

FACTS

& Figures



University of Pennsylvania School of Medicine University of Pennsylvania Health System

2011

OVERVIEW

Penn Medicine is among the most highly regarded academic medical centers in the world. At the core of its long-standing reputation for excellence is a commitment to ground-breaking biomedical research, excellence in training tomorrow's physicians and scientists and safe and effective patient care.

Research

Penn's School of Medicine is consistently among the nation's top 3 recipients of federal funding from the National Institutes of Health. Penn's physicians and biomedical scientists engage in integrated research programs that employ an interdisciplinary approach to understand the fundamental mechanisms of disease and investigate new strategies for treatment.

Education

Established in 1765 as the nation's first medical school, the University of Pennsylvania School of Medicine continues its rich tradition of providing pre-eminent training and education. The School is currently ranked #2 in *U.S. News & World Report*'s survey of the nation's finest research-oriented medical schools and in the top ten among the best medical schools for primary care.

Cross-Disciplinary Centers and Institutes

Penn Medicine's 23 centers and institutes bring together experts across disciplines to foster innovation and collaboration in research and patient care. Among these are:

- Abramson Cancer Center
- Institute for Diabetes, Obesity and Metabolism
- Institute for Immunology
- Institute for Regenerative Medicine
- Institute for Translational Medicine and Therapeutics
- Institute on Aging
- Penn Cardiovascular Institute
- Penn Comprehensive Neuroscience Center

Patient Care

Penn Medicine's physicians, nurses and staff provide world-class care and personalized treatments to patients with a broad range of medical conditions, including the rare and complex. Penn Medicine is a leading health care provider for the Philadelphia region and in the nation.

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ABOUT PENN MEDICINE

Penn Medicine consists of the University of Pennsylvania School of Medicine and the University of Pennsylvania Health System (established in 1993).

The School of Medicine comprises 28 basic and clinical departments, and more than 1,800 faculty members and 2,200 students and trainees.

The Health System includes:

- The Hospital of the University of Pennsylvania (HUP) annually recognized as one of the nation's best hospitals by U.S. News & World Report.
- Penn Presbyterian Medical Center (PPMC) recognized with the 2010 Delaware Valley Healthcare Council Patient Safety Award for an infection control initiative in joint replacement surgery and named one of the nation's top 100 hospitals for cardiovascular care by Thomson Reuters six times in the past decade.
- Pennsylvania Hospital (PAH) the nation's first hospital (co-founded by Benjamin Franklin in 1751); ranked by U.S. News & World Report as among the best in the nation for orthopaedics.

Additional patient care facilities and services include the Perelman Center for Advanced Medicine, a state-of-the-art, 500,000-square-foot outpatient facility adjacent to HUP; the Roberts Proton Therapy Center, the largest integrated radiation oncology center in the world; Penn Medicine at Rittenhouse, offering inpatient rehabilitation and outpatient care in many specialties; several comprehensive outpatient facilities in southeastern Pennsylvania and southern New Jersey; a practice plan; a primary care physician network; and home care and hospice services.

PENN MEDICINE IN THE COMMUNITY

Fulfilling Our Responsibility

Improving lives and health in underserved communities throughout the Philadelphia area is among Penn Medicine's highest priorities. Every day, Penn's physicians, nurses, medical students and staff volunteer their knowledge, skills, and themselves to benefit the underserved and vulnerable residents in our community. From partnering with local schools to operating free neighborhood health clinics, working to reduce gun violence, and conducting free AIDS testing and blood pressure screenings, Penn Medicine is a committed part of the community.

In addition to the many programs throughout the region supported by Penn Medicine, in fiscal year 2010, we provided the following to the benefit of our community:

Uncompensated Care\$107.7 millionPhysician Training Support\$93.8 millionResearch Support\$587.2 millionTotal\$788.7 million

To learn more, visit PennMedicine.org/community.

A Pillar of the Region's Economy

At a time of national economic volatility, Penn Medicine helps stabilize and strengthen the local and state economy in a number of important ways, including creating new jobs and attracting new businesses to the area.

In 2010, Penn Medicine had a total annual economic impact of more than \$6.5 billion on Pennsylvania, comprising:

- Direct economic impact of \$2.83 billion of spending
- Indirect economic impact of more than \$3.67 billion of activity generated by the operations of other organizations and businesses that support Penn Medicine, with that money circulating through the economy in successive rounds of spending.

In 2010, Penn Medicine had a total annual direct and indirect economic impact of more than \$3.7 billion on the City of Philadelphia and of more than \$1.0 billion on New Jersey.



PENN MEDICINE PROFILE FY10

Annual Operating Revenue

\$4.07 billion

Philanthropy

Gifts \$131 million **Donors** 14.741 **Alumni Participation** 29%

Research & education

Total Sponsored \$690.6 million Program Awards* NIH Awards* \$507.6 million \$9.8 million State Research Funding **New Patents Awarded** 44 Full-Time Faculty* 1.879 MD Students* 746 PhD Students* 595 Residents and Fellows* 1.019

741

Key to abbreviations used in table:

CCA/CHCA: Clinical Care Associates/Clinical Health Care Associates, provider network of primary and specialty care practices also known as PennCare

HUP: Hospital of the University of Pennsylvania

PAH: Pennsylvania Hospital

PPMC: Penn Presbyterian Medical Center

SOM: University of Pennsylvania School of Medicine

TRC: Translational Research Center

UPHS: University of Pennsylvania Health System

Patient Care
Licensed Beds
Physicians*
Adult Admissions
Outpatient Visits
Emergency Dept. Visits
Births

Postdoctoral Fellows*

Penn Medicine Total	HUP	PPMC	PAH
1,626	776	331	519
2,080	1,707	781	720
80,662	39,746	17,069	23,847
2,053,091+	1,352,107	107,928	79,784
128,618	59,406	37,570	31,642
8,957	4,181	_	4,776

Facilities and		Penn Medicine	
Empl	oyees*	Total [†]	
Emple	11005	20.054	

Employees 20,851 Net Sa. Ft. of 6.6 million SOM HUP 5.307

6.300 1.86 million 617.900

PPMC 1.707

РΔН 2.788

957,000

2.55 million Building Space ‡ *Includes stimulus funds *Figures as of November 2010 +Includes CCA/CHCA. †Includes UPHS and SOM.

^{\$50}M: 10-building main campus (including TRC) HUP: 16 interconnected buildings. PPMC: 10 interconnected buildings. PAH: 15 buildings.

Penn Medicine is an internationally recognized leader in the discoveries that advance science and form the basis for new therapies and procedures to improve human health.

- Penn Medicine's research enterprise encompasses every major area of biomedical investigation.
- In the 2010 fiscal year, the National Institutes of Health (NIH) awarded the School of Medicine \$507.6 million in federal funding.
- A total of 67 faculty members at Penn are elected members of the Institute of Medicine, one of the highest honors in biomedicine.

Research Highlights

- Developing next-generation flexible medical implants for more accurate monitoring of heart disease and epilepsy.
- Using highly effective targeted therapy to shrink tumors among advanced breast cancer patients with inherited, aggressive forms of the disease.
- Identifying new genetic risk factors for Lou Gehrig's disease.
- Developing new approaches to study processes affecting how genes are expressed, to understand molecular mechanisms of cancer, infertility, aging, and cardiovascular disease.

Bench to Bedside

Penn's School of Medicine emphasizes collaboration between researchers in basic science and those who focus on clinical applications; this integrated approach works to accelerate the translation of new discoveries into clinical therapies benefiting patients. A new \$370 million Translational Research Center (TRC), scheduled to open in the spring of 2011 and co-located with the Perelman Center for Advanced Medicine, will offer a new home for this interdisciplinary emphasis on translational research.

Countless innovations at Penn have grown from basic molecular discoveries in a lab to clinical testing and treatments for patients. Recent translational research milestones include:

- Restoring sight in children and adults with congenital blindness using gene therapy.
- Developing personalized vaccines by engineering patients' own immune cells to be resistant to HIV infection, and to prevent recurrence of cancers including leukemia, lymphoma, and early-stage breast cancer.
- Pioneering biomarker tests for Alzheimer's and Parkinson's disease to detect and eventually treat these diseases before the onset of symptoms.

Research Driving Economic Recovery

The School of Medicine was awarded 330 American Recovery and Reinvestment Act (ARRA, or "stimulus") grants, with overall total project costs of \$180 million. These awards enable Penn physicians and scientists to develop their innovative ideas, while supporting job growth and retention in biomedical research. Stimulus-funded projects at Penn Medicine include:

- Constructing research space in the new Translational Research Center with a \$13 million grant.
- Conducting a large-scale study cross-referencing behavioral and genetic measures of mental illness to find genetic indicators and improve early detection.
- Discovering genes responsible for cholesterol and cardiovascular disease through genome-wide scans.

For more, visit www.med.upenn.edu/stimulus.

Penn Medicine is at the forefront of developing forward-thinking educational programs to prepare medical students for the evolving challenges of caring for patients. Its innovative curriculum, Curriculum2000, now in its 15th year, emphasizes small group instruction, self-directed learning, and flexibility. This curriculum has now become widely adopted as a model among medical schools across the nation. Just as the art and science of medicine is rapidly changing so, too, is the education of tomorrow's healers.

Among the innovative programs integrated into the curriculum:

- Simulation training in state-of-the-art medical techniques and procedures.
- Organized team training to prepare for multi-disciplinary treatment and practice settings.
- Standardized Patient program that helps students develop skills in interviewing and examination techniques.
- Longitudinal Experience to Appreciate Patient Perspective (LEAPP) to understand biopsychosocial model of chronic illness.
- Longitudinal curricula in health care systems, decision making, aging, cancer, cultural competency, and evidence-based medicine.

Today, this approach provides a gateway for medical students to explore vast arenas of educational offerings within the entire University of Pennsylvania community. Penn Medicine's interdisciplinary educational programs and dual degrees include:

- MD/PhD program which enrolls 150 students in biomedical graduate studies and is one of the largest programs in the country.
- MD/Master's degree programs including each of Penn Medicine's five master's degree programs (Bioethics, Clinical Epidemiology, Health Policy Research, Public Health, and Translational Medicine) as well as MD/Master of Business Administration (MBA) and MD/JD.

Penn Medicine's PhD training programs enroll 595 full-time pre-doctoral students in programs in Biochemistry & Molecular Biophysics, Cell & Molecular Biology, Epidemiology & Biostatistics, Genomics & Computational Biology, Immunology, Neuroscience, and Pharmacology.

Students are generally awarded financial support for the five years required, on average, to obtain the PhD degree.

Clinical Experiences

Penn medical students are provided both inpatient and ambulatory clinical care experiences throughout their training. Students acquire real-life, hands-on experience working with patients and their families at a variety of care settings, including:

- 12 tertiary/quaternary hospitals used for inpatient clinical training.
- 60 ambulatory sites including individual MD outpatient practices, group practices, and multidisciplinary clinics throughout the Delaware Valley used for all required clerkship and elective experiences.
- 5 community health clinics for the underserved run by students and faculty in the Philadelphia area. Close to 80% of Penn medical students participate in at least one clinic.

Global Engagement

Approximately one-third of each medical school class engages in one or more global health education and training opportunities through the School of Medicine's Global Health Program.

The program offers students the chance to participate in the global medical community through:

- Education and training, including international rotation opportunities such as the Botswana-UPenn Partnership.
- Research programs, including Impacta Peru and the Botswana-UPenn Partnership.
- Service and clinical programs that promote global health by serving immigrant populations such as Puentes de Salud and Language Link patient interpretation services.

The University of Pennsylvania Health System includes three hospitals in Philadelphia—the Hospital of the University of Pennsylvania (HUP), Penn Presbyterian Medical Center, and Pennsylvania Hospital—as well as multiple outpatient facilities and service programs throughout the region. Penn Medicine's commitment to excellence in patient care is reflected in the many honors we receive:

- HUP has been recognized as one of the top 10 "Honor Roll" hospitals by U.S.News & World Report.
- Penn Medicine physicians are consistently leaders in Philadelphia magazine's annual "Top Docs" issue.
- HUP nursing is among the finest in the nation, having been awarded Magnet status—the highest institutional honor awarded for nursing excellence—from the American Nurses Credentialing Center (ANCC).
- Penn's Abramson Cancer Center was rated "exceptional"—the highest possible rating—by the National Cancer Institute in its competitive funding review in 2010.

Penn Medicine is among the world's leaders in numerous areas of clinical medicine.

- The Roberts Proton Therapy Center is the nation's largest and most advanced center of its kind offering pinpoint precision radiation therapy for a variety of cancers. It is fully integrated with the full range of oncology services at the Abramson Cancer Center and offers patients opportunities to participate in the latest clinical trials.
- Penn surgeons pioneered Trans-Oral Robotic Surgery (TORS), a minimally invasive technique that removes tumors of the head and neck, safely, quickly, and with less trauma to the patient than current surgical procedures.

- Penn Medicine established a hand transplant program in 2010 that will provide complex bilateral reconstructive surgeries for patients whose lives have been severely impaired by the loss of multiple extremities.
- Penn surgeons are pioneering advances in robotic surgery for complex urologic, gynecologic and neurosurgical procedures.

Commitment to Quality and Patient Safety

Penn Medicine is committed to providing world-class care that is firmly based in clinical experience and scientific knowledge to achieve the best outcomes and safest care. Quality improvement and patient safety are primary goals that are continuously reinforced at all levels of the institution.

Penn Medicine's Blueprint for Quality, a system-wide strategy for quality, safety and satisfaction, has resulted in significant—and sustained—improvements. Achievements include drastically reducing hospital-acquired infections, preventing medication errors, and reducing rates of readmission to the hospital.

Penn's innovative Unit Based Clinical Leadership (UBCL) model brings together collaborative teams comprising physicians, nurse managers, quality coordinators, and nurse educators in patient units at each of Penn Medicine's hospitals. Working together, UBCL teams have been responsible for innovative quality improvements that help ensure the highest level of care.

Penn Medicine, a non-profit organization, is a world-renowned institution dedicated to discoveries that will advance science and patient care throughout the world and to the education of the physicians and scientists of tomorrow to carry on our legacy of excellence.



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