



Penn Medicine



2014

FACTS & FIGURES

Telemedicine from Botswana to Penn Medicine

ENGAGED GLOBALLY



Ryan Littman-Quinn

Penn Medicine is among the most prestigious academic medical institutions in the world. Its international prominence is built on a tradition of pioneering discoveries and innovations, excellence in training tomorrow's physicians and scientists, and compassionate patient care. In addition to offering cutting-edge medical care to our patients, Penn Medicine's programs extend beyond our institution and the vulnerable populations in our surrounding Philadelphia community to those in need around the world.

Penn faculty are researching diseases, educating students, and treating patients in hospitals and mobile clinics, in partnership with institutions in Botswana, Guatemala, and Peru, and with other international groups. In collaboration with the University, Penn Medicine continues the 13-year-old **Penn-Botswana Partnership**. Once focused primarily on HIV/AIDS research, the program now also concentrates on cervical cancer, heart disease, educating local health care workers, and telemedicine. The **Guatemala-Penn Partnership** offers students opportunities to gain experience in maternal and child health, mental health, food and nutrition, chronic disease treatment and prevention, and trauma treatment.

BUILT ON A
TRADITION OF
INNOVATION, EXCELLENCE
& **COMPASSION**

PENN MEDICINE

IS THE

RAYMOND AND RUTH PERELMAN SCHOOL OF MEDICINE



THE UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM



RESEARCH

The Perelman School of Medicine is consistently among the nation's top recipients of funding from the National Institutes of Health, with \$392 million awarded in the 2013 fiscal year. Penn's physicians and scientists take an interdisciplinary approach to understanding the fundamental mechanisms of disease, which leads to new strategies for treatments.

Faculty from dozens of institutes, centers, and departments at Penn Medicine work with their counterparts from the 11 other schools of the University of Pennsylvania in many areas, including bioengineering, neuroscience, and health policy.

EDUCATION

Established in 1765 as the nation's first medical school, the Perelman School of Medicine continues a rich tradition of providing pre-eminent training and education. The School has ranked among the top five medical schools in the United States for the past 16 years, according to *U.S. News & World Report's* survey of research-oriented medical schools. Penn Medicine continues to provide its students with an innovative, comprehensive curriculum that prepares them to become physicians and scientists of all kinds.

PATIENT CARE

Penn Medicine's physicians, nurses, and staff provide exceptional, personalized care to patients with a broad range of medical conditions, including cancer, heart and lung disease, neurological disorders and diseases of aging, and orthopaedics, as well as care for newborns. With the help of state-of-the-art equipment, our highly trained physicians work together to ensure that each patient's welfare is addressed from multiple perspectives, involving disease specialists, nurses, pharmacists, social workers, and rehabilitation professionals. Every year critical-care units at Penn Medicine are recognized for their excellence by leading health-care associations.

PENN MEDICINE PROFILE FY13



Annual Operating Revenue..... \$4.3 billion

RESEARCH & EDUCATION

Total Sponsored Program Awards.....	\$583 million
NIH Awards	\$392 million
State Research Funding	\$3.4 million
New Patents Awarded.....	58
Full-Time Faculty	2,035[#]
MD Students	807
PhD Students	621
Residents & Fellows	1,147
Postdoctoral Fellows.....	768

PHILANTHROPY

Gifts.....	\$166 million
Donors.....	18,624

FY13 Profile statistics do not include the Chester County Hospital and Health System.

PATIENT CARE

	Penn Medicine Total	HUP	PAH	PPMC
Licensed Beds	1,637	789	517	331
Physicians	2,251*	1,821	831	905
Adult Admissions	75,588	37,665	20,645	15,278
Outpatient Visits	2,164,567⁺	1,385,318	94,469	145,030
Emergency Dept. Visits	137,987	65,875	33,292	38,820
Births	8,885	4,186	4,699	n/a

FACILITIES & EMPLOYEES

	Penn Medicine Total[†]	PSOM	HUP	PAH	PPMC
Employees	21,864	5,104	6,932	2,640	1,782
Net Sq. Feet / Building Spc. [‡]	6.7 million	2.4m	1.9m	1.11m	617,900

Key to Abbreviations Used in Table:
CCA: Clinical Care Associates

CHCA: Clinical Health Care Associates
CHOP: Children's Hospital of Philadelphia

HUP: Hospital of the University of Pennsylvania
PAH: Pennsylvania Hospital

PPMC: Penn Presbyterian Medical Center
PSOM: Perelman School of Medicine



[#] Includes CHOP

^{*} Includes physicians with privileges at more than one hospital

⁺ Includes CCA/CHCA

[†] Includes UPHS and PSOM

[‡] **PSOM:** 10 interconnected buildings on the core campus, plus 27 sites in and around West Philadelphia. **HUP:** 16 interconnected buildings. **PAH:** 15 buildings.

PPMC: 10 interconnected buildings

Penn Medicine Clinical Facilities

- The **Hospital of the University of Pennsylvania** is annually recognized as one of the nation's best hospitals by the *US & World Report* in its Honor Roll of best hospitals.
- **Penn Presbyterian Medical Center** is consistently recognized for delivering superior patient safety and high-quality care and as a center of excellence for cardiac surgery, cardiac care, orthopaedics, and ophthalmology.
- **Pennsylvania Hospital** is the nation's first hospital (co-founded by Benjamin Franklin in 1751), with many expert clinical programs, including the Women's Cardiovascular Center, the Center for Bloodless Medicine and Surgery, orthopaedics, and maternity.
- The **Chester County Hospital and Health System**, which became part of Penn Medicine in fall 2013, includes a 245-bed hospital complex in West Chester and satellite locations in Exton, West Goshen, New Garden, Jennersville, and Kennett Square.
- **Penn Medicine Rittenhouse** comprises an inpatient hospice, a long-term acute-care specialty hospital, and a rehabilitation facility.
- The **Perelman Center for Advanced Medicine** is a state-of-the-art, outpatient facility containing 321 exam rooms (including the new south-tower expansion in 2013), with diagnostic and treatment facilities designed to be in close proximity for patient-focused care.
- **Penn Medicine Washington Square**, a new 153,000-square-foot, "green" building, serves as the major hub of outpatient care for Pennsylvania Hospital. More than 100 providers from a range of services are in one location, with pre-admission testing and laboratory services.
- **Good Shepherd Penn Partners** offers rehabilitation and outpatient care at 29 comprehensive facilities in southeastern Pennsylvania and southern New Jersey, including a specialty hospital at Penn Medicine Rittenhouse, with a total of nearly 110,000 outpatient visits and inpatient admissions.

NEW BUILDINGS

on the Penn Medicine Campus

The combined cost of the capital projects over the next two years is expected to total more than **\$200 million**.

Penn Medicine University City
Summer 2014

\$38 million



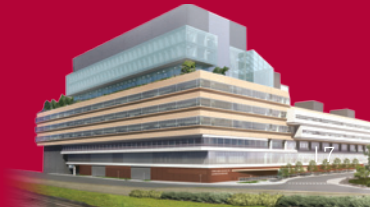
Pavilion for Advanced Care
at Penn Presbyterian
Winter 2015

\$127 million



Henry A. Jordan, M '62,
Medical Education Center
Fall 2014

\$38 million



Penn Medicine Clinical Facilities

- The **Abramson Cancer Center** has more than 70,000 outpatient visits each year and 9,000 inpatient stays. Since 1973, it has been designated a Comprehensive Cancer Center by the National Cancer Institute, one of 41 such Centers in the nation.
- The **Roberts Proton Therapy Center**, the largest integrated radiation oncology center in the world, uses beams of protons traveling at near-light speed to eradicate tumors and spare healthy surrounding tissue, eliminating many side effects of conventional cancer therapies.
- **Penn Home Care & Hospice Services** offers a full range of home health needs through Penn Wissahickon Hospice, Penn Care at Home, and Penn Home Infusion Therapy.
- **Penn Medicine Community Practices** are located in Valley Forge, Radnor, Bucks County, Cherry Hill, and Woodbury Heights.
- The **Clinical Care Associates** and **Clinical Health Care Associates of New Jersey** are networks of primary and specialty care physicians, with more than 50 locations throughout the Philadelphia region.

Penn Medicine COMMUNITY PRACTICES

Penn Medicine provides coordinated, patient-centered care at more than 30 locations throughout a 13-county area in southeastern Pennsylvania and southern New Jersey.



Penn Medicine Bucks County



Penn Medicine Radnor



Penn Medicine Valley Forge



Penn Medicine Cherry Hill



Penn Medicine Woodbury Heights

Penn Medicine Research

Penn Medicine is an internationally recognized leader in discoveries that advance science and pave the way for new therapies and procedures to improve human health. Sixty-eight Penn Medicine researchers are elected Members of the Institute of Medicine, one of the highest honors in medicine. The basic and clinical research findings emerging from Penn Medicine's laboratories and hospitals improve the treatment of a wide range of medical conditions and provide the foundation of knowledge on which many of medicine's next generation of cures will be developed.

Penn's culture has always encouraged close collaboration between basic scientists and clinicians, exemplified by such centers as the **Abramson Family Cancer Research Institute** and the **Institute for Translational Medicine and Therapeutics**. From these fruitful partnerships, new approaches and innovative technologies are better elucidating the molecular and biochemical basis of disease. The distinctive integration of Penn Medicine's research and clinical missions uniquely positions our faculty to translate knowledge into new and enhanced treatments. The **Ruth and Raymond Perelman Center for Advanced Medicine**, the **Roberts Proton Therapy Center**, and the **Smilow Center for Translational Research** are physically connected to maximize communication among Penn clinicians and laboratory researchers.

The **Institute for Biomedical Informatics** is advancing computationally based research, which includes the Penn Medicine High Performance Computing Center, the Cancer Tumor Registry, and the Genomics and Imaging Databases. These efforts are enhanced through the Penn Bio-bank, which is a central research and patient repository for genomic and metabolic analysis.

INVESTING in Basic Research to Pave the Way to Better Care

- A new gene therapy used in animal models shows a substantial reduction in the replication of the flu virus when exposed to lethal strains, including historic human pandemics.
- Deletion of a human clock gene in fat cells causes mice to become obese, shifting timing of when this nocturnal species normally eats and shedding light on the complexity of obesity and metabolism.
- Piecing together how misfolded brain proteins cause the death of dopamine neurons is leading to new drug targets for Parkinson's disease and other brain disorders.

PAVING THE WAY FOR IMPROVED HUMAN HEALTH

Penn Medicine Education

The Perelman School of Medicine is at the forefront of medical education, with several pioneering programs and efforts:




- The School's tradition continues as an education innovator by using cyber-teaching tools, web-based technology to access syllabi and medical and clinical information, tablets, and simulation training in state-of-the-art medical techniques and procedures.
- Each medical school class engages in global health education and training opportunities, such as those with the UPenn-Botswana Partnership and the Guatemala-Penn Partnership.
- Curriculum flexibility allows students to customize their individual programs, affording opportunities for in-depth learning and certificates and Masters degrees in addition to an MD.

A NEW ERA of Medical Education Takes Shape

Construction is underway on the Henry A. Jordan, M '62, Medical Education Center, creating an integrated learning environment for medical students. Located atop the Perelman Center for Advanced Medicine and connected to the Smilow Center for Translational Research, the Jordan Center is one of the few medical educational facilities in the nation to be fully incorporated with research and clinical facilities. This proximity will provide students with an experience that combines the dynamic energy of medicine in the classroom, the exam room, and the lab.

PROVIDING PRE-EMINENT TRAINING & EDUCATION

MEDICAL AND DUAL DEGREE PROGRAMS

- 807 MD students enrolled in the Perelman School of Medicine. 
- 184 students enrolled in MD/PhD program. 
- 621 PhD students in biomedical graduate studies. 



80%

OF MEDICAL SCHOOL STUDENTS are involved in community service or outreach.

70%

OF MEDICAL SCHOOL STUDENTS have authored a research paper for publication.

47%

OF MEDICAL SCHOOL GRADUATING CLASS completed certificates or additional degrees.

Penn Medicine Patient Care

The University of Pennsylvania Health System (UPHS) comprises the Hospital of the University of Pennsylvania (HUP), Penn Presbyterian Medical Center (PPMC), and Pennsylvania Hospital, as well as a partnership with Good Shepherd Penn Partners, a rehabilitation and long-term acute-care hospital at Penn Medicine Rittenhouse and outpatient physical therapy sites across the region. The Chester County Hospital and Health System joined UPHS in September 2013. UPHS also includes Penn Home Care and Hospice Service and many outpatient facilities and service programs. Penn Medicine physicians work hand in hand with their colleagues at The Children's Hospital of Philadelphia and the Philadelphia VA Medical Center.

Commitment to excellence in patient care is reflected in the many honors we receive:

- HUP is annually recognized by *U.S. News & World Report* on its Honor Roll of best hospitals.
- The Perelman School of Medicine is ranked among the top five medical schools in the country by *U.S. News & World Report*.
- The American College of Surgeons Commission on Cancer awarded accreditation to the three Penn Medicine hospitals in recognition of their commitment to the highest level of quality cancer care.
- Penn Medicine again had the most physicians in the region featured on *Philadelphia* magazine's "Top Docs" list.
- The nursing staffs of HUP and PPMC have each been awarded Magnet status from the American Nurses Credentialing Center.
- Penn Medicine is the first health system in the region to have all member hospitals certified as Primary Stroke Centers by the Joint Commission.
- Penn Orthopaedics at PPMC received the Gold Seal of Approval from The Joint Commission.

REGIONAL SUPERLATIVES in Patient Care



HUP IS FIRST HOSPITAL to receive The Joint Commission Advanced Certification in Heart Failure, with more than 6,000 patients a year seen at the Heart Failure Center.



HIGHEST VOLUME OF TESTING at the Center for Personalized Diagnostics, which sequences tumor tissue as part of cancer patients' evaluation and diagnosis.



PENN MEDICINE WAS FIRST to perform 5,000 kidney transplants, among only 13 other centers in the country with this milestone.




Penn Medicine Patient Care

Better Patient Care through Precision Medicine

- Survival of brain tumor patients significantly extended by using a personalized brain map that visualizes relevant white matter tracts during surgeries.
- Diabetic patients who received islet cells from pancreas tissue of organ donors showed increased levels of insulin production — enough that patients were able to discontinue daily injections.
- A new medicine developed at Penn helps patients suffering from a rare and deadly cholesterol disorder that impairs the liver's ability to remove LDL cholesterol from blood.
- A clinical trial of the first effective drug for advanced thyroid cancer in 40 years revealed that sorafenib, the kidney and liver cancer drug, holds metastatic thyroid cancer at bay for nearly twice as long as placebo.
- Three-quarters of advanced ovarian cancer patients have responded to a new two-step immunotherapy approach — a personalized dendritic cell vaccination made from a patient's own tumor tissue combined with adoptive T-cell therapy.

MILESTONES

in Patient Care

1,000th 
HEART TRANSPLANT
at HUP during the
25th anniversary year
of the program.

21,000 
PATIENTS CARED FOR
through Home Care, outpatient
hospice, and Rittenhouse
inpatient hospice services.

110,000⁺ 
CHEMOTHERAPY
INFUSION VISITS AND
RADIATION TREATMENTS.

12 MILLION 
PRESCRIPTIONS AND
DOSES DISPENSED
by inpatient and outpatient
pharmacies.

COMMITMENT to Quality and Patient Safety

Penn Medicine is committed to providing world-class care that is firmly rooted in best practices and evidence-based medicine. The Blueprint for Quality and Safety continues to drastically reduce health care-associated infections, prevent medication errors, and lower rates of readmission to the hospital.

30% **REDUCTION** in ventilator-associated pneumonia at the Hospital of the University of Pennsylvania.

33% **IMPROVEMENT** in national rank for access to care, a measure of breaking down barriers that limit financial, social, and cultural use of healthcare services.

10% **REDUCTION IN THE NUMBER OF PATIENTS READMITTED** within 30 days after a hospitalization due to heart failure.

Penn Medicine in the Community

Improving lives and health in communities throughout the Philadelphia area is among Penn Medicine's highest priorities. Every day, physicians, nurses, medical students, and staff volunteer their knowledge and skills to benefit residents in our community. They work with local schools to operate free neighborhood clinics, help low-income residents obtain primary-care health services, serve as a major source of care and preventive education for those with HIV, and provide care and resources for people who are homeless.

AIDING THE COMMUNITY from Within

Penn Medicine's CAREs grant program supports faculty, student, and staff efforts to increase volunteerism in community-based programs. In the past year, Penn Medicine CAREs provided grants to 32 initiatives in West Philadelphia, including high-school health education, dental care for uninsured people, falls-prevention education, a free health clinic operated by medical students, and many others.



IMPROVING LIVES & HEALTH

THROUGHOUT THE
PHILADELPHIA AREA



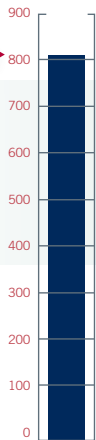
Penn Medicine in the Community



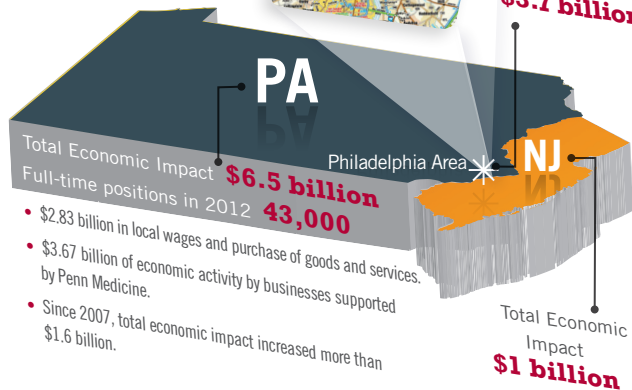
SUPPORT IN FY13

\$814 million

- \$608 million** Research support
- \$85 million** Physician training support
- \$121 million** Charity and underfunded care for Medicaid families

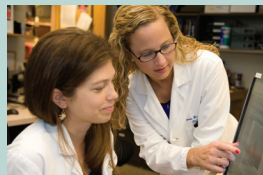


Total Economic Impact
\$3.7 billion



PROGRAMS

within the Community



A TELEDERMATOLOGY PROGRAM, USING A CELL-PHONE APP TO DIAGNOSE SKIN CONDITIONS, provides access to dermatology consults for clinics in Philadelphia and in African and South American countries.



A PARTNERSHIP BETWEEN GERIATRICS, PENN HOME CARE, AND THE PHILADELPHIA CORPORATION FOR AGING provides geriatric patients with full-service medical and supportive care in their homes and serves as a national "Independence at Home" program tested by Medicare.



SPECIALLY TRAINED COMMUNITY HEALTH WORKERS PARTNER WITH HIGH-RISK PATIENTS to tackle real-life issues that often pose barriers to getting and staying healthy. Learning from patients, the Penn Center for Community Workers developed the Individualized Management for Patient-Centered Targets, or IMPaCT program, a comprehensive, evidence-based model to deploy community health workers and improve outcomes for vulnerable patients.

PENN MEDICINE is a world-renowned academic medical center dedicated to discoveries that advance science, to outstanding patient care throughout the world, and to the education of physicians and scientists who carry on our legacy of excellence.



Penn Medicine

DEPARTMENT OF COMMUNICATIONS

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