.

The Winchester, Va., native has a deep-rooted history in community-focused healthcare. Prior to joining the School of Medicine, Brubaker worked as an emergency medical technician and then paramedic in rural areas of his home state.

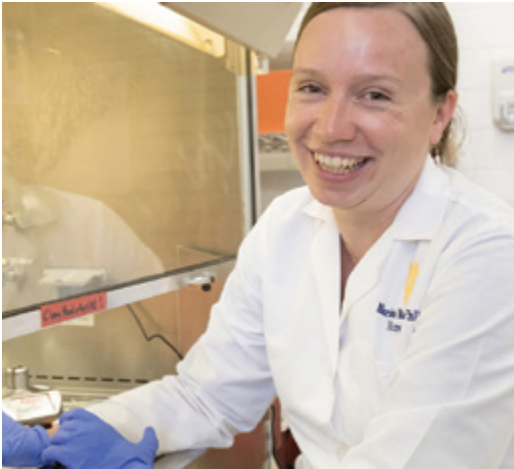
The ability to work in rural health is part of what drew him to WVU, where students have an option to complete everything from a rural rotation to finding leadership roles that focus on a specific area of care. He’s been active with Project R.E.A.C.H., volunteered for WVU’s Rural Health Day, attended the West Virginia Rural Health Conference on scholarship, and was elected to serve on the West Virginia Rural Health Association Board of Directors.

Brubaker is also a member of the Gold Humanism Honor Society and has been elected class president at the Morgantown campus all four years of medical school. He founded the Health Sciences Garden Club, which has grown exponentially – literally and figuratively – since its inception during his first year.

In 2018, Brubaker was selected as a WVU Family Medicine Rural Scholar. He’s completing the School’s Rural Track program, which allows him to pursue his passion for rural healthcare. He will complete his family medicine residency under the sponsorship of the WVU School of Medicine at its primary clinical teaching sites: WVU Medicine’s J.W. Ruby Memorial Hospital and the Clark Sleeth Family Medicine Center.

He plans to practice in West Virginia after completing the program and hopes to encourage more clinicians to work with rural communities.

SCHOOL OF MEDICINE



Barbier awarded R01 to study improved pertussis vaccine

Mariette Barbier, PhD, an assistant professor in the School of Medicine, has received a National Institutes of Health R01 grant to identify how the vaccine that protects against Bordetella pertussis — or whooping cough — can better target the bacteria as they adapt.

The National Institute of Allergy and Infectious Diseases awarded her \$2,610,412, over five years to study how incorporating iron-acquisition proteins into the pertussis vaccine will make it more effective against new strains of the bacteria that — through mutation — no longer respond as well to the conventional vaccine. Her findings will serve as a proof of concept for using iron-acquisition proteins to boost the performance of other vaccines as well.

WVU School of Nursing receives 10-year accreditation

The School announced in June that its baccalaureate degree, master's degree, Doctor of Nursing Practice (DNP), and post-graduate Advanced Practice Registered Nurse (APRN) certificate programs have been granted accreditation by the Commission on Collegiate Nursing Education (CCNE) for another 10 years.

Officially recognized by the U.S. Secretary of Education as a national accreditation agency, the CCNE is an autonomous accrediting agency, contributing to the improvement of the public's health. CCNE ensures the quality and integrity of baccalaureate, graduate, and residency programs in nursing. CCNE serves the public interest by assessing and identifying programs that engage in effective educational practices.

As a voluntary, self-regulatory process, CCNE accreditation supports and encourages continuing self-assessment by nursing programs and supports continuing growth and improvement of collegiate professional education and nurse residency programs.

School now offering DNP – Nurse Anesthetist program

Nurses who want to become nurse anesthetists can now work toward that degree at WVU.

The School's Doctor of Nursing Practice – Nurse Anesthetist program received its accreditation from the Council on Accreditation of Nurse Anesthesia Educational Programs. The program was made possible by a partnership between WVU, WVU Hospitals, and University Health Associates.

Nurses who enroll in the 88-credit, 36-month, in-person program can expect a rigorous, challenging curriculum, heavily based in sciences, including anatomy, physiology, pathophysiology, pharmacology, chemistry, and physics. In addition to classroom instruction, students will be required to complete 2,000 hours of clinical hours before they graduate. The program will be offered on the Morgantown campus and begins January 2020 with 15 students.

Graduates will earn a DNP degree and be eligible to sit for the National Certification Exam, a board exam administered by the National Board of Certification and Recertification of Nurse Anesthetists. Candidate graduates who pass the Certification Exam become Certified Registered Nurse Anesthetists or CRNAs.

Students will have the opportunity to complete clinical hours not only in Morgantown, but at medical facilities throughout the state, including Bridgeport, Parkersburg, Huntington, Beckley, Weston, Summersville, Ranson, and Martinsburg.

SCHOOL OF NURSING

Keyser campus team growing



Front row, left to right: Rachel Raschella, nursing program assistant; Heather Coddington, instructor; and Dr. Diana Niland, instructor.

Back row, left to right: Dr. April Shapiro, nursing program chairperson; Matthew Hottle, instructor; Dr. Mary Beth McCloud, lecturer; and Linda Shroyer, instructor.

The Bachelor of Science in Nursing (BSN) program on the WVU Potomac State campus welcomed four new faculty.

The team now includes Rachel Raschella, nursing program assistant; Heather Coddington, instructor; and Dr. Diana Niland, instructor; Dr. April Shapiro, nursing program chairperson; Matthew Hottle, instructor; Dr. Mary Beth McCloud, lecturer; and Linda Shroyer, instructor.

The WVU School of Nursing – Keyser campus admitted its first class of sophomores in the fall of 2018. Students follow the same curriculum and policies as BSN students on the Beckley and Morgantown campuses and have opportunities to learn in a smart classroom, practice skills and critical reasoning/judgment in state-of-the-art simulation labs, and gain hands-on experience in clinical facilities, including hospitals, nursing homes, and community agencies.

Hulsey recognized during Potomac State's Homecoming



WVU Potomac State College recognized Tara Hulsey, PhD, RN, CNE, FAAN, vice president of Health Promotion and Wellness for WVU and the dean of the School of Nursing, with a Distinguished Service Award.

During her tenure as dean, enrollment at the School has doubled, and as a result, Dr. Hulsey signed a Memorandum of Understanding (MOU) with Potomac State College in June 2017 to offer the Bachelor of Science in Nursing degree on the Keyser campus, with the first cohort of students offered in fall 2018.

Under Hulsey's leadership, the School added a number of new nursing programs, including an MSN/MBA and a Doctor of Nursing Practice in Anesthesia, and is planning to add a mental health nurse practitioner program and an acute care gerontology nurse practitioner program. In addition, test scores are on the rise for first time-test takers of the national nursing certification exam (NCLEX).

Prior to joining WVU, Hulsey served as the dean and professor at the College of Nursing and Allied Health at Charleston (SC) Southern University and the associate dean for academics and the associate dean for faculty at the Medical University of South Carolina College of Nursing. In addition, she has held a number of teaching, leadership, and nursing positions during her career. She has served as the principal investigator on more than 20 research projects and has written numerous published articles, book chapters, and abstracts.

SCHOOL OF PHARMACY

School moves up in NIH research support rankings

The School of Pharmacy has approximately 10 times more funding from the National Institutes of Health (NIH) than it did just six years ago. This information is from a research ranking report by the American Association of Colleges of Pharmacy (AACP).

The report shows the School is ranked 37 out of 142 other schools and colleges of pharmacy nationwide with regards to the total amount of funding awards it receives from the NIH. Between October 1, 2017, and September 30, 2018, the School received \$3,714,990.

Paul Lockman, PhD, assistant vice president of experimental therapeutics at the WVU Health Sciences Center (HSC) and senior associate dean for research and strategic initiatives for the School, attributes the growth to highly innovative and collaborative faculty who are strongly supported by administrative structures in the School and the HSC.

Most of the grant monies have been used to support cancer and stroke research as well as drug development in those areas. In September 2018, the School was part of an \$11.2 million NIH award given over five years to establish a center that focuses on the environment surrounding malignant tumors, which is emerging as a site that allows the tumors to grow.

Dr. Lockman says the School's current NIH research support ranking is important to attracting additional high-quality scientists who are dedicated to solving problems that benefit West Virginians and people everywhere.



Students can expect an enhanced learning facility in 2020

A new Pharmacy Skills Development Center, designed to prepare student pharmacists for an evolving role in healthcare, will open in 2020.

The School is relocating and expanding the former Center for Pharmaceutical Care Education from the eighth floor of the Health Sciences Center (HSC) South to the third floor of the HSC North. The new location is in alignment with two other floors in the same wing of the building that are currently occupied by the School.

The Pharmacy Skills Development Center is 7,650 square feet of fully renovated space. It will house a state-of-the-art compounding lab, innovatively designed group rooms to foster contemporary practice, and a new technology area.

Work on the new center started in August, and students will begin to use the facility in spring 2020.

Top-left: A rendering of the Pharmacy Skills Development Center compounding lab

Bottom-left: The lab debriefing room will be used for small group case studies and other activities.

Right: Pharmacy students will have a dedicated lounge in the new Pharmacy Skills Development Center.

Master's in health administration now offered

In an effort to meet growing healthcare needs across the state, the School of Public Health is now offering a Master of Health Administration, a premier program for those seeking to lead the health systems of the future.

Approved by the WVU Board of Governors on Nov. 8 and slated to enroll the first cohort in the fall 2020 semester, the MHA program will focus on the organization, delivery, and management of healthcare and public health systems and services as it prepares graduates to advance into leadership positions throughout the broader health system.

The MHA program will address areas critical to success as an administrative leader in the health sector, requiring courses in health services and operations management; leadership and organizational behavior; health policy law and ethics; and health finance and economics, among others. Courses across those disciplines, paired with elective courses, will allow students to specialize in a variety of areas.

Featuring a robust, practice-based internship component, the program will give students the chance to apply knowledge and skills obtained in the classroom. A variety of placement opportunities are available through the School's numerous local, state, and regional partners, and the option to complete the internship with a current employer is available to accommodate students who are working full-time.

SCHOOL OF PUBLIC HEALTH



Researcher studies link between caffeine, sleep, and alcohol use in middle-schoolers

In a study funded by the National Institute on Alcohol Abuse and Alcoholism, a division of the National Institutes of Health, **Alfgeir Kristjansson, PhD**, an associate professor in the School, will investigate two potential targets for preventing middle-schoolers from alcohol use: caffeine use and sleep deprivation.

Dr. Kristjansson and his team will follow 2,000 West Virginia middle-schoolers from five West Virginia counties from sixth through eighth grade and determine how frequently they drink alcohol or use other drugs.

They'll also assess how much caffeine the students drink, how much sleep they get, and associated environmental factors. Then they will identify the factors that — alone or in combination — make middle-schoolers more likely to use alcohol or other drugs.

By evaluating data from multiple sources, Kristjansson can better understand how the things middle-schoolers do — and the things they encounter — may nudge them toward using alcohol and other drugs, or away from it.

Academic Health Department to enhance public health training, research, and service

Top-tier training, research, and service opportunities will remain at the forefront for students in the School of Public Health as WVU and the Monongalia County Health Department establish an Academic Health Department, reinforcing the School's commitment to give students learning experiences based in real-world public health practice.

While the establishment of the Academic Health Department is new — made official with the signing of a formal agreement by WVU Health Sciences Center and MCHD leaders on Oct. 31 — the collaborative efforts between the two organizations are not.

Leadership from the WVU Health Sciences and MCHD met in October to sign the agreement, formally establishing the Academic Health Department.

"We are thrilled to have achieved this designation," Executive Director and County Health Officer Lee B. Smith, MD, JD, said. "This is the fruition of four years' work that began with building relationships with various WVU colleges and schools, including the Schools of Public Health, Medicine, Nursing, and Pharmacy and the College of Law."

SCHOOL OF PUBLIC HEALTH



Students helping area families live better

Public Health students are helping to implement a training program that will assist the area’s older adults in raising their grandchildren.

As part of their field placement experience, three undergraduate Public Health students are working with After School Explorers and Preston County Senior Citizens Inc. to bring the Healthy Grandfamilies training program to the Kingwood area. The program is an initiative led by West Virginia State University to provide free information, resources, discussion groups, and follow-up services to grandparents raising one or more grandchildren.

The students – Alison Stottlmyer, Michaela Stull, and Miriam Rosenberg – helped to plan and execute the February 2019 training program at Preston High School, which included parenting in the age of technology, self-care for those raising their grandchildren, navigating the legal system, and recipes for healthy and affordable meals.

Alison Stottlmyer and Michaela Stull prepare documents during the training.



WVU Eye Institute program offers independence to children with vision impairments

As a teenager, Lauren Clem had the same dream as many of her peers: She wanted to drive. But her severely limited vision – due to a rare group of genetic disorders known as oculocutaneous albinism – made driving virtually impossible.

In addition to vision correction resources, CVRP shared useful strategies to help Clem navigate the world on her own, such as counting stairs to traverse campus or placing a finger along the top of her reusable water bottle to gauge when it’s full.

The CVRP team was there when Clem wanted to learn how to drive, too. She was fitted for bioptic driving glasses, which feature a telescopic lens on one eye, at age 14.

With help from the WVU Eye Institute’s Children’s Vision Rehabilitation Program (CVRP), Clem’s dream became a reality. The program provides vital resources — including medical care, optical devices, assistive technology, mentoring, educational support, and more — that improve long-term quality of life for blind and visually impaired children.

CVRP has been made possible in part by a 2019 grant from The Greater Kanawha Valley Foundation (TGKVF). The \$103,050 grant bolsters program efforts in Boone, Clay, Kanawha, Lincoln, Putnam, and Fayette counties and boosts the organization’s total CVRP donations to more than \$1 million over the past 16 years.

“It took four years, but my dream came true,” said Clem, 18, who earned her license in 2019.

Lauren Clem



Community support for new WVU Medicine Children’s Hospital grows

A big, blue fence and towering crane have become fixtures on the WVU Medicine J.W. Ruby Memorial Hospital campus as construction continues on the new WVU Medicine Children’s Hospital. The community has continued to show its support for the new, dedicated children’s hospital through generous donations to the WVU Medicine “Grow Children’s” Capital Campaign.

- ✓ Karen and Jerry West, West Virginia University Men’s Basketball and Los Angeles Lakers legend, made a leadership-level donation to the “Grow Children’s” Capital Campaign.
- ✓ The Mountain Loggers Group, Inc., made a nearly \$70,000 donation toward its \$500,000 pledge to name the cafeteria.
- ✓ Jedd Gyorko, former WVU baseball player and current third baseman for the St. Louis Cardinals, and his family donated \$100,000 to the Capital Campaign.
- ✓ Representatives from Spirit Halloween costume retail stores across West Virginia presented the Child Life Program at WVU Medicine Children’s with a check for \$73,708, which was donated by store customers last fall.
- ✓ United Bank marked WVU’s third annual Day of Giving with a \$1 million donation.
- ✓ Mike and JoAnn Ross and their family donated \$1 million in support of the Capital Campaign and the Brick Health Outreach Fund in the WVU School of Medicine.
- ✓ The Friends of WVU Hospitals Board of Directors announced a pledge of \$500,000 to name the Child Life Activity Center.

The \$150 million, state-of-the-art WVU Medicine Children’s Hospital is slated for completion in 2021.

PHILANTHROPY



Cancer survivor Erin Dunmire’s inspirational journey

WVU Cancer Institute patient and cancer survivor Erin Dunmire gives hope and inspiration to others diagnosed with glioblastoma multiforme. After undergoing surgery in 2011 to have a lemon-sized tumor removed from her brain, Dunmire has now been cancer-free for more than eight years.

Working with the Cancer Institute, Dunmire has taken on a role of meeting with other patients who have also been diagnosed.

“I’ve been asked to talk to about four new people, one of them just passed away,” Dunmire said. “It humbles me to become a part of their family. That is what’s so meaningful for me to be a part of the Cancer Institute.”

Inspired by her niece, Dunmire started a fund called “Let the Journey Begin,” which helps sponsor brain cancer research and provides comfort care for brain cancer patients. Dunmire, her family, and friends have raised more than \$177,000 for the fund.

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