

UPMC CancerCenter

Partner with University of Pittsburgh Cancer Institute



A Model for Innovative Cancer Care Delivery

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UPMC Overview

Affiliated with the
University of Pittsburgh

\$12 billion integrated
global health enterprise

Western PA's
largest employer:
60,000 employees

More than 20 academic,
community, and regional
hospitals
4,732+ licensed beds

264,000+ inpatient
admissions
174,000 surgeries
performed annually

4.5 million+
outpatient visits
650,000
emergency visits

40+ UPMC Cancer
Centers
200 affiliated oncologists

UPMC Health Plan:
over 2.6 million total
members; network of
125+ hospitals, 11,500+
physicians



- Founded in 1985
- The **only** NCI-Designated Comprehensive Cancer Institute in Western PA
- 321 Faculty Researchers
- Total Grant Funding **>\$140 Million**
(NIH - FY 2014)
- Ranked **12th Nationally** in Funding from the National Cancer Institute
- Currently, **429 Active Clinical Research Trials**



UPMC CancerCenter Overview

- An Extensive Network
 - One of the most extensive clinical cancer programs in the world, and one of the largest oncology networks in the United States, treating more than 74,000 individuals each year.
- A Research Powerhouse
 - Our partner, UPCI, is western Pennsylvania's only National Cancer Institute (NCI)-designated Comprehensive Cancer Center.
 - Among NCI-designated cancer centers, UPCI is ranked 13th in NCI funding, which includes three competitive Specialized Program of Research Excellence (SPORE) cancer grants focusing on head and neck, lung, and skin cancers, and a shared grant in ovarian cancer, in collaboration with Roswell Park Cancer Institute.
- An Innovator, Delivering Bench-to-Bedside Therapies
 - The combination of a strong research institute and a broad clinical network, with state-of-the art technology, means UPMC CancerCenter is quickly translating the latest research advances to clinical applications for patients throughout our network, as well as those coming from other regions of the country and beyond.

THE HUB: Hillman CancerCenter

- 15 Specialty Care Centers
- Multiple Programs:
 - Medical Oncology
 - Radiation Oncology
 - Surgical Oncology
 - Gynecologic Oncology
 - Hematologic Oncology
 - Thoracic Surgery
 - Radiology
 - Dermatology
 - ENT
 - Survivorship
 - Pain and Supportive Services
- Mario Lemieux Center for Blood Cancers
- UPCI Basic & Translational Research



UPMC CancerCenter

- One of the largest integrated community cancer networks in the United States with more than 40 centers in western Pennsylvania and Ohio.
- Medical Oncology Centers – 19
- Radiation Oncology Centers – 13
- Dual Centers – 10
- International Centers – 4
- 74,000 Active Patients (US)
- >25,000 New Patients/year



Regional Hub and Satellite Model

Organized via a “regional hub and satellite” structure – inpatient and specialized treatment provided at central “hub,” while outpatient care is offered at **more than 40 regional sites.**



Regional Centers



Physicians



The “Hub”



Hospitals



Partners

Advantages of a Regional Patient Care Model

- Joint ventures/partnerships foster collaborative relationships with non-UPMC hospitals and result in wider access to cancer care
- Patients benefit from improved access
- Presence in community results in local acceptance
- Centralization of specialized/complex and inpatient activity lowers overall investment
- Knowledge and technology transfer to local healthcare professionals

Leaders in Innovation



Via Oncology Pathways - Since 2005, Delivers evidence-based clinical algorithms that standardize best practice. 24 oncology programs including five large academic medical centers.



D3 Oncology Solutions - Advanced Radiotherapy (IMRT, IGRT, SRS, and gated therapy) training, remote treatment planning, consultation, and linear accelerator commissioning. D3 has supported treatment in over 200 centers since 2001.

International Initiatives - CancerCenter Programs



Ireland

Initiative:

Operation of a cancer center in Waterford, Ireland to deliver high quality radiotherapy services.



Italy

Initiative:

Management of the advanced Radiotherapy and Radiosurgery Center of Excellence at San Pietro Hospital in Rome, Italy



Kazakhstan

Initiative:

Development of a national oncology network beginning with the National Research Oncology Center in Astana



Lithuania

Initiative:

Develop and co-manage a private 100-bed cancer hospital in Vilnius, Lithuania



Colombia

Initiative:

Develop and co-manage an oncology center for adults and children, the first private cancer program in Colombia.

Types of Relationships

- Joint Venture Partnership
 - Alignment of interests leads to improve results, co-branding and contracting leverage
 - Partners share equity in venture
 - Day-to-day management by UPMC
- Management Agreement
 - No change in existing legal structure or ownership, involvement of clinical partner with long-term expertise in managing cancer centers
 - Original partners own venture
 - UPMC manages operations via a management services agreement
- Advisory/Consulting
 - Short-term agreement with expectation for long-term agreement
 - UPMC provides recommendations to existing cancer program
 - UPMC identifies gaps in clinical care
- Affiliation Agreement
 - Provides support in specific areas only, no UPMC branding
 - Through a service agreement, UPMC provides clinical or administrative support for specific requests as needed

Implementing One Standard of Care

- Assuring the **same level of quality** at satellite locations that can be found at the hub facility is **necessary for the success** of our large network
- **Clinical pathways** – a web-based technology providing physicians with evidence-based treatment protocols for cancer – implemented across disciplines; compliance regularly monitored
- Uniform **policies and procedures**
- Weekly monitoring of **patient satisfaction**
- Patient **navigators**, case managers, and social workers available
- Medication **variance** and **adverse event reporting**
- Quality improvement **team** to address process issues, e.g., patient wait times
- **Education** for all levels of clinical and professional staff
- Regular billing, compliance, and medical **audits**

Integrated Care – Across the Network

- Centralized management structure for all oncology services throughout UPMC allows for seamless coordination of patient care across facilities and physician groups
- Academic and clinical faculty *at hub* and clinical faculty *at satellite (spoke)* facilities from all disciplines collaborate closely on patient care issues
- Video-teleconferencing facilities allow all network physicians to access Oncology Grand Rounds, tumor boards, and clinical research meetings conducted at central facility
- Surgical consultation, behavioral medicine consultation, nutritional services, financial counseling, and other services available at numerous locations throughout our network
- Hand-held devices provide physicians at all locations with access to open clinical research trials so that patients can be screened for study entry during their visit
- Representation from all sites on central committees allows for the standardization of policies and procedures across the system and a unified delivery of care
- Referrals can be handled in a variety of ways, coming into Hillman Cancer Center or directly to a community site, with additional referrals for specialty care to other sites (including hospitals) as needed.

Financial Considerations

- UPMC CancerCenter's and Western PA's payer mix continues to shift away from commercial to more government payers (Medicare and Medicaid) who typically pay less than cost.
- UPMC is an IDFS (Independent Delivery and Finance System), but more than half of our volumes continue to pay fee-for-service, which makes shifting from volume to value difficult but necessary.
- UPMC CancerCenter does not include hospitals that are exempt from the normal Medicare payment process for our cancer business.
- UPMC CancerCenter currently depends heavily on 340B drug pricing. HRSA continues to propose new, more restrictive guidelines that will make participating more difficult.
- Radiation Oncology continues to move more toward hypofractionation, yet the payers and the government continue to pay on a per-treatment perspective.

Technology Platforms

- Patient Registration, Scheduling and Billing – Epic
- Electronic Medical Record (EMR) – Varian
- Treatment decision support – Via Oncology
- Lab Information System – Orchard/Sunquest
- Radiology Information System – ImageCast / Stentor
- Interoperability – dbMotion
- Pyxis Drug Inventory Management – CareFusion
- Physician Dictation – Nuance Dragon
- Clinical Trials Management – In-house-developed system



UPMC Enterprise Analytics

- Baseline State of Clinical, Omics, tissue data at UPMC
 - Over 7 million unique UPMC patients.
 - 3 petabytes of EMR data;
 - At least 1 petabyte of omics data.
 - Over 500,000 Tissue/Bio Bank specimens
 - 47 ultra-low freezers – store tissue, blood, urine, etc.
 - 100% oncology clinical trials managed in UPMC's CTMA system with full structured data
 - Pathways implemented across all UPMC MedOnc and RadOnc clinical sites collecting decision support data points
 - TCGA structured data sets mapped to 200+ breast cancer patient clinical data

UPMC Enterprise Analytics

- TCGA BRCA **clinical** data
 - Recent achievements:
 - All development is completed and data is loaded into EA data warehouse and the Translational Research Center (TRC)
 - Validated the data loads
 - Completed UAT in user application
 - Next achievements:
 - Integrate the patient and provider gold record with research data
 - Planned production release by end of November 2015
- TCGA BRCA **omics** data
 - Recent achievements:
 - Development of scheduled data loads in progress
 - Next achievements:
 - Integrate the omics with research clinical data
 - Planned production release by end of November 2015

Clinical Connect Health Information Exchange



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Pittsburgh Health Data Alliance

Carnegie Mellon University
University of Pittsburgh UPMC

Example focus areas involve:

- Software to improve health through intelligent use of data
- Sensors and monitors – mobile devices
- Improved communication to patients with focus on safety/efficiency
- Telehealth
- Personalized Medicine

❖ Center for Commercial Applications of Healthcare Data (CCA)

❖ Center for Machine Learning and Healthcare (CMLH)

Benefits Summary / Faculty Appointments

BENEFITS SUMMARY

Benefit coverage	Paid by
Medical/prescription	Staff and UPMC
Dental	Staff and UPMC
Vision	Staff and UPMC
Flexible spending accounts	Staff
Health savings account	Staff and UPMC
Physician short-term disability (60%)	UPMC
Long-term disability (60%)	UPMC
Basic life and accidental death and dismemberment (AD&D) insurance	UPMC
Supplemental life insurance for employee	Staff
Supplemental AD&D insurance for employee	Staff
Supplemental life insurance for employee's spouse and children	Staff
Supplemental AD&D insurance for employee's spouse and children	Staff
Cash Balance Plan	UPMC
Savings Plan	Staff and UPMC
Paid time off (PTO) and holiday pay	UPMC
Voluntary products	Staff
LifeSolutions (Employee Assistance Program)	UPMC
Tuition assistance	UPMC
Adoption assistance	UPMC
Parking, transportation, and commuter parking accounts	Staff

FACULTY APPOINTMENTS

All faculty appointments are coordinated through the University of Pittsburgh and based on various factors, including tenure.

THANK YOU