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On the cover: Geisinger’s Classroom Connect program means that pediatric patients don’t have to miss another day of school, thanks to mobile iPads (see page 24)

We want to hear from you
Write to us! We want to hear your thoughts on what you see here and your ideas for future stories. Email us at GeisingerMagazine@geisinger.edu.

Include your name, email address, city and state. If you are a Geisinger staff member or alumnus/a of our education programs, also include your current (or past) positions and the years that you worked or trained here.
We have thousands of different jobs at Geisinger, but “innovator” could be added to everyone’s title. Innovation is part of our DNA and a core value on equal footing with our values of kindness, excellence and learning.

_Innovation_ sounds intimidating — something that only happens in a lab or Silicon Valley. But for us, it’s simply seeking new and better ways to care for our patients and our communities all the time.

We’re innovative in how we train and support doctors. Physician burnout is at an all-time high across the country. We’re taking action to both prevent and treat burnout. In this issue, you’ll read about how we supplement traditional training with education and experiences to help doctors relate better to their patients on a human level and take better care of themselves, starting in medical school and throughout their entire careers. We’ve introduced a social compact that ties physician performance expectations to core tenets of care rather than incentive goals, and we’re redesigning models of care. These changes have helped us recruit and retain physicians more successfully than ever.

Technology is a great avenue to innovate and improve care. The potential of technology to free up doctors and nurses to spend more time with patients is enormous. We’re using devices like iPads to teach patients, distract kids and help physicians collaborate from remote locations. As you’ll see in this issue, we are taking advantage of today’s tools and devices to fulfill our purpose of caring through using technology in new ways.

Geisinger has earned a national reputation for innovation. Among hospital systems, we were one of the earliest adopters of the electronic health record. We challenged the status quo with our ProvenCare® portfolio to improve patient outcomes and experiences. We’re pioneering initiatives to address the factors in our community that cause preventable illness and early death. We recently created the Steele Institute for Healthcare Innovation to expand our ability to bring sustainable solutions to improve health, care delivery and the patient experience in ways that can be replicated beyond our system.

You don’t need sophisticated equipment to innovate. It can happen using something as handy as an Excel spreadsheet or trying out and measuring a new idea. It could be a nurse taking an extra step to call patients to make sure they are doing well and taking their meds.

The research and initiatives underway throughout Geisinger will undoubtedly continue to change the landscape of healthcare for our patients and many others. I’m proud to work with our more than 30,000 innovators who find better ways to care each day.

Take care,

David
You never know when you’ll run into an Olympic athlete. If you visit Geisinger Medical Center’s Atrium Café, you might have the privilege of meeting two long-term employees — Nina Kaneriya, 35, and Ann Seroskie, 34 — who are both veteran Special Olympics athletes. They train for at least eight weeks annually and participate in competitions throughout the year.

“I do most everything,” notes Ms. Kaneriya, who has intellectual disabilities and started competing when she was 18. She takes part in bocce, bowling, and track and field. After the Special Olympics Pennsylvania Summer Games, held May 31 through June 2 at Penn State University, she’ll join the team at the 2018 Special Olympics USA Games in Seattle this July — one of just 50 athletes from Pennsylvania.

Ms. Seroskie has been involved with Special Olympics for most of her life and participates in basketball, swimming and bowling. She has cognitive developmental delays associated with Down syndrome. She says she enjoys Special Olympics because she likes meeting new people and going to new places.
“This is so important to them in their lives,” says Janet Merluzzi, retail Foodservice manager at Geisinger Medical Center (GMC) in Danville. “They come back supercharged and excited about what they’ve learned. I’m really proud of these women.”

Connecting Geisinger staff with athletes and families

These two athletes are not the only Geisinger employees involved in Special Olympics Pennsylvania (SOPA). Jake Armstrong, Geisinger’s system vice president of Finance, joined SOPA’s board of directors in 2011. “I’ve been involved as a fan far longer than I’ve been involved as a board member,” he says. “I have always loved sports and loved the idea of Special Olympics, a global movement that unleashes the human spirit through the transformative power and joy of sport.”

Mr. Armstrong helped get Geisinger involved with SOPA initiatives such as the Healthy Athletes program, which provides health screenings during games and educates athletes and their families about health challenges faced by people with intellectual disabilities.

“It’s a confluence of what we’re trying to achieve in the community and what we’re trying to do at Geisinger,” notes Mr. Armstrong.

GMC pediatrician Sarah Marks, MD, is part of the initiative. Since 2011, she and a team of specialists, ranging from podiatrists and dermatologists to Geisinger community nurse educators and pediatric residents, have volunteered at SOPA’s Bocce Bash, held at Bloomsburg University in October. They gave athletes health screenings and educated them about health and wellness.

“I have always had an interest in Special Olympics and the wonderful opportunities that come out of these programs,” says Dr. Marks, who works with SOPA’s Columbia Montour Special Olympics program. “We started with a few volunteers from the pediatric department and some local resources, but over the years have been able to partner with the Healthy Athletes program to broaden what we are able to provide to the athletes.”

Since 2015, more than a dozen sports medicine and athletic training volunteers from GMC, Geisinger Wyoming Valley Medical Center in Wilkes-Barre, and Geisinger Community Medical Center in Scranton have been helping with on-site athletic training support at SOPA events. In addition to taping ankles and evaluating musculoskeletal health as a general precaution, the clinicians teach athletes about healthy nutrition and hydration. One of the volunteers is Kelly Clark, ATC, program manager for Sports Medicine Northeast in Wilkes-Barre.

“To watch the joy on the faces of the athletes as they compete is very rewarding,” Ms. Clark says. “They go out there and give it 100 percent and have so much fun playing a sport they love. It’s not about who wins the game. They support and cheer on all the athletes that are competing.”

An additional benefit for clinical volunteers is getting to know the athletes and their families — and understanding the unique needs of people with intellectual disabilities.
“The Healthy Athletes program is a worldwide effort to address the health and medical needs of our population, which is unfortunately underserved,” says Clare Walsh Miller, senior vice president of programming at SOPA. “That doesn’t necessarily mean they are being overlooked; it can often be a misstep in services and communications and problems with access.

“Connecting Special Olympics athletes and their families to the resources Geisinger has to offer is one way to close the gap,” she says. SOPA also helps train clinical volunteers on how to examine athletes who may have difficulty communicating. “Training these physicians and other clinicians can give families a great jump forward for getting supportive care back home,” Ms. Miller adds.

The Geisinger Health Foundation also partners with SOPA by providing financial support for the Summer Games. Rachel Sweeney, senior coordinator of national initiatives at the Foundation, is working to develop a roster of Geisinger providers in audiology, podiatry, optometry and other specialties who offer services for people with intellectual disabilities. The ultimate goal is to create a Healthy Athletes provider directory to help athletes screened at events connect with Geisinger clinicians closer to their homes for follow-up care.

“Training these physicians and other clinicians can give families a great jump forward for getting supportive care back home.”

— Claire Walsh Miller, Senior Vice President of Programming for Special Olympics PA

To learn more about Special Olympics PA, visit SpecialOlympicsPA.org

Caring for adults with Down syndrome

Each year, one in 700 babies in the U.S. is born with Down syndrome, a genetic disorder that causes intellectual development delays and is linked to heart defects and other medical problems. As treatment has improved, so has life expectancy — from an average of 9 years in the 1920s to about age 60 today. But many physicians don’t have experience caring for these patients.

Thomas Balz, MD, an internist and primary care doctor based at Geisinger Medical Center in Danville, established a clinic at his practice to support such patients in 2006. His personal interest began 23 years ago when his daughter was born with Down syndrome. “As I learned more about her problems, I realized that my medical training in the care of adults did not include much about the care of these patients,” he says. “As more of these patients are surviving into adulthood, more internists are becoming involved with their care.

“We try to care for individuals, recognizing their increased prevalence of problems such as thyroid disorders, celiac disease [gluten intolerance], sleep apnea, gastroesophageal reflux and others,” Dr. Balz adds. “Some patients have limited verbal skills that make it difficult for them to convey their symptoms. Sometimes they can only express themselves with changes in behavior, making it hard to sort through those caused by medical problems versus emotional ones. They can feel threatened by medical testing, and some treatments are difficult for them to understand and accept.”

Physicians can also watch for early development of conditions such as osteoporosis and Alzheimer’s-type dementia, which can occur about 20 years earlier in life than average.

While people with Down syndrome often share certain physical characteristics — an upward slant of the eyes, poor muscle tone and short stature, for example — Dr. Balz says they still need to be treated by doctors as individual people with different health needs. And the work is truly rewarding, he adds.

“I find that there is a common purity of spirit that I personally find very engaging,” he says. “As I become involved with these patients and their families, friends and other care providers, I am very impressed how they tend to bring out the best in others.”
Geisinger Commonwealth School of Medicine has a research-backed solution for northeast and central Pennsylvania’s looming doctor shortage: homegrown talent.


Research shows that local medical education and local advanced training give young doctors the extra incentive that inspires them to stay put when they start their own practices. That’s especially important in Pennsylvania, where 87 percent of residents live in rural counties but 92 percent of doctors who work directly with patients practice in or near the state’s biggest cities.

Geisinger’s strategy brings well-qualified natives of its service areas back here for medical school and for clinical training in hospitals and physician practices throughout the area. (Many stay for residencies and fellowships after graduation, too.)

Here’s how three Pennsylvania natives in their first year at Geisinger Commonwealth see their futures in medicine — and the local people, places and experiences that inspire them.
Regino Flores
Altoona | Western Region

Medicine and military service run deep in the family of Regino Miguel Flores, a graduate of Altoona Area High School and Westminster College in New Wilmington, Pa. As a recipient of a U.S. Air Force Health Professions Scholarship, Mr. Flores will serve in the Air Force after receiving his medical degree from Geisinger Commonwealth.

“My grandfathers and many of my uncles served in the military, so I am thrilled that I can, too,” he says. “After my service, I’d like to move back to Pennsylvania to practice medicine. My father is a family medicine physician. I like the idea of having a long-term relationship with my patients, to help them make the healthy choices that prevent and treat chronic disease.”

As a teenager, Mr. Flores was a parking valet at the emergency room of an Altoona-area hospital, where he saw the effects of the state’s doctor shortage firsthand. “People would drive long distances to get there,” he says. “We would bring out wheelchairs and reassure them that it was OK now.”

Mr. Flores — who sings in a student a cappella group for fun — has a passion for research focused on real people and their daily lives. “I’m part of a student group working with the United Way to look at how adverse events in childhood affect parenting skills later in life,” he says.

His decision to come here for medical school clicked during his interview: “My faculty interviewer talked about the importance of the patient-practitioner relationship and the school’s mission to work in the community for improved health outcomes.”

Tara Fritz
Danville | Central Region

The summer after she graduated from Danville Area High School in 2013, Tara Fritz volunteered at an overnight camp for kids with serious skin conditions. She returned for two more summers while she was an undergraduate science major at Penn State. Ms. Fritz herself was no stranger to the difficulty of feeling “different” from other kids.

“I was born with a cleft lip and needed a series of surgeries when I was little. It was a very positive experience — the doctors were very kind and explained things to me,” she says. “Today, teaching is very important to me. It’s something I’ll do as a doctor one-on-one with patients every day.”

Western Region

Geisinger’s service area, shown here in darker blue
As an undergraduate at Georgetown University, Shradha Chhabria studied international health issues. She did research in West Africa in pursuit of a career in global health. Then an “aha!” moment inspired her to think — and act — locally.

“My experience and academic work led me to understand that the most effective unit for creating public health change is the community,” says Ms. Chhabria, who graduated from Moravian Academy in Bethlehem in 2012. “I believe doctors have a big responsibility for community health, which goes beyond the exam room to getting involved in understanding the barriers to good health. That’s what we’re already doing at Geisinger, as first-year students learning how to communicate with our patients.”

The medical school pairs students with local families living with chronic health conditions. Ms. Chhabria has worked as a mentor with the REACH-HEI program; sings with the school’s all-women’s a cappella group, The Cerebellas; and tutors young immigrants through the school’s Global Health Society. She also hopes to bring her interest in integrative and complementary medicine into her future practice. “I practice yoga and meditation every day,” she says. “Learning to reduce stress has helped me reach a healthy weight and deal with the challenges of medical school. I hope I can help my patients experience the value of these practices.”

Her mom also helped inspire her interest in medicine. “My mom is a registered nurse and CEO of Heritage Springs Memory Care in Lewisburg, which she founded almost three years ago,” Ms. Fritz says with pride. “She pursued her dream while helping to raise me and my two sisters and has shown me what hard work and dedication look like.”

Ms. Fritz volunteers with the Regional Education Academy for Careers in Health – Higher Education Initiative (REACH-HEI), which mentors low-income students interested in healthcare careers beginning in middle school. She also volunteers with the medical school’s Pediatric Outreach Group for Students. “I really love the dedication Geisinger has to the community and the emphasis it places on giving back,” she says. “I’m learning not only how to be a competent physician, but also to be a humanistic one.

“I grew up in such a wonderful community, and I always felt that I should give back to it one day,” she adds.
The view from Sister Mary Joseph Albright’s eighth-floor office window is almost divine. Sunshine glints on the Susquehanna River and casts magical light on downtown Harrisburg’s spires, domes and towers. “It’s beautiful,” she says, “but sometimes I forget to look and soak in the beauty. There’s so much to learn and do right here.”

Sister Mary Joseph is the mission integration officer for Geisinger Holy Spirit, a 311-bed community hospital in Camp Hill, Pa. Her job: making sure that Geisinger Holy Spirit stays true to its Catholic identity and healing mission.

She is, in essence, its spiritual director, caring for the soul of a hospital with deep religious and community roots in the midst of sweeping, 21st-century healthcare changes.

Two recent headline-grabbing events have given Sister Mary Joseph’s work new significance. In 2014, the hospital joined Geisinger as an affiliate. That raised questions about whether a Catholic institution could uphold its spiritual values and also be part of a secular health system. And in 2016, a layperson took the hospital’s reins for the first time. Kyle Snyder, the former vice president of Operations and Integration at Geisinger Holy Spirit, became chief administrative officer when long-time hospital leader Sister Romaine Niemeyer retired.

Today, Sister Mary Joseph and Mr. Snyder meet regularly to keep the spiritual and business aspects of the hospital in sync. “Our partnership is so important,” says Mr. Snyder, a lifelong Catholic. “Her presence reminds people that we are still a Catholic institution, and that influences the decisions we are making and the way we treat patients.”

Sister Mary Joseph sat down recently to talk about her faith, why the Geisinger Holy Spirit affiliation works, how a religious sister who taught in elementary schools for decades found herself in the executive suite — and why employees across Geisinger begin each day with her popular inspirational emails.

Is Geisinger Holy Spirit still a Catholic hospital?

Sister Mary Joseph (SMJ): Absolutely. The Sisters of Christian Charity’s North American Eastern Province has had a sponsorship agreement with the hospital since it opened in 1963. When the affiliation with Geisinger was under discussion, the question was put to the members: “Do you still want to sponsor Holy Spirit?” The answer was a unanimous yes. So we have these binding documents — our definitive agreement and sponsorship agreement — as
part of the partnership with Geisinger. It’s up to us to ensure compliance with the *Ethical and Religious Directives for Catholic Health Care Services*, from the U.S. Conference of Catholic Bishops. Evidence of this is demonstrated through an annual report we submit to the Bishop of the Harrisburg Diocese.

We’re different from the other Geisinger platforms because of our Catholicity. That’s where I have to speak up and be involved.

You’ve said that, in many ways, Holy Spirit’s values align with Geisinger’s. How?

**SMJ:** We never turn anyone away. That’s a value we share with Geisinger. And our tagline has always been “the Spirit of Caring,” which aligns perfectly with Geisinger’s commitment to caring.

**How would a visitor notice the hospital’s religious foundation?**

**SMJ:** You can see it as soon as you walk into the atrium. The hospital’s sponsorship by the Sisters of Christian Charity is evident in the large statue of Blessed Pauline von Mallinckrodt, foundress of our Congregation. Approaching the main elevators of the hospital, visitors will see a crucifix, recently accented with a wood panel in the background. Geisinger Holy Spirit’s values are posted in the elevators: dignity, wholism, service, stewardship, quality and integrity. One value is highlighted each month with a description of what it means.

To celebrate the sacredness of life, Brahms’ Lullaby is chimed on overhead speakers throughout the hospital at the birth of a baby. The spirit of our hospitality is so alive that visitors

“We never turn anyone away. And our tagline has always been ‘the Spirit of Caring,’ which aligns perfectly with Geisinger’s commitment to caring.”

– Sister Mary Joseph
take notice of it and compliment us for the warm welcome they receive.

**What’s one intersection between spirituality and healthcare that you feel passionate about?**

**SMJ:** We begin and end each day with prayer, and throughout the day, anyone on the hospital staff is welcome to pray with any patients and family members who wish to do so. Coworkers also pray with one another. Our Values Prayer and Journey Statement are recited at each meeting to remind us of the six values and our spiritual mission. And we have a prayer, printed on cards available throughout the hospital and in our clinics, that anyone would be comfortable using regardless of their religious background. It is called “You are Blessed.”

**When did you first feel the call to a religious vocation?**

**SMJ:** When I was 10, having heard lots of missionary stories, I felt drawn to care for the poor and suffering. I wrote to the Maryknoll Sisters, a missionary congregation, to accept me, but they rejected me. I didn’t understand. “I know what God wants me to do — why do I have to wait?” I questioned my dad with tears flowing. My reaction was so strong that my parents realized it wasn’t just a whim. I would save coins that my grandmother gave me and send them to the missions — or so I thought. My father was actually sending substantial donations and I would receive beautiful letters telling me how the money was improving the living conditions of the poor. Looking back, I realize my dad nurtured that reaching out to the poor that I felt.

**Tell us about your family.**

**SMJ:** I grew up in Jersey — New Jersey, that is! I’m the second-oldest of 11 siblings. I joke that growing up there was always someone to fight with! We kids enjoyed sports and played various musical instruments, and I even took art lessons. In the winter we built snow forts, and in the summer months we “lived” at the lake and became avid swimmers. I eventually taught swimming classes and became a lifeguard. My parents were good Catholics. My mother’s devotion was quiet, but dad was more front and center. He was an accountant, but at night he would open different translations of the Bible to ponder the various translations of the text. Appreciating the fullness of the scriptures deepened his prayer relationship with God.

**Why the Sisters of Christian Charity? They aren’t a missionary order.**

**SMJ:** A theme in my life has been understanding God’s will. He was preparing me — not for the missionary community, as I first thought. Seeking clarity, I visited different religious communities, always with a friend by my side, until I met the Sisters of Christian Charity. When I learned about Mother Pauline von Mallinckrodt, who founded the community in Germany in 1849, I saw parallels to my own life. As a young girl, Pauline carried a basket filled with things to meet the needs of the poor. The charism — the spirit — of the Sisters of Christian Charity is Christ’s love reaching out to the poor, and I felt that same charism burning inside me. I sensed deep inner peace during the first visit to the Motherhouse of the Sisters of Christian Charity in Mendham, N.J. I knew I found my home, the congregation God was calling me to join. Forty years later, I have no regrets.

**In elementary and high school, you set state track and cross country records. Are you still a runner?**

**SMJ:** I don’t really run anymore, due to old injuries. But I do run up the stairs from the first to the sixth floor, where I teeter out and have to walk the last two to get to the eighth floor. Using the stairs gives me the opportunity to talk with employees, while using the elevator on the way down provides opportunity to interact with visitors and to let them know that they are supported by the prayers of the Sisters of Christian Charity.

“In any moment of decision, the best thing you can do is the right thing... and the worst thing you can do is nothing.”

— Theodore Roosevelt, quoted in *Rise and Shine*
You taught school for 28 years. What led you to healthcare at Geisinger Holy Spirit?

SMJ: A few years before coming to Geisinger Holy Spirit, I started to feel I was meant to work outside the classroom. I received training in bereavement work and led retreats and worked in vocational awareness for the Diocese of Paterson, N.J. In 2015, when the Sisters asked me to be the mission integration officer at Geisinger Holy Spirit, I said yes. It was an act of faith. I had experience in administration, but not in healthcare. I’m still learning.

How would you describe your mission here?

SMJ: Unfolding. I like to say the heart of what we’re doing is integrating the spirit of healing and compassion into healthcare. Our healing mission is the “why” of what we do every day. My goal is to keep it foremost in the minds and hearts of all employees — to integrate our vision, values and culture into every decision and service within Geisinger Holy Spirit. That means so many things, some of them very personal for people. Often, staff, families and patients stop into my office and say, “Sister, I need to talk.” I’m here for that. That happened with a couple I met outside the chapel recently. As we talked, I was saying to myself, “Oh my goodness, Mary Joseph, this is why you’re here.” There are so many “this is why you’re here” experiences. To me, it’s being available to hold hearts.

Your daily inspirational emails have a big following. Tell me more about Rise and Shine.

SMJ: Rise and Shine/Today’s Caring Connection is a spiritual/inspirational reflection that is emailed at 6 a.m. each day to Geisinger Holy Spirit and to other members of the Geisinger family who choose to receive it. In some cases, Rise and Shine has strengthened the bond coworkers have with one another. It’s given me, as the mission integration officer, the opportunity to connect with employees throughout the Geisinger system. I am now known in many circles as “Sister Rise and Shine.”

“The deepest and most authentic meaning of life [is] that of being a gift which is fully realized in the giving of self.”

– St. John Paul II, quoted in Rise and Shine
A career in medicine has always been demanding — requiring stellar academic performance, personal sacrifice and a dedication to helping others. But over the past few decades, demands on physicians have increased. New medical school graduates face enormous amounts of debt and often feel pressured to choose high-paying specialties over primary care. Patients tend to be older and sicker with more complex conditions, but physicians are expected to see more of them daily, often in 10- to 15-minute increments. Doctors can spend as much time on administrative tasks, such as updating electronic health records and insurance forms, as they do on patient care.

From medical training through mid-career, Geisinger is finding ways to help physicians and other providers avoid burnout by staying connected to their core mission: caring for other human beings.
At the same time, medicine and technology continue to advance at a blistering pace and clinicians have to keep current. And though doctors in training are limited to an 80-hour work week, attending or private practice physicians are not. Between clinical and administrative duties, many providers are working longer hours than ever and finding it hard to establish work-life balance.

These forces have led to discussions of a phenomenon that has only recently garnered national attention: burnout. In one recent survey of more than 15,000 physicians across 29 specialties, up to 42 percent reported having feelings of burnout, with the risk rising dramatically as they reach mid-career.* More than half of respondents mentioned that the increase in “bureaucratic tasks” added to their feelings of burnout, and roughly 40 percent cited the number of hours they needed to spend at work. When physicians feel burned out, it’s harder for them to connect with patients and families, and they can lose sight of what drew them to medicine in the first place: the desire to help others.

From medical school through mid-career, Geisinger is developing ways to help providers of all kinds build resilience and guard against burnout. The goal is to give them tools to refocus their attention on the human side of healthcare: the unique relationship that binds provider to patient.

*Medscape National Physician Burnout & Depression Report 2018
Teaching the “art” of medicine

The new model for healthcare providers today starts in the earliest stages of training, according to Steven Scheinman, MD, dean of Geisinger Commonwealth School of Medicine and chief academic officer at Geisinger. He points to studies showing that students nationwide often arrive at medical school optimistic and eager, but some leave four years later “a bit jaded or even callous.” Geisinger Commonwealth aims to address that.

“It is important for providers not to be focused solely on the science, even though that is critically important,” he says. “We want students to understand their patients’ experience of life, not just their experience of care. If you don’t have any idea of a patient’s social context or their stressors, you are not going to be able to serve them in the best way. This is a key element of ‘professionalism,’ one of the core competencies we emphasize with our students.

“We include the humanities, including appropriate arts, music and literature, in our curriculum,” he adds. “For example, over the past summer we had incoming students and students who had completed their first year read Being Mortal by Atul Gawande and participate in discussions about it when they returned to school.”

The best-selling book, written by a surgeon, reflects on how people live with illness, aging and their own sense of mortality, and on how healthcare professionals must recognize that quality of life is perhaps the most important concern for dying patients — even if it means pulling back on medical interventions.

Recent studies have shown that medical students who are actively involved in the humanities, such as literature, music, theater or visual arts, tend to be happier and less stressed, exhibiting more traits seen as positive personal qualities for a physician and fewer of those seen as negative. Dr. Scheinman says that a goal of the school’s upcoming curriculum redesign is to include more of the humanities.

“We want to produce doctors who are active learners,” says Dr. Scheinman. “Viewing patients simply as problems to be solved contributes to depersonalization of both parties. Our curriculum pays conscious attention to developing communication skills and empathy along with medical proficiency.”

For example, unlike some other schools where students rotate through one specialty for one month at a time, Geisinger Commonwealth students follow a longitudinal integrated clerkship curriculum model during their third year. This means, in part, that students are assigned outpatient rotations in six core medical disciplines simultaneously every week for six months. This allows them to see the same patients more regularly, participating in initial assessments and then establishing a plan of care and any interventions or follow-ups. It helps them get to know and develop empathy toward patients and their families, as compared with more traditional shorter clerkships. The curriculum also features a program that pairs students with local families who are dealing with chronic illness. They learn what living with a chronic illness really means — something that cannot be appreciated in a brief meeting in an examination room.

“The families, and their stories, become part of our students’ medical education,” says
Dr. Scheinman. “Our students begin to understand what continuity of care really means. When I was a medical student, I participated in the births of six babies. I met the mom at the delivery room and then never saw her or the baby again. We are trying to make sure that doesn’t happen here.”

Starting out right

Marc Incitti is a first-year medical student who worked as a registered nurse in emergency medicine and critical care for six years before enrolling at Geisinger Commonwealth. He says he appreciates the attention being paid to the more human side of medical training.

“We take a course called ‘Patient-centered Medicine.’ It helps us look at patients as people rather than cases, taking into account many details about their makeup, including race, gender, and socioeconomic or cultural factors,” Mr. Incitti says. “These things may have less to do with their specific disease, but they have everything to do with connecting with them as human beings who need our help. I don’t think you can wait until residency to learn this.”

In their second year, students take a course called “The Art and Practice of Medicine,” which further develops their understanding of patients’ life circumstances and backgrounds — and how those factors affect their patients’ health and their interactions with the healthcare system.

Mr. Incitti and some other first-year students are part of the first class to use an innovative tool called the ePortfolio, available at a handful of medical schools nationally. This online tool helps students evaluate themselves even as they are being evaluated by educators. They can post links to their published articles, participation in community service, and peer or patient evaluations, as well as record their own reflections on their experiences.

“The ePortfolio enables students to continually ask themselves what it means to be a doctor,” said Tanja Adonizio, MD, associate dean of student affairs at Geisinger Commonwealth School of Medicine. “It also will give us a 360-degree view of the student: their progress, where they need support and how they can achieve a level of professionalism that will benefit them — and their patients — throughout their careers.”

Putting yourself in your patient’s shoes

Recent medical school graduates can experience tremendous stress as they begin their first rotations as “real” doctors. And the system they enter has not always been the most welcoming. Some current doctors have described the first year of post-medical school training as having a “hazing” mentality, where new doctors could be pushed almost to the breaking point.

At Geisinger, that baptism-by-fire process is giving way to new, more humane and enlightened ways to prepare the roughly 640 residents in training.

Lauren DiMarino, DO, completed her internal medicine residency at Geisinger Medical Center in 2009 and is now the program’s director. She is close enough to the experience to remember what being a resident feels like, but also seasoned enough to have insight on how to make the experience better.
“We are trying to help our residents not only learn how to be doctors and communicate effectively, but to connect with what being hospitalized is like for patients,” she says.

She had the current class of residents write letters to themselves about why they went into medicine and what they hope to achieve. They will get their letters back at the end of their first year to see how their expectations compare with reality. During orientation, she also shows residents the William Hurt movie *The Doctor*, in which a cold, clinical surgeon experiences the other side of medicine when he becomes seriously ill.

But Dr. DiMarino doesn’t need Hollywood to teach the residents empathy. At just 4 years old, she was diagnosed with a serious cardiac condition that required long hospital stays and open-heart surgery.

“I was blessed to have compassionate, intelligent doctors and nurses taking care of me. Even then, I think I was learning the right way to be a physician.”

– Lauren DiMarino, DO

Residents are also encouraged to keep reflective journals about patient interactions or difficult work situations, so that they can talk openly about those experiences with their peers and mentors.

**The patient experience rotation**

For internal medicine resident Maria Qureshi, MD, learning what kind of doctor she wanted to be started at the dinner table. Both her mother, Sarah, and father, Anwer, are physicians. Her mother trained in internal medicine at Geisinger and her father is a Geisinger cardiologist.

“I saw early on that medicine had everything I wanted. It was challenging and mentally stimulating, yet also offered the opportunity to have human connections in a unique way,” the first-year resident says. “For some people, the only person they can be weak in front of is their doctor. It is a privilege to be there when they need us.”

Dr. Qureshi recently completed the patient experience rotation, a new program created for first-year internal medicine residents by Greg Burke, MD, chief patient experience officer; Dr. DiMarino; Sonia Dayal, MD, associate director of the internal medicine residency; and Randy Hutchison, Geisinger director of Patient Experience. On four consecutive Fridays, residents spend time reviewing topics aimed at helping them understand the patient perspective.
“Residents get plenty of training on the clinical aspects of medicine and disease process,” notes Dr. Burke. “This rotation is about helping them understand things like how they will be graded on their communication skills, what the role of a patient advocate is and how to talk to patients about who they are, not just how they are.”

Dr. Qureshi says the program reminded her why she chose medicine in the first place. “Whenever I see a patient, I try to remember the Maya Angelou quote that says people will forget what you did or said, but not how you made them feel.”

Stories about unfeeling doctors who dismissed concerns or relayed bad news in a cold, dispassionate way poured forth in even more detail than stories about good experiences.

The message was clear: Everyone is a patient at some point.

During the January 2018 program, Randy Hutchison kicked off Day 2 by asking the approximately 70 new Geisinger providers to think about their best experience interacting with a patient. He also asked for stories about their most challenging interactions.

He then turned the tables and asked participants to think about their best and worst experiences as patients or family members.

Building a culture of respect

Helping clinicians understand the value of communication and relationships isn’t just for new graduates or young providers. Recently, Geisinger expanded its New Provider Symposium from one day to two. Day 1 is dedicated to “nuts and bolts” — the kind of new employee orientation you would expect at any employer of similar size. But Day 2 is all about topics not always discussed formally with new employees. These include communicating with patients, recognizing diversity, dealing with unconscious bias and identifying the signs of burnout. Other areas of focus include teamwork, ethics and professional growth.

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The day included practical advice about how to interview patients more effectively with open-ended questions and reflective listening, in which the provider repeats to the patient what they are hearing, giving the patient the chance to confirm or clarify.

“Studies have shown that healthcare providers, on average, interrupt patients after only about 18 seconds. We know we can be better than that.”

Charlotte Collins, PhD, a psychologist and director of Geisinger’s new Center for Professionalism and Provider Support (see next section), ran an interactive session that encouraged new providers to offer suggestions, via smartphones and in real time, about how Geisinger can support an environment that promotes personal and professional growth while limiting the danger of burnout.

“The new approach, started in 2017, was inspired by the work of three Geisinger advanced practitioners, or APs: Rebecca Stoudt, DNP,
Alison Mowery, DNP, and Ron Byerly, PA-C. All are directors of the Geisinger Advanced Practice Council, representing different specialties.

“For several years, it was up to the individual departments to conduct orientation programs for new advanced practitioners,” says Dr. Mowery. “Some did it very well; others didn’t do anything formal. The AP group decided we were going to start a program on our own. When we shared our plans for the symposium with the Physicians Council here, they joined in, so now all providers get the same orientation. We want new providers to feel part of a team from day one, and also understand expectations about what kind of professional behavior is expected at Geisinger.”

“We try to let new employees know that we are committed to promoting a culture of respect in the workplace, not just in the way we interact with patients, but in the way we interact with each other,” says Mr. Byerly. “We are not telling everyone to be all ‘touchy-feely,’ but we find that when respect among colleagues exists, it’s much easier for people to bounce ideas, feelings and concerns off each other.”

“This symposium is an opportunity to talk to providers about what life at Geisinger is all about in a systemwide format,” says Dr. Stoudt. Dr. Burke emphasizes that the orientation, which took nearly a year to design, is an important step in the right direction. “We knew how crucial this kind of information could be. Satisfied, engaged providers give better patient care.”

New physicians are also asked to follow a “social compact” that spells out what is expected from them in terms of the care they provide, the teaching they do, their accessibility to patients and the ways they can be a good citizen within Geisinger. In part, Geisinger is now evaluating performance based on how well clinicians follow these tenets. In 2017, Geisinger eliminated the incentive compensation model in favor of a more straightforward salary structure combined with the defined set of values and expectations that are in the social compact. “This structure is meant to get away from formulas and shift the focus to aligning our culture around caring,” says Chief Medical Officer Jaewon Ryu, MD.

When Dr. Ryu heard about the New Provider Symposium, he supported it happening monthly.
rather than twice a year, so that new employees would be able to go through the program soon after being hired. There is also a monthly program of informal lunches at which members of the leadership team are available to any provider who wants to grab a sandwich, ask questions, address concerns or just talk.

Recognizing and combating burnout

Geisinger’s newest efforts focus on providers who have been caring for patients for many years or even decades. Stephen Paolucci, MD, a psychiatrist and chief medical officer of Geisinger Bloomsburg Hospital, was recently named Geisinger’s professionalism and provider experience officer. He is working with Dr. Collins to develop the Center for Professionalism and Provider Support.

“Too often, medical professionals are viewed by the public as almost bulletproof,” says Dr. Paolucci. “But really, we’re just human beings with all the problems that everybody else has.” He notes that the old model, especially for doctors, was to never show weakness or ask for help, but rather to just “tough it out.”

Dr. Collins and Dr. Paolucci are now creating new programs to care for Geisinger caregivers and provide support to any clinician who is struggling with the pressures of working in healthcare. Their work is just beginning, but it aims to identify the symptoms of burnout, develop preventive strategies and give providers a place to turn if they recognize it in themselves or a colleague.

“Geisinger is exploring other ways to guard against burnout. Thanks to a care redesign initiative, for example, primary care doctors can now spend 40 minutes with patients who are 65 or older, versus the previous standard of about 20 minutes. This cuts down on Emergency Department (ED) wait times because these are the patients who are typically repeat visitors to Geisinger’s EDs. It’s better for patients and their physicians, who can take more time to address complex needs — and reduce time spent after hours updating the electronic health record, which often couldn’t be completed during shorter appointments.

“We have a long way to go, but as a system we are starting to formally pull resources together to address the issue of burnout,” Dr. Paolucci says. “The relationship between provider and patient is better when they both feel part of the team, when there is a tangible human connection. And increasingly we are seeing evidence that not only patient satisfaction, but provider satisfaction and outcomes are better when patients have a good relationship with their caregivers.”

Geisinger’s social compact

Geisinger’s relationship with its employed physicians is now based on a social compact that includes five core tenets:

- Take great care of patients.
- Optimize access for patients.
- Help recruit, develop, and retain talented individuals.
- Teach and participate in research.
- Be a good citizen.
The opioid crisis, which claims approximately 175 American lives every day, is a nationwide health emergency. And the crisis doesn’t just affect large cities such as Philadelphia and New York.

“Here amongst the farms and forests of central Pennsylvania, our region has a death rate from opioids four times greater than that of New York City,” notes David T. Feinberg, MD, president and CEO of Geisinger.

Numerous state and national initiatives have emerged to tackle the opioid epidemic. For example, Pennsylvania recently implemented a Prescription Drug Monitoring Program (PDMP), which analyzes information from pharmacies and prescribers to identify patients who are receiving excessive opioid prescriptions. However, most experts agree that programs like these aren’t enough to solve the problem.

That’s why Geisinger has taken a leadership role in tackling the opioid crisis. Over the past five years, pharmacists, physicians and other clinicians here have developed a range of programs to improve pain management without using opioids. The results have been striking. Since 2014, Geisinger has cut opioid prescriptions in half, from an average 60,000 prescriptions per month to about 31,000. These include prescriptions by our emergency departments, physician offices and community practice clinics.

Helping providers see their prescribing patterns

A key factor in Geisinger’s success has been its Medication Therapy Disease Management (MTDM) Program. Since 1996, the MTDM Program has involved pharmacists and other healthcare professionals in managing medications for a wide range of conditions, from diabetes to high blood pressure. The goal is to make sure that physicians and their patients can achieve the best possible control of a condition using the right medications and right doses, while also managing or minimizing side effects.

In recent years, Geisinger’s MTDM team noticed that more patients taking opioids for chronic pain were reporting that their pain was not well-controlled. So the team set out to address the problem, says Mike Evans, RPh, Geisinger’s vice president for Enterprise Pharmacy and chief pharmacy officer.
“We initially approached the opioid epidemic in much the same way that we have approached other chronic diseases,” Mr. Evans says. “In fact, the initial intent was not to decrease opioid prescribing but to significantly improve the management of pain.”

Mr. Evans and his team found that, for some patients, excessive opioid use was actually causing inadequate pain control. This is because patients develop tolerance to the medication, meaning they have to keep taking more to experience the same effect. Eventually, even large doses can fail to provide pain relief. They also can lead to unpleasant side effects, such as fatigue, constipation, decreased appetite and dry mouth.

Eventually, even large doses of opioids can fail to provide pain relief.

Dr. Landis referred Ms. Davi to Geisinger’s Medication Therapy Disease Management Program and introduced her to clinical pain pharmacist Justin Troutman, PharmD.

“I was immediately impressed with Justin,” Ms. Davi recalls. “It was obvious that he was very knowledgeable, as well as very caring. One of the first things he said was, ‘We have to get you off these medications. It will take some time, but it will be worth it.’ I felt confidence in him right away, and that confidence made me feel determined.”

After reviewing her medication history, Dr. Troutman guided Ms. Davi through the lengthy and challenging process of reducing her opioid medications. At home, Ms. Davi’s husband watched her go through withdrawal, which she says caused her to cry and shake and sweat. But she would visit Dr. Troutman each week for support and education about safe and effective pain management. Within a few weeks, she felt healthier and less irritable.

Ms. Davi also met regularly with social worker Erica Kramer-Smith, MSW, and attended group therapy sessions, which provided additional support that she continues to rely on today. Meanwhile, she worked with Dr. Troutman to develop a healthier medication regimen.

Today Ms. Davi no longer takes any opioid medications, and her pain is well-controlled. She is walking and sleeping better than she has in years. And last November, Patricia did something that she had not been able to do in nearly a decade: She cooked Thanksgiving dinner for her family.

“Justin and Erica helped me get through a very rough time,” says Ms. Davi. “I really cannot say enough good things about them. Geisinger gave me my life back.”

Geisinger helped Patricia Davi find alternatives to opioids for managing her pain.

After nearly a decade of unsuccessfully battling pain due to scoliosis (a curvature of the spine), and a work-related injury, Patricia Davi of Laurel Run, Pa., finally sought help from Anja Landis, MD, a primary care physician at Geisinger Kistler Clinic in Wilkes-Barre.

“When I reached out to Dr. Landis, I was at a very dark point in my life,” says Ms. Davi. “For years I had been taking an increasing number of medications, including morphine and other opioids, for the pain in my back. And I wasn’t getting better. In fact, I was having more difficulty with pain than ever, along with sleep difficulties and a long list of other problems.”
Mr. Evans and his colleagues took advantage of Geisinger’s extensive MTDM database to create a systemwide prescribing “dashboard,” which helps zero in on different aspects of the opioid problem. For example, it can make clinicians aware of their prescribing habits so they see what they’re doing and make changes as needed. The dashboard also allows the MTDM team to identify patients in need of clinical care due to excessive opioid use. (The team never targets patients who have cancer or are in hospice or palliative care.)

“We used our controlled substance database and dashboard, which also incorporate information from the state’s PDMP program, to significantly reduce opioid prescribing. At the same time, we’re offering patients healthier alternatives to opioid pain medications,” Mr. Evans says.

Fifteen systemwide primary care and specialty care MTDM sites now help more than 1,100 patients with chronic pain each month. Clinical pain pharmacists team up with addiction-trained social workers and psychologists to monitor patients for signs of addiction and inadequate pain relief. Program statistics show that 74 percent of patients have experienced general improvements in health and about 86 percent have reported improved physical functioning.

Educating patients about pain treatment

In addition to educating providers about appropriate pain management, the program educates patients so they have realistic expectations.

“We found, for example, that patients undergoing joint replacement surgery were being taught that they would be pain-free after the procedure,” says Mr. Evans. “We knew we needed to change the message to the patient. We now teach patients that their pain will be adequately controlled after such procedures — that the pain they feel will be tolerable.”

Non-opioid pain medications also are now taken preventively, before surgery, to limit the amount of pain a patient has after surgery. And to help patients who must cope with chronic pain, Geisinger offers a unique Multidisciplinary Pain Program, a comprehensive 12-month program led by a team of pain management specialists. This team introduces patients to a range of nonmedical pain therapies, such as recreational therapy, mindfulness meditation, yoga, horticulture therapy and pet therapy. It aims to treat the whole person, helping them in areas such as diet and nutrition, exercise and sleep habits — all of which can play a role in improving pain.
Daughter’s overdose inspires Geisinger nurse to action

Whether addiction starts in the medicine cabinet or with a spur-of-the-moment decision at a party, the consequences can be equally devastating. Bridget Farrell, a Geisinger post-anesthesia care unit nurse, knows that all too well: Her 23-year-old daughter Delaney died from a heroin overdose in the summer of 2017. Along with Mike Evans, RPh, vice president of Enterprise Pharmacy and chief pharmacy officer, she represented Geisinger at a two-day opioid symposium hosted by the U.S. Department of Health and Human Services in Washington, D.C., last December. She told her family’s story to put a face on the challenge of addiction.

“Our daughter Delaney’s struggle with drug addiction is not a story that any parent dreams of telling,” says Ms. Farrell. “Sadly, it does not have the happy ending that we had hoped and prayed for, back when she was in and out of drug rehab fighting this demon.”

Ms. Farrell says that her hope is that Delaney’s story will spare other families from going through what her family — and thousands of other families — have experienced after the death of a loved one to drugs.

“Knowing that her struggles in life and untimely death are helping others gives us a little comfort and peace at such a sad time in our lives,” says Ms. Farrell.

“I remember constantly obsessing over my next score but what I remember most is getting down on my knees and asking God to save me cuz I don’t want to do this no more!!!”

— An excerpt from a poem about addiction written by the late Delaney Farrell

Before her death, Delaney wrote an emotional poem about her addiction. Delaney’s parents included the poem in her daughter’s obituary, which received attention from all over the country.

“She poem, which I read at the opioid symposium in Washington, has inspired so many,” says Ms. Farrell. “We hope it continues to help other people, and also changes their minds about what a drug addict is, looks like or deserves.”
High-tech tools at the heart of caring

How Geisinger harnesses the power of technology to make care more personal

BY MAURA C. CICCARELLI

Picture a 31-year-old mother spending time away from her premature newborn. Or an 88-year-old man with heart problems who is breathless after just a few steps. Or a previously active man in his 60s whose arthritic knees cause intense pain when walking or even just standing still.

These three people might seem to have little in common besides facing the stress of a health emergency. But all are recent Geisinger patients who benefited from innovative technologies used to tailor care to their needs. Although you might think of technology as something cold and impersonal, in reality it is a powerful tool for improving the patient experience. For example, Geisinger’s doctors, nurses and care providers are using Apple iOS technology with patients in many clinical areas — including a program to connect moms to their tiny infants when they can’t be there in person. Some doctors are planning their most complex surgeries using 3-D printed models of a patient’s anatomy, enabling them to map out procedures with unprecedented accuracy. Orthopaedic surgeons are tailoring joint
replacement surgeries to individual patients better than ever before by using a system that combines computer navigation with robotic assistance.

This might sound like the stuff of science fiction, but Geisinger is piloting the high-tech tools that empower our care teams to approach each patient as an individual with unique needs. On the surface, technology might seem like it would distance patients from their providers. But in reality, it is allowing teams to personalize care like never before.
Imagine an exhausted mother falling asleep with her newborn baby in a bassinet beside her. That’s not unusual, but for Jasmine Crawford, 31, there was a twist.

Her son, K’ron Jeremiah Hezekiah Crawford Jr., was born three months prematurely on Dec. 27, but getting stronger every day at Geisinger Janet Weis Children’s Hospital’s neonatal intensive care unit (NICU). Mrs. Crawford had been rushed to Geisinger Medical Center on Thanksgiving Day, when her water broke unexpectedly. Over the next few weeks, a hospital-provided iPad helped her pass the time with videos and gospel music. But she says that having the iPad by her side became even more meaningful after K’ron was born. Using FaceTime, she could see and talk to her baby while he was being cared for by nurses in the NICU, whenever she wanted. After she went home to Tobyhanna, Pa., and her son was transferred to Geisinger Wyoming Valley Medical Center (GWV), she used her own phone to do virtual visits with K’ron.

“He was moving as I was talking to him,” she says. “The nurses would tell me about him. It was beautiful. I was doing it all the time, every night. Sometimes I even fell asleep next to the screen.”

“The iBonding program uses FaceTime on iPads to connect moms with their newborn babies and the care team when they aren’t in the same place, but would benefit from feeling that closeness,” says Jonathan Slotkin, MD, medical director of Geisinger in Motion, which promotes innovative use of technologies to improve patient and provider communication and engagement. In some cases, a mom might have a complicated delivery in a hospital without a NICU, only to have her infant whisked away by ambulance or LifeFlight to GMC or GWV. The iBonding program helps bridge that distance.

This program is just one way that Apple technology is improving the patient experience at Geisinger. Since 2015, Geisinger has been using iPads and other Apple iOS systems in a number of inpatient and outpatient environments at Geisinger Medical Center, Geisinger Wyoming Valley Medical Center, Geisinger South Wilkes-Barre and Geisinger...
Bloomsburg Hospital. There are many ways the technology helps patients feel more connected to their care:

- Doctors can educate their patients about health conditions and treatments using apps with medical videos and visuals on iPads.
- Patients can access their test results and medical records on an iPad through the Epic MyChart Bedside app while in the hospital.
- Children and adults can use iPads for entertainment as a way of reducing stress before or after a medical procedure. Apps on the iPad let them connect with family, check email and browse the internet. Patients can also watch programs on Apple TV installed in their room.

For a child facing a lengthy hospital stay, the futuristic Classroom Connect program makes use of iPads to help them stay connected to their schoolwork and classmates. Designed by Geisinger’s Center for Telehealth, the approach uses two iPads: one for the child in the hospital and another that sits on a controllable robotic base with wheels in the child’s classroom.

While the student is in his or her bed holding an iPad to interact via FaceTime, he or she can also move the remote iPad around the classroom. “When a student wants to raise her hand, the robot rises up and the teacher can call on her, just like with any other student,” explains Dr. Slotkin.

Apple devices and apps aren’t just improving patients’ experiences: For some Geisinger clinicians, mobile devices have replaced workstations, and they can use iOS apps on their iPad or iPhone to access clinical results, radiology reports and lab results through secure connections to Geisinger’s Epic electronic medical records system. This means spending more time out on the floor with patients instead of being tied to computers on desks or carts.

“Neurosurgeons can even review brain scans when they are on call using Epic’s Haiku app on iPhone or Canto on iPad,” adds Dr. Slotkin, who is also director of Spinal Surgery.

He notes two reasons why Geisinger is using so many Apple devices and apps. “First, it’s about the trust we have in the security of the Apple platform. Other vendors may have more ‘open’ platforms, but the security of the iOS platform brings us confidence when we interact with patients and each other. If we do not have the trust of our patients, we do not have anything.”

He adds that iOS also “takes the friction out of the care delivery system” because of how easy Apple products are to use. “I like to think that there’s a ‘heart’ reason for that: The patient is at the center of everything that Geisinger does and the customer is at the center of everything that Apple does. I think that’s what makes our two organizations so special. It’s what we share in our hearts.”

In January, Apple announced that Geisinger would be one of 12 health systems around the country to use the new health records feature of its Health app, which lets patients download much of their medical information to their iPhone. The new approach means that Geisinger patients with an iPhone and a patient portal account won’t need to manually piece together all their health information. Health records data is encrypted and protected with the user’s iPhone passcode.

Apple supports electronic health records vendors such as Epic, which is used at Geisinger, to create secure imports of patient information into the app. With the new Health Records section of the Health app, patients will see a “timeline view” of their health covering allergies, conditions, immunizations, lab results, medications, procedures and vitals. They will also receive notifications when their data is updated.

Other participating health systems include Johns Hopkins in Baltimore, Penn Medicine in Philadelphia and Cedars-Sinai in Los Angeles.
3-D printing
Modeling patient anatomy
to tailor complex treatments

Last year, a leak in his new heart valve was making life difficult for Ray Roemer, 88. “I could do very little of anything without gasping for breath,” he says.

A few months before, Mr. Roemer had the valve in his aorta replaced because it had narrowed and wasn’t opening fully (a condition called aortic stenosis). The aorta is the main artery through which blood travels to the rest of the body. When his breathing became labored, his cardiologist, Kishore Harjai, MD, of Geisinger Wyoming Valley Medical Center, investigated and found a small leak around the new valve.

“A paravalvular leak develops rarely after patients undergo valve replacement. It allows blood to go from the aorta back into the heart,” Dr. Harjai says. “If left untreated, the heart becomes weak and the patient can develop heart failure.”

Because of the seriousness of Mr. Roemer’s condition, Dr. Harjai and his team asked Geisinger’s 3-D Imaging and Printing Lab to create a 3-D printed model of his heart based on his CT scans. To understand the relationship of the leak to their patient’s other cardiac structures, the team practiced the procedure on the model to test various tools and techniques before performing the complex surgery.

“I really feel pretty well,” reports Mr. Roemer, who lives in Moscow, Pa. “I get around with minor problems. I am, you know, 88 years old. If I walk too far or do anything too hard, like carrying groceries from the car to inside the house, I become [a little] short of breath, but nothing like before. I believe the procedure saved my life!”

Surgeons throughout Geisinger are turning to the 3-D Lab to help them prepare for complex surgeries and other procedures.

The Mako system
Creating virtual 3-D images of a patient’s joint before replacement surgery

When Frank Kazmierski, 60, of Nanticoke, Pa., had his left knee replaced in September 2016, the pain relief and increased mobility provided a welcome respite. Unfortunately, that was only half the problem.

“The right knee has been problematic for eight years now,” says Mr. Kazmierski, a clinical pharmacist at Geisinger Medical Center in Danville who used to be an avid cycler. Despite two earlier procedures to smooth out the arthritic bone surfaces in his right knee, the pains continued to be
sharp and debilitating. “It affects everything when you’re dealing with chronic pain like that. Simply walking from the car into work was really difficult.”

Mr. Kazmierski’s surgeon, David Kolessar, MD, offered him a new option for the right knee: robotic-arm–assisted joint replacement surgery using Stryker’s Mako® system, available at Geisinger South Wilkes-Barre since early 2018. Mr. Kazmierski had the right knee replaced in January, and both of his legs are now pain-free.

**With a Mako operation, surgeons use CT scans and other images of the joint and its associated limb to build a complete 3-D virtual image first.** This process helps the team select the correct joint sizes and positioning and map out the surgery before they ever make an incision.

“Before the operation, we can plan the size, orientation and alignment of the replacement and predict the changes that will occur in the range of motion depending on how the implant is positioned,” says Dr. Kolessar. “We can personalize the approach for people who have complex bone structure or deformities. We plan the surgical approach before we ever commit to cutting the bone in the operating room.”

Once in surgery, the surgeon can confirm that the preoperative plan matches up to key points on the 3-D image. He or she can correlate the patient’s actual anatomy with the mapping data in the computer to make any necessary adjustments.

“This surgical process is a marriage of computer navigation with robotics,” Dr. Kolessar says. “The surgeon guides the whole procedure by controlling the robotic arm. The Mako system adds precision, accuracy and safety to the previous manual total joint replacement surgical techniques.”

“When I saw what the Mako system offered, I became an instant convert,” says Michael Suk, MD, chief physician officer for Geisinger and chair of the Department of Orthopaedic Surgery. “I believe it truly is the future of orthopaedic surgery. It is a fairly complete package of technology that lets us create an individualized road map for the surgery.” The system is now in place at Geisinger South Wilkes-Barre and Geisinger Shamokin Area Community Hospital.
From Crisis to Cure

Geisinger gathers the nation’s thought leaders to share ideas about the future of healthcare

“Why don’t we see if we can get an A-list of people, the ‘who’s who’ of healthcare, to come to central Pennsylvania?” This is how President and CEO David T. Feinberg, MD, describes the initial challenge that led to the first-ever Geisinger National Symposium, held over two days in November 2017. Some of the nation’s thought leaders from healthcare, business and innovation donated their time to come to the Geisinger Medical Center campus in Danville for “From Crisis to Cure: Revitalizing America’s Healthcare System.”

The landmark event attracted 300 attendees representing not just Geisinger but more than 120 healthcare organizations, including Press Ganey, the Association of American Medical Colleges, and the Harkness Fellowships in Health Care Policy and Practice. There were 65 participants from outside Pennsylvania, including 22 states and the United Kingdom.

The goal was to generate ideas about how we can seize this moment to make healthcare better, more efficient and more accessible while also empowering individuals and communities to make choices that lead to better health. Topics ranged from payment systems and end-of-life care to the opioid epidemic and the connections between lifestyle and health.

On Nov. 8, the day before the official kickoff of “From Crisis to Cure,” some of the same participants gathered for the Springboard Healthy Scranton Summit. The Springboard program, which began in fall 2016, is all about figuring out how to make Scranton the healthiest community in the nation — and then using that “playbook” to transform the health of communities throughout Pennsylvania and the nation. Project leaders from Geisinger and from Scranton talked about efforts to connect residents with healthier foods; to enroll them in the MyCode® Community Health Initiative, which can help them take action if they test positive for a genetic mutation linked to one of more than 30 health conditions; and to reduce the opioid supply to combat the addiction crisis.

Although many people might associate healthcare reform with Washington, D.C., or with academic medical centers in major cities such as Boston or Los Angeles, these three days demonstrated how Geisinger and central Pennsylvania are very much part of the national conversation.

To learn more, visit the event website at GeisingerGathering.com
Meeting patients where they are

“Ms. Harris, 95, has congestive heart failure, renal failure, hypertension [and] multiple other chronic problems that are not going to get better. She has a POLST form [Physician Order for Life-Sustaining Treatment indicating her wishes] and advance directive, and she is ready to die. So why is the defibrillator not turned off, why are doctors checking renal function, why is she seeing four doctors? What are we doing at thousands and thousands of dollars a year for Ms. Harris? We have a terribly fragmented system and are not always doing what patients want, not thinking about how the medical interventions we have can serve the life goals of our patients.”

– Ezekiel Emanuel, PhD
Vice provost for global initiatives and chair of the Department of Medical Ethics and Health Policy at the University of Pennsylvania, in conversation with Geisinger Chief Innovation Officer Karen Murphy, PhD

Ensuring coverage for everyone

“The single overriding lesson [from my global experiences] is that you have to have a universal healthcare system. It does not have to be single payer, but it does have to be universal so that no one is left out, no one is denied treatment for physical and mental health problems, that the effort is made to make care as efficient as possible…”

– Hillary Rodham Clinton
Former First Lady, senator from New York and secretary of state, in conversation with David Feinberg, MD
Creating better payment systems

“As long as you have fee-for-service medicine, you will never be able to control costs in the United States. The economic incentives are all wrong. You keep paying me for doing stuff whether you need it or not. There is no other economic model that works like this ...”

– Howard Dean, MD
Former governor of Vermont, in conversation with Geisinger Health Board of Directors member Virginia McGregor

Improving health through behavior

“The more you change your diet and lifestyle, the more you improve, in every way we measure. The more diseases we study, the more mechanisms we study, the more reasons we have to be able to say that is true. And it’s beneficial at any age, which is a very empowering message.”

– Dean Ornish, MD
Founder and president of the Preventive Medicine Research Institute, in conversation with David Feinberg, MD

Setting the playing field

“Right now, with the development of ways to use data with technology within healthcare and genomics, we don’t know what tomorrow is necessarily going to look like. But we want to create a playing field where innovators, entrepreneurs, clinicians, scientists, materials engineers and nanotechnologists can all play and have a major impact on the way healthcare gets delivered tomorrow and 50 years from now.”

– Bruce Greenstein
Chief technology officer, Department of Health and Human Services Office of the Secretary
Realizing the promise

“We are seeing, for the last eight years, a real interest and push in trying to focus on better value and encourage other kinds of payment reforms … Trying to capitalize on some of that increasing knowledge and experimentation and really drive to a more efficient system will take a while … But the seedlings have been planted, and we have reason to feel optimistic about what we’ve been learning.”

– Gail Wilensky, PhD
Economist and senior fellow for Project HOPE, in conversation with David Feinberg, MD

Combating the opioid epidemic

“We’ve redesigned the Prescription Drug Monitoring Program so doctors have something they can look at so they know when they are being shopped [for opioids] … We provided 45 new treatment centers — we call them centers of excellence … to help each individual navigate their way through treatment. And we have a drug takeback program so drugs are disposed of in the right way.”

– Pennsylvania Governor Tom Wolf
Rhonda Morgan, of Egg Harbor Township, N.J., isn’t the first person in her family to have had heart disease. When Ms. Morgan was 10, her father died of a heart attack. Her maternal grandfather had quadruple bypass surgery to remedy four blocked coronary arteries. Last year, he also had a heart valve replacement at the Heart Institute at AtlantiCare Regional Medical Center, a member of Geisinger.

Six years ago, Ms. Morgan, who is 49, had a stent (a tiny mesh tube) placed in a coronary artery to improve blood flow to her heart. She and her grandfather see the same cardiologist: Mohamed H. Elnahal, MD, of AtlantiCare Physician Group Cardiology. When Dr. Elnahal suggested to her grandfather that he take part in AtlantiCare’s Intensive Cardiac Rehabilitation Program — Ornish Lifestyle Medicine™, an outpatient program designed to reverse heart disease — she was interested, too.

**The AtlantiCare Ornish program began in 2016.**

In early 2018, Geisinger Wyoming Valley Medical Center in Wilkes-Barre became the first Geisinger location in
Pennsylvania to offer Ornish Lifestyle Medicine for those with heart conditions.

Developed by well-known physician and researcher Dean Ornish, MD, the program focuses on four key lifestyle changes to help people “undo” heart disease: eating a plant-based diet, exercising regularly, managing stress and taking part in a support group. Ms. Morgan thought the plan might help her lose more weight; she had already lost about 30 pounds by walking outdoors. She also hoped to get off insulin, which she had recently been prescribed for Type 2 diabetes after years on oral medication. Before starting the Ornish sessions, she says, “I was a little nervous, especially about the nutrition part. I never was a vegetable eater.”

By the end of the nine-week program at AtlantiCare’s LifeCenter, Ms. Morgan had lost additional weight and felt more energetic. Her endocrinologist reduced her cholesterol medication. What’s more, her A1C level, a blood sugar measurement used to track diabetes, had dropped so much that her endocrinologist took her off insulin and lowered her oral diabetes medication. Ms. Morgan and her grandfather finished the sessions in November 2017 and continue to exercise at the AtlantiCare LifeCenter.

More than 12 small groups of heart patients have gone through the Ornish cardiac rehabilitation plan at AtlantiCare. New groups, each with up to 15 participants, start every few weeks. The program tracks participants for weight loss, body mass index, cholesterol levels, blood pressure, A1C level, exercise capacity and depression. “We’ve seen dramatic improvements in all of those variables,” says cardiologist Vineshkumar Patel, MD, of AtlantiCare Physician Group Cardiology and medical director of the AtlantiCare program.

Adding the Ornish program reflects Geisinger’s commitment to empowering people to improve their health through lifestyle, as seen in other projects such as Springboard Healthy Scranton (see page 46) and Fresh Food Farmacy™. Based on 35 years of research, the Ornish program has shown proven results for heart patients who choose to eat well, move more, stress less and connect with others better.

“Simple changes can make a big difference. What you gain is more than you give up.”
— Dr. Dean Ornish

Moving into Pennsylvania

In February, the first Geisinger Ornish group in Pennsylvania met at Geisinger Wyoming Valley Medical Center’s (GWV’s) Cardiac Rehabilitation Center. As in the AtlantiCare program, GWV participants attend four-hour sessions twice weekly for nine weeks. Each hour focuses on one of the four lifestyle areas. “It’s an all-encompassing program,” says Bryan Martin, DO, medical director of the GWV program and a Geisinger cardiologist. The Ornish programs at both locations have a similar format and content.

Nutrition education begins with lunch, which features recipes created from recommended foods such as beans, vegetables, grains, nuts and low-fat dairy. During the meal, group members learn to prepare healthy dishes that might be new to them.

To encourage fitness, participants in both programs receive individualized exercise plans and wear heart monitors during aerobic and strength activities. Guided by exercise physiologists, a fitness session might include a warm-up and the use of equipment, from light weights and treadmills to upright or reclining bicycles. What’s in each session “depends on the person,” says Denise Sutor, BSN, clinical nurse manager for the AtlantiCare program.

“We’ve had participants with walkers and those with canes. We cater to their needs.”

Group members learn everyday stress reduction techniques, such as simple mindfulness meditation and light yoga, which they can do while seated. The small size of each group helps build bonds of social support as participants share experiences. When they finish the program, they’re encouraged to meet informally and maintain connections they developed during the twice-weekly sessions.
Getting comfortable with change

Dr. Martin understands that some patients find it hard to think about making the lifestyle changes of the Ornish approach. “I am from here [northeast Pennsylvania], and I understand what a big part food plays in our culture,” he says, referring to a local way of life sometimes better known for its practical nature and family dinners of spaghetti and meatballs, kielbasa or ham and cabbage. “It’s a shock when you start talking about things like eating a plant-based diet and participating in group support, meditation and yoga.”

To find out more about what he would be asking his patients to do, Dr. Martin and other staff from GWV’s Ornish program attended a three-day retreat which put them through plan activities, from meals to exercise. The staff at the AtlantiCare Ornish program had done the same.

“It was an eye-opening experience for us,” says Dr. Martin. “It’s important to have all of the elements — not just for participants with heart disease, but for anyone thinking about health, wellness and prevention.” The program, he emphasizes, is based on a philosophy of “progress, not perfection.”

“We’re not talking about making a complete 180-degree change,” he says. “We want to start you out and slowly move you toward that process, to make this part of your daily life.”

Who can join?

While at her doctor’s office, Ali Goode read a pamphlet with stories about Ornish program participants. She thought the sessions might be good for her. In addition to having received a pacemaker in 2017 for an irregular heartbeat, the then 83-year-old resident of Ventnor, N.J., had high blood pressure and congestive heart failure, and had undergone an ablation procedure for a heart rhythm problem. “I wanted more energy and to take fewer pills,” she says, so she called the AtlantiCare program to see if she qualified.

She did qualify. Patients are eligible to participate in the intensive cardiac rehabilitation sessions if they have certain heart conditions, such as recent heart attacks, open heart surgeries or stable angina (chest pain that predictably occurs during exertion). Geisinger and non-Geisinger patients may take part. Medicare and many private insurers cover the Ornish program. Geisinger Health Plan also covers copays.

Referrals to the program may come from primary care providers, cardiologists or cardiac surgeons, or participants can refer themselves. Both the GWV and AtlantiCare programs screen those who are interested, explain what the program involves and discuss insurance coverage.

“I wanted more energy and to take fewer pills,” says Ali Goode of Ventnor, N.J.

“‘We’re not talking about making a complete 180-degree change. It’s about progress, not perfection.’
– Bryan Martin, MD

Like many patients starting the program, Ms. Goode thought she’d have the most trouble following the plant-based and low-fat food regimen. “But at that point, I was ready to try anything if it would help me,” she says.

As her group sessions progressed, she adjusted to the food changes, her blood pressure went down, her weight dropped and her ankles were no longer swollen. Her primary care doctor reduced some of her medications and she no longer needed to take water pills. Ms. Goode says that her heart, which had been skipping beats, now rarely does. With improved energy, she increased her volunteer activities and now exercises several times a week. She also plays canasta and mah-jongg weekly.

“Everything about it was so helpful to me,” says Ms. Goode. “With each class, I just kept feeling better and better.”

To learn more about the Ornish Lifestyle Medicine program at Geisinger, contact:

Geisinger Wyoming Valley Medical Center, Wilkes-Barre, PA
570-808-7973  geisinger.org/ornish

AtlantiCare Health Park, Egg Harbor Township, NJ
609-272-6326  atlanticare.org/ornish
Family stories are powerful. These tales draw us in to learn more about the people who came before us and better understand how their lives carved a path for our own.

Bill Schmidt of Winthrop, Mass., located just outside Boston, has a compelling family story that can be traced back to Geisinger’s founding. Now 66 years old, Mr. Schmidt remembers being told as a child that his grandfather was the first patient at The George F. Geisinger Memorial Hospital when it opened in 1915. He also knew that his grandfather and father had visited Danville in 1965 for the hospital’s 50th anniversary, when Mr. Schmidt was a young teenager.

Now semi-retired, he decided to find out more. “I wanted to go back to Danville because I’d never been there,” he says. His grandparents had lived in the town for only a few years, during which time his grandfather was hospitalized and his father was born. He contacted Geisinger, hoping there would be records to give him more information.

Mr. Schmidt identified himself as the grandson of the first patient and said he was planning a trip to fill in the gaps of his family story.

1915
An epidemic strikes

In late summer 1915, Danville was preparing for a big celebration to mark the opening of Geisinger Memorial Hospital on Sept. 24. The festivities were to include band concerts, fireworks, a parade and a dedication ceremony.

But on Aug. 27, trouble appeared. Nearby Danville State Hospital reported 18 cases of typhoid fever, a bacterial infection spread by contaminated water and food, as well as through exposure to infected people. Patients with typhoid fever experience symptoms such as weakness, high fever, severe diarrhea, fatigue, headache and, sometimes, a rose-colored rash. The disease can be deadly. Outbreaks are caused by poor sanitation and contact with human waste containing the bacteria that cause typhoid.

At that time, towns along the Susquehanna River dumped their sewage, including human waste, into the waterway. The state hospital’s sewage went into the river just above Danville. By Sept. 6, there were 71 typhoid patients being treated at the state hospital, and 3 had died. In Danville itself, 12 people had contracted typhoid.

Less than a week later, the state hospital had 124 stricken patients and staff, and 32 people in Danville had typhoid. Health officials requested that the new Geisinger hospital, scheduled to open in two weeks, start caring for patients immediately. Local residents donated linens because the building wasn’t ready with supplies.

Because of Geisinger’s care, Henry Schmidt survived typhoid fever in 1915 and fathered a son, Edward.

Finding “Patient 1”
How one man’s search for his family history led him to Geisinger

By Robin Warshaw
The hospital’s first patient was admitted on Sept. 12. He was 23-year-old Henry Adolph Schmidt, a draftsman for an iron company who lived with his wife on Mill Street in Danville. Harold Foss, MD, the new hospital’s chief of staff, examined him.

Henry Schmidt’s admission form still exists. It shows his dire diagnosis in red ink and all capital letters: TYPHOID FEVER. Reflecting his place in hospital history, the form also lists his patient case number: 1.

On his visit to Geisinger, Bill Schmidt saw this photo of his grandfather, Henry, for the first time and viewed his admission form.

2017
Uncovering history

To learn more about his grandfather, Henry Schmidt, and his family’s story, Bill Schmidt visited Danville in December 2017. “When I got there,” he says, “they treated me like I was royalty.”

He met with Geisinger President and CEO David T. Feinberg, MD, and they talked about the hospital’s history and impact. He toured Geisinger Medical Center, guided by Al Neuner, vice president of Facilities Operations, and was a bit surprised by what he saw. “I had heard that Geisinger had a terrific reputation, but I didn’t realize the size of it,” Mr. Schmidt says. “To think it started off over 100 years ago to where it is now is amazing.”

The tour included an exhibit of historic material about the hospital. As he looked closely at photographs in the display, Mr. Schmidt made a startling discovery. “There was a picture of my grandfather, sitting in a parlor, reading a book! I had never seen that before,” he says. “You can imagine, walking in and there he is! That was a highlight.”

They also drove around Danville and saw the company where his grandfather had worked and the Victorian house where hospital founder Abigail Geisinger had lived. Mr. Neuner, a Danville resident and Geisinger employee for 30 years, was pleased to spend time with the first patient’s grandson. “I’ve always been proud of our history at Geisinger,” says Mr. Neuner, “but this was the first time it’s reached out and touched me.”

At Danville’s Thomas Beaver Free Library, a volunteer from the Montour County Genealogical Society helped Mr. Schmidt locate where his grandparents had lived before moving away in 1918. “They were only in Danville for a short time, but a lot of eventful things happened,” he says.
1915

Breaking the fever

Three days after Henry Schmidt was admitted to the new Geisinger hospital, there were 197 cases of typhoid fever in Danville. The hospital increased its beds from 14 to 85 and a team of 12 nurses worked around the clock, according to Geisinger archivist Kathy Heilman. To avoid spreading infection in crowds, public events were canceled. The hospital dedication was held as a small, private gathering.

Then, typhoid cases began to decrease. By the end of September, the death toll stood at 51. As of Oct. 4, there were no new cases.

Before the hospital was built, some people questioned why it was needed. One argument for it was the difficulty of moving sick people from Danville to hospitals farther away. After the outbreak, the doubters “could see there was a reason why Danville needed a hospital,” says Ms. Heilman. Many of the typhoid patients “would not have lived if they had to be transported to another hospital,” she says.

And that would have been bad news for the descendants of Henry Schmidt.

Caring that affects generations

Bill Schmidt’s quest for his family history uncovered other details. Mr. Schmidt learned that his grandfather had made a trip to the hospital in October 1959. A secretary’s notes showed that Henry Schmidt had stopped in to see Dr. Foss, his physician during the outbreak. “I suppose he wanted to thank him,” Mr. Schmidt says. “That’s how they knew how to contact him for the 50th anniversary six years later.”

He also saw a photo of Abigail Geisinger holding a baby, an image he had only seen before in a faded newspaper clipping about the hospital’s 50th anniversary. The child in that photo was Mr. Schmidt’s father, Edward, born at Geisinger 16 months after his grandfather was successfully treated in the new hospital.

“Because my grandfather received good care, my dad was born, and eventually my dad and mom got married,” says Mr. Schmidt, who has a brother and a nephew with two children. “If you treat the patient well, it affects not just the patient but his family and succeeding generations. That can be multiplied for every patient.

“If the hospital wasn’t there, not only my grandfather but maybe a lot of those other people wouldn’t have survived,” he adds.

Today, Mr. Schmidt is a member of his local board of health. He believes that good medical care is vital for communities, and that caring well for patients makes future family stories possible. “Healthcare has a tremendous impact on people’s lives and on society,” he says.

“If you treat the patient well, it affects not just the patient but his family and succeeding generations.”

– Bill Schmidt, grandson of Geisinger’s first patient

To watch a video about Bill Schmidt’s story, visit go.geisinger.org/FirstPatient
Stepping down asthma medications: New guidance for doctors

For many adults and kids with well-controlled asthma, treatment guidelines suggest doctors can safely “step down” their medications. Benefits include lower drug costs, less risk of side effects and the freedom of taking fewer medications. But until recently, doctors haven’t had detailed, research-based guidelines for how and when to step down these medications, says Michael R. Gionfriddo, PhD, an assistant professor at Geisinger’s Center for Pharmacy Innovation and Outcomes.

In a recent “state-of-the-art review” article in The BMJ, Dr. Gionfriddo and two Mayo Clinic asthma specialists fill this gap. They based the guidelines on an extensive survey of previously published research in this area. They suggest how to identify good candidates for step-down and how to scale back medications for patients on different treatment regimens, such as oral corticosteroids, inhaled corticosteroid or inhaled corticosteroid-long acting bronchodilators.

According to the authors, about 25 percent of people with asthma could be considered for step-down each year. Options range from lowering the dose or frequency of current medications to switching to a different treatment. “Clinicians and patients should regularly revisit their medications and assess whether they help the patient meet their goals and live their life,” Dr. Gionfriddo says. “They can discuss the pros and cons of staying on the current medicine or dose and decide on a plan of action — which may include not making any changes. Our hope is that our article presents the evidence in a way that can help inform clinicians and empower them to have these conversations with their patients.”

This process of working together is sometimes known as shared decision-making; it helps to ensure that decisions are aligned with the best available evidence and are sensitive to each patient’s individual situation and values.

Never step down medications on your own — always work closely with your doctor, Dr. Gionfriddo says. “Stepping down is safest when the individual has not had asthma symptoms in a long time, such as a year or more. It can also be a good idea when the individual is removed from their triggers. Some people may step down seasonally, for example, if their asthma is triggered by seasonal allergies.” —S.H.

Osteoporosis is very often a “silent disease,” offering no clue it’s present until a person breaks a bone. According to the National Osteoporosis Foundation, 1 in 2 women and up to 1 in 4 men age 50 and older will break a bone due to osteoporosis. Breaking a hip or other bone often requires surgery, as well as bone-strengthening medications.

A recent study of Geisinger’s nationally recognized High-Risk Osteoporosis Clinic (HiROC) program shows that its focused approach can help more people get the medications they need after a bone break.

Geisinger researchers tracked 1,790 people at high risk for an osteoporosis-related fracture who were seen in the HiROC program between 2013 and 2015 at Geisinger Medical Center in Danville, at Geisinger Wyoming Valley Medical Center in Wilkes-Barre, and in State College. Participants included 1,279 people admitted to the hospital for a brittle-bone fracture and another 511 outpatients with low bone density, a history of past fractures or other risks. Founded in 2008, the HiROC program is staffed by osteoporosis specialists and provides tailored care with ongoing follow-up to reduce fractures and other complications from osteoporosis.

The result? Most patients with consults — 75 percent — received prescriptions for medications such as bisphosphonates (brand names: Fosamax®, Actonel®, Boniva®); zoledronic acid (Reclast®); denosumab (Prolia®); anabolic drugs (Forteo®, Tymlos®) or raloxifene (Evista®). In contrast, just under 14 percent of Geisinger patients being followed by their primary care physicians received such medications.

“HiROC came into being because of the sobering fact that most fractures are treated orthopaedically, but never further evaluated so that future fractures can be prevented,” says Thomas P. Olenginski, MD, who leads Geisinger’s HiROC program and conducted the study with rheumatology fellow Philip Dunn, DO. “The program now provides medication for nearly 80 percent of patients, according to a more recent 2016 analysis.”

Given the findings, HiROC has partnered with Geisinger primary care doctors and Geisinger Health Plan to develop better ways to keep patients connected to the program. One focus is increasing medication prescription rates for people with osteoporosis who are treated by primary care doctors.

Few U.S. osteoporosis programs continually measure their performance in this way, Dr. Olenginski notes. “Geisinger’s HiROC program remains a model for others to learn from and share best practices.” —S.H.

Predicting overdose before it happens

In a novel study that analyzed long-term data from Geisinger Health Plan, Geisinger researchers showed that specific trends in healthcare use — especially Emergency Department (ED) visits — can potentially predict whether someone is heading toward an opioid overdose.

“An overdose is not something that happens out of the blue,” says lead researcher Daniel Maeng, PhD, assistant professor in the Geisinger Department of Epidemiology and Health Services Research. “What we see is an escalation of emergency room visits and hospitalizations over time. That’s a strong indication that a patient may be at higher risk.”

Researchers tracked 10 years of data from 942 Geisinger Health Plan members who had an opioid overdose sometime between 2006 and 2015. They found that ED visits rose rapidly at about 19 months to 2 years before the overdose. Hospital admissions and total medical costs rose starting around 12 months before overdose. These findings suggest that capturing patterns of visits to the ED could be useful in predicting an overdose — and putting services in place to prevent it.

The researchers also found that certain chronic conditions were more common after opioid overdose, most notably depression. The rate of depression among patients increased from 17.5 percent before to 39.9 percent after. At the 2-year mark, there was a notable second spike in ED visits. Patients also were more likely to be on Medicaid, suggesting the long-term negative financial impact of an overdose on survivors.

This study points to the power of patient data not only to pick up the telltale signs of an upcoming opioid overdose, but also to show related increases in healthcare costs. The researchers suggest that ED visits especially may be used to flag patients at risk. Furthermore, the results show the importance of follow-up care to help patients avoid costly ED visits.

Geisinger Health Plan’s long-term record of patients is helpful in detecting patterns that otherwise might go unnoticed, says Dr. Maeng. “Our patients tend to stick with us for a long time, sometimes for generations. Analyzing this data shows that overdoses can be prevented when you know the signs that can alert us to the worsening condition of the patient before it is too late.” –M.C.

Over the past few years, physicians have started using a new type of blood test to monitor the progress of patients undergoing cancer treatment. The test is based on sophisticated technology that can tell the difference between normal DNA and DNA released into the bloodstream by cancer cells. The test can also detect certain proteins that tend to be elevated in people with cancer. It can help doctors figure out if someone’s cancer is responding to chemotherapy, for example, or gauge whether cancer may be returning after treatment.

Could this same technology be used to detect cancer in its earliest stages — before it’s visible on an imaging study or causes symptoms? To answer that question, Geisinger has teamed up with researchers at Johns Hopkins to launch the DETECT study. This study will evaluate technology for detecting tumor DNA, which was developed by Johns Hopkins, as a possible early-detection tool.

“If successful, the test could be used for the early detection of about eight different cancers, including colon, stomach, liver, ovarian and pancreatic cancer,” says Adam Buchanan, MPH, assistant professor at Geisinger’s Genomic Medicine Institute. “Over the last several years, our collaborators at Johns Hopkins have already successfully used this technology to evaluate the effectiveness of chemotherapy in patients with these cancers.”

The DETECT study will have at least two phases. During phase 1, now under way, researchers are recruiting 10,000 women aged 65 to 75 in central Pennsylvania who have no history of cancer. These women will give a blood sample and complete three surveys over five years. A subset of these women — all of those with a positive result on the initial blood test, and some with a negative result — will be asked to provide a second sample. Participants with positive results on two consecutive blood tests will undergo whole-body PET and CT scans to search for the source of the tumor DNA. Those with abnormal PET and CT scans will be cared for by doctors at Geisinger.

“To find out whether this technology will accurately detect early-stage cancers, it makes sense to test it first in a relatively high-risk population. As people get older, their risk of cancer goes up. From a statistical viewpoint, this should be the best approach for determining how good the blood test is at identifying people who do have cancer, as well as people who do not,” says Mr. Buchanan.

“We’re also asking participants some questions about their health habits, and about things that they have been exposed to, to see if we can learn more about behavioral and environmental risks for developing cancer,” he adds. “We will be examining factors such as smoking history, alcohol intake and family history of cancer.”

Researchers intend to fine-tune the technology behind the blood test during phase 1 and carefully analyze data before planning phase 2, which is expected to recruit about 40,000 more women. The study is currently being conducted at sites in Danville, Bloomsburg and Forty Fort, Pa. Additional sites in State College and the Atlantic City region are likely to be added in the near future.

If the DETECT test performs well, the researchers plan to conduct further studies that will compare the technology with well-established screening tests such as mammograms and colonoscopies to see whether the blood test is an improvement over these tests.

“We have been pleased with the interest in this study so far,” says Mr. Buchanan. “And that interest seems to be driven by people who genuinely want to help others — not only their own family members, but all members of the community at large.”

More information is available through the Geisinger website at geisinger.org/sites/detect-study
Wider screening for cancer-related mutations might help more people understand their risk

Generally, patients seek genetic testing because they have a strong family or personal history of a certain disease. People with a family history of breast cancer, for example, might test for high-risk variations of the genes known as BRCA1 and BRCA2. These can greatly increase the risk of breast, ovarian, prostate and other cancers.

Yet these gene variations — or mutations — also exist in a small group of individuals who don’t have any family or personal history of cancer.

Geisinger’s MyCode® Community Health Initiative (see Geisinger Magazine, fall 2016), which tests participants for BRCA and other mutations linked to more than 30 health conditions, is beginning to identify these people. Recently, Geisinger researchers made use of MyCode data to establish the value of screening unselected MyCode participants (those without any family or personal history of cancer) for high-risk BRCA mutations.

The study found that a positive test result encouraged many to take steps to manage their risk and, in three cases, led to early detection of cancer.

The researchers identified 37 individuals who were not aware they had high-risk variations of BRCA 1/2 genes and had not yet had a BRCA 1/2–associated cancer. Clinicians told these patients about their genetic risks and recommended steps for lowering risk: early mammograms, breast MRIs and preventive surgery (for women), and prostate cancer screening and breast exams (for men).

After 12 months, the researchers followed up to see which steps these individuals had followed and whether their actions improved health outcomes. Among 33 eligible participants, 26 (about 79 percent) followed at least 1 risk-reduction strategy. Three of the 26 were diagnosed with a BRCA 1/2–related cancer that would not have been detected otherwise.

“The exciting thing about this study is how meaningful it was for our patients who found cancer when it was easier to treat,” says lead author Adam Buchanan, MPH, assistant professor at Geisinger’s Genomic Medicine Institute. “It’s an important first step toward determining whether the benefits of this screening program outweigh the costs and risks of preventive measures.” –S.W.


Three pathways to early diagnosis

Three participants were diagnosed with a BRCA mutation-related cancer that would not have been detected otherwise.

Graphic: Adapted from Genetics in Medicine
When plaque builds up in the carotid artery, which is a major artery on either side of the neck that feeds blood to the brain, the risk of stroke increases. There are two main approaches for treating plaque buildup. One, a carotid endarterectomy (CEA), is an open-incision surgical procedure that allows the surgeon to clean out the artery. The other is carotid artery stenting (CAS). A physician inserts a catheter through a large artery in the groin or arm and uses it to guide a stent (a small, tubular, cagelike device) up to the carotid artery to prop open the blockage. Stenting is less invasive than endarterectomy, with potentially reduced recovery times and risks. However, it can be performed only on patients whose medical history and other factors, such as age and degree of blockage, make it appropriate.

It’s been difficult for surgeons to gauge whether one procedure has better outcomes than the other. Clinical trials of carotid artery treatment generally have strict qualifications that patients have to meet to be included. This can make it hard to apply the outcome results to the real-world population. Geisinger vascular surgeon Robert Garvin, MD, recently led a study that showed little difference in outcomes of CAS and CEA procedures when performed by fellowship-trained vascular surgeons.

Dr. Garvin and his colleagues reviewed the cases of all patients undergoing CAS and CEA over a 10-year period (2004 to 2014). The patients were all treated by fellowship-trained vascular surgeons at Geisinger Medical Center in Danville, at Geisinger Wyoming Valley Medical Center in Wilkes-Barre or at Geisinger Community Medical Center in Scranton. The study found that short- and long-term outcomes after CAS and CEA are similar when they are performed by those surgeons, whose clinical expertise is required in deciding which procedure to offer patients. There were no significant differences in outcomes such as stroke, heart attack and death.

“The fact that the outcomes of these two procedures are similar is good news for patients,” notes Dr. Garvin. “It means that at Geisinger, our fellowship-trained vascular surgeons offer the most appropriate course of treatment for all our patients, based upon their medical history, the status of their blockage and other factors.” —T.H.

Springboard Healthy Scranton is Geisinger’s ambitious effort to make Scranton the healthiest community in America. Its goal is to develop, test and implement solutions to the health challenges that Scranton faces, and then “export” the best solutions to communities throughout Pennsylvania and beyond. This larger initiative is known as Springboard Health. In November 2017, the program marked its first year with a national summit — day one of the three-day Geisinger National Symposium (see page 30) — focused on progress in signature areas. These range from helping residents understand their genetic risk for certain diseases through the MyCode® Community Health Initiative to ensuring wide-scale access to healthy foods for all Scranton families.

Just before the summit, Springboard Health named its first senior director, Brian Ebersole, former senior vice president with The Wright Center for Graduate Medical Education in Scranton. His charge? Bringing various organizations throughout Scranton together to turn ideas into real projects with measurable progress.

Quandel donates $100K to Springboard Healthy Scranton

In early 2018, Noble C. “Bud” Quandel, the fourth-generation leader of the namesake construction and railroad company founded in Pennsylvania, donated $100,000 to Springboard Healthy Scranton. “I believe in Springboard Healthy Scranton’s goal and vision,” says Mr. Quandel, chief executive of Quandel Enterprises Inc., which has an office in Scranton. “This will have long-term benefits for northeastern Pennsylvania, where Quandel began in 1882. We hope Springboard’s success locally will be repeated in communities across the country.” Quandel has been providing construction services for 136 years, including construction management, general construction, design-build, engineering and development.

“The best part of my job is the opportunity to work with partners across all sectors as we generate innovative solutions that will improve community health, focusing on outcomes and sustainability here in Scranton while also looking at how to replicate solutions across the country.”

— Brian Ebersole, senior director of Springboard Health

Springboard Healthy Scranton marks its first year, seeks community partners and support
One of the first-year activities was to build relationships among the organizations focused on food insecurity, to bring them into conversation, to align their strategies around healthy food and healthy food access,” Mr. Ebersole says. A major goal for 2018 is to establish a Fresh Food Farmacy™ in Scranton, replicating what Geisinger has already done in Shamokin to provide healthy foods to people with diabetes and their families who otherwise couldn’t afford them. Other plans include improving prevention and treatment of opioid addiction and focusing on economic development.

But none of this can happen without community support.

“Springboard is only going to be as successful as the people and organizations that rally around it,” Mr. Ebersole says. “We need their time, knowledge and financial support. Geisinger can help, but it is not going to be able to fund all of this alone. We hope that donors will want to contribute to creating this new concept of how we can deliver population health.”

Springboard Healthy Scranton has started the Founders Club to encourage area individuals, businesses and other organizations to donate $50,000 or more to the effort and also involve them in designing, developing and implementing real solutions like Fresh Food Farmacy. Another key initiative is Scranton Transformers, which seeks local Scranton residents to participate in making healthier choices, volunteer within the community and share information with their families. Scranton Transformers is scheduled to be rolled out in summer 2018.

“Springboard Healthy Scranton really started with thinking about how we could use philanthropy to innovate in population health, make changes and then replicate them,” says Nancy Lawton-Kluck, chief philanthropy officer. “Too often, donors are asked to give to a set program rather than a solution. This is about launching and testing solutions with the help of philanthropy. It’s a different way of thinking about fundraising.”

To learn more about how to support Springboard Healthy Scranton, contact Brian Ebersole at beebersole@geisinger.org or visit SpringboardHealthy.org

Geisinger has assembled some of the brightest minds, venture philanthropists and health visionaries to guide the vision for Springboard Health. The advisory board includes national and international experts such as Esther Dyson, executive founder of Way to Wellville, and John Sculley, former Apple CEO and founding partner and chairman of RxAdvance. All members have a passion for bettering the care of the nation’s population. The board recently added three new members:

Aneesh Chopra
• Cofounder and executive vice president of NavHealth
• First chief technology officer of the United States (2009–2012)
• Former secretary of technology for Virginia under Gov. Tim Kaine

Mark Fendrick, DO
• Director and cofounder of the University of Michigan Center for Value-Based Insurance Design
• Founding partner of VBID Health
• Co-editor in chief of The American Journal of Managed Care

James N. Weinstein, MD
• Former president and CEO of Dartmouth-Hitchcock Health System
• Peggy Y. Thomson Chair in the Evaluative Clinical Sciences, Geisel School of Medicine at Dartmouth
• Involved with national programs such as the High Value Healthcare Collaborative, the National Academy of Medicine Board for Population Health and the Veterans Administration Special Medical Advisory Group
A champion for philanthropy

Geisinger Health Foundation pays tribute to Joseph J. Mowad, MD

Physicians, nurses and other care providers are often the best spokespeople for Geisinger Health Foundation. Just by sharing their stories, they help donors understand their power to advance the caring that goes on at Geisinger every day. One of the Foundation’s very best spokespeople was Joseph J. Mowad, MD, who passed away in November 2017. From 2004, when he took on the role of physician chair for the Foundation’s Centennial Campaign, until the time of his death, Dr. Mowad was a gifted fundraiser and relationship-builder who helped Geisinger secure community support for a wide range of initiatives to make care better.

His daughter Christen Mowad, MD, a Geisinger dermatologist, says that her dad believed in this work because he believed in Geisinger. Having grown up in humble circumstances in Scranton, Pa., he always wanted to give back to the people of northeast Pennsylvania. “It was easy for him to be passionate about his Foundation work,” she says. “To him, healthcare and bettering the lives of people in northeast Pennsylvania were noble causes.”

“Members of the Geisinger Health Foundation are honored to have had the privilege of working with Dr. Mowad to raise funds in support of many of Geisinger’s programs and services,” says Nancy Lawton-Kluck, chief philanthropy officer. “Always willing to make an introduction or share a contact, he dedicated much of his life to connecting community members to Geisinger, ensuring they had an opportunity to make a difference in the lives of those cared for by Geisinger.”

Making Geisinger better and stronger was also a theme of Dr. Mowad’s clinical career. When he joined Geisinger Medical Center in 1968, “there were fewer than 100 people on staff,” his daughter says. He helped to build a successful group practice in urology and ultimately held a number of leadership roles, including chair of Urology and director of the urology residency.

“He never wanted to give up the day-to-day care of patients, but his willingness to help with administrative roles was about stepping up to do whatever he could to make Geisinger and the Geisinger Health Plan better,” says Dr. Christen Mowad. “He grew to love this place and saw what it was becoming. He was proud of it and wanted to contribute.”

Dr. Mowad’s legacy is visible throughout Geisinger: in The Mowad Urology Clinic named for him in 2011; in The Mowad Conference Room at the Geisinger Health Foundation, named in 2015; and in the Mowad Endowment for New Development, a fund established in his honor to allow grateful patients and other donors to support research and innovation in the Department of Urology. He also was dedicated to helping the community through serving on several advisory boards over the years, like Maria Joseph Manor, the Bloomsburg University Council of Trustees, Montour County Child Welfare Services,

“My dad felt extremely blessed and always told us with great blessings comes great responsibility.”
– Christen Mowad, MD

the Montour County Recreation Authority and the Montour County Advisory Board on Drug and Alcohol Problems.

But perhaps his greatest legacy is the many lives he affected, says his daughter, as patients and colleagues frequently share stories with her about her father’s impact.

“It has been amazing to me to hear about how many people he touched, whether through his work at the Foundation, as a physician or at the Health Plan,” Dr. Mowad says. “I have been here 20 years, and almost on a daily basis people would ask me if I was related to ‘the other Dr. Mowad.’ With his passing, it has been overwhelming to hear even more stories about him. He was here for 50 years. It has been amazing to realize how many people felt he made a difference. It’s pretty awesome, actually.”
HOPE mural adds life and color for behavioral health patients

“The thing I love is that the floors above the mural can look down and see the HOPE images. It’s on the outdoor rooftop where patients can get some fresh air and exercise amongst colorful imagery.”
— Artist Leigh Pawling

In October, Geisinger Medical Center unveiled a new mural, titled “HOPE,” just outside the Behavioral Health Unit in Bush Pavilion 2. The project was made possible by the Geisinger Patient Experience Fund, including a gift from Masonry Preservation Services. Artist Leigh Pawling of Dallas, Pa., intended that the wall be filled with images of hope and happiness. Masonry Preservation Services also provided technical expertise to make certain that the mural’s substrate was properly primed and protected against the elements, so that it will last for years to come.

Balloon festival raises $100,000 for breast care

Geisinger held the Dream Big Hot Air Balloon Festival on Oct. 6 and 7 at Spyglass Ridge Winery in Sunbury. The event, thanks in part to lead sponsor Alvin H. Butz Inc. Construction, raised $100,000 for the Comprehensive Breast Care Program.
"What really stood out for me was how the doctor, nurses, diabetes educators and the dietitian all worked together to help me."

I was diagnosed with Type 1 diabetes just 11 days before my 10th birthday. It was a shock. I went from being a regular girl who plays with Barbies and takes ballet to having to grow up very quickly. My mom is a nurse, and she and my dad understood how serious my condition was. They made it clear that I had to manage the diabetes if I wanted to go to sleepovers or even move away to college someday. It was a big responsibility that turned me into a “little adult.”

My diagnosis also was what first brought me to Geisinger. My local hospital in Altoona did not have a pediatric specialist in diabetes, so my parents decided it was well worth the two-hour drive each way to be cared for by the team at Geisinger Janet Weis Children’s Hospital. Their thinking was, “Let’s go to the place that can give Alex the care she needs.”

What really stood out for me was how the doctor, nurses, diabetes educators and the dietitian all worked together to help me. Even at that young age, I found that so interesting. Eventually I started to joke that someday I would come back and work at Geisinger. I remember having some diabetes educators who were about to retire and I’d tell them, “You can’t retire because I have to get through school and then come here to work!”

The team member who made the biggest impact on me was my dietitian, Patty Chulock, who passed away in 2012. She helped my parents oversee my eating — carbohydrate counting, for example, and explaining how foods affect blood sugar. I don’t remember the details of what Patty talked about, given how young I was, but the way she treated me and explained things always stayed with me. She helped my mom and dad keep me healthy while also letting me be a kid who could go to birthday parties or out to dinner with my family.

As I entered high school, I was sure I wanted a career in healthcare. Because of my childhood experiences, hospitals and doctors’ offices didn’t seem scary or unfamiliar, and I liked the idea of being part of a team focused on helping that one patient in front of you. Did I want to be a doctor? A nurse? A physician assistant? I wasn’t sure. Honestly, I remember turning to my mom one day and asking her, “What exactly did Patty do?” I felt drawn to a profession that was about helping people understand the connection between food and health. By that age I understood my diabetes more and how nutrition really affected it. As a 10th-grader, I was dead set on what I...
wanted to do, and I went on to study food and nutrition at Indiana University of Pennsylvania.

When I graduated in 2014, I had to match somewhere for my internship to become a registered dietitian. I considered a few options on the East Coast, and Geisinger Medical Center was one of my top choices. When I was placed here, I was so excited. I felt as if it were meant to happen. I learned so much during those 10 months as I rotated through inpatient units to outpatient care to community settings. I most enjoyed being part of the team in the hospital, though. As my good luck — or fate? — would have it, I applied for a full-time opening at Geisinger Medical Center and was hired.

So now I divide my time among three inpatient units: orthopaedics, cancer and the step-down unit, which is basically one step down from intensive care. I enjoy it all. I like helping people who’ve had joint surgery realize they can eat in ways that will actually promote healing. For people with cancer who might struggle with eating, it’s often about getting them the nutrition they need to stay strong and then do well as they recover. I really like attending rounds at the hospital, working with doctors and nurses, and also helping train the dietetics interns just getting started. My next goal is to get certified in oncology nutrition.

So I guess you could say that my running joke with my diabetes care team actually came true! I see working at Geisinger as my opportunity to give back. This place did so much for me in helping me understand and manage my diabetes. Working here is my way of saying “thank you.” When I take care of my own patients, I can’t help but think about what my Geisinger care team did for me growing up. And given my own experience as a patient with a condition with a strong tie to nutrition, I can’t see myself doing anything else.

“I see working at Geisinger as my opportunity to give back. This place did so much for me in helping me understand and manage my diabetes.”
Geisinger’s healthcare providers have distinguished themselves as innovative leaders in their chosen disciplines. Our healthcare providers have access to advanced diagnostics, treatments and research that may not yet be widely available elsewhere. But first and foremost, they are committed to delivering the best possible care to each and every patient.

This directory will help you choose a Geisinger location close to where you live or work. Geisinger locations are listed by the type of care (primary, specialty, urgent or hospital) and by city/town. Many Geisinger locations offer a variety of specialty services. Therefore, use this directory as a guide and refer to geisinger.org for a complete and up-to-date listing of Geisinger services and locations.

In addition to calling sites directly for an appointment, you can schedule appointments at many Pennsylvania sites by calling CareLink at 800-275-6401 or accessing the myGeisinger online portal. For information on Geisinger locations in Lackawanna County, call 844-703-GCMC (4262). You can schedule appointments at many New Jersey sites by calling 888-569-1000 or by accessing AtlantiCareDoctors.org.
Primary care services
Offered at many of our primary care sites. Check geisinger.org and AtlantiCareDoctors.org for the most up-to-date listing of services and locations.

- Acute care
- Adult Down syndrome
- Advanced medical home care
- Behavioral health
- Chronic disease management
- Diabetes education
- Family medicine for individuals of all ages
- Geriatric assessment
- High blood pressure management
- Internal medicine for adults 18 years and older
- Nutrition counseling
- Pediatrics for infants, children and teens through age 17
- Preventive care
- Women's health

All specialties & services
Offered at our specialty sites and many of our hospital campuses and primary care sites.

- Addiction medicine
- Allergy
- Breast health
- Cancer
- Cardiology
- Clinical nutrition
- Cosmetics
- Critical care
- Dental medicine
- Dermatology
- Ear, nose & throat (ENT)
- Endocrinology
- Gastroenterology
- Hepatology
- Home care
- Home infusion pharmacy
- Hospice
- Infectious diseases
- Lab medicine
- Life Flight®
- LIFE Geisinger
- Nephrology
- Neurology & neurosurgery
- Optometry & ophthalmology
- Orthopaedics
- Pain management
- Palliative & supportive medicine
- Pediatrics
- Pharmacy
- Podiatry
- Primary care
- Psychiatry
- Pulmonology
- Radiology
- Rheumatology
- Sleep services
- Sports medicine
- Surgery
- Telemedicine
- Thoracic surgery
- Transplant surgery
- Urgent care
- Urology
- Vascular surgery
- Weight management
- Women's health
New Jersey

ARMC AtlantiCare Regional Medical Center, a member of Geisinger
### PENNSYLVANIA PRIMARY CARE SITES

#### Avis
- Geisinger Jersey Shore Medical Associates Avis
- The Avis Medical Center
  - 104 E. Central Ave.
  - Avis, PA 17721
  - 717-737-8620
  - Fax: 717-737-5489

#### Bellefonte
- Geisinger Bellefonte
  - 819 E. Bishop St.
  - Bellefonte, PA 16823
  - 800-230-4565
  - Fax: 814-353-3500

#### Bellefonte
- Geisinger Big Valley
  - 4752 State Route 655
  - Bellefonte, PA 17004
  - 717-667-9030

#### Benton
- Geisinger Benton
  - 4469 Red Rock Road
  - Benton, PA 17814
  - 570-925-6424
  - Fax: 570-925-5852

#### Berwick
- Geisinger Berwick
  - 2200 W. Front St.
  - Berwick, PA 18603
  - 570-759-1228
  - Fax: 570-759-2017

#### Bloomsburg
- Geisinger Bloomsburg Hospital
  - 549 Fair St.
  - Bloomsburg, PA 17815
  - 570-387-2100

- Geisinger Bloomsburg Pediatrics
  - 425 E. First St., Suite 201
  - Bloomsburg, PA 17815
  - 570-416-1816
  - Fax: 570-416-1810

- Geisinger Bloomsburg Reichtart Road
  - 2407 Reichtart Road
  - Bloomsburg, PA 17815
  - 570-784-8303
  - Fax: 570-387-5030

#### Camp Hill
- Geisinger Holy Spirit Primary Care
  - 1800 Carlisle Road, Suite 100
  - Camp Hill, PA 17011
  - 717-737-3465
  - Fax: 717-737-8561

#### Carlisle
- Geisinger Holy Spirit Primary Care
  - 1211 Forge Road, Suite 300
  - Carlisle, PA 17013
  - 717-218-3920
  - Fax: 717-218-3921

- Geisinger Holy Spirit Pediatrics
  - 1211 Forge Road, Suite 300
  - Carlisle, PA 17013
  - 717-218-3920
  - Fax: 717-218-3921

#### Catawissa
- Geisinger Catawissa
  - 353 Main St.
  - Catawissa, PA 17820
  - 570-356-2351
  - Fax: 570-356-2663

#### Clarks Summit
- PrimeMed Medical Group
  - Clarks Summit Geisinger Clinic
  - 231 Northern Blvd., Suite 310
  - Clarks Summit, PA 18411
  - 570-587-4113
  - Fax: 570-587-7703

- PrimeMed Medical Group
  - Clarks Summit Geisinger Clinic
  - 790 Northern Blvd., Suite K
  - Clarks Summit, PA 18411
  - 570-586-4141
  - Fax: 570-586-6722

#### Dallas
- Geisinger Dallas
  - 144 Lt. Michael Cleary Drive
  - Dallas, PA 16612
  - 570-675-2000
  - Fax: 570-675-1806

#### Danville
- Geisinger Knapper Clinic
  - 122 N. Academy Ave.
  - Danville, PA 17822
  - 570-271-7907
  - Fax: 570-271-5609

- Geisinger Medical Center Pediatrics
  - Foss Clinic
  - 100 N. Academy Ave.
  - Danville, PA 17837
  - 570-271-6565
  - Fax: 570-271-7888

- Geisinger Woodbine Lane
  - 16 Woodbine Lane
  - Danville, PA 17821
    - Family Practice
      - 570-271-6070
    - Pediatrics
      - 570-271-5600
      - Fax: 570-271-5851

#### Dillsburg
- Geisinger Holy Spirit Primary Care
  - 126 W. Church St., Suite 200
  - Dillsburg, PA 17019
  - 717-432-2411
  - Fax: 717-432-1409

#### Duncannon
- Geisinger Holy Spirit Primary Care
  - 51 Business Campus Way, Suite 200
  - Duncannon, PA 17020
  - 717-834-3108
  - Fax: 717-834-6911

#### Dunmore
- Geisinger Dunmore Pediatrics
  - 1000 Meade St., Suite 204
  - Dunmore, PA 18512
  - 570-703-2123
  - Fax: 570-221-3870

- PrimeMed Medical Group
  - 1140 Quincy Ave.
  - Dunmore, PA 18509
  - 570-983-0360
  - Fax: 570-983-0375

#### Enola
- Geisinger Holy Spirit Primary Care and Pediatrics
  - 310 E. Penn Drive
  - Enola, PA 17025
  - 717-857-2490
  - Fax: 717-857-2491
    - Lab
      - 717-857-0020

#### Elysburg
- Geisinger Elysburg
  - 106 S. Market St.
  - Elysburg, PA 17824
  - 570-672-2574
  - Fax: 570-672-0151
  - Fax: 717-938-0124

#### Forty Fort Partners in Pediatrics Forty Fort
  - 190 Welles St., Suite 122
  - Forty Fort, PA 18704
  - 570-718-4140
  - Fax: 570-718-4141

#### Frackville
- Geisinger Frackville
  - (includes pediatrics)
  - 701 W. Oak St.
  - Frackville, PA 17931
  - 570-874-4100
  - Fax: 570-874-1728

#### Harrisburg
- Geisinger Holy Spirit Colonial Park Center
  - 4230 Crums Mill Road
  - Harrisburg, PA 17112
    - Primary Care
      - 717-233-6171
      - Fax: 717-233-7880
    - Pediatrics
      - 717-233-6171
      - Fax: 717-526-8404

- Geisinger Holy Spirit Primary Care
  - 3601 N. Progress Ave.
  - Harrisburg, PA 17110
  - 717-652-7266
  - Fax: 717-657-9734

#### Hazleton
- Geisinger Hazleton
  - 426 Airport Road
  - 1 Beltway Commons
  - Hazleton Township, PA 18202
  - 570-459-9730
  - Fax: 570-459-9736

- Geisinger Hazleton Pediatrics
  - 1 Beltway Commons
  - Hazleton, PA 18202
  - 570-501-7552
  - Fax: 570-501-7515

- Geisinger Jersey Shore Medical Associates
  - 116 Kerr Ave.
  - Jersey Shore, PA 17740
  - 570-398-1991
  - Fax: 570-398-4607

#### Jersey Shore
- Geisinger Jersey Shore Medical Associates
  - 407 Third Ave.
  - Jessup, PA 18434
  - 570-383-7922
  - Fax: 570-383-5450

#### Kingston
- Geisinger Kingston
  - 499 Wyoming Ave.
  - Kingston, PA 18704
  - 570-283-2161
  - Fax: 570-714-0670

#### Kulpmont
- Geisinger Kulpmont
  - 119 Nevada Drive
  - Kulpmont, PA 17834
  - 570-373-1250
  - Fax: 570-373-1718

#### Lewisburg
- Geisinger Lewisburg
  - 250 Reitz Blvd.
  - Lewisburg, PA 17837
  - 570-523-0055
  - Fax: 570-523-7996

- Geisinger Pediatrics Lewisburg
  - 3 Hospital Drive
  - Lewisburg, PA 17837
  - 570-551-6650
  - Fax: 570-522-9209

- Geisinger Lewisport
  - 21 Geisinger Lane
  - Lewisport, PA 17044
  - 800-230-4565
  - Fax: 717-242-4212
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SPECIALTY CARE SITES
(Only includes sites where providers see patients 10 or more days a month. For the most up-to-date listing of specialty locations, refer to geisinger.org.)

Belleville
CareSite Pharmacy Belleville
4752 State Route 655, Suite A
Belleville, PA 17004
717-935-2341
Fax: 717-935-5465

Bloomsburg
Geisinger Bloomsburg
General Surgery
439 E. First St.
Bloomsburg, PA 17815
717-857-0020
Fax: 717-761-6081

Geisinger Bloomsburg
Lows Road
6850 Lows Road
Bloomsburg, PA 17815
717-763-2466
Fax: 717-763-2272

Geisinger Bloomsburg
Orthopaedics Central Road
480 Central Road
Bloomsburg, PA 17815
717-763-2466
Fax: 717-763-2272

Geisinger Women and Children's Clinic Lows Road
URO-GYN, OB-GYN, Pediatric and Adolescent Sleep Clinic
6850 Lows Road, Suite 328
Bloomsburg, PA 17815
717-416-1008
Fax: 717-416-1020

Geisinger Women's Health at Bloomsburg
425 E. First St., Suite 101
Bloomsburg, PA 17815
717-857-2474
Fax: 717-387-2397

Bradford
Pediatric Cardiology
Bradford Upper Allegheny Health System
Bradford Regional Medical Center
116 Interstate Parkway, Suite 1
Bradford, PA 16701
814-362-1294
Fax: 814-368-7794

Camp Hill
Geisinger Holy Spirit
Medical Arts Building
890 Poplar Church Rd.
Camp Hill, PA 17011

• CareSite Pharmacy
  717-761-6545
  Fax: 717-730-9281

• Clinical Nutrition & Diabetes Services
  717-763-2466

• Endocrinology
  717-972-7120
  Fax: 717-972-7121

• General Surgery
  717-761-7244
  Fax: 717-761-2055

• Infectious Diseases
  717-927-4215
  Fax: 717-972-4216

• Nutrition & Weight Management
  717-761-7244
  Fax: 717-761-2055

• Endocrinology
  717-761-7244
  Fax: 717-761-2055

Grandview Surgery & Laser Center
205 Grandview Corporate Place
Camp Hill, PA 17011
717-731-5444
Fax: 717-731-0415

Geisinger Holy Spirit
503 N. 21st St.
Camp Hill, PA 17011

• Behavioral Health
  717-763-2228
  Fax: 717-763-2272

• Cardiac Rehab
  717-972-4558

• Janet Weis Children's Hospital at Geisinger Holy Spirit
  717-763-2379

• John R. Dietz Emergency Center at Geisinger Holy Spirit
  717-972-4300
  Fax: 717-972-4295

• The Ottenzio Heart Center at Geisinger Holy Spirit
  717-763-2100
  Fax: 717-972-7581

• Pulmonary Rehab
  717-972-4558

• Teenline
  717-763-2222

• Wound Care Center
  717-972-7177
  Fax: 717-972-7178

Geisinger Holy Spirit
Camp Hill Center
875 Poplar Church Road
Camp Hill, PA 17011

• Blood Donor Center
  717-975-3250

• Cardiology
  717-724-6450
  Fax: 717-724-6451

• Cardiothoracic Surgery
  717-975-0900
  Fax: 717-975-2724

• Cardiovascular Diagnostic Services
  717-724-6397

• EKG Services
  717-975-3252

• Endoscopy Center
  717-975-3270

• Imaging Services
  717-972-4900

• Laboratory Services
  717-857-0020

• Physical Therapy
  717-972-4900

Geisinger Holy Spirit
Dermatology & Mohs Surgery
Plaza 21
425 N. 21st St.
Camp Hill, PA 17011
717-972-4250
Fax: 717-972-4249

Geisinger Holy Spirit
Home Health Care
205 Grandview Ave.
Camp Hill, PA 17011
717-972-4663
Fax: 717-972-4646

Geisinger Holy Spirit
American Office Center
423 N. 21st St.
Camp Hill, PA 17011

• Neurology
  717-975-8585
  Fax: 717-975-0670

• Neurosurgery
  717-975-8585
  Fax: 717-975-0670

• OB/GYN
  717-763-9880
  Fax: 717-737-2765

Geisinger Holy Spirit
Pulmonary Medicine
897 Poplar Church Road
Camp Hill, PA 17011
717-857-0010
Fax: 717-857-0011

Geisinger Holy Spirit
Vascular Surgery
800 Poplar Church Road
Camp Hill, PA 17011
717-763-0510
Fax: 717-761-6081

• Cardiovascular Diagnostic Services
  717-724-6397

Carbondale
Geisinger Cardiology
Carbondale
141 Salem Ave., Suite 1
Carbondale, PA 18407
570-282-1605
Fax: 570-282-1614

Carlisle
Geisinger Holy Spirit
Carlisle Center
1211 Forge Rd.
Carlisle, PA 17013
717-218-3900

• Breast Care Center
  717-737-4718
  Fax: 717-909-0902

• Cardiology
  717-724-6450
  Fax: 717-724-6451

• Cardiovascular Diagnostic Services
  717-724-6397

• EKG Services
  717-975-3252

• Endoscopy Center
  717-975-3270

• Imaging Services
  717-972-4900

• Laboratory Services
  717-857-0020

• Physical Therapy
  717-972-4900

• Endocrinology
  717-972-7120
  Fax: 717-972-7121

• General Surgery
  717-249-1895
  Fax: 717-249-1487

• Imaging Services
  717-972-4900

• Laboratory Services
  717-857-0020

• Orthopaedics
  717-901-8000
  Fax: 717-901-6860

• Vascular Surgery
  717-241-5070
  Fax: 717-241-5102

Clairion
Geisinger Clarion Pediatrics
1 Hospital Drive
Clairton, PA 16214
814-226-9500
Fax: 570-271-7833

Clarks Summit
Viewmont Medical Labs
Abington
790 Northern Blvd.
Clarks Summit, PA 18411
570-586-1449
Fax: 570-586-1452

Geisinger Viewmont
Medical Labs Clarks Summit
Abington Shopping Center
1000 State St.
Clarks Summit, PA 18411
570-585-8196
Fax: 870-585-8197

Geisinger Viewmont
Medical Labs Morgan Highway
100 Avington Executive Park, Suite C
Clarks Summit, PA 18411
570-702-8145
Fax: 570-558-7418

Dallas
CareSite Pharmacy Dallas
114 Lt. Michael Cleary Drive
Dallas, PA 18612
570-255-1167
Fax: 570-255-1169

Danville
Geisinger HealthSouth Rehabilitation Hospital
115 Woodbine Lane
Danville, PA 17821
570-271-8717
Fax: 570-271-7487

Geisinger HealthSouth Rehabilitation Hospital
64 Rehab Lane
Danville, PA 17822
800-232-8260
Fax: 570-271-6796

SPECIALTY CARE SITES
(Only includes sites where providers see patients 10 or more days a month. For the most up-to-date listing of specialty locations, refer to geisinger.org.)
Find out how Geisinger Gold can help you get the insurance coverage you deserve.

At Geisinger, we care about the people and communities we serve. If you are turning 65, now is the time to take your first step toward Medicare.

Our specially trained, local Geisinger Gold Medicare Advisors can help you find the coverage that’s right for you. Call 800-278-1275 to learn about your options.

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TDD: 711
Monday – Friday • 8 a.m. – 8 p.m.
GeisingerGold.com/65

Geisinger Gold Medicare Advantage HMO, PPO, and HMO SNP plans are offered by Geisinger Health Plan/Geisinger Indemnity Insurance Company, health plans with a Medicare contract. Continued enrollment in Geisinger Gold depends on annual contract renewal. Other providers are available in our network.
Geisinger Susquehanna University
620 University Ave.
Selinsgrove, PA 17870
570-372-0536
Fax: 570-372-0539

Geisinger Urology Selinsgrove
5 Atrium Court
Selinsgrove, PA 17870
570-372-9933
Fax: 570-372-0828

Shamokin
Geisinger Specialty Care Shamokin
4203 Hospital Drive
Coal Township, PA 17866
570-648-4010
Fax: 570-648-5076
- Geisinger Ophthalmology
  570-644-9001
  Fax: 570-644-2730

South Williamsport
Geisinger Pediatric Specialty South Williamsport
204 Curtin St.
South Williamsport, PA 17702
570-322-2314
Physicians call: 800-332-8901
Fax: 570-322-3510

State College
Geisinger Orthopaedics
Gray’s Woods
132 Abigail Lane
Port Matilda, PA 16870
800-230-4565

Geisinger Ophthalmology
Windmere
428 Windmere Drive, Suite 200
State College, PA 16801
814-231-1502
Fax: 814-231-1542

Sunbury
Child Advocacy Center of the Central Susquehanna Valley
218 Chestnut St.
Sunbury, PA 17801
570-473-8475

Geisinger Ophthalmology
Sunbury
437 Market St.
Sunbury, PA 17801
570-286-3054
Fax: 570-286-0809

Tannersville
Geisinger Pediatrics
Tannersville
Pocono Creek Plaza
2936 Route 611, Unit 7
Tannersville, PA 18372
570-619-5142
Fax: 570-619-0127

Taylor
Geisinger Viewmont Medical Labs Taylor
818 S. Main St.
Taylor, PA 18517
570-562-6003
Fax: 570-562-6005

Tunkhannock
Geisinger Tunkhannock
10 Triebale Drive
Tunkhannock, PA 18657
570-996-2700
Fax: 570-996-2711

Waverly
Geisinger Marworth Alcohol & Chemical Dependency Treatment Center
P.O. Box 36
Lily Lake Road
Waverly, PA 18471
800-442-7722

Wellsboro
 Pediatric Specialty Services at Soldiers & Sailors Memorial Hospital
32–36 Central Ave.
Wellsboro, PA 16901
800-275-6401

Wilkes-Barre
CareSite Pharmacy
Kistler Clinic
175 S. Wilkes-Barre Blvd.
Wilkes-Barre, PA 18702
570-829-2621
Fax: 570-823-4332

CareSite Specialty RX
25 Church St., Fourth floor
Wilkes-Barre, PA 18765
570-208-4721
Fax: 570-208-4726

Geisinger East Mountain Specialty Clinic
1155 East Mountain Blvd.
Wilkes-Barre, PA 18702
570-808-7300
- Podiatry
  570-808-3362
  Fax: 570-808-5144
**Geisinger Northeast Urology**
6 Wildflower Drive
Wilkes-Barre, PA 18711
570-808-8843
Fax: 570-808-8844

**Geisinger Orthopaedics Wilkes-Barre***
1175 East Mountain Blvd.
Wilkes-Barre, PA 18702
570-808-1093
Fax: 570-808-7878

**Partners in Pediatrics**
Hanover Street
166 Hanover St., Suite 105
Wilkes-Barre, PA 18702
570-808-5672
Fax: 570-808-6673

**Geisinger Wyoming Valley Medical Center**
1000 East Mountain Blvd.
Wilkes-Barre, PA 18711
- CareSite Pharmacy
Geisinger Wyoming Valley Medical Center
570-808-7569
Fax: 570-808-6157
- Frank M. and Dorothea Henry Cancer Center
570-808-6150
- Richard and Marion Pearsall Heart Hospital
570-808-7300
- Valley Medical Building
570-808-7300

**Geisinger Wyoming Valley Outpatient Specialty Center**
675 Baltimore Drive
Wilkes-Barre, PA 18702
800-275-6401

**URGENT CARE SITES**
No appointment needed. Open daily. Providers at these sites treat minor injuries and illnesses for patients 12 months and older. For more information or to see a complete listing of our locations, visit MyCareworks.com or geisinger.org.

**Belleville**
Geisinger Careworks
174 Buckaroo Lane
Belleville, PA 16823
814-353-1030
Fax: 814-353-1053

**Bloomburg**
Geisinger Careworks
425 E. First St.
Bloomburg, PA 18715
570-416-1890
Fax: 570-416-1891

**Burnham**
Geisinger Careworks
224 N. Logan Blvd., Suite 220
Burnham, PA 17009
717-242-0196
Fax: 717-242-0701

**Camp Hill**
Geisinger Holy Spirit Urgent Care
431 N. 21st St., Suite 100
Camp Hill, PA 17011
717-763-3730
Fax: 717-763-3734

**Carlisle**
Geisinger Holy Spirit Urgent Care
1211 Forge Road, Suite 500
Carlisle, PA 17013
717-218-3990
Fax: 717-218-3991

**Clarks Summit**
Geisinger Careworks
1020 Northern Blvd.
Clarks Summit, PA 18411
570-587-2290
Fax: 570-587-1874

**Danville**
Geisinger Careworks
144 Continental Blvd., Suite 100
Danville, PA 17821
570-284-4575
Fax: 570-284-4577

**McElhattan**
Urgent Care at McElhattan
560 McElhattan Drive
McElhattan, PA 17740
570-263-4042

**Mountain Top**
Geisinger Careworks
35 S. Mountain Blvd.
Mountain Top, PA 18707
570-474-5847
Fax: 570-474-5130

**Pittston**
Geisinger Careworks
42 N. Main St.
Pittston, PA 18640
570-602-5610
Fax: 570-602-5611

**Scranton**
Geisinger Careworks
3 W. Olive St.
Scranton, PA 18508
570-207-4054
Fax: 570-207-4057

**Shamokin Dam**
Geisinger Careworks
Colonial Village Plaza
2660 N. Susquehanna Trail
Shamokin Dam, PA 17876
570-884-3726
Fax: 570-884-3728

**State College**
Geisinger Careworks
Best Buy Plaza
1630 N. Atherton St.
State College, PA 16803
814-238-1279
Fax: 814-238-1929

**Tunkhannock**
Geisinger Careworks
10 Tryble Drive, Suite 3
Tunkhannock, PA 18657
570-996-2790
Fax: 570-996-2735

**West Hazleton**
Geisinger Careworks
Staples Plaza
6 Diana Lane
West Hazleton, PA 18202
570-501-3760
Fax: 570-501-3762

**Wilkes-Barre**
Geisinger Careworks
1155 East Mountain Blvd.
Wilkes-Barre, PA 18702
570-808-5135
Fax: 570-808-5136

**Geisinger Kistler Careworks**
175 S. Wilkes-Barre Blvd.
Wilkes-Barre, PA 18702
570-208-6281
Fax: 570-208-6282

**Williamsport**
Geisinger Careworks
1824 E. Third St.
Williamsport, PA 17701
570-601-2200
Fax: 570-601-2202

**Pennsylvania Hospital Sites**

**Bloomsburg**
Geisinger Bloomburg Hospital
(Includes pediatrics and women’s health)
549 Fair St.
Bloomburg, PA 18715
570-387-2100

**Camp Hill**
Geisinger Holy Spirit
503 N. 21st St.
Camp Hill, PA 17011
717-763-2100

**Danville**
Geisinger Medical Center
100 N. Academy Ave.
Danville, PA 17822
570-271-6211

**Jersey Shore**
Geisinger Jersey Shore Hospital
1020 Thompson St.
Jersey Shore, PA 17740
570-398-0100
Fax: 570-398-4412

**Lewistown**
Geisinger Lewistown Hospital
400 Highland Ave.
Lewistown, PA 17044
717-248-5411

**Scanton**
Geisinger Community Medical Center
1800 Mulberry St.
Scranton, PA 18510
570-703-8000

**Shamokin**
Geisinger Shamokin Area Community Hospital***
4200 Hospital Road
Coal Township, PA 17866
570-644-4200

**Wilkes-Barre**
Geisinger South
25 Church St.
Wilkes-Barre, PA 18765
570-808-3100

**Geisinger Wyoming Valley Medical Center**
1000 East Mountain Blvd.
Wilkes-Barre, PA 18711
570-808-7300
***a campus of Geisinger Medical Center

**New Jersey Primary Care Sites**

**Atlantic City**
AtlanticCare Physician Group
Primary Care Plus,
A Member of Geisinger
215 Pacific Ave.
Atlantic City, NJ 08401
609-345-6000 or 888-569-1000

**Brigantine**
AtlanticCare Physician Group
Primary Care Plus
3400 Brigantine Blvd.
Brigantine, NJ 08203
609-266-7557 or 888-569-1000
Fax: 609-266-4450

**Cape May Court House**
AtlanticCare Physician Group
Primary Care Plus
106 Court House S. Dennis Road
Building 200, Suite 200
Cape May Court House, NJ 08210
609-463-8135
Fax: 609-463-8135

**Egg Harbor Township**
AtlanticCare Physician Group
Primary Care Plus
2500 English Creek Ave.
Building 1000, Suite 1002
Egg Harbor Township, NJ 08234
609-407-2310 or 888-569-1000
Fax: 609-407-2311
BETTER COMMUNICATION, BETTER CARE: Geisinger Commonwealth medical students build interprofessional communication skills during training sessions with pharmacy and nursing students from Wilkes University. (Learn more on page 14.)