Bringing Value to Healthcare

2010 SYSTEM REPORT

REDEFINING BOUNDARIES®

GEISINGER
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What we’ve been working toward … is becoming a high-performance health system. That means creating a continuum of care with an emphasis on value—keeping costs down and quality up and working with payers to tie payment to outcomes.”

— Glenn D. Steele Jr., MD, PhD
Our Mission
Enhancing quality of life through an integrated health service organization based on a balanced program of patient care, education, research, and community service.

Our Vision
To be the health system of choice, advancing care through education and research. Our vision is focused on the following four themes:

- **Quality**—providing superb care across the organization
- **Value**—providing efficient and effective care where and when it is needed
- **Partnerships**—working collaboratively with other providers, businesses, and educational institutions
- **Advocacy**—championing causes to improve rural health

Strategic Priorities

- Quality and Value
- Innovation
- Expanding the Clinical Market
- Securing the Legacy
In 1915, Abigail Geisinger inspired her first surgeon-in-chief, Harold L. Foss, MD, to use his Mayo Clinic training to create a hospital grounded in the concepts of group practice and an interdisciplinary team approach to patient care. Ninety-six years later, Mrs. Geisinger’s hospital has evolved into a fully integrated health services organization that is dedicated to patient care, education, research, and service.

For generations, residents of this region have been the beneficiaries of Mrs. Geisinger’s vision. Now her dream is spreading … across the country and around the world. Healthcare strategists, government leaders, and industry pundits all are studying the Geisinger model in an effort to determine if what we do here can be generalized for use in other environments.

They are looking to Geisinger because, working with our board, staff, patients, and community, we have assumed accountability for coordinating and organizing care in order to reduce variability, improve outcomes, align incentives, and decrease costs.

Since the early days of the 20th century, Geisinger has been a visionary organization, an innovator, and a leader. We are proud that what we have built in the spirit of innovation, with the goal of “Striving for Perfection,” has become the model to which others aspire. Most of all, however, we are proud of our achievements and accomplishments right here at home … where we continue to improve the lives of the people for whom we care.
To Geisinger Health System (GHS) President and CEO Glenn D. Steele Jr., MD, PhD, that broad, even vague statement sets the stage for what may be the most exciting chapter in the system’s history. That’s because Dr. Steele, and Geisinger’s board, management and staff have spent nearly a decade preparing for a leap into the future that most hospitals and health systems are only beginning to contemplate.

The new health reform law contains only the barest outline of what an ACO is—volumes of federal regulations and real-world experiences will guide change that will go on for decades. To many healthcare policymakers, the answer to repairing the nation’s fragmented healthcare delivery system has been “hiding in plain sight” for years at places such as Geisinger, Henry Ford Health System in Michigan, Intermountain Health in Utah, and Kaiser Permanente.

These health systems have had the basic components in place for decades and will have a strong influence on the shape of American healthcare in the future. “When I came to Geisinger, all the pieces were here—clinical integration and the insurance element in the health plan,” Dr. Steele notes. “What we’ve been working toward—and why I think we’re ready to excel in this new era of change—is becoming a high-performance health system. That means creating a continuum of care with an emphasis on value—keeping costs down and quality up and working with payers to tie payment to outcomes.” In high-performing health systems, affecting population health becomes not just good community benefit but a path to

“A group of healthcare providers who give coordinated care, chronic disease management, and thereby improve the quality of care patients receive. The organization’s payment is tied to achieving healthcare quality goals and outcomes that result in cost savings.”

That’s the definition of an “accountable care organization” (ACO) that is found on the U.S. government’s official healthcare reform website. Sort through more than 2,000 pages of the new Patient Protection and Affordable Care Act and it is clear that much of the success of healthcare reform in America will depend on how quickly and how well hospitals, physicians, insurers, and others can join forces to become ACOs.

*Source: healthreform.gov
organizational success. That philosophy has played itself out in the way Geisinger has carefully built strong relationships with other providers in its region and in its priorities on research and learning.

And the future, as Dr. Steele envisions it, will mean enormous strides in helping people manage their own health and live healthier lives, and communities that will be more stable socially and economically.

Dr. Steele believes the new healthcare reform law is the beginning of the end of the old delivery system of disconnected, piecemeal medical services that promotes waste and inefficiency, frustrates patients and families, and often gets in the way of high-quality care. "The old outlook was that quality was connected to access; the more services you got, the higher the quality," he notes. "Most Americans are beginning to think differently. They want their care coordinated at every stage with everyone, including themselves, having access to good information."

Could the shifting political winds in Washington result in stopping healthcare reform in its tracks? Not a chance, according to Dr. Steele. "They can slow it down or create the incentives to move change forward faster, but it will happen regardless because it has to happen."

Hospital leaders across America are looking closely at Geisinger and places similar to it as they try to sort out what they will look like and what path they will follow.

Richard J. Umbdenstock, president of the American Hospital Association adds a national perspective. "Geisinger Health System is particularly well positioned to be a national leader in creating the healthcare delivery system of the future. They have steadily built the components and culture that is the backbone of accountable care that we all hope will result in the highest quality, safest, and most efficient care for every patient served."

What Is an Integrated Delivery System?

The "Integrated Delivery System" is a healthcare model in which doctors and hospitals agree to take joint responsibility for keeping patients healthy and to share in any financial benefits that result. Integrated health systems like Geisinger are well positioned to assume the mantle of an ACO, one of the key delivery system reforms that is a key component of the Patient Protection and Affordable Care Act.

Geisinger’s doctors, hospitals, and health plan have partnered to launch innovative initiatives designed to provide a coordinated approach to the continuum of care—preventive, primary, acute, and inpatient care.

Today, Geisinger’s integrated healthcare delivery system parallels the qualities of an ACO:

- Integrated technology that enhances patient care
- Discovery and innovation
- Partnership and collaboration
- Value creation
Technology-Enhanced Patient Care

“What we really want to do is encourage spending for healthcare that is medically appropriate and produced in an efficient environment.”

—Gail R. Wilensky, PhD, Economist, Senior Fellow, Project Hope, Member, Geisinger Health System Board of Directors

Geisinger’s sophisticated health information technology (HIT) enables caregivers to provide consistent care at a reduced cost across the system’s footprint through a number of innovative initiatives. A sampling of these programs follows.

ProvenCare®

ProvenCare is a multipronged approach to providing quality care at a reduced cost. ProvenCare, a collaborative effort between Geisinger Clinic and Geisinger Health Plan (GHP), relies on the redesign of care processes and Geisinger’s advanced electronic health record (EHR) to create and standardize evidence-based best-practice “bundles” of care. Findings show that the program has significantly increased adherence with guidelines and improved clinical outcomes.

Strategic Priorities:

- Identify high-volume diagnostic-related groupings
- Determine best-practice techniques
- Deliver evidence-based care
- GHP pays global fee
- No additional payment for complications

ProvenCare® Acute Episodic—Recognized by The New York Times, The Washington Post, The Financial Times, and others, the model features a global price that covers all aspects of preadmission, inpatient, and follow-up care at a Geisinger facility, as well as any care including readmission, due to postoperative complications within a 90-day period. Originally designed for coronary artery bypass graft (CABG) surgery, the model has been expanded to cover other surgical and interventional procedures related to bariatric surgery, hip replacement, and cataract surgery. Results consistently show decreased mortality, rates of infection and other complications, length of stay, and readmission rates. The ProvenCare Acute Episodic Care Portfolio includes:

- Total hip replacement
- Cataract removal
- Percutaneous coronary intervention
- Bariatric surgery
- Perinatal care and delivery
- Low back pain management
- Chronic kidney disease and erythropoietin
- Lung cancer resection (National Collaborative)

*Throughout this document the acronym “GHS” or the terms “System,” “Geisinger” or “Geisinger Health System” shall refer to the entire Healthcare System comprised of the Geisinger Health System Foundation (the “Foundation”) as parent and all subsidiary corporate entities comprising the Healthcare System.
ProvenCare® Chronic Disease—Following many of the principles of the ProvenCare Acute Episodic model, this initiative expands bundling to the chronic care continuum—providing care in the hospital, in physicians’ offices, at home, or in other settings. It also covers adult disease prevention. Payment arrangements include a quality-based incentive program for primary care providers (PCPs). As with the acute episodic model, evidence-based, standardized best practices are hardwired into the EHR to ensure that every patient receives every element of care, every time. The ProvenCare Chronic Disease portfolio includes:

- Diabetes
- Congestive heart failure
- Coronary artery disease
- Hypertension
- Prevention bundle

Anticoagulant Compliance

Another example in which HIT enhances patient care and improves outcomes is Geisinger’s Anticoagulant Management Service. The program uses HIT to manage the dosing of commonly prescribed oral anticoagulants (blood thinners).

FAST FACTS: Geisinger’s Anticoagulation Management Service*

- 14 full-time equivalent pharmacists
- 7,000 patients
- 11,000 encounters per month
- 8 locations
- $329,000 per year cost avoidance in stroke care
- 94 patients prevented from potentially suffering a stroke
- $1 million savings in initial stroke care

Care Gaps

Geisinger’s staff leverages the system’s EHR to deliver targeted, optimum care. By systematically identifying patients who are due for regular screenings, vaccinations, and testing as part of an overall wellness standard—e.g., colonoscopy, mammograms, flu and pneumonia vaccines, tetanus boosters, bone density screening—Geisinger closes preventive, chronic, and restorative care gaps for targeted patient populations by age/gender, disease, or condition.

As of July 2010, 50,872 care gaps were closed, with a net contribution margin of $5 million.

*2009 statistics
ProvenHealth Navigator™
(Advanced Medical Home)

ProvenHealth Navigator (PHN), a collaboration between GHP and Geisinger Clinic, is the system’s patient-centered advanced medical home initiative.

Rolled out in 2007, PHN is designed to drive sustained changes in healthcare quality and value by providing physician-directed, team-based care. The model is designed to improve the quality of care provided in physician offices through the implementation of a series of patient-centered, integrated, physician-guided, cost-effective, and evidenced-based longitudinal protocols.

Results of a Geisinger study published in the August 2010 edition of the American Journal of Managed Care show that PHN is capable of simultaneously improving quality and reducing costs, while enhancing physician and patient satisfaction.

The observational study looked at four years of claims data for approximately 15,000 of GHP’s Medicare Advantage members at 11 of Geisinger’s community practice sites.

When compared with a control group, over the past three years PHN reduced hospital 30-day readmissions by 40% and overall hospital admissions by 20%. Additionally, the cost of care for PHN patients was 7% less than the cost of care for patients in the control group.

Today, PHN has been adopted at 31 Geisinger community practice sites, one internal medicine practice, and five non-Geisinger practice sites. It employs 61 case managers (paid for by GHP) who work in physician offices. By early 2011, PHN will be rolled out to the remaining Geisinger community practice sites as well as to other contracted practices.
Improving Diabetes Care

More than five years ago, a multidisciplinary group, including endocrinologists, family physicians, internists, nurse practitioners, diabetic nurse educators, and operations managers, began to develop standards of care for diabetes.

Today, physicians are charged with delivering a “bundle” of nine quality-care measures for patients with diabetes. In return, GHP pays an incentive to physicians based on how well they deliver these measures.

The diabetes bundling program is designed to engage patients in their own care and to use physicians’ time as efficiently as possible. For example, patients with gaps between visits or tests receive automated phone calls to assist them with scheduling appointments. Nurses and nurse educators monitor many of the required quality measures, allowing physicians to focus on complex medical decisions and goal-setting with the patient.

Diabetes Quality Measure Improvement

<table>
<thead>
<tr>
<th>Patients meeting ALL goals in bundle</th>
<th>3/06</th>
<th>7/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>% HbA1c measurement /% at goal</td>
<td>2.4%</td>
<td>12.9%</td>
</tr>
<tr>
<td>LDL control /% LDL at goal</td>
<td>33%</td>
<td>52%</td>
</tr>
<tr>
<td>BP control /% BP &lt;130/80 mmHg</td>
<td>50%</td>
<td>54%</td>
</tr>
<tr>
<td>Urine protein testing /% microalbumin order</td>
<td>39%</td>
<td>54%</td>
</tr>
<tr>
<td>% Influenza immunization</td>
<td>58%</td>
<td>88%</td>
</tr>
<tr>
<td>% Pneumococcal immunization</td>
<td>57%</td>
<td>75%</td>
</tr>
<tr>
<td>Smoking status /% documented nonsmokers</td>
<td>59%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Transitions of Care™

Working hand in hand with PHN, Transitions of Care focuses on safe and coordinated transfers of patients as they move from inpatient to outpatient environments. Through the use of modeling and predictive instruments, Transitions of Care is designed to improve care quality and patient outcomes, increase efficiencies in care delivery and costs, and reduce length of stay and readmissions. Fundamental to this initiative are five critical components:

- **Outpatient screening**: for planned surgery or emergency department (unplanned admissions)
- **Proactive outreach**: outpatient care management for at-risk patients discharged after surgery, as well as for patients with heart failure, chronic obstructive pulmonary disease, and other chronic diseases
- **Patient/family education**
- **Interdisciplinary unit rounds**: include entire care team from physician and nurse to pharmacy and physical therapy
- **Postdischarge communication**: “synopsis/summary,” follow-up appointment with PCP
That journey will necessitate re-engineering the nation’s healthcare delivery system in communities across America. Although the evolving models are many, one thing is clear: Health systems with strong research agendas and the ability to quickly translate that research into clinical protocols and processes will set the pace for the rest of the healthcare field.

And that is the vision that Dr. Ledbetter, with Geisinger’s 10-year strategic research plan as a roadmap, is determined to make a reality. Before joining Geisinger, Dr. Ledbetter chaired its external scientific

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“The areas of research we are pursuing connect at almost every point with the learning and innovation that will be critical to meeting the challenges ahead.”

—David H. Ledbetter, PhD
Chief Scientific Officer, Geisinger Health System
advisory board for seven years and played a key role in crafting that plan, as well as developing the Geisinger Clinic Genomics Core and MyCode (biobanking) programs.

“The areas of research we are pursuing connect at almost every point with the learning and innovation that will be critical to meeting the challenges ahead,” he notes. “If improving outcomes and achieving personalized healthcare for every patient is the goal, research is the vehicle for getting there.”

He also is quick to make the link between more global research initiatives such as the human genome project—with which he has been deeply involved throughout his career—and what Geisinger is aiming for. “The vast learning in genetics is ready to be married into much of what Geisinger is working on today, particularly comparative effectiveness research.” Without genomics, it will be impossible, Dr. Ledbetter says, to have better outcomes for patients and hold down costs.

He also believes that Geisinger’s unique culture will play an enormous role in boosting it into the top ranks of research. His conversation is peppered with phrases such as “team science,” “team research,” “collegiality,” “shared goals,” and the “entrepreneurial spirit” that will drive the system in the years ahead.

“One of the most important things we can grow here is Geisinger’s reputation for research with real-world implications … not in centers away from people’s lives and the places they depend on for health information and care.”

Dr. Ledbetter’s bedrock belief in growing the research portfolio will be demonstrated in key recruitments in the future and more partnerships similar to those the system already enjoys with Johns Hopkins and New York University. He also envisions more investigators opening new lines of study in more clinical divisions.

Does the state of the current economy dampen Dr. Ledbetter’s confidence in Geisinger’s aggressive plans? Not at all.

“There is always funding for the best ideas and the best projects,” he says.
Research Entities

Systemwide research is conducted by clinicians who, in addition to providing patient care, also engage in numerous funded projects, including investigator-initiated research, collaborative research, and externally funded research.

**Sigfried and Janet Weis Center for Research** (Weis Center), Geisinger’s molecular laboratory research facility, located on the Geisinger Medical Center (GMC) campus, conducts original and innovative research that contributes new knowledge to biomedical science with a focus on molecular and cellular mechanisms. Through collaborations with clinicians, Geisinger Center for Health Research, and Geisinger Center for Clinical Studies, Weis Center scientists strive to understand the molecular and genetic basis of a variety of conditions and translate this knowledge to patient care.

**Geisinger Center for Clinical Studies (GCCS)** is focused on expanding the number of research studies of new medicines, medical devices, procedures, and treatment strategies. GCCS supports a number of trial designs, including pragmatic and traditional randomized, and observational and retrospective studies. These studies may be designed by Geisinger clinical investigators or outside organizations such as pharmaceutical companies and medical device manufacturers.

**Geisinger Center for Health Research (GCHR)** is focused on accelerating discoveries that improve population health, revolutionize the translation of knowledge into practice, and create healthcare solutions that are both patient-centered and economically sustainable.

A leader in the use of information technology to advance the quality and efficiency of and access to healthcare, areas of concentration include health services, epidemiology, medical informatics, pharmaco-epidemiology, genetics, environmental sciences, sociology, behavioral sciences, and statistics. Investigators use their expertise to leverage Geisinger’s unique population, EHR, geographic information system database, biobanked resources, and information technology to explore innovative healthcare models.

*Glenn Gerhard, MD, Director, Geisinger Clinic Genomics Core and David Carey, PhD, Director, Sigfried and Janet Weis Center for Research*
Personalized Health

One of the key focuses of research in the next 10 years will be personalized health, the use of environmental and genomic information to help predict how well a patient will react to a therapy. By adding genetic information into a treatment protocol, physicians are able to work with patients to make better treatment decisions. As shown in the figure below, Geisinger has developed a variety of programs in support of personalized health initiatives.

Applying Personalized Health to the Study of Obesity

One of the distinguishing characteristics of research at Geisinger is the ability to work with clinical partners and other research entities within and outside the system. Geisinger’s Obesity Institute is a perfect example.

Working with the Translational Genomics Research Institute (TGen) in Phoenix, researchers at Geisinger’s Obesity Institute are looking at possible genetic reasons why so many Americans are overweight, and why diet, exercise, and specifically, bariatric surgery, may fail to significantly reduce excess weight in some patients.

Geisinger and TGen also are leveraging each other’s expertise to uncover genetic mutations that predispose patients to diseases such as congestive heart failure, abdominal aortic aneurysms, and the potential side effects of prescription drugs.
Continuum of Care Study

Timely, acuity-stratified care delivered by the coordinated efforts of a team of healthcare professionals has the potential to save nearly 100,000 hospitalized patient lives per year and significant healthcare dollars, according to a large national prospective study, conducted by Geisinger’s director of surgical innovation, Thanjavur S. Ravikumar, MD, FACS, and led by co-author Cordelia Sharma, MD. Called “Continuum of Care,” the initiative redesigns the workflow and delivery of hospital-based care to maximize clinical effectiveness.

Clinical Trial Enrollment

Geisinger’s advanced EHR system enables researchers to efficiently identify patients who may benefit from a trial, and provides the mechanism for informing potential research candidates about research opportunities.

For example, the EHR system is credited with helping to enroll a record number of patients in the important cardiac clinical trial known as STABILITY. Geisinger enrolled more patients in the STABILITY trial than did any of the 158 other participating major medical research institutions in the United States.

The goal of the STABILITY trial is to determine whether an experimental drug that lowers a new form of “bad cholesterol” (LP-PLA2) by 65% also reduces cardiovascular death, myocardial infarction, and stroke.

National Cancer Centers Program

Geisinger Medical Center (GMC) is among 14 new sites chosen by the National Cancer Institute (NCI) to join a national network of community cancer centers offering expanded research opportunities and providing advanced cancer care to largely rural, suburban, small-town, and underserved populations.

The NCI Community Cancer Centers Program (NCCCP) is designed to create new research opportunities across the cancer continuum from screening and treatment to follow-up care. NCCCP centers such as Geisinger are addressing ways to reduce healthcare disparities, improve access to clinical trials, enhance overall quality of care, promote an infrastructure to collect high-quality biospecimens such as blood and tissue samples for research, and link with national computer networks that support research. The centers also work to improve survivorship, palliative care services, and patient advocacy.

Rheum-PACER™

It is increasingly common for a Geisinger physician to observe an opportunity to redesign patient care and turn to Geisinger researchers for help developing a solution. One such example is Rheum-PACER™ (PAatient-Centric Electronic Redesign). Funded by the Agency for Health Research and Quality (AHRQ) and developed in a partnership between Geisinger Clinic’s rheumatologist Eric Newman, MD, and GCHR Director Walter “Buzz” Stewart, PhD, Rheum-PACER is a technology-based approach to collecting, aggregating, exchanging, and displaying
data about patients with rheumatologic disorders and delivering that information to their healthcare providers (rheumatologists, nurses) and their EHR. By measuring the results of this new methodology, Geisinger researchers will be able to determine if the methodology can be expanded effectively to other clinical areas.

Biobanking Resource

Geisinger’s centralized repository for research biospecimens (biobank), called MyCode™, houses more than 72,000 samples of blood, serum, and DNA, all of which are collected, preserved, and used for research purposes. MyCode’s ability to link samples to Geisinger’s EHR, makes it particularly valuable to researchers. Most recently, MyCode has expanded to include tissue samples, as a result of funding from the NCCCP award.

MyCode™ at a Glance

<table>
<thead>
<tr>
<th>Individual patients</th>
<th>&gt;32,000</th>
</tr>
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<tbody>
<tr>
<td>• Primary Care</td>
<td>16,714</td>
</tr>
<tr>
<td>• Specialty Care</td>
<td>&gt;15,000</td>
</tr>
<tr>
<td>Total Samples</td>
<td>&gt;72,000</td>
</tr>
<tr>
<td>• Blood samples</td>
<td>21,408</td>
</tr>
<tr>
<td>• Serum samples</td>
<td>31,063</td>
</tr>
<tr>
<td>• DNA samples</td>
<td>13,931</td>
</tr>
<tr>
<td>• Tissue samples</td>
<td>2,745</td>
</tr>
</tbody>
</table>

Clinical Decision Intelligence System (CDIS)

Nearly six years ago, Geisinger, in collaboration with IBM®, initiated its "data warehouse," known as CDIS. A resource for researchers and clinicians, CDIS integrates nearly 15 years of EHR data on insurance claims, billing information, pathology/laboratory orders, and results from more than 3 million Geisinger patients. This information provides clinicians and researchers with a valuable decision-support and predictive modeling tool. In obstetrics and gynecology, for example, clinician researchers use CDIS data to study the prevalence of gestational diabetes in overweight pregnant women.

Jonathan Darer, MD, MPH
Medical Director, Clinical Transformation
Clinical Director, CDIS
One of the characteristics that distinguishes Geisinger is its ability to partner with a variety of organizations, ranging from national organizations such as the American College of Surgeons, and a variety of local hospitals, physicians, and educational institutions. Geisinger continues to build partnerships and collaborations at the local, regional, and national levels in order to improve the way healthcare is provided and paid for in Pennsylvania and beyond. Examples of partnerships and collaboration include education, telemedicine, Keystone Beacon Community Award, and ProvenCare Lung Cancer.

Education

Geisinger has a long-standing commitment to medical education and takes seriously its responsibility to train physicians, nurses, and other healthcare professionals. The health system’s unwavering emphasis on academic excellence will help prepare well-trained medical providers for the anticipated increase in patient demand.

Geisinger serves as the clinical campus of Temple University School of Medicine and The Philadelphia College of Osteopathic Medicine. Each year, more than 200 medical students from these and other top educational institutions complete their training at Geisinger. The system offers programs that spotlight Geisinger’s unique and visionary attributes as an integrated delivery system, as well as HIT, innovation, and education in medical specialties and clinical electives.

Geisinger trains more than 300 residents at the GMC and Geisinger Wyoming Valley Medical Center (GWV) campuses. Of the 111 residents and fellows in Geisinger’s most recent graduating class, 30 decided to continue their medical careers at Geisinger and six began a new standard training program as advanced residents or fellows. An additional 18 are continuing their careers at other Pennsylvania health organizations.

In addition to training physicians, Geisinger recognizes the importance of nurses, certified registered nurse practitioners, physician assistants, pharmacists, and others in the overall team approach to quality patient care. To respond to the increasing professional development needs of the healthcare workforce, the
health system offers various allied health programs including the School of Cardiovascular Technology, Dietetic Internship Program, Spiritual Care Residency Program, Physician Assistant Education (including a surgical residency), School of Radiological Technology, and School of Phlebotomy. Educational opportunities also are offered for social workers, athletic trainers, cardiac catheterization technicians, counselors, psychologists, and occupational therapists.

As a participating nursing education partner with Thomas Jefferson University School of Nursing, Bloomsburg University, and other local colleges, universities, and technical schools, Geisinger provides educator and preceptor partnerships, enhancing the practice of nursing throughout the health system and the region. Available are an associate degree RN program, nursing doctorate program, and a certified registered nurse anesthetist program.

**ProvenCare® Lung Cancer**

A collaborative between Geisinger, the American College of Surgeons Commission on Cancer, the Society of Thoracic Surgeons, and five major healthcare providers, ProvenCare Lung Cancer is designed to apply the ProvenCare evidence-based approach to re-engineering the diagnosis, staging, and therapy for patients with a type of lung cancer known as non-small cell lung cancer. Launched in July 2010, the ProvenCare Lung Cancer Collaborative is expected to enroll approximately 1,000 patients.

By achieving the 38 evidence-based standards of care that have been identified for this initiative, doctors hope to see improved clinical outcomes and increased patient engagement.

In addition to Geisinger, other participating healthcare provider organizations include Duke Raleigh Hospital, Raleigh, NC; Kern Medical Center, Bakersfield, CA; North Shore University Medical System, Evanston, IL; Northwestern University Medical Center, Chicago; and the University of Washington Medical Center, Seattle.

**Office of Industry Partnerships and Relations**

The Office of Strategic Partnerships and Negotiations is charged with developing partnerships with global companies whose complementary assets can enable Geisinger to convert its successful innovations and programs into scalable solutions that can be disseminated and applied nationally.

*Jeffrey Prichard, DO, Clinical Pathologist and Michael Hoerres, Principal, Geisinger Ventures*
Partnerships & Collaboration

**Telemedicine**

Geisinger’s telemedicine programs serve patients, doctors, and hospitals throughout central and northeastern Pennsylvania.

**eICU®**

According to the Leapfrog Group for Patient Safety, studies reveal that at least one in 10 intensive care unit (ICU) patient deaths could be avoided if dedicated intensivists were present in the ICU to manage patient care. Many small and/or rural hospitals do not have critical care specialists on staff; however, Geisinger’s eICU program connects remote ICUs to a team of critical care specialists at GMC. These specialists constantly monitor patients’ vital information and clinical status in real time, using video telemonitoring equipment.

**Pediatric Cardiology Telemedicine**

Pediatric cardiology specialists provide expert interpretations of echocardiograms, electrocardiograms, and Holter monitoring exams for regional hospitals and providers. Sophisticated digital equipment allows participants to transmit studies to Geisinger’s specialists for interpretation, facilitating more timely, accurate diagnosis and treatment planning.

**Tele-Pathology**

Dozens of pathology specialists are available through Geisinger’s tele-pathology system to provide coverage or consultations for providers whether or not they have their own pathologists.

**Tele-Stroke Program**

A certified primary stroke center and the only neurovascular intervention center in the region, GMC employs board-certified stroke specialists who use video, audio, and electronic monitoring technology to help physicians diagnose and treat stroke patients with clot-busting thrombolytic medications in participating hospitals, 24 hours a day. Geisinger recently partnered with Evangelical Community Hospital and Lewistown Hospital to expand stroke services in the Central Susquehanna Valley and Lewistown areas.

**Trauma Transfer Program**

More than 3,400 patients are transferred to Geisinger emergency departments from other hospitals each year. Patient information is sent electronically and viewed in real time to expedite care and reduce the number of redundant diagnostic tests.
Keystone Health Information Exchange

In 2004, Geisinger received a $1.5 million grant from the AHRQ to develop a secure web-based network that links participating hospitals and other healthcare providers in the region, providing seamless and secure access to patients’ health information, including diagnoses, test results, allergies, and medication lists.

Today, more than 250,000 patients have provided written authorization to share their information within the Keystone Health Information Exchange (KeyHIE), which links 50 hospitals covering more than 31 Pennsylvania counties.

With a goal of improving patient care, increasing efficiency, and reducing errors through access to critical care information, KeyHIE also decreases costs associated with unnecessary or duplicative procedures.

Keystone Beacon Community Award

Geisinger was awarded a $16 million grant to create the Keystone Beacon Community as part of the U.S. Department of Health and Human Services’ Beacon Community cooperative program.

The Keystone Beacon Community, which builds on the KeyHIE secure electronic infrastructure, will focus on improving continuity, quality, and efficiency of patient care. At the same time, it will leverage electronic connectivity to smooth patient transitions throughout the care continuum—primary care, free clinics, inpatient, outpatient, and home health and skilled nursing facilities.

The funding will allow Geisinger to extend the benefits of its patient-focused HIT initiatives, including PHN, to other healthcare providers throughout Columbia, Montour, Northumberland, Snyder, and Union counties. Ultimately, the plan is to roll out the service regionally to illustrate that improved patient outcomes resulting from HIT and care coordination can be achieved beyond the walls of institutions such as Geisinger.
The law, which will provide health coverage for 32 million uninsured Americans, validates the path GHP has been on for nearly a decade: to transform the role of insurers from merely payers to players in a quest to make healthcare work, as it never has for patients and families.

Ms. Haynes points to the model Geisinger Health System has constructed—integrating its health plan, hospitals, physicians, and research activities into a tightly knit collaboration and then reaching out to share these models and our successes with non-Geisinger providers.

For many health plan leaders, the future under healthcare reform is a puzzle. The “pieces” of the puzzle are doctors, hospitals, and payers, in fact, every organization and individual to which people look for healthcare services at every stage of life. And when the puzzle is put together, the picture that emerges is a far more patient-centered and efficient healthcare system. Many leaders find this puzzle difficult to assemble.

However, when Jean Haynes, Chief Executive Officer of GHP, read the more than 2,000 pages of the new Patient Protection and Affordable Care Act shortly after its passage last year, she could see the pieces, the big picture, and something more.

“... providers and payers must set aside old attitudes and barriers and work with common goals, outcomes, and standards.”

—Jean Haynes, CEO, Geisinger Health Plan
“We’ve set out to improve our members’ health and decrease cost, thereby providing greater value. It’s a continuous process of learning and improving,” Ms. Haynes explains. “Our goal is to help transform the way healthcare is delivered, making it more accessible to patients and families, while increasing value for those who pay insurance premiums,” Ms. Haynes notes. “To transform healthcare, providers and payers must set aside old attitudes and barriers and work with common goals, outcomes, and standards. That’s been the key to what we’ve been able to accomplish here.”

Not only is Ms. Haynes’ view of Geisinger’s future rooted in her work in weaving the health plan into the organizational culture that’s made Geisinger the object of national attention, it also springs from her clinical background in nursing and clinical quality and her belief that the objectives of improving health outcomes and reducing costs only can be achieved when providers and payers work together to accept accountability for a population’s health outcomes. This premise comes through as she describes how Geisinger not only put the pieces of the puzzle together, but keeps the health plan focused on patients and members.

“We share information across the entire health system—both the clinical and insurance components. Everybody has timely information, including patients and families, for decision making.” Right-time data enables caregivers to act quickly to help avoid an emergency room visit or a hospital admission or readmission. That kind of data-driven response will be vital to meeting objectives such as top-notch quality and lower costs.

She is quick to acknowledge that the next few years will pose challenges, even for systems as far along the path to becoming an accountable care organization as Geisinger. She’s equally quick to note that the Geisinger team is motivated to meet these challenges.

“Right now, for example, we’re working closely with skilled nursing facilities and specialists. We’re building out the concept of a medical home by involving them in new ways … linking them more closely to the continuum of care.” She particularly stresses the participation of the specialist in forming treatment plans for patients with chronic conditions.

“We’ve had successes and setbacks in making changes to the care delivery model,” Ms. Haynes says. “But we learn from both and keep moving forward, always intent on improving the health status and outcomes for the populations we serve.”

“Health plans are very likely in most cases to be the organizers of the payment systems for the ACOs. They will be providing the glue that will hold ACOs together.”

—Thomas H. Lee, Jr., MD, Network President
Partners Healthcare System
Member, Geisinger Health System Foundation Board of Directors
Geisinger leaders believe that a quality and value-driven incentive program is critical to the system’s success. At Geisinger, key stakeholders, including providers and payers, work with leadership to craft incentives that focus on efficiently delivering high-quality care. Establishing this new model of care is no small task and clearly stakeholder buy-in is essential to ensure ongoing support.

Geisinger and Medicare’s Shared Savings Program

Healthcare reform has placed the concept of accountable care on the agenda. Picking up the ball, Medicare is set to launch a Shared Savings Program no later than January 2012 with Geisinger as one of only a handful of healthcare organizations to be cited as meeting the standard of accountability.

The project’s goal will be to bend the cost growth curve. To do this, the Centers for Medicare & Medicaid (CMS) will establish a spending benchmark or savings target. CMS will share the calculated savings with the ACO. It is important to note that this program generates a bonus for savings, but there is no penalty for exceeding the target.

According to the act, the Shared Savings Program will be open only to healthcare systems that include PCPs and that are willing to work together to improve quality in an organization that can:

- be accountable for quality, cost, and care of a population of Medicare beneficiaries
- participate for not less than three years
- belong to a legal structure that can receive and distribute bundled shared savings payments
- demonstrate the inclusion of a sufficient number of PCPs for the number of assigned Medicare patients (at least 5,000)

The once-popular risk-sharing arrangements between payers and providers often failed, partly because providers didn’t have health information and supporting technology to assist in managing the care of a population. Today, Geisinger providers do. As a result, GHP can share financial targets with providers so they know what their goals are. Predictive modeling helps target high-risk patients who will benefit from case management. Data about inpatient admissions, high-dollar radiology services, and prior authorizations are promptly shared. Rather than waiting 90 days for claims data, providers have an early indication about utilization and can take corrective action.

Physician Payment Models

Geisinger’s successful PHN can trace its roots to primary care bonus programs. GHP implemented these programs years ago when bonus funds were paid to primary care physicians (PCPs) based on member satisfaction, efficiency, and meeting specific standards of care. The EHR, bundles of care, patient registries, and better sharing of data between payer and provider have laid the groundwork for more effective payment models.

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- participate for not less than three years
- belong to a legal structure that can receive and distribute bundled shared savings payments
- demonstrate the inclusion of a sufficient number of PCPs for the number of assigned Medicare patients (at least 5,000)
Physician Group Practice Project

The CMS took a giant leap forward in studying new provider payment models via the “Physician Group Practice” (PGP) demonstration project. Geisinger was one of the 10 group practices from across the country chosen to participate.

PGP piloted a reimbursement system that rewarded providers for coordinating and managing the healthcare needs of at-risk patients covered by traditional fee-for-service Medicare. It offered the opportunity to test whether a new financial incentive structure could improve care delivery and quality, while reducing costs.

Geisinger took advantage of its integrated delivery system structure: clinicians partnered with GHP to care for these patients and GHP case management nurses worked on-site with Geisinger providers to more closely manage their patients’ care. Geisinger fared well in the project, exceeding predetermined quality and cost targets and sharing the savings that resulted.

Geisinger Accelerated Performance Program

GAPP is the system’s ambitious program to support clinical and operational leaders in the design and spread of best practices to deliver transformational results. The initiative has the potential to produce more than $100 million in one time and annual savings/value while simultaneously improving clinical outcomes. GAPP is a fundamental approach, capitalizing on the “bias toward excellence and innovation” that permeates the organization.

Seth Frazier, MBA
Chief Transformation Officer
The Geisinger System

Geisinger Health System (Geisinger) serves more than 2.6 million residents in 42 counties as a not-for-profit, fully integrated health services organization that is dedicated to excellence in care, education, research, and service. The physician-led system includes a multidisciplinary physician group practice with systemwide aligned goals, successful clinical programs, a sophisticated information technology platform, a robust research program, and an insurance provider (GHP).

Geisinger Health System Coverage Area

The system is comprised of:

Geisinger Clinic is widely regarded as a national model of healthcare delivery centered around a cutting-edge multispecialty group practice of more than 800 primary and specialty physicians who practice at Geisinger hospitals, as well as at non-Geisinger hospitals throughout the region.
Geisinger Medical Center (GMC), the largest tertiary/quarternary care teaching hospital in northeastern and central Pennsylvania, has earned a reputation for providing leading-edge medicine and treating the most critically ill patients. GMC is licensed for 485 beds, including 89 pediatric beds in the Janet Weis Children’s Hospital. GMC maintains the region’s only Level I Regional Resource Trauma Center with additional qualifications in pediatrics. GMC offers a comprehensive array of highly specialized medical and surgical services, including neurosciences, cardiovascular services, transplantation, women’s health (in GMC’s Women’s Pavilion), pediatrics, orthopedics, and oncology.

Outpatient services, including endoscopy and same-day surgery, are available on GMC’s main campus, as well as at the GMC Outpatient Surgery Center-Woodbine Lane campus.

GMC’s newest addition, the Hospital for Advanced Medicine, serves as an integrated center for the most critically ill patients. This 308,000-square-foot “hospital within a hospital” houses nine stories of patient-focused space, including acuity adaptable beds that can convert from intensive care to recovery as the patient progresses. The hospital offers state-of-the-art inpatient and physician office facilities with cardiovascular services residing within the building, a new 32,000-square-foot surgical suite equipped with sophisticated robotic and interventional medical equipment and shell space for future growth. This hospital is LEED-eligible (Leadership in Energy and Environmental Design), with environmentally friendly designs, recycled materials used in its construction, and increased energy efficiency achieved by maximizing natural window light in patient rooms and offices.
The Geisinger System

**Geisinger Northeast** is an innovative healthcare model featuring one hospital—Geisinger Wyoming Valley—with two campuses.

**Geisinger Wyoming Valley Medical Center (GWV)** in Plains Township is an acute tertiary care center that brings advanced clinical services to northeastern Pennsylvania. Licensed for 242 beds, GWV’s state-of-the-art Critical Care Building houses the only Level II Trauma Center in Luzerne County. The GWV campus includes the Frank M. and Dorothea Henry Cancer Center, the Richard and Marion Pearsall Heart Hospital (an accredited Chest Pain Center), the Janet Weis Children’s Hospital Pediatric Unit, a transplant program, the Brain & Spine Tumor Institute, and more. GWV’s Women’s Health Program and various specialty clinics are offered at facilities in close proximity to GWV’s main campus.

**Geisinger South Wilkes-Barre** is GWV’s regional ambulatory campus. It offers an array of same-day health services, including adult and pediatric Urgent Care Centers, inpatient and outpatient rehabilitation, same-day surgery, pain and sleep centers, and more.

**Geisinger Medical Groups (GMG)** bring Geisinger expertise and advanced services to communities throughout central and northeastern Pennsylvania through a network of 38 physician office locations. In addition to providing primary and specialty care, the medical groups offer patients the opportunity to participate in clinical trials and research initiatives in collaboration with Geisinger’s research centers, creating evidence that is both timely and directly relevant to clinical care. In conjunction with GHP, the medical groups also offer their own unique model of medical home, called ProvenHealth Navigator—a program that embeds nurse case managers in the medical group offices in an effort to advance chronic disease prevention and care management that have resulted in reduced hospital admissions, readmissions, and emergency room visits.

**Geisinger Health Plan (GHP)** plays an important role in the success and mission of Geisinger Health System. Based in Danville, GHP provides insurance coverage to 250,000 residents in 42 counties in Pennsylvania and has a provider network with more than 4,000 PCPs and 27,000 specialists and 94 hospitals. GHP offers a wide range of products including HMO, PPO, employer self-funded, and high-deductible plans at affordable rates for individuals, families, employer groups, and Medicare beneficiaries.
In recent years, GHP has earned national recognition for quality services. In 2008, GHP was named “Outstanding Health Plan” by the nation’s premier disease management trade group, DMAA: The Care Continuum Alliance. For the third consecutive year, GHP was the top-ranked commercial and Medicare health plan in Pennsylvania and among the top 10 commercial and Medicare health plans in the nation, according to the National Committee for Quality Assurance’s (NCQA) Health Insurance Plan Rankings 2010-2011, Private and Medicare.

GHP has received national attention for innovative programs designed to improve the quality of care its members receive while controlling healthcare costs. ProvenHealth Navigator℠️, for example, helps members with complex medical histories and their families navigate through the wide variety of healthcare services available.

GHP also offers programs accredited by the NCQA that provide members with specialized instruction on how to manage specific disorders such as asthma, diabetes, and congestive heart failure. These programs help members better control their symptoms and improve their quality of life. Through innovative partnerships with organizations such as the American Cancer Society, GHP reaches out to members to ensure they receive breast and colorectal cancer screenings, as needed.

An early adopter of pay for performance, GHP posts the quality ratings of its participating provider offices’ on GHP’s website, www.thehealthplan.com. The web report, called Physician Quality Summary, measures primary care provider offices on nine quality and customer service measures, including preventive health measures, chronic care measures, member satisfaction and access, office hours, efficiency of care, and emergency care. In addition, quality information regarding hospitals is also listed on GHP’s website.

LifeFlight®

LifeFlight is a component of the system’s response to critical care transport needs, with six air ambulances operating 24 hours a day, seven days a week from the following locations:

- Geisinger Medical Center, Danville
- Wilkes-Barre/Scranton Airport, Avoca
- University Park Airport, State College
- Williamsport Regional Airport, Montoursville
- 2003 Phoenix Road, Pottsville

In 2010, Geisinger expanded its LifeFlight helicopter air ambulance program by adding a new state-of-the-art helicopter (an American Eurocopter 145 or EC145) at its Williamsport, PA base. Also in 2010, LifeFlight pilots and medical teams completed Night Vision Goggle training; teams at the Avoca, Williamsport, and State College bases are now equipped with night-vision goggles.

LifeFlight transported nearly 2,600 patients to the nearest qualified trauma center in FY 2010; 2,082 of these patients were transported to GMC (Danville) or GWV (Plains Township).
The Geisinger System

Henry Hood Center for Health Research
Located on the GMC campus, the Hood Center is focused on developing knowledge that is centered on a patient’s need to maintain or improve health. The Hood Center is home to GCHR, GCCS, Geisinger Health Sciences Library, Research Administration, and a conference center.

Sigfried and Janet Weis Center for Research
The Weis Center, Geisinger’s basic science research facility located on the GMC campus, conducts original and innovative research that contributes new knowledge to biomedical science, with a focus on molecular and cellular mechanisms. A major initiative of the Weis Center is the genomics core, a project carried out in collaboration with the GCHR.

Geisinger Ventures
The corporate venture arm of Geisinger Health System, Ventures, is dedicated to leveraging Geisinger assets to:
- Translate medical innovation to practical clinical use
- Improve quality and service for Geisinger patients
- Promote reinvestment of capital into Geisinger Foundation

Affiliates include:
- AMC Health™
- Careworks ™ Convenient Care
- Cernostics
- Geisinger Consulting Group
- HepGen
- MedMining®
- Proven Diagnostics®

Geisinger Community Health Services
Geisinger Community Health Services (GCHS) is a not-for-profit organization that annually provides healthcare services to nearly 60,000 patients in the communities in which they live and work. GCHS is committed to advocacy, excellence, and innovation in the provision of services that complement and expand the continuum of care provided by the health system. GCHS programs include:
- Careworks Convenient Care, which provides basic health services in retail or work site settings (also a Geisinger Ventures affiliate).
- Healthcare Quality Unit nurses who educate community members and caregivers of intellectually disabled individuals.
• LIFE Geisinger, which provides a comprehensive program of health and social services to the frail elderly.

• Geisinger HomeCare & Hospice, which provides 24-hour care to those requiring skilled nursing, physical, occupational and speech therapy, medical social services, and maternal and newborn health services.

• VITALine Infusion Pharmacy Services, which provides high-tech infusion therapies in a home setting.

International Shared Services, Inc.

This company is a wholly owned, for-profit subsidiary of Geisinger Medical Management Corporation. It provides comprehensive clinical engineering and computer technology services to providers both within and outside Geisinger.

Marworth Alcohol & Chemical Dependency Treatment Center

Located in Waverly, PA, Marworth is recognized as a national leader in the treatment of alcohol and chemical addictions. Marworth has 91 beds and provides three levels of treatment: outpatient, intensive outpatient with partial hospitalization, and inpatient detoxification and rehabilitation.

Green Initiatives—Geisinger and the Environment

Green efforts at Geisinger have resulted in an 80% reduction of greenhouse gas emissions, annual savings approaching $5 million, a 43% reduction in electrical usage per square foot, and a 25 million gallon annual reduction in water usage.

Geisinger received a $2.25 million American Recovery and Reinvestment Act grant in 2009 for the installation of a co-generation plant on the GMC (Danville) campus to recycle energy and generate both electricity and heat. With a targeted completion date in May 2011, the co-generation plant will generate approximately 20,000 megawatt hours of electricity annually—equivalent to the annual electrical consumption of more than 1,600 homes.

Also, at the Geisinger Environmental Health Institute, educational and research programs are underway to better understand links between land use, ecosystem health, community and human health, and to translate that knowledge into changes that promote sustainable healthy communities.
Caring for Our Community

Geisinger and its employees are dedicated to enhancing the health and well-being of central and northeast Pennsylvania through high-quality, compassionate care provided to all who need it. As a community-based, not-for-profit organization, Geisinger takes seriously its responsibility to invest resources and energy into understanding and meeting the diverse health needs of the region and ensuring that everyone, regardless of their ability to pay, receives the care they need.

Geisinger’s $274.5 million in community support represents 15% of Geisinger’s operating expenses. This is three times greater than the amount of community services necessary to meet Pennsylvania’s standards as a charitable institution. More importantly, however, it has a positive impact on the health and well-being of people throughout the region.

**Working Toward a Healthier Community**

Partnering with two regional organizations—ACTION Health in the Central Susquehanna Valley and Healthy Northeast PA in the Wilkes-Barre and Scranton area—Geisinger identified a variety of community health needs. These findings are helping determine the organization’s short- and long-term priorities and strategies for improving health. Priorities identified include access to healthcare services and preventive care, diabetes, mental health, obesity, and treatment for substance abuse. Examples of priority programs include:

**Colorectal Cancer Education Program**

Colon cancer is the second leading cause of cancer death in the United States; however, the number of deaths from this disease can be decreased considerably with preventive healthcare including...
colonoscopies. Geisinger completed an extensive community education campaign during 2010 to increase awareness of the importance of colonoscopy screening. Responding to studies indicating that women would prefer to have their colonoscopies performed by a female, Geisinger designed a Women’s Colonoscopy Clinic—the only one of its kind in the region—that provides comfort, privacy, and personalized care from a team of female clinicians.

Diabetes Care
Community health surveys indicated that people with low income and no health insurance are at risk for not managing their blood glucose levels. To help ensure these people receive appropriate care, Geisinger partnered with area Volunteers in Medicine free health clinics to train staff regarding diabetes treatment and education. When blood glucose levels are kept level, patients enjoy better health and avoid many of the complications of this disease.

Substance Abuse
Addiction disease continues to be a concern across the country and throughout central and northeast Pennsylvania. Often undiagnosed and untreated, addiction results in poor health not only for the individual with this disease, but also his or her entire family. To assist PCPs with identifying substance abuse in patients and beginning treatment, Geisinger’s Marworth Alcohol & Chemical Dependency Treatment Center started a program that places addiction counselors in physicians’ offices. Marworth staff are now located at Geisinger-Lake Scranton and Geisinger-Tunkhannock, with plans to expand the program in the future.

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**CareWorks™ Convenient Healthcare**

To help improve access to healthcare services and preventive care, CareWorks, a wholly-owned subsidiary of Geisinger Health System, operates convenient affordable clinics inside retail outlets in Allentown, Clarks Summit, Tannersville, Stroudsburg, and Schnecksville. With no appointment required and a cost structure that is substantially less than fees in urgent care or emergency settings, CareWorks provides medical services to patients who might otherwise delay or avoid seeking treatment for minor illnesses and injuries including flu symptoms, bronchitis, ear infections, sprains, and strains. In the past two fiscal years alone, more than 16,000 patients with no health insurance received prompt, affordable healthcare at these locations.

**Facing a Pandemic**

In addition to the health concerns identified in the community health needs assessments, Geisinger also played an important role during the H1N1 influenza pandemic. With no reliable way to predict the reach or severity of the pandemic, Geisinger took action to help limit the spread of flu throughout the region. Led by Geisinger, the organization conducted weekly meetings with those responsible for the health and safety of patients and students at area hospitals, health systems, colleges, and universities. Geisinger healthcare professionals provided guidance regarding policies and procedures to limit visitation and exposure to influenza, increase the percentage of people receiving flu vaccinations, and care for those who became ill.
Accreditations & Awards

One important indicator of quality is whether a hospital and its staff are recognized by independent organizations devoted to measuring healthcare quality. Listed below is a sample of the honors, awards, and accreditations given to Geisinger in 2010.

American College of Radiology Accreditation
The Ultrasound Department at GWV was re-accredited by the American College of Radiology (ACR).
The Ultrasound Department at Geisinger-Philipsburg was granted a three-year accreditation for obstetric, gynecological, and general studies, breast ultrasounds, and core- and fine-needle aspiration biopsies as a result of a recent survey by the ACR. The site is the only healthcare facility in the region to receive accreditation to perform breast biopsies.

Health-System Pharmacists Accolades
The practices of the System Therapeutics Department at GMC were recognized by the American Society of Health-System Pharmacists as a national model.

American Pathologists Laboratory Accreditation
Proven Diagnostics was awarded a two-year accreditation by the Commission on Laboratory Accreditation of the College of American Pathologists (CAP).

Andrology Laboratory Accreditation
The Advanced Reproductive Technologies/Andrology Laboratory at GMC was accredited by the College of American Pathologists.

Blue Distinction® Center for Cardiac Care
The Richard & Marion Pearsall Heart Hospital at GWV was designated a Blue Distinction Center for Cardiac Care by Blue Cross of Northeastern Pennsylvania.

Blue Distinction® Center for Knee and Hip Replacement
GMC was designated a Blue Distinction® Center for Knee and Hip Replacement by Highmark Blue Shield. The Blue Distinction Center for Knee and Hip Replacement designation is awarded to medical facilities that display a commitment to quality care and have a history of offering comprehensive services.

Breast Cancer Program Accreditation
The breast cancer program at GMC was awarded full accreditation through 2013 from the National Accreditation Program for Breast Centers.

Chest Pain Center Accreditation
GMC was re-accredited as a Chest Pain Center by the Society of Chest Pain Centers. The Accreditation Review Committee granted GMC Cycle III status, the highest accreditation possible for chest pain treatment centers. GMC is one of only three hospitals in Pennsylvania to receive Cycle III status, which lasts for three years.

Consumer Reports’ List of Top Heart Programs
GWV was named to Consumer Reports’ list of the top 50 heart bypass groups in the country. GWV’s Richard and Marion Pearsall Heart Hospital is one of only eight facilities in Pennsylvania to appear on the list.

Healthcare Engineering Award
GWV was awarded the Vista Award by the American Society for Healthcare Engineering of the American Hospital Association for the Critical Care Building.

High Performance in Revenue Cycle Award
The Healthcare Financial Management Association (HFMA) awarded Geisinger with the High Performance in the Revenue Cycle Award for the second consecutive year.
HRET Trust Award
The Health Research & Educational Trust, an affiliate of the American Hospital Association, selected Geisinger President and CEO Glenn D. Steele Jr., MD, PhD, as the recipient of its prestigious TRUST Award.

Information Week 500 Award
Geisinger was included in the 2010 InformationWeek 500, a list of companies that are leaders in their use of innovative technology. Geisinger’s inclusion marks the seventh time it has appeared in the InformationWeek 500.

Intersocietal Commission for Accreditation of Vascular Laboratories
Vascular laboratories at GWV, Geisinger-Mt. Pocono and Geisinger-Lake Scranton were recently designated accredited laboratories by the Intersocietal Commission for the Accreditation of Vascular Laboratories.

Magnet® Designation
GMC holds the prestigious Magnet designation from the American Nurses Credentialing Center. Magnet hospitals are distinguished as organizations where nurses deliver excellent patient care and a high level of job satisfaction.

Most Powerful People in Healthcare
Geisinger President and CEO Glenn D. Steele Jr., MD, PhD, ranked 35 out of 100 in Modern Healthcare magazine’s 100 Most Powerful People in Healthcare.

Most Wired List
For the eighth year, Geisinger was listed among the country’s “100 Most Wired Hospitals and Health Systems,” by Hospitals & Health Networks magazine.

National Presidents’ Circle Award
Geisinger HealthSouth Rehabilitation Hospital received the National Presidents’ Circle Award. Geisinger HealthSouth is one of only 12 hospitals in HealthSouth’s network of more than 100 hospitals to receive the prestigious award.

SDI Integrated Healthcare Network 100 List
Geisinger was named to the 2010 SDI Integrated Health Network 100, a list of the most integrated healthcare networks in the nation, which was published in Modern Healthcare.

Seven Seals Award
Geisinger has received the elite Seven Seals Award from the Employer Support of the Guard and Reserve, a U.S. Department of Defense organization.

Stroke Association Award
GWV received the American Stroke Association’s “Get with the Guidelines” Stroke Bronze Performance Achievement Award.

Top Hospitals® National Benchmarks for Success
GMC received the Thomson Reuters 100 Top Hospitals: National Benchmarks Award, identifying the 100 top U.S. hospitals based on overall organizational performance.

Top Hospitals® National Benchmarks for Cardiovascular Success
GMC was named to the 2010 Thomson Reuters 50 Top Hospital Cardiovascular Benchmarks for Success list. This is the first year the list was narrowed from the top 100 to a more selective top 50.
Financial Summary FY 10

*July 1, 2009-June 30, 2010

Geisinger ended fiscal year 2010* with an operating income, after interest expense, of $127.4 million, a 5.5% return on $2.3 billion of revenue, according to an independent audit. The economic benefit to Pennsylvania (from direct spending and an indirect ripple effect of spending) totaled $4.6 billion, as reported by The Hospital and Health System Association of Pennsylvania. Despite the challenges of a weak economy, the uncertainty of healthcare reform, and continued reimbursement shortfalls, Geisinger provided $274.5 million (15% of operating expenses of the tax-exempt organizations) of community benefits, including uncompensated care and care provided under government programs at less than cost. Revenue grew by 10.7% over FY 2009, a remarkable achievement in the current environment and the highly regulated, competitive healthcare industry. In addition, Geisinger invested $138.9 million in capital projects.

<table>
<thead>
<tr>
<th>Description</th>
<th>FY09</th>
<th>FY10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geisinger earned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer premiums, services to patients, and general services</td>
<td>$4,908.0</td>
<td>$5,627.0</td>
</tr>
<tr>
<td>Geisinger did not receive full payments from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare and medical assistance</td>
<td>1,618.8</td>
<td>1,928.3</td>
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<tr>
<td>Charity to patients</td>
<td>64.2</td>
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<tr>
<td>Other patients receiving services under contractual arrangements or due to administrative allowances</td>
<td>1,120.0</td>
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<tr>
<td>Total amount received</td>
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<td>Geisinger spent</td>
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<td></td>
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<tr>
<td>Salaries and benefits</td>
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<td>970.2</td>
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<td>Supplies, utilities, and other expenses</td>
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<td>699.4</td>
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<td>Contracted services</td>
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<td>Depreciation</td>
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<tr>
<td>Total costs for patient treatment and rendering care to beneficiaries</td>
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<tr>
<td>Operating income</td>
<td>80.2</td>
<td>127.4</td>
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<tr>
<td>Interest on debt, earnings on investments, and nonoperating gains (losses)</td>
<td>(131.1)</td>
<td>74.0</td>
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<tr>
<td>Excess (deficiency) of revenue and gains over expenses and losses</td>
<td>$(50.9)</td>
<td>$201.4</td>
</tr>
<tr>
<td>Total assets</td>
<td>$2,134.3</td>
<td>$2,430.9</td>
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<tr>
<td>Total liabilities</td>
<td>1,233.2</td>
<td>1,324.9</td>
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<tr>
<td>Accumulation of net worth from prior earnings</td>
<td>$  901.1</td>
<td>$1,106.0</td>
</tr>
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</table>
2010 Leadership Recruitments & Promotions

**Physician Leadership Recruitments**
- Ashok Bhanushali, MD  
  *Director, Interventional Radiology – GHS*
- Samuel Hammerman, MD  
  *Director, Pulmonary Critical Care – GNE*
- Thomas Isaacson, MD  
  *Director, Cardiology – GWV*
- Charles Nelson, MD  
  *Section Chief, Orthopaedic Reconstructive Surgery – GMC*
- Mohsen Shabahang, MD, PhD  
  *Director, General Surgery – GMC*
- Shirah Shore, MD  
  *Director, Pediatric Echo Lab – GMC*
- Steven Steinhubl, MD  
  *Director, Cardiovascular Wellness – GHS*
- Shelly Timmons, MD, PhD  
  *Director, Neurotrauma – GMC*
- Victor Vogel, MD  
  *Director, Cancer Services – GHS*

**Administrative Leader Recruits**
- Scott Davis  
  *Vice President, Geisinger Consulting and Business Development – GHS*
- Andrew Deubler  
  *Executive Vice President, Integrated Resource Development – GHS*
- Richard Kwei  
  *Chief Operating Officer – GHP*
- David H. Ledbetter, PhD  
  *Executive Vice President, Chief Scientific Officer – GHS*
- George Schneider  
  *Chief Financial Officer – GHP*

**Physician and Administrative Leader Promotions**
- Cynthia K. Bagwell  
  *Vice President, Talent Acquisition – GHS*
- Albert Bothe Jr., MD  
  *Executive Vice President  
  Chief Medical Officer – GHS*
- E. Lynn Miller  
  *Executive Vice President, Clinical Operations – GHS*
- Thomas Sokola  
  *Chief Administrative Officer – GMC*
- Thomas Schieble, MD  
  *Vice Chair & Director, Anesthesiology Services – GMC*
- Kenneth Wood, DO  
  *Chief Medical Officer – GMC*
Geisinger Boards & Councils

Geisinger Health System Foundation
2010 Board of Directors

Frank M. Henry (Chair) *
William H. Alexander *
Dorrance R. Belin, Esq.*
Karen Davis, PhD
E. Allen Deaver *
William J. Flood
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Gary A. Sojka, PhD**
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Gail R. Wilensky, PhD
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2010 Board of Directors

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Lee Myers
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Charles M. Ross
Graham Showalter, Esq.
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Frank J. Trembulak
Joanne Wade
H.W. Wieder Jr.

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Philip Reilly, MD, JD
David H. Ledbetter, PhD *

*David H. Ledbetter joined Geisinger in November 2010
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Patrick Judge
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David Kistler, MD (retired)
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Peter Mailloux
Melanie Maslow Lumia
Catherine McGroarty, RSM
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John Wiercinski

Geisinger Consulting Group

With widely recognized experience in reengineering care delivery to enhance coordination and integration, Geisinger is well positioned to help other organizations increase quality while preparing for a future that promises fundamental changes to the financial bottom line.

Geisinger hosted representatives from more than 70 healthcare organizations at educational conferences focused on sharing Geisinger’s lessons learned:

- 52 organizations and 184 people - Innovations in Care Delivery
- 31 organizations and 86 people - ProvenHealthSM Navigator
- 7 organizations and 22 people - ProvenCare®
- 30 Singaporean health and policy leaders, 10-day program covering Geisinger’s healthcare delivery innovations

Singaporean Health and Policy Leaders
Geisinger-Affiliated Entities

Geisinger Assurance Company, LTD
A for-profit company domiciled in the Cayman Islands that provides reinsurance against liability arising out of system activities, including medical, legal, and general liability. Geisinger Assurance Company, Ltd. provides 100% of the reinsurance for the system’s primary liability coverage.

Geisinger Clinic
A 501(c)(3) not-for-profit corporation that operates a multispecialty group medical practice. Geisinger Clinic provides physician staff for patient care, education, and clinical research.

Geisinger Community Health Services
A 501(c)(3) not-for-profit organization designed to conduct charitable, scientific, and education activities for the citizens of the communities served by Geisinger including the operation of a Medicare-certified home health agency and the provision of healthcare services in a patient’s home or place of residence.

Geisinger Health Plan
A 501(c)(4) not-for-profit health maintenance corporation operating health insurance product lines and licensed in 42 counties.

Geisinger Health System Foundation
A 501(c)(3) not-for-profit corporation that serves as corporate parent and coordinates and supervises the activities of all Geisinger affiliated entities. The Foundation is not a licensed healthcare provider nor does it provide healthcare services to patients. It serves to ensure the system affiliated entities have adequate financial resources to fulfill their missions and to initiate and administer grant and philanthropic support programs for all Geisinger entities.

Geisinger Indemnity Insurance Company
A for-profit corporation able to sell indemnity health insurance.

Geisinger Insurance Corporation, Risk Retention Group
A not-for-profit corporation, domiciled in the state of Vermont and registered by the Pennsylvania Insurance Department, to provide primary professional liability coverage for several entities of the Geisinger Health System Foundation (GMC, GC, GWV, GCHS).

Geisinger Medical Center
A 501(c)(3) not-for-profit corporation owning and operating a regional referral tertiary care medical center in Danville.

Geisinger Medical Management Corporation
A for-profit, wholly owned subsidiary of Geisinger Health System Foundation.

Geisinger Quality Options, Inc.
A for-profit, wholly owned subsidiary of Geisinger Health System Foundation.

Geisinger System Services
A not-for-profit support service corporation: financial services, human resources, information systems, internal audits, legal, strategic planning, marketing, public relations, and facilities.

Geisinger Wyoming Valley Medical Center
A 501(c)(3) not-for-profit corporation owning and operating an acute care, open staff community hospital in Wilkes-Barre.

HealthSouth/Geisinger Health System Limited Liability Company
A limited liability company representing a joint venture between Geisinger Medical Center and HealthSouth Corporation to provide for the development, management, financing, and operation of a freestanding rehabilitation hospital (Geisinger Rehabilitation Hospital) and the development of a network to provide outpatient rehabilitation centers and other programs to Geisinger Health System patients within the five county area surrounding Geisinger Medical Center (Snyder, Union, Northumberland, Columbia, and Montour).
International Shared Services, Incorporated
A for-profit, wholly owned subsidiary of Geisinger Medical Management Corporation. It provides high-quality, customized technology lifecycle management solutions to healthcare, government, education, and commercial clients in the Mid-Atlantic Region.

Marworth Alcohol & Chemical Dependency Treatment Center
A 501(c)(3) not-for-profit residential chemical dependency detoxification and rehabilitation facility in Waverly, PA and also operating outpatient and family addiction treatment programs.

SureHealth, LLC
A for-profit limited liability company in which Geisinger Medical Management Corporation holds a sole investment interest, which operates several retail pharmacies.

Geisinger’s Clinical Enterprise Leadership Team
Geisinger’s $2.3 billion clinical enterprise is a strategic infrastructure consisting of 23 service lines, 3 hospital-based service lines, and a nursing service line. It includes two hospitals, a nearly 850-member multispecialty group practice and more than 40 ambulatory care sites.

Built on a foundation of joint accountability, the clinical enterprise drives program vision and growth, clinical and financial “budget” performance, and staff recruitment, retention and mentoring. It features strategic pairings of clinical and administrative leaders within service lines to promote innovation and collaboration focused on improving the quality of care and reducing costs.

Albert Bothe Jr., MD
Executive Vice President
Chief Medical Officer

Kenneth Holdren
Chief Administrative Officer
Geisinger Clinic

E. Lynn Miller
Executive Vice President
Clinical Operations
Geisinger Education

**Geisinger Educational Affiliates**
- Pennsylvania College of Osteopathic Medicine
- Pharmacy Services Incorporated
- Temple University School of Medicine

**Geisinger Educational Agreements**
- Aegis Therapies, Inc.
- Albany College of Pharmacy
- Alfred I. DuPont Hospital for Children
- Allied Medical & Technical Institute
- Arcadia University
- Arizona College of Osteopathic Medicine – Midwestern University
- Bloomsburg High School
- The Bloomsburg Hospital
- Bloomsburg University
- The Brooklyn Hospital Center
- Bucknell University
- Cedar Crest College
- Central Columbia High School
- Central Pennsylvania Institute of Science & Technology
- Central Susquehanna Intermediate Unit
- Central Susquehanna Surgical Specialists, PC
- Children's Hospital, Inc., Columbus, Ohio
- Clearfield County Career & Technology Center
- Columbia/Montour Area Vocational Technical School
- Columbia & Montour Counties Tapestry of Health (WIC)
- Columbia/Montour Family Health, Inc.
- Computer Learning Network
- Coughlin High School
- Creighton University
- Danville Ambulance Service, Inc.
- Danville Area School District
- DeSales University
- Drexel University
- Duquesne University
- DVA Healthcare Renal Care, Inc.
- East Stroudsburg University
- Evangelical Community Hospital
- Robert Fiorelli, DO
- Fox Chase Cancer Center
- Frontier School of Midwifery & Family Nursing, Inc.
- Gannon University
- GAR High School
- George Washington University
- Governor Juan F. Luis Hospital and Medical Center
- Graceland University
- Hanover Area School District
- Hartwick College
- Hutchinson Community College
- Indiana State University
- Indiana University of Pennsylvania
- ION
- Ithaca College
- Jackson Community College
- Jefferson College of Health Professions
- Johnson College
- Juniata College
- Keystone State Games
- King's College
- Kramm Nursing Home, Inc.
- LaSalle University
- Lackawanna College
- Lake Erie College of Osteopathic Medicine
- Lancaster General College of Nursing & Health Sciences
- Lebanon Valley College of Pennsylvania
- Lehigh/Carbon Community College
- Lehigh Valley Health Network
- Lewistown Hospital
- Lock Haven University
- Luzerne County Community College
- Lycoming College
- Main Line Health, Inc.
- Mansfield University
Geisinger Educational Agreements (continued)

Marywood University
McCann School of Business & Technology
Mifflin/Juniata Career & Technology Center
Millersville University
Milton Area School District
Misericordia University
Mount Clemens Regional Medical Center
Mount Nittany Medical Center
Mountain State Medical Center
Northwest Area School District
Ohio University College of Osteopathic Medicine
Mount Aloysius College
Mountain View Manor & Rehabilitation Center
Neumann College
Northumberland County Area School of Business
Northumberland County Cooperative Extension Association
Norwalk Hospital
Pennsylvania Area Health Education Center Program
Pennsylvania College of Technology
Perinatal & Pediatric Specialists Medical Group
Petersburg Hospital Company, LLC
Pharmacy Services Incorporated
Philadelphia College of Osteopathic Medicine
Philadelphia University
Phlebotomy Institute of Central Pennsylvania
Pinnacle Health Hospitals
Rose City HMA, Inc.
Rush University
Saint John’s University
Saint Louis University
Salus University
Schuylkill Institute of Business & Technology
Scranton Orthopedic Specialist PC
Select Specialty Hospital Danville, Inc.
Shamokin Area Community Hospital
Shenandoah University
Shikellamy School District
South Hills School of Business & Technology
South University
Southern Columbia Area High School
State University of New York at Binghamton
State University of New York at Stony Brook
Susquehanna Health System
Susquehanna Surgery Center, Inc.
Susquehanna University
Sutter Memorial Hospital
Temple University
Thomas Jefferson University
Thompson Institute
Touro University Nevada College of Osteopathic Medicine
Tuba City Regional Health Care Corporation
University of Nebraska Medical Center
University of Pittsburgh
University of Pittsburgh Medical Center
University of Scranton
University of the Sciences - Philadelphia
University of Wisconsin
Upstate Medical University
Villanova University
Washburn University
Wicks Educational Associates, Inc.
Widener University
Wilkes University
Wilkes-Barre Career & Technical Center
Wilkes-Barre Hospital Company, LLC
Wilkes-Barre Triathlon
Williamsport Hospital & Medical Center
Wilmington University
Wyoming Seminary Preparatory School
Xavier University of Louisiana
York College of Pennsylvania
YTI Career Institute
# Geisinger Education

## Medical Residency and Fellowship Programs FY10

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<tr>
<th>Residency Programs</th>
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<tr>
<td>Dermatology</td>
<td>Michele Maroon, MD</td>
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<td>Emergency Medicine</td>
<td>Thomas Payton, MD</td>
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<td>Family Medicine-GWV, Osteopathic</td>
<td>Stephen Evans, DO</td>
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<td>Family Medicine-GWV</td>
<td>Mary Elizabeth Roth, MD</td>
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<tr>
<td>General Surgery</td>
<td>Mohsen Shabahang, MD</td>
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<td>Internal Medicine</td>
<td>Mary Harris, MD</td>
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<tr>
<td>Medicine–Pediatrics</td>
<td>Michelle Thompson, MD</td>
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<td>Obstetrics/Gynecology</td>
<td>P. Joseph Swanson, MD</td>
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<td>Ophthalmology</td>
<td>Vincent Baldassano, MD</td>
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<td>Orthopaedic Surgery</td>
<td>Gerald Cush, MD</td>
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<td>Osteopathic Surgery-GWV</td>
<td>Joseph J. Stella, DO</td>
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<td>Otolaryngology</td>
<td>J. Scott Greene, MD</td>
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<td>Pediatrics</td>
<td>Paul Bellino, MD</td>
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<td>Radiology</td>
<td>Anne Dunne, MD</td>
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<td>Urology</td>
<td>Daniel Rukstalis, MD</td>
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<td>Cardiovascular Medicine</td>
<td>Jamshid Shirani, MD</td>
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<td>Clinical Cardiology Electrophysiology</td>
<td>Pugazhandhi Vijayaraman, MD</td>
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<td>Critical Care</td>
<td>Marilyn Haupt, MD</td>
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<td>Cytopathology</td>
<td>Haiyan Liu, MD</td>
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<td>Dermatopathology</td>
<td>Tammie Ferringer, MD</td>
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<td>Gastroenterology &amp; Nutrition</td>
<td>Robert Smith, MD</td>
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<td>Interventional Cardiology</td>
<td>James Blankenship, MD</td>
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<td>Maternal Fetal Medicine</td>
<td>Erik Smith, DO</td>
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<td>Nephrology</td>
<td>Michael Schultz, MD</td>
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<td>Procedural Dermatology</td>
<td>Victor Marks, MD</td>
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<td>Reproductive Endocrinology Infertility</td>
<td>Jennifer Gell, MD</td>
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<tr>
<td>Rheumatology</td>
<td>Thomas Harrington, MD</td>
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<td>Sports Medicine-GWV</td>
<td>David Ross, MD</td>
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<td>Vascular Surgery</td>
<td>James Elmore, MD</td>
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American Psychological Association-Accredited Program Director  
Clinical Psychology ...................................................... Paul Kettlewell, PhD

American Dental Association (ADA)-Accredited Program  
Pediatric Dentistry ...................................................... Lance Kisby, DMD
## Active Clinical Trials

### Source of Funding FY10

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<td>TherumoVision, Inc</td>
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<td>Wyeth Research, Division of Wyeth</td>
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<td>Pharmaceuticals, Inc</td>
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**Total Studies:** 127
System Statistics FY10

Employees (systemwide)

- Full-time: 10,947
- Part-time: 2,505
- Head count: 13,452

Clinical staff breakdown

- Physicians/Scientists: 829*
- Advanced Practitioners: 441*
- Residents/Fellows: 419
- Total: 1,689

Licensed inpatient beds

- Geisinger Medical Center: 485
- Geisinger Wyoming Valley Medical Center: 242
- Marworth Alcohol & Chemical Dependency Treatment Center: 91
- Total: 1,689

Discharges** from inpatient units

- Geisinger Medical Center: 24,657
- Geisinger Wyoming Valley Medical Center: 11,566
- Marworth Alcohol & Chemical Dependency Treatment Center: 1,401
- Total: 37,624

Outpatient visits***

- Geisinger Medical Center: 808,000
- Geisinger Wyoming Valley: 522,875
- Marworth Alcohol & Chemical Dependency Treatment Center: 4,119
- Community Practice Sites: 894,016
- Total: 2,229,010

Average length of stay (days)

- Geisinger Medical Center: 5.1
- Geisinger Wyoming Valley: 4.5
- Marworth: 19.7

Emergency department visits

- Geisinger Medical Center: 33,302
- Geisinger Wyoming Valley: 50,217
- Total: 83,519

Surgery cases (inpatient and outpatient)

- Geisinger Medical Center: 23,853
- Geisinger Wyoming Valley: 10,390
- Total: 34,243

Total births

- Geisinger Medical Center: 1,694
- Geisinger Wyoming Valley: 1,309
- Total: 3,003

* included in total employee count
** excludes nursery but includes NICU
*** includes emergency room visits