Penn State Health Milton S. Hershey Medical Center

- Founded in 1963 through a gift from The Milton S. Hershey Foundation, Penn State Health Milton S. Hershey Medical Center is one of the leading teaching and research hospitals in the country.
- Six institutes: Penn State Cancer Institute, Penn State Heart and Vascular Institute, Penn State Bone and Joint Institute, Penn State Neuroscience Institute, Penn State Clinical and Translational Science Institute, and Penn State Institute for Personalized Medicine.
- 10,000+ employees and a combined budget of approximately $1.6 billion.
- Twice designated as a Magnet® hospital, and achieved highest level of recognition for nursing excellence from the American Nurses Credentialing Center.
- 175 Penn State Hershey physicians were selected for inclusion in The Best Doctors in America® for 2015.
- Image-guided radiation treatment services, using the advanced technology of our Trilogy™ system and Gamma Knife®, represent the region’s first-of-its-kind collaborative approach between radiation oncology and neurosurgery.
- The only medical facility in Pennsylvania to be accredited as both an adult and a pediatric Level 1 trauma center.
- Life Lion Critical Care Transport is accredited by The Commission on Accreditation of Medical Transport Systems (CAMTS), a prestigious accreditation held by only six other services in Pennsylvania.
- More than 1,100 primary and specialist physicians and advanced practice clinicians care for patients through the Penn State Medical Group, which includes 63 specialty practices located at 24 clinics in eight central Pennsylvania counties.
- An 88-bed rehabilitation hospital in partnership with Select Medical combines the convenience and comfort of community-based care with clinical expertise and national experience in comprehensive medical rehabilitation, transitional care, outpatient services and wound care.
- Pennsylvania Psychiatric Institute, a partnership with PinnacleHealth, creates specialized mental health treatment programs for children and adolescents, adults and seniors. It includes a hospital in Harrisburg, and two outpatient treatment centers.

(Continued on next page)
Penn State Children’s Hospital

- Opened in 2013, the new five story building contains five pediatric operating rooms, a pediatric cardiac catheterization lab, blood banks and a pediatric cancer pavilion. All told, the Children’s Hospital has 128 beds to serve the children of our community.

- The region’s only Children’s Hospital fully equipped to treat the most severely ill and injured children with the highest level neonatal intensive care unit (Level IV) and the highest level pediatric trauma center (Level I). The Children’s Hospital also performs the region’s only bone marrow stem cell and kidney transplants for pediatric patients.

- Supported by more than 200 pediatric medical and surgical specialists renowned in disciplines such as cancer, cardiology, orthopaedics, surgery and critical care.

Penn State Cancer Institute

- The region’s only comprehensive cancer center, with access to internationally recognized cancer specialists and scientists delivering a multidisciplinary approach and advanced medical technology.

- The Institute’s radiation oncology program is accredited by the American College of Radiology and the outpatient program is also now certified by Quality Oncology Practice Initiative through the American Society of Clinical Oncology.

- Physicians and researchers are at the forefront of personalized cancer care to prevent and treat cancer, including personalized risk assessment and counseling, genetic and technological screening for cancer, personalized monitoring and dosing of chemotherapy.

Penn State Heart and Vascular Institute

- Central Pennsylvania’s only heart transplant center.

- Offers Joint Commission-accredited programs in heart failure and in implanting ventricular assist devices for destination therapy in patients with advanced heart failure.

- Facilities include two hybrid operating rooms, allowing staff to use medical imaging and advanced surgical techniques to optimize and combine therapies.

Penn State Health Milton S. Hershey Medical Center (Cont’d)

Fast Facts (FY 2014-15)

<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual admissions Hershey Medical Center and Children’s Hospital</td>
<td>28,654</td>
</tr>
<tr>
<td>Annual admissions Psychiatric Institute</td>
<td>1,912</td>
</tr>
<tr>
<td>Annual admission Rehab Hospital</td>
<td>1,130</td>
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<tr>
<td>Annual outpatient visits</td>
<td>1,034,663</td>
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<tr>
<td>Annual emergency visits</td>
<td>72,493</td>
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<tr>
<td>Births</td>
<td>1,913</td>
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<tr>
<td>Total surgical cases</td>
<td>30,028</td>
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<tr>
<td>Licensed adult beds</td>
<td>423</td>
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<tr>
<td>Licensed pediatric beds</td>
<td>128</td>
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<tr>
<td>Licensed adult psychiatric beds*</td>
<td>80</td>
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<tr>
<td>Licensed pediatric psychiatric beds*</td>
<td>16</td>
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<tr>
<td>Licensed adult rehab beds**</td>
<td>88</td>
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<tr>
<td>Licensed pediatric rehab beds**</td>
<td>10</td>
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<tr>
<td>Neonatal ICU and Critical Care Nursery beds</td>
<td>42</td>
</tr>
<tr>
<td>Medical Group practices</td>
<td>63</td>
</tr>
<tr>
<td>Life Lion helicopter transports</td>
<td>1,026</td>
</tr>
<tr>
<td>Life Lion critical care ambulance transports</td>
<td>688</td>
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<tr>
<td>Faculty physicians/advanced practice clinicians</td>
<td>1,100+</td>
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<tr>
<td>Residents and fellows</td>
<td>586</td>
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<tr>
<td>Nurses</td>
<td>2,288</td>
</tr>
<tr>
<td>Total staff</td>
<td>10,000+</td>
</tr>
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</table>

* at Pennsylvania Psychiatric Institute
** at affiliated rehabilitation hospital

Penn State Health Milton S. Hershey Medical Center

- Features the only fully equipped and staffed academic level IV (highest level possible) Neonatal Intensive Care Unit (NICU) between Pittsburgh and Philadelphia.

- Selected as one of Aetna’s Institutes of Excellence™ Pediatric Congenital Heart Surgery facilities.

- Named a national leader in eight pediatric specialties (cancer, cardiology and heart surgery, gastroenterology and GI surgery, nephrology, neurology and neurosurgery, orthopaedics, pulmonology, and urology) in U.S. News & World Report’s 2015-16 Best Children’s Hospitals rankings.

- Our pediatric cardiac surgery program ranks among the nation’s best, according to the Society of Thoracic Surgeons.
A regional center for extra corporeal membrane oxygenation (ECMO) therapy for patients in severe cardiogenic shock or pulmonary failure.

More than 60 providers across cardiology, cardiac surgery, vascular surgery and interventional radiology

A team of internationally recognized ECMO physicians able to travel throughout the commonwealth to start patients on ECMO earlier and expedite transfer with continued therapy management, providing increased survival rates for these critically ill patients.

Comprehensive valve clinic with treatment options including surgical repair and replacement and transcatheter aortic valve replacement (TAVR).

Percentage of radial artery catheterizations performed ranks well above the national average.

Recognized with the American Heart Association's Get With the Guidelines® Gold Plus award for heart failure care.

**PENN STATE NEUROSCIENCE INSTITUTE**

Multi-disciplinary and comprehensive neuroscience care and follow up including research and treatment for brain tumors, stroke, aneurysms, ALS, carotid artery disease, dementia, rehabilitation, and more.

Top neuroscience destination for children and home to the only three board-certified pediatric neurosurgeons between Pittsburgh and Philadelphia.

Leading edge technology such as Onyx HD®, Pipeline Embolic Device™, NeuroPace, Gamma Knife® Perfection™, Laser ablation and Robotic Neurosurgery. Joint Commission-certified Comprehensive Stroke Center, the highest level of stroke certification, which recognizes the significant resources in infrastructure, staff, and training that stroke centers must have to provide state-of-the-art, complex stroke care.

LionNet™, our regional stroke care network, offers real-time video consults between doctors at 14 central Pennsylvania emergency departments and Penn State stroke specialists to provide faster diagnosis and treatment for strokes.

Recipient of the American Heart Association/American Stroke Association Get With The Guidelines® Stroke Gold Plus award for seven consecutive years.

**PENN STATE BONE AND JOINT INSTITUTE**

Leader in the care of patients with disorders of the bones, joints and spine, providing innovative care to adults and children with common to the most complex disorders.

Collaborative approach with specialists in orthopaedics, sports medicine, spinal disorders, hand surgery, metabolic bone disease and osteoporosis, rheumatology, radiology, chronic pain management and therapy services.

Muscloskeletal oncology program specializes in the diagnosis, treatment and reconstruction of benign and malignant tumors affecting the musculoskeletal system.

Internationally recognized research program, within the Division of Musculoskeletal Sciences, focused on developing novel therapeutic approaches to musculoskeletal disease.

Comprehensive sports medicine program specialists provide expert care to Penn State Athletics in State College and Harrisburg; several professional teams, including the Hershey Bears and Harrisburg Senators; and local colleges and high schools.

**PENN STATE COLLEGE OF MEDICINE**

Penn State College of Medicine’s academic programs are highly competitive. Nearly 1 in 5 individuals applying to a U.S. medical school applies to Penn State College of Medicine, with nearly 9,500 applicants competing for 150 openings in the Class of 2019.

The College’s master’s level physician assistant program, launched in 2014, garnered nearly 2,200 applicants for 30 openings in the Class of 2017.

The College of Medicine is one of 11 schools to receive a five-year American Medical Association grant to accelerate change in medical education. First-year medical students are now being trained as patient navigators and study the science of health systems.

The College of Medicine offers graduate degree programs in anatomy, bioengineering, biomedical sciences, biostatistics, homeland security, laboratory animal medicine, molecular and cellular integrative biosciences, neuroscience, physiology, public health and public health sciences. There are 257 graduate students, including 50 MD/PhD joint-degree students.

Nursing students from Penn State’s School of Nursing rotate through Hershey Medical Center for clinical courses, and students from other Penn State health-related programs and other institutions come to Hershey for their clinical experience. The extended B.S. degree program for nurses is offered in conjunction with the School of Nursing.

The College of Medicine and the School of Nursing also collaborate on a growing interdisciplinary curriculum that allows medical, physician assistant and nursing students to learn some clinical skills together, facilitating better communication between the professions.

The University Park Regional Campus of Penn State College of Medicine is a collaborative effort between Penn State-University Park, Hershey Medical Center, the College of Medicine, Mount Nittany Health, and State College

(Continued on next page)
community providers. The regional campus offers eight core clerkships in family and community medicine, internal medicine, neurology, obstetrics and gynecology, pediatrics, psychiatry, surgery and underserved medicine. The campus also offers a wide variety of clinical electives.

■ More than 50 third and fourth year medical students complete their clinical rotations at the University Park Regional Campus, and efforts are underway to introduce a full medical school curriculum at the campus in 2017.

■ In 2015, the Regional Campus launched a new three-year residency program in family and community medicine that brought six new family medicine doctors to this rural region, enhancing access to care. Each year, six new physicians will join the residency for a total of 18 family medicine residents by 2017.

■ Penn State College of Medicine is collaborating with MountCrest University in Ghana as MountCrest develops the nation’s first private academic medical center to serve that impoverished nation.

■ In 2015, the College of Medicine launched an accelerated medical education program that enables students who are planning a career in family and community medicine to complete medical school in three years, then enter Penn State’s family and community medicine residency training program.

RESEARCH AT PENN STATE HEALTH

■ In FY14-15, amid an extremely competitive environment, the College of Medicine obtained $98.3 million in external research support, an 18% increase from the previous year. Roughly two-thirds of research funding comes from the National Institutes of Health (NIH), and our research ranking is 55th out of 138 medical schools.

■ Penn State, the Medical Center, and the College of Medicine collectively hold 1 of 62 Clinical and Translational Science Awards. This prestigious $27.3 million, five-year award from the National Institutes of Health is designed to accelerate the translation of scientific discovery into methods for improving public health. This grant supports the Penn State Clinical and Translational Science Institute (CTSI), a collaboration of many Penn State colleges and institutes, along with community and industry partners, devoted to using their research and outreach expertise to improve the health of Pennsylvanians.

Significant research projects include:

■ $4.15 million for Penn State’s first NIH Directors Pioneer Award to reduce sepsis and hydrocephalus among infants in Sub-Saharan Africa.

■ $14 million from the Patient-Centered Outcomes Research Institute (PCORI) to study the effectiveness of a program created by a Penn State physician that integrates strength training, balance exercises and walking for older adults who have had a fall-related fracture.

■ $1.88 million from PCORI to create a clinical trials research network that includes Penn State College of Medicine, Temple University, Johns Hopkins University and University of Pittsburgh.

■ $3.17 million over five years from the NIH to study peripheral arterial disease and how to better treat the pain.

■ A study published in the Journal of the American Medical Association (JAMA) that revealed that patients seen in the emergency department for chest pain who did not have a heart attack were found to be at very low risk of experiencing a heart attack during 190 days of follow-up.

■ The development of a nanoparticle by researchers at the Penn State Cancer Institute that can deliver melanoma drugs directly to cancer cells. Additional research is underway that could lead to clinical trials.

■ College of Medicine research in the 1980s led by John Kreider and Mary Kay Howett, and funded by the Jake Gittlen Cancer Research Foundation, helped lead to the first vaccines against the human papilloma virus (HPV).