

# NCI Community Cancer Centers Program Program Overview – Spartanburg Regional Hospital

- **A.** Name and location of hospital: Spartanburg Regional Medical Center, Spartanburg SC Part of the Spartanburg Regional Healthcare System
- B. Name of cancer center: Gibbs Regional Cancer Center
- C. Identify PI and key personnel with contact information (very brief bios) for each of the pilot focus areas:

Below you will find brief bios of the Leadership team for the overall project and the MD PI & Administrative Lead for each of the 6 areas. On page 13 you will find a chart explaining the layout of our pilot team, followed by a spreadsheet on pages 14-16 listing the committee members of each of the key areas.

#### **Leadership Team**

#### **PI/Medical Director**

#### James D. Bearden, M.D.

- Principal Investigator, Upstate Carolina CCOP (1986-Present); Winning award for 10 best CCOP's in the country from ASCO
- President South Carolina Oncology Society 2005-2007
- Board of Directors, SRHS 2000-2006
- Co Chair Executive Committee Cancer Control for the Mayo Clinic, Rochester, MN
- Member Executive Committee, North Central Cancer Treatment Group
- Member Myeloma Working Group, SWOG
- CCOP representative, Newly formed Symptom Management Steering Committee NCI Wkg Group
- First board-certified oncologist in South Carolina

#### **Chief Operating Officer**

#### Randy Nyp, MBA

- Senior Vice President/COO, SRHS since 2005
- President/CEO Via Christi Regional Medical Center/Wichita Health Network, 1997-2004
- In Health Care since 1977
- Publications in Healthcare Financial Management related to Financial Planning

# **Pilot Project Administrator**

# David Church, MHA

- Assumed position of Executive Director of Gibbs Regional Cancer Center Feb. .2007
- Promoted to Vice President, Clinical Services which includes all Cancer Services April 2007
- Responsible for all SRHS community services; including Hospice, Home Care & Palliative Care from 2003—present
- Maintains links with community agencies, serving on the Board of several key community organizations.
- Has been with SRHS since 1993
- Completed "Leadership Spartanburg' and "Upstate SC Diversity Leadership Academy"—participation in this prestigious community training is through community nomination only.

#### **Pilot Project Administrative Team**

#### Pam Williams, RN, MSN, CCRP

- Administrative Director, Upstate Carolina CCOP/Clinical Research, 1986-present
- Oncology Nurse since 1982
- Has served or current member on CCOP, Cancer Control, Nursing, &/or Minority Recruitment Committees for NCI, CTSU, NSABP, SWOG, NSABP, CCWFU, MDACC, RTOG, GOG,
- Recognized as National speaker/consultant on Minority Recruitment, Cancer Control Recruitment, IRB, Ethics, Consent Form Issues, Quality Assurance, Setting Up Community Research Offices, grant writing

#### Pilot Project Coordinator-To be hired

#### **Disparities**

#### Drew Monitto, MD

- Radiation Oncologist, SRMC, 1998-present
- Chair, National Forum of Independent Pain Clinicians, Sptg, 1999-present
- Co-Leader, Pain Management Team, SRMC, 1999-present
- Board Certified, Internal Medicine, 2004
- Chairman, Pt Care Task Force, SC Cancer Alliance, 2003-2005
- Received Pt Advocacy Award, 2005, SC Cancer Alliance

#### Patty Hegedus, RN, MBA

- Manager, Quality & Support Services since 2006
- Quality Outcomes Specialist 2001-2006
- Previous experience as SRHS first Breast Health Coordinator (Patient Navigator), 1999-2001
- Graduate Degree MBA, 2006
- Organized, experienced administrator, with talents in data management, analysis and quality outcomes measurement.
- Upstate ONS Chapter President, 2005

#### **Clinical Trials**

#### Patricia Griffin, MD

- Radiation Oncologist, SRMC since 1994
- Associate PI, UC-CCOP, 1996-present
- CCOP Liaison for Brain Committee RTOG, 1995-present
- Breast Cancer Advisory Committee 1995-present

#### Nancy Sprouse, RN, BSN

- SRHS UC-CCOP Research Coordinator for past 10 years
- Clinical experience as an Oncology Nurse x 12 years
- BS in Business Management

#### IT

#### Ray Shingler, BS, BA

- Vice-President and Chief Information Officer, SRHS, since 1997
- Experience with the Department of Defense
- Experience as the CIO for various hospitals since 1985
- Has received national awards for his work in IS innovation

#### Tom Wessel, MD

- Chief Information Officer, SRHS, since 2003
- Associate Director, Family Medicine Residency Program, Greenville Hospital System, 1986-2003
  Including Director of Research, Clinical Computing, Sports Medicine Curriculum, Geriatrics Curriculum & Quality Improvement

2

#### **Biospecimens**

#### David Wren, MD

- Laboratory Director and Chair of Pathology since 1982
- Coroner Pathologist for Spartanburg County
- Leadership role as Medical Examiner in Charleston SC

# Jim Craft, MT, MHA

- Administrative Lab Director, SRHS, since 2005
- Previous history of Lab directory at various institutions since 1984
- Certified Medical Technologist since 1970
- BS in Biology, MS in Healthcare Administration

#### **Quality of Care**

# Richard Orr, MD, MPH

- Chief, Division of General Surgery, 2005-present, SRMC
- Director, Surgical Oncology & Endocrine Surgery, 1999-present, SRMC
- Director, Surgical Education' Program, 2001-present, SRMC
- Faculty, Surgical Education Program, 1999-present
- Surgical Oncologist, 1984
- Prior Professor/Director of Surgery at University of Miami, University of Mass, Marshfield Clinic, Univ. of Wisconsin

#### Diane Skinner, CTR

- Coordinator, Cancer Data Management SRHS, 1988-present
- President, SC Cancer Registrars Association 1996-2001
- Active member of Both SC & National Registrars Association, 1993-present
- Various positions at SRHS since 1980

# Survivorship/Pt Navigation

#### Robert Houston, MD

- Medical Director, Palliative Care Program, SRHS, 2005-present
- Medical Director, Hospice Program, SRHS, 2003-present
- Several Publications on Hospice & Palliative Care

#### Chad Dingham, LMSW, OSW-C

- Oncology Social Worker, SRMC, 2003-present
- Certified, Oncology Social Worker, 2006
- **D.** Describe the model for medical staff for cancer center (e.g., employed, private practice, contracts, specialty company contract, combination)

Combination—employed, private practice

# E. Provide the number of physicians in the cancer program – note cancer program specific medical staff credentialing if applicable

Total of 46 physician staff including: the following:

Hematology/Oncology, Radiation Oncology, Surgical Oncology, GYN oncology, Urological Oncology, Thoracic Oncology, Breast Oncology Surgery, OB/GYN, Urology, Surgery, Internal Medicine, Family Practice, Pulmonology, Pathology, Radiology, Interventional Radiology, Infectious Disease, Gastroenterology, Otolaryngologic Surgery, Palliative Care & Hospice Care

All physicians are credentialed through the SRMC's Medical Staff office. Since 2005, when the Gibbs Regional Cancer Center formed an alliance with the **M.D. Anderson Physicians** 

**Network®**, the cancer program has relied on the network criteria as an enhanced credentialing process to further select and secure physician participants to the SRHS Cancer Center of Excellence. Physicians wishing to participate proceed through a lengthy credentialing process that includes an assessment of the physicians' office practices and a medical records review. SRHS has recently begun to formalize its own conditions of participation for physicians. This will further solidify cancer center physician affiliations and central program administration.

# F. Describe multi-disciplinary care model

Once a week, oncologists, surgeons, pathologists, medical students, residents and nurses gather to discuss case histories and to outline multidisciplinary treatment plans for cancer patients. The group explores all treatment options and responds with a specific set of recommendations. The purposes of the case-based multidisciplinary site-specific cancer conferences and tumor boards are to plan prospectively individual patients' treatments and sequencing, to improve the care of cancer patients within SRHS (a quality improvement effort), to provide continuing medical education for the medical staff, and to identify appropriate candidates for potential accrual to clinical trials. All pertinent disciplines including primary care, surgery, medical and radiation oncology, diagnostic radiology and pathology) routinely attend these conferences. GRCC has organized two tumor specific programs, one for breast (three times/month) and one for lung cancer patients (once/month), along with our regularly scheduled weekly tumor conferences. Physicians also participate in two M.D. Anderson video conferences each month.

Three Patient Navigators provide the link between the primary care physician or diagnostician and the oncologists (including surgeons), as well as facilitating the multidisciplinary coordination arrangements for the patient. The Patient Navigators are available to breast and lung cancer patients to explain treatments, options, next steps, and to assist them to move among and between various private practice offices and the complex outpatient cancer care setting. They become a reliable source for information and services that enable the Gibbs Cancer Center physician and staff to deliver holistic care (including psychosocial, emotional, financial, and spiritual support). Patient Navigators also play a role in outreach community education and identifying patients who may be eligible for research trials.

# G. Provide a brief overview of community demographics

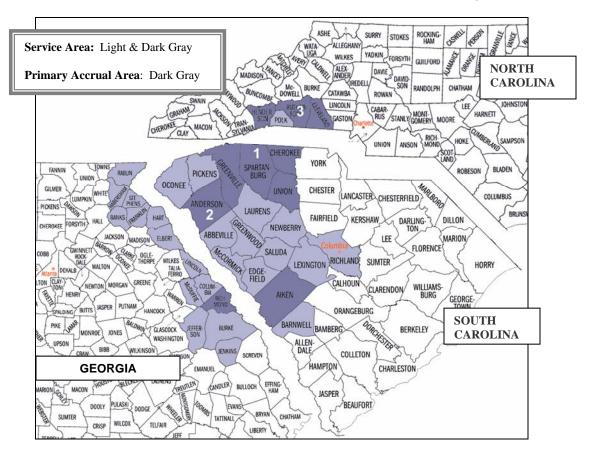
Spartanburg Regional Healthcare System, Spartanburg, SC, (referred to as the Upstate portion of this region) is a public, not-for-profit, integrated health care delivery system anchored by the Spartanburg Regional Medical Center, a 588-bed teaching and research hospital. The System's medical staff comprises more than 500 physicians credentialed across all specialties. SRHS has long been recognized for its centers of excellence, including Regional Heart Center, Gibbs Regional Cancer Center, Regional Center for Women, and a state-of-the-art Emergency Center that includes a Level 1 Trauma Center.

In addition to a 27-site physician network, the System has significant programs in hospice, home healthcare, palliative care, imaging services, pediatrics, occupational health, wellness, sports medicine, bariatric weight loss program, and rehabilitation. Moreover, SRHS is home to South Carolina's only accredited stroke and chest pain center.

The catchment area for SRHS includes 3 counties in northwest SC and 3 counties in southwest NC. Our CCOP research area expands further into a 39-county area in northwestern South Carolina, southwestern North Carolina, and northeastern Georgia. This area contains large, sprawling urban cities; suburban communities; and rural settings and communities. There are approximately 2.4 million people living in the North and South Carolina catchment area served by our component and affiliate hospitals, with African Americans representing 20% of this total. We received approval from SWOG to cover the southeastern counties of Georgia for the SELECT (Prostate Cancer

Prevention Trial). The state's population for the counties served by the UC-CCOP totals > 500,000 with a racial make-up of 70% African Americans.

### Service Area for UC-CCOP Research Accrual Area Map



South Carolina is the 25th largest state in population with an estimated 2005 census of 4.25+ million people and is the 41st largest state in area with 31,189 square miles. While its greatest distance north to south is 218 miles, it borders the Atlantic Ocean with 187 miles of coastline. Almost 46% of the state is considered rural. Women comprise 51.4% of the population, while persons 65 years old and over total 12.1%. Of South Carolina's total population, almost 34% are minority, which includes 19.5% Black or African American.

Over 14% of South Carolinians live below the poverty level. For African-Americans, more than 26% live below the poverty level, compared with 8.6% of whites, in the State. An estimated 1 in 5 South Carolinians are uninsured, according to the SC Department of Insurance. Leaders suggested five (5) key factors contribute to severe health disparities in this State; they include poverty, access to care (due to lack of insurance, inability co-pay, no transportation, etc.), geographic isolation (on average 15% of individuals in predominantly African-American counties do not own a vehicle), late stage disease at diagnosis (from 1998-2001, just half of all whites were diagnosed with early-stage cancers, while fewer than 40% of African-Americans presented with early-stage cancers), and treatment disparities. In 2003, The Institute of Medicine asserted there is compelling evidence that minorities receive a different standard of healthcare than whites (even when income, insurance, and access are equal.)

Our expanded service area shows a wide range of demographic characteristics. The following table highlights minority information for three counties in this area:

**Primary Service Area Key Demographics by County** 

	Spartanburg County, SC	Rutherford County, NC	Anderson County, SC
Age/Gender:			
%Females	51.4	51.8	51.7
% Age 65 Years and Over	12.5	16	13.7
Demographics:			
Total Population	253,791	62,899	165,740
Persons Per Square Mile	313	115	230
Race and Ethnicity:			
% Hispanic or Latino	2.8	1.8	1.1
% Black or African American	20.8	11.2	16.6
% White	75.1	86.8	81.6

The total cancer cases at SRMC for 2005 are broken down by race, gender and age on the following table.

	2005 SRMC Cancer Cases	
Age/Gender:		
%Females	50.2%	
% Age 65 Years and Over	48.3%	
Race and Ethnicity:		
% Hispanic or Latino	<1%	
% Black or African American	18.5%	
% White	80.8%	

There are three major HMOs within our patient catchment area including Blue Choice Health Plan (administered through Companion HealthCare from Blue Cross and Blue Shield of South Carolina), Carolina Care Plan (formerly Physicians Health Plan), and Cigna HMO. Based upon Spartanburg Regional Health System data, it is estimated that 24% of the population within the UC-CCOP accrual area participates in HMOs.

# H. Describe the philosophy on community outreach and list five major activities to reach disparate populations – note if the organization participates in a formal and ongoing community coalition to address unmet health need

SRMC and the cancer program carry out a number of local activities to improve community health. These activities extend beyond normal patient care services and are generally subsidized by the healthcare system. Examples of these services include: health education, support groups, screenings, self-help programs, pastoral outreach programs, free clinics, and telephone information

services.

The Cancer Center offers a variety of community programs each year, such as the Cancer Learning Center (housed at the Gibbs Regional Cancer Center). A number of activities are provided in conjunction with community agencies, with SRHS staff often functioning as lead agent. However, in most cases, the relationships are neither formalized, nor do they involve an IT component. Several projects however, provide unique or replicable models, as described below.

Congregational Nursing. The goal of the congregational nursing program is to develop and nurture congregational nursing and health ministries for Spartanburg County and surrounding areas. Currently, 37 nurses with the program serve 80 diverse faith communities. This program participates in and operates health fairs, screenings, and immunization clinics. A key facet of the program is promoting a curriculum designed to promote health nutrition and physical activity in preschoolers. They also participate in the Community Health Information Partners, which provides education and computers to 50 faith communities to ensure access to safe and reliable health information. As part of the SRHS Community Benefit Report (2005), the program calculates it served 38,000 people, spent 8,221 staff hours, and expended \$155,000 to carry out that year's activities.

**Regional Nurse On-Call.** This is a nurse triage and health information telephone service provided through Upstate Teleservices, LLC, and funded by SRHS. Through this community endeavor, RNs provide triage advice, symptom management, and health information. In 2005, the on-call service generated more than 56,000 calls.

**Women & Children.** Women's & Children services target expectant families, to provide community education and family education courses. Each year, staff from Women's and Children's services participate in an ad-hoc community coalition to coordinate and operate the Women's Expo, Baby Expo, and Maternity Fair. The main venue for children-focused education is the Safe-Kids program, which promotes safety and prevention of unintentional childhood injuries. In 2005, this program served almost 25,000 individuals and involved almost 3,000 staff hours.

**Cleveland Elementary Adopt-A-School Program**. Seven (7) SRHS employees organized and operate a school-based coalition called the Cleveland Elementary Advisory Board Committee. Programs include:

- A mentor program, in which 47 SRHS employees volunteer to mentor students with their academics and attend special recognition lunches with the students.
- Assistance with school-based screenings.
- Twelve (12) SRHS nurses provided screening services at the Start of School healthcare screening.
- Sponsorship of a health Career Club, providing guest speakers.

The Gibbs Cancer Center participates in numerous community-based activities, including:

- **Community Education Programs,** such as Freshstart smoking cessation classes, a colorectal cancer seminar, advance directives programs and a non-Hodgkin's lymphoma seminar.
- Oncology Rehab Energy for Life programs include art and music therapy, Pilates, yoga, and tai chi.
- Cancer Screenings (cataloged previously)
- **Support Groups** for ovarian, prostate cancer, KidsLink, Sparkle City Sisters, Us Too!; Cancer Caring Connection (all cancers)
- Cancer Survivor's Day; Breast Health Program; Cancer Learning Center, and other activities.

**Cancer Screening Programs.** Screening activities are vital to the comprehensive cancer program at SRMC. In the past two years, SRMC has sponsored the following screening programs:

#### **Cancer Screening Programs**

Site Screening Service		Population	# Served			
			2005	2006	Comments	
Breast	Mammography	Eligible un/ underinsured women	133	154	Also available to the general public.	
	Pap Smears & GYN exam	Eligible un/ underinsured women			Best Chance Network provides free screening for qualified women.	
Cervix			134	154		
	FOBT				26 returned	
Colorectal	March	General Public	81	38	61% negative	
					10 pending results	
		General Public			In '05, 4% (29 men) had abnormal PSA result	
	PSA	Free Screening				
Prostate	3 <sup>rd</sup> week in September	156 (27% of those screened) were African- American	765	569	In '06, 5.3% of men (30) had abnormal PSA	
				111	15 Exam may show basal cell	
Skin		General Public	None Held	(130 initially signed up)	2 Exam may show squamous cell	
				/	1 Exam may show melanoma	
Head & Neck		General Public	46	18	No abnormal findings were evident in either year.	
		Free				

Best Chance Network (the State Breast & Cervical Screening Program) and a Medicaid extension of the BCEDP program. This program is funded in part by SC DHEC with additional funds from our local Susan G. Komen Foundation to also allow women ages 47-49) which helps women who need to be screened for breast and cervical cancer, but who have little or insufficient insurance to cover screening services, and who are between 49-64 years old. These services are run through GRCC. In 2005, the State legislature appropriated additional funding to expand Medicaid coverage for breast and cervical treatment to women who are under the age of 64 and who are not enrolled in the BCN program. SRMC physicians and staff also participate in a myriad of American Cancer Society prevention, outreach, and education initiatives.

#### **John Fleming Cancer Clinic**

In 1936, the State established the John Fleming Cancer Clinic. Though South Carolina has long since ceased to fund this program, SRHS continues to support and operate the clinic. Through this program, SRMC and its affiliated physicians treat patients who need surgery, medical oncology, and radiation therapy. The Cancer Clinic sees @ 250 patients per year in the Cancer Clinic. In 2006, John C. Fleming Cancer Clinic spent \$1.8 million, \$3.8 million was spent in oncology services overall. These patients are not discriminated against, as 18% of UC-CCOP Treatment accrual is from this group.

#### **Community Health Disparities Groups**

SRMC participates with many community organizations to reach out to the communities diverse

racial, ethnic and socioeconomic groups. These organizations include Healthy Spartanburg, American Cancer Society, Susan G. Komen Foundation, St. Lukes' Free Clinic, Coalition on Cancer, Mt. Moriah Baptist Church, Regenesis Community Center, Big County Foundation and the Spartanburg Minority Health Advisory Board. A copy of the current **approach/plan to collaborate** with community agencies on breast cancer needs is included at the end on page 16.

#### **SCCA**

SRHS is a member of the South Carolina Cancer Alliance (SCCA), a coalition committed to implementing the State's first comprehensive cancer control plan. The South Carolina Comprehensive Cancer Control Plan is designed to promote partnership and collaborations to address cancer prevention and control strategies that will reduce the impact of cancer on all South Carolinians. To date, the organization has achieved several milestones, including expanding the Breast and Cervical Cancer Act.

Through these efforts, any woman needing treatment for these two diseases will get it. Economic barriers no longer will impede access to care. Efforts to control tobacco use were aided by launching a statewide quit line and numerous community initiatives to promote smoke free community areas. The organization also engages in public policy efforts, advocating for coverage of colorectal cancer screening for Medicaid recipients, as well as advocating for a cigarette tax increase to prevent children from developing tobacco addiction.

- **I. 2006 new cancer cases**: see page 18.
- J. 2006 patients on clinical trials: see below

# K. Number of patients on clinical trials and % NCI-sponsored trials

Accrual Rate Calculation	Total Accrued	Number of New Cancer Cases	Percent Accrual
1/1/06-12/31/06	444	1379	
# accrued to NCI sponsored trials	393	1379	28%

Please note Total Accrued includes Symptom management patients also.

Are also following over 1400 patients on chemoprevention trials

# L. Describe the focus of linkages with NCI-designated cancer centers or other academic research institutions

The University of Texas M.D. Anderson Cancer Center. Since 2005, SRHS and Gibbs Cancer Center physicians have participated in M.D. Anderson Cancer Center's Physicians Network (MDAPN). SRHS is the sole "host" site in South Carolina for the network and the only CCOP site participating. The Cancer Manager program (a key component of the Network) emphasizes a multi-disciplinary approach to cancer treatment. Benefits of the relationship include access to, and measurement of, Quality Initiatives, as well as Information Systems capabilities that support and track outcomes, Internet connectivity, access to guidelines, and patient teaching materials. Through the MDA Physicians Network relationship, local doctors proceeded rapidly to adopt and implement patient guidelines, measure and report concordance with the guidelines, and importantly, credential physicians in Spartanburg and the region, with an emphasis on raising the bar for physician participation in the SRHS cancer program.

**Medical University of South Carolina.** Gibbs Regional Cancer Center has joined forces with MUSC to establish a Center of Economic Excellence in Gastrointestinal Malignancies, including cancers of the esophagus, stomach, colon and rectum. A key objective is to overcome barriers to coordinated research efforts, and to address the lack of participation of gastroenterologists in

existing clinical trials. South Carolinians face a uniquely high incidence of esophageal cancer. The Center of Excellence will include an endowed chair to oversee the project. This position will be based at the Gibbs Cancer Center. State matching funds have been added to the SRMC/MUSC \$5M contribution to this project. SRMC also participates in the Hollings Cancer Network, which provides access to Investigator Initiated Trials.

Cancer Center at Wake Forest University. Since the 1970s, key SRMC oncologists, Drs. Bearden and Josey have maintained strong ties with the Bowman Grey School of Medicine for access to clinical trials. Though the formal agreement ended in 2006, the physician-to-physician relationships remain strong. And Wake Forest remains one of SRHS' academic referral centers and one of the CCOP's Research Bases for cancer control studies

#### M. Describe the status of electronic medical records at the hospital and cancer center

SRHS operates with a sophisticated IT department, lead by Raymond A. Shingler, Vice President and Chief Information Officer at SRHS. In 1995, the SRHS Board of Trustees and Administration made the decision to invest over \$30M in computer hardware, software, and network infrastructure. They believed that technology in healthcare could make a difference in clinical quality and operational effectiveness

- ➤ In 1996, SRHS installed one of the first robotic pharmacy systems for medication administration.
- ➤ In 1997, leaders decided to began replacing all home-developed administrative systems and they implemented a nursing documentation system that ran on a wireless network using wireless computers on carts.
- ➤ In 2000, the first large-scale involvement of the medical staff (over 500 physicians) using computer technology and an electronic medical record. As a result of this successful project, the medical staff became active users of technology.
- ➤ In 2000, medical staff single physician sign-on access, web accessible portal with on-line access to:
  - Current patient data since 1996, as well as current in-house patient data;
  - All nursing documentation, including oncology;
  - Voice recognition software for transcription documents;
  - Ability to correct on-line dictated documents;
  - Real-time access to lab, radiology, OR, respiratory, dietary and rehab data;
  - Medical images (PACS), both radiology and cardiology; and
  - PDA devices with access to all above information via the web.

During this same period, SRHS placed a major focus on patient safety initiatives. In 1999, the system installed medication distribution cabinets on all nursing units. With the introduction of bar coded medication packets generated from the robotic pharmacy system, nursing implemented the "five rights" of medication administration in early 1999. Today, 94% of all medications administered at SRHS follow the "five rights" process of patient and medication identification.

In 2000, SRHS integrated patient monitors with the clinical information systems. This eliminated the need for nurses to manually collect patient data and enter in onto the IT system that enabled care providers to be freed up for bedside care and hands-on nursing.

The next major patient safety initiative occurred in 2002, when the hospital replaced all manual IV pumps with computer-monitored pumps. These pumps are connected to the SRHS data network collecting data in real-time. Beginning in 2002, SRHS co-developed (with a primary vendor) an electronic inventory management and charging system that monitored clinical and surgical supply process. This system has reduced on-shelf inventory by over \$1.6M and measurably improved nursing satisfaction scores.

In 2004, SRHS implemented the radiology imaging system (PACS) and voice recognition system in radiology. Results that previously took hours or days were now available in minutes--electronically on-line. This project was immediately followed by the implementation of a similar system in cardiology. In 2005, the medical staff asked the IT department to select and implement a physician order entry system. In November 2006, the medical staffed directly placed over 5,000 patient orders. With the completion of the project (slated for August '07), SRHS will have a comprehensive, electronic clinical information system that provides clinical and biographical information to the approved medical community.

In 2005, SRHS hosted over 50 hospital systems from across the US to view its IT systems and processes. HIMSS Analytics reviewed the SRHS system, and as a result, identified Spartanburg Regional as being in the top 3% of healthcare systems utilizing information technology in clinical and administrative processes. In 2002, the IT team requested PriceWaterhouse/Coopers to review the SRHS systems. The result – Spartanburg Regional was listed in the top 5% of hospitals using computers.

June 2007, the Electronic Bed Board and Pre-admit Tracking System was introduced, once again taking patient care delivery to a new level. Nursing and other Departments requesting beds will now do so with a few clicks and NO PHONE CALLS. Units will electronically notify Admissions/Bed Board of their pending transfers, pending discharges, confirmed transfers, and confirmed discharges.

The use of computers in medicine has a long history at Gibbs Regional Cancer Center. In Radiation Oncology, computerized treatment planning, initiated in 1982, has been continuously advanced to its current level. Today, three-dimensional anatomy and dose modeling is possible, since the system is networked to all imaging modalities -- CT, MRI, and PET/CT. At present, all images are stored and can be shared electronically, as can the rest of the patient data in the IMPAC database.

IMPAC has served as the software vendor for the SRHS Cancer Registry since 1998. The "Precis-Hospital" software product provides for patient documentation from diagnosis and treatment through long-term follow-up. IMPAC also provides the SRHS Registry with the "Multi-Access Connect" software utilized to import data directly from the Radiation Oncology Department and PHO Medical Oncology.

On October 25, 2005, Palmetto Hematology Oncology went "live" with electronic medical records (EMR), also choosing the IMPAC system. The EMR is comprised of three core application: a practice management application (patient demographic, insurance information, staff schedule, patient appointment calendar), lab application *IntelliLab*, and the clinical application (progress notes, imaging results, diagnostic results, patient's chemotherapy or other treatment care-plans, including cycle/ day).

Trial Check<sup>TM</sup> was recently purchased to aid recruitment of subjects to clinical trials. The Coalition of Cancer Cooperative Groups recently developed a "searchable cancer clinical trials database" that enables customized access to Clinical trials. SRHS/Upstate Carolina CCOP recently joined the Coalition in order to have access to all NCI sponsored Cooperative groups, forty-nine (49) patient advocacy organizations, and eight thousand (8,000) oncology and cancer research specialists. This resource facilitates clinical trial enrollment for physicians and patients.

#### N. Describe the experience with biospecimen collection and banking

SRMC's onsite pathology department performs the vast majority of anatomic and clinical pathology services needed by its affiliated physicians and their patients. The service is accredited by the Joint Commission for laboratory services, and meets those standards. The department is evaluated and inspected bi-annually to maintain this accreditation. The laboratory is also accredited

by the American Association of Blood Banks, and has obtained ISO 9001 status. Technical services are operated by the hospital, while the professional service is contracted to Spartanburg Pathology Associates. This relationship has been in place for over 40 years. Currently the laboratory employs roughly 120 FTEs, and the Pathology group has 9 full time pathologists, six of which are located at SRMC.

The vast majority of specimens are collected on site, and transported from the operating suite to the pathology department in a near real-time manner. Close coordination between the surgery and pathology department is achieved such that many cancer-related resections are brought to the laboratory in an unfixed state. The pathology group utilizes trained pathology assistants to process the specimens. Pathologists handle all frozen sections and special needs studies. Material is processed utilizing formalin fixation and alcohol/xylene based processing. Material may be snap frozen in liquid nitrogen and stored in a minus 70°C freezer, if needed.

Quality oversight is done in accordance with accreditation agencies. Daily, weekly and monthly QC are performed and utilized to ensure proper testing. In addition the laboratory has a Quality Management review, as outlined by the ISO 9001 process. The lab does participate in the Cap proficiency testing and the pathologists participate in several quality improvement programs from the ASCP and CAP.

Currently, SRMC participates in several Cooperative Group studies that require extensive tissue (fresh, frozen, and paraffin block), blood, bone marrow, and urine submissions. The research staff is trained to collect these different tissue samples, and is frequently part of the OR team who obtains the material. Over the years, UC-CCOP has participated in cancer control studies that require specimen collections from surgeries; colonoscopies; and fresh stool specimens.

SRMC and the Medical University of South Carolina (MUSC) are in the planning stages for developing a GI bio-repository, as part of the already funded GI Center of Economic Excellence. Leaders expect this joint endeavor, between SRHS and MUSC, to involve tissue banking and similar joint project between the two institutions. Tissue banking for GI cancers will serve as the pilot; other tumor site biorepository projects will follow. The institution's staff also has prior experience obtaining and storing material for bone marrow transplants. SRMC is also part of a State Tissue Banking being set up in conjunction with USC. Details for both of these tissue banks are currently being worked out.