



**Cumberland Medical Center proudly presents**



**The 2009 Annual Report  
The CMC Cancer Program**

**CMC – Investment in Quality Care**

Cumberland Medical Center Regional Cancer Center has recently undergone a 2200 square foot addition and recently purchased an Elekta Synergy accelerator for a total project investment of \$3.5 million into the CMC Cancer Program. A new building to house the accelerator was constructed and the project included a new electronic medical and treatment planning system installation. The cancer center was also renovated to include new flooring, wall covering, and furniture for the waiting room, an additional waiting room and 2 new dressing rooms.

The Elekta Synergy accelerator produces a radiation beam of either electrons or high energy X-rays. The beam is shaped to match the tumor shape and the patient is positioned to ensure that the beam is directed at the tumor. In the majority of cases, radiation therapy is given as fractionated treatment, meaning that patients receive a daily dose of radiation five days a week for six to seven weeks. A key ongoing development in radiation therapy is intensity modulated radiation therapy (IMRT). With IMRT rather than being treated with a single, large uniform beam, the patient is treated with many very small beams; each of which can have a different intensity. “It is here, in Crossville, Tennessee. We have state of the art cancer center using radiation treatments. We can take the knife out of the surgery. Complementing IMRT is IGRT (Image Guided Radiation Therapy). By combining REAL TIME 3D IMAGING with treatment while the patient is on the treatment table, the physician can target the cancer and avoid radiation to normal body organs, enhancing the accuracy with less toxicity and side effects. More cancers will be controlled and cured, inspiring clinical confidence, and better patient quality of life.” stated by Dr. Joseph Lanzillo, CMC Radiation Oncologist.

**For patients, use of IGRT will mean:**

- Higher, more effective doses of radiation are delivered safely
- Tumors that were previously untreatable, because of their proximity to organs or the spinal cord, now receive treatment
- In some cases, overall treatment time can be shortened
- Radiation side effects are often reduced, improving quality of life



“IMRT with IGRT will allow us to treat difficult cases by delivering radiation to a pin point size tumor target and spare normal tissues. We can sculpt a concentrated dose around the tumor to reduce treatment related toxicity and safely increase the dose to some tumors with improved chances of tumor control” says “Dr. Joseph Lanzillo. “We will eliminate the need for patients to travel out of town for specialized radiation treatments.”



Cumberland Medical knows it is increasingly important to address the uncertainties arising from the motion of internal organs and daily patient set-up. “Image guided radiation therapy, or IGRT, now allows integration of high-resolution imaging on the linear accelerator that allows clinicians to both image and treat patients, at the same time, in the same location. The result is a more aggressive treatment of tumors while minimizing damage to surrounding healthy tissue. Cumberland Medical Center wants to be a part of this technological movement toward better patient care.”

**-Vice President of Professional Services Mark Cain**



#### **CMC INTRODUCES THE NURSE NAVIGATOR PROGRAM**

**In order to continually improve services for breast cancer patients, Cumberland Medical Center is proud to introduce a new addition to breast health services at the hospital. This new service is called the Nurse Navigator program, and will be fulfilled by a Registered Nurse Case Manager.**

**The Nurse Navigator program is designed to help breast cancer patients navigate the maze of options and frequent questions related to breast cancer. This role is designed to complement the services provided by the physician.**

**The Nurse Navigation Program provides education and emotional support for patients, as well as their family members, serving as a liaison between the patient and their treatment providers. With guidance and assistance from the Nurse Navigator, patients can**

**rely on the timely delivery of diagnostic, treatment, and follow-up services, which are key components of successful recovery.**

*“As the Nurse Navigator at Cumberland Medical Center, my role is to assist patients with navigating through the health care system related to breast healthcare. I am a Registered Nurse working in the Case Management/Social Services Department. I am here as a patient advocate. I will assist patients in overcoming barriers to treatments, financial matters, transportation, communicating with healthcare providers, coordinating appointments for timely delivery of services, and referral to support programs and resources. My role additionally includes providing education and emotional support for patients as well as their family members, serving as a liaison between the patient and various healthcare providers. I will keep in contact with patients while they are receiving care and will track their progress. Please feel free to contact me at CMC at (931) 484-9511 extension 7030.”*

*--Trish Vaughn, RN  
CMC Nurse Navigator*

### **The Nurse Navigator’s role will be to:**

- **Facilitate communications between patients and healthcare providers**
- **Coordinate appointments with providers for timely delivery of diagnostic and therapeutic services**
- **Provide educational resources to patients and their families**
- **Serve as an educator while supporting the patient and family in coping with the psychological aspects of breast cancer**
- **Support the patient and family in understanding and coping with the strong emotions which accompany a cancer diagnosis**
- **Refer patients to appropriate cancer support programs and resources**

**For more information about CMC's Nurse Navigator Program Contact Trish Vaughn at 484-9511 extension 7030 or Email Trish [tvaughn@cmchealthcare.org](mailto:tvaughn@cmchealthcare.org).**

# Breast Cancer Survival Study

Dr. Dirk Davidson



Breast cancer is the most common cancer in women, accounting for 32% of all female cancers and 15% of female cancer deaths. In 2009, the American Cancer Society predicted a total of 192,370 new cases of invasive breast cancer nationwide with a total of 40,170 deaths from breast cancer.

Breast cancer affects women of all ages, but is most common after the age of 40. While there are many risk factors of breast cancer, three fourths of women have no risk factors. Regular self-exam and imaging studies are recommended for all women over the age of 40 and particularly over the age of 50. Patients with risk factors, particularly genetic risk factors, are generally recommended earlier and more stringent screening.

The evaluation of breast cancer generally starts with the detection of a palpable mass in the breast, or a discernable abnormality on imaging. Beyond mammography, ultrasound and MRI can be helpful in delineating the possible cause of an abnormality. Patients are then generally recommended biopsy. A fine needle aspiration can be used for

cytologic examination, a core biopsy has the further advantage of providing architecture, and an excisional biopsy is sometimes required for definitive diagnosis. Patients are often asked to help in the decision making process. This can be quite daunting during this difficult period. Recently, CMC has made available to patients a Breast Disease/Nurse Navigator. At this point, Trish Vaughn can greatly assist the patient and her physicians in deciding the most desirable course of action in making a diagnosis. In addition, stereotactic breast biopsy is now available, a diagnostic technology that significantly increases the chance of an accurate diagnosis from the onset.

The prognosis for breast cancer patients is primarily dependent on the stage of the cancer at presentation. Breast cancer is staged at Stage 0 through Stage IV, with the majority of cases presenting in either Stage I or II. In order to treat accurately, the physician must know the size of the primary tumor, the lymph node status, and sometimes the results of whole body imaging studies to rule out the possibility of metastatic disease.

At CMC, 52 patients were newly diagnosed and/or treated with breast cancer during 2007. This represents 15% of the total number of newly diagnosed cases. In 2008, 55 patients were diagnosed with breast cancer, 15% of the total number of newly diagnosed cases.

Nationwide, the incidence of breast cancer is highest between the ages of 50 and 59, with this demographic representing 26% of all cases. At CMC, most affected are between the age 60 and age 80, with this representing 62% of all cases, as compared to 41% nationwide. However, it is well understood that this difference between Cumberland County and the U.S. is clearly most reflective of our local demographics. Because Cumberland County is a retirement community, the percentage of patients over the age of 60 is about 60% higher than a typical U.S. community.

Comparing stage presentation between CMC patients and in U.S. patients as a whole, only one significant difference is seen. The number of Stage IV patients appears to be slightly higher at CMC. However, this total represents just 107 patients and represents only the years 2007 and 2008, so it may not be entirely accurate.

The following table identifies the stage of disease for analytic patients diagnosed at CMC during 2007 and 2008.

AJCC Stage of Disease	CMC Incidence # 2007	CMC Incidence % 2007	CMC Incidence # 2008	CMC Incidence % 2008
O	7	13%	9	16%
I	17	33%	19	35%
II	11	21%	15	27%
III	10	19%	5	9%
IV	3	6%	1	2%
Unknown	4	8%	6	11%
Total	52	100%	55	100%

The treatment of breast cancer can involve as many as four different modalities. The vast majority of cases undergo surgical resection of the primary tumor mass. Generally, this is done at the onset, though some patients may be given chemotherapy or hormonal treatment prior to surgery, in order to shrink the tumor and improve the surgical outcome. Surgery for the primary tumor can involve resection of the mass itself, or removal of the entire breast. In nearly all cases, it is recommended that the axillary lymph nodes be evaluated. In the past, this involved a dissection of all the axillary nodes. More recently, however, it has been determined that the first drainage node, or sentinel node, can be sampled and that this accurately reflects the status of the remaining nodes, thus sparing many women from the potential morbidity of a full axillary node dissection. If the patient undergoes mastectomy, she generally does not also require radiation therapy. However, if the patient undergoes a partial mastectomy, or lumpectomy, a course of postoperative radiation therapy is mandatory. Patients are generally recommended chemotherapy and/or hormonal treatment based on the risk factors reported by the pathologist. Generally, patients with larger tumors and lymph node involvement are recommended for chemotherapy.

Thus some patients are treated with surgery only, while others receive surgery plus radiation, others surgery and chemotherapy, and others all three. Some patients are treated with surgery and hormonal therapy alone or surgery followed by radiation therapy and hormonal therapy. The array of treatments administered nationwide with those administered by CMC are in fairly close consensus. Those patients with Stage 0, i.e. patients with a precancerous condition known as carcinoma in situ are generally treated with surgery alone.

Treatment	CMC Cases 2007	CMC Percentage of Total	CMC Cases 2008	CMC Percentage of Total
Surgery Only	14	27.00%	16	29.00%
Surgery and Radiation Therapy	03	06.00%	04	07.00%
Surgery and Chemotherapy	07	13.00%	13	24.00%
Surgery, Radiation, and Chemotherapy	09	17.00%	09	16.00%
Surgery, Radiation, and Hormonal Therapy	04	08.00%	02	04.00%
Surgery and Hormonal Therapy	03	06.00%	03	05.00%
Surgery, Rad, Chemo, Hormonal Therapy	06	12.00%	00	00.00%
Surgery, Chemotherapy, Hormonal Therapy	03	06.00%	00	00.00%
Radiation and Hormonal Therapy	01	02.00%	00	00.00%
Chemotherapy, Radiation, and Hormonal Therapy	00	00.00%	01	02.00%
Hormone Therapy Only	01	02.00%	00	00.00%
No 1 <sup>st</sup> Course Treatment	01	02.00 %	07	13.00%

At the time of diagnosis, the most common and sometimes the most difficult decision for patients is whether to undergo mastectomy or breast conserving therapy. Patients who undergo mastectomy generally are spared the need for radiation therapy, while patients who choose to conserve the breast and undergo removal of the cancerous mass only are generally recommended radiation therapy afterwards. From a survival standpoint, the two options are equal. There are certain absolute contraindications that include multicentric disease, diffuse malignant microcalcifications, persistently positive surgical margins, prior breast irradiation, and pregnancy. In addition, there are relative contraindications such as the size or location of the tumor and the possibility of pre-existing collagen vascular disease. Therefore, many patients are only given the option of mastectomy. For the majority of patients, however, the decision is a personal one. Patients concerned with breast conservation choose lumpectomy and radiation, but many older patients prefer the simplicity of mastectomy.

Nationwide, there has always been a distinctive difference depending on the region of the country that the patient lives in. Generally the southern states as a whole have opted for mastectomy in greater numbers, while the northern states have chosen breast conservation. The CMC numbers reflect this difference. At CMC in 2007, only 33% of the patients received a partial mastectomy while 42% under went a modified radical mastectomy, and 17% total simple mastectomy. In 2008, 29% of the patients received a partial mastectomy while 36% under went a modified radical mastectomy, and 20% total simply mastectomy. Besides the regional differences discussed above, the local demographics certainly are a part of this trend, because often times a majority of older patients prefer the mastectomy option, and as noted earlier, a much higher percentage of CMC patients are in the older demographic. Older patients are less likely to choose breast conservation than mastectomy.

Though the numbers are small, the survival analysis for patients diagnosed in 2004 was reviewed and displayed in comparison with the National Cancer Database. The comparison shows comparable outcomes though the numbers may be too small to be statistically significant.

AJCC Stage of Disease	CMC Cases 2004	CMC Survival 2004	NCDB Survival 1998-2001
O	6	100.00 %	95.1 %
I	26	96.15 %	90.9 %
II	12	66.67 %	82.2 %
III	4	75.00 %	56.4 %
IV	4	50.00 %	18.6 %

Source: National Cancer Database, Public Benchmark

Dirk Davidson, MD



**Life's a Beach without Cancer – May 2009 Cumberland County Relay for Life Theme**



**CMC Tent and staff**

**“Relay for Life is a unique opportunity for our community to come together to battle cancer,” said Sherry Lawson, Cumberland County’s Relay for Life Mission chairperson. “Our hope is that the mission activities at this year’s event will encourage participants to learn about cancer prevention and early detection.”**

**The American Cancer Society is dedicated to eliminating cancer as a major health problem by saving lives, diminishing suffering and preventing cancer through research, education, advocacy and service. Founded in 1913 and with national headquarters in Atlanta, the society has 13 regional divisions and local offices in 3,400 communities, involving millions of volunteers across the United States. For more information, call 1-800-ACS-2345 or visit [www.cancer.org](http://www.cancer.org).**

**Cumberland Medical Center is dedicated in the support of the ACS mission.**

**Cancer Committee 2008-2009 as appointed  
by Medical Staff on July 1, 2009**

**Dr. Dirk Davidson, Medical Oncologist**

**Dr. David Tabor, Medical Oncologist & Hematology**

**Dr. Joseph Lanzillo, Radiation Oncologist**

**Dr. James Johnson, Family Medicine**

**Dr. James Barnawell, Pathologist**

**Dr. Robert Richmond, Pathologist**

**Dr. Richard Martin, General Surgery**

**Dr. Bill Thompson, Radiologist**

**Sherry Lawson, Corporate Compliance – CMC Regional Cancer Center**

**Connie Hinch, Tumor Registrar – CMC Regional Cancer Center**

**Crystal McDaniel, CTR – Registry Partners**

**David Kellogg, Pharmacy Director**

**Jinger Loggins, Administration, Vice-President**

**Marie Sapp, RN, Oncology Nursing Coordinator**

**Ken Stephens, Administration, Vice-President**

**Linda Hassler, Registered Dietician**

**Trish Vaughn, RN – Nurse Navigator**

**Shawna Potter, BSW, Social Services & Pastoral Services**

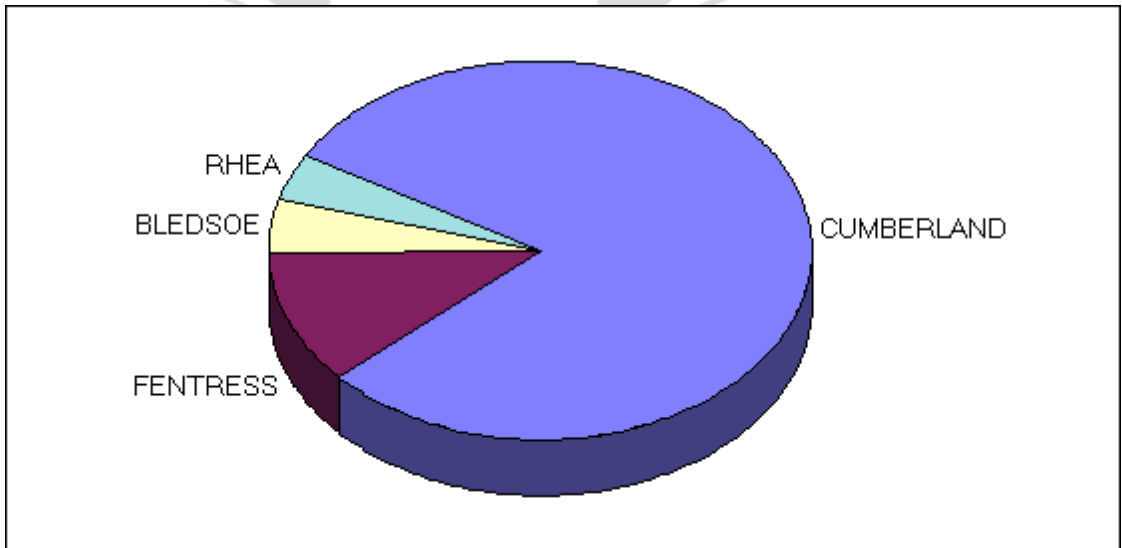
**Villa Edwards, Case Management/Care Maps, Director**

**Cathy Parsons, Director, Cancer Center/Medical Imaging, Director**

**DIAGNOSIS COUNTY Distribution Graph  
2008**

DIAGNOSIS COUNTY	NBR OF CASES	PERCENT
CUMBERLAND	299	72.75%
FENTRESS	43	10.46%
BLEDSON	17	4.14%
RHEA	15	3.65%
WHITE	15	3.65%
ROANE	6	1.46%
MORGAN	6	1%
PUTNAM	3	0.73%
SEVASTIAN	2	0.49%
OVERTON	1	0.24%
SCOTT	1	0.24%
HILLSBOROUGH	1	0.24%
WARREN	1	0.24%
OUT OF STATE	1	0.24%
<b>TOTAL CASES</b>	<b>411</b>	<b>100.00%</b>

CMC



**SITE CODE Distribution Graph**

**2008-ANALYTIC**

<b>SITE CODE</b>	<b>NBR_CASES</b>	<b>PERCENT</b>
BRONCHUS & LUNG	73	19.16%
PROSTATE GLAND	58	15.22%
BREAST	57	14.96%
COLON	32	8.40%
URINARY BLADDER	28	7.35%
LYMPH NODES	20	5.25%
LARYNX	11	2.89%
KIDNEY	11	2.89%
ESOPHAGUS	7	1.84%
CORPUS UTERI	7	1.84%
RECTUM	7	1.84%
UNK PRIMARY	6	1.57%
PANCREAS	5	1.31%
BLOOD & BONE MARROW	5	1.31%
BRAIN	4	1.05%
VULVA	3	0.79%
URETER	3	0.79%
GUM	3	0.79%
CONNECTIVE SUBCUTANEOUS OTHER SOFT TISSUE	3	0.79%
OTHER PARTS OF TONGUE	3	0.79%
OVARY	3	0.79%
CERVIX UTERI	3	0.79%
STOMACH	3	0.79%
MENINGES	2	0.52%
TESTIS	2	0.52%
KIDNEY, RENAL PELVIS	2	0.52%
TONSIL	2	0.52%
OROPHARYNX	2	0.52%
ANUS & ANAL CANAL	2	0.52%
PYRIFORM SINUS	1	0.26%
SMALL INTESTINE	1	0.26%
ORBIT, NOS and OVERLAPPING LESION	1	0.26%
BASE OF TONGUE	1	0.26%
HYPOPHARYNX	1	0.26%
PALATE	1	0.26%
SKIN	1	0.26%
LIVER & BILE DUCTS	1	0.26%
OTHER BILIARY TRACT	1	0.26%
RECTOSIGMOID JUNCTION	1	0.26%
FLOOR OF MOUTH	1	0.26%
THYROID GLAND	1	0.26%
GALLBLADDER	1	0.26%
ADRENAL GLAND	1	0.26%

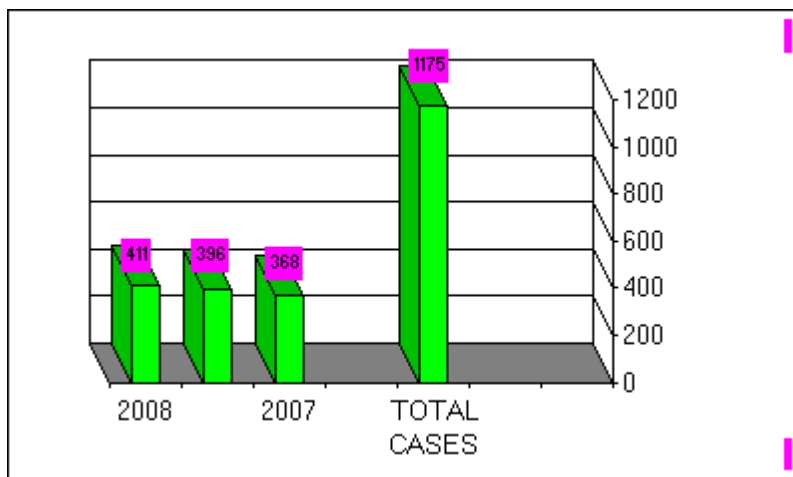
TOTAL CASES

381

100.00%

### Accession Year Distribution Years 2006-2008

<u>ACCESSION YEAR</u>	<u>NBR_CASES</u>	<u>PERCENT</u>
2008	411	34.98%
2006	396	33.70%
2007	368	31.32%
TOTAL CASES	1175	100.00%





**American Cancer Society Community Cancer Resource Center  
The CMC Regional Cancer Center**

Three simple words can turn your world upside down...you have cancer. But you don't have to face this disease alone. The American Cancer Society and Cumberland Medical Center are helping patients and their families cope.

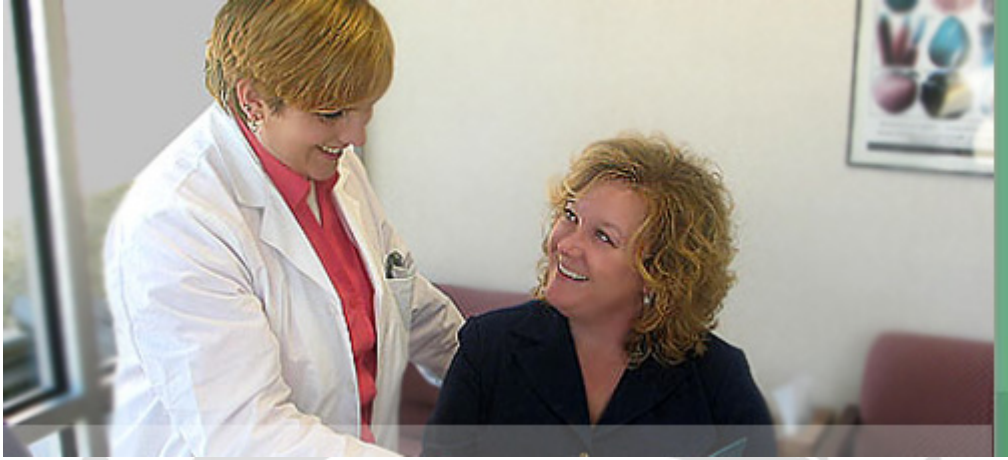
The American Cancer Society Community Cancer Resource Center located at the CMC Regional Cancer Center provides information, resources, and support to those who have been diagnosed with cancer. The center is open Monday through Friday 8 a.m. until noon each day.

Resources available:

- Wigs, turbans, and hats are available to cancer patients
- A lending library with cancer-related books, brochures and pamphlets available to the patients; as well as the caregivers
- A computer which allows patients to research cancer information on the Internet
- A meeting room that provides space for support group meetings that are held each 2<sup>nd</sup> Wednesday of each month at noon with lunch provided
- A meeting room that provides space for Reach for Recover visits and Look Good....Feel Better. These specialized support groups meet quarterly at CMC.

Other support Services available include transportation assistance and nutritional supplements.

The Resource Center is staffed daily with volunteers. Everyone is welcome to visit the center. Schedules are available of the upcoming support meetings. "We are proud of our cancer treatment and support programs. We are here to assist all cancer patients in our community." - Cathy Parsons, CMC Cancer Center Administrative Director



**The mission of the Tumor Registry staff is to describe the burden of cancer not only in Tennessee but also nationally by collecting complete and high quality cancer data and by compiling timely statistics so that data-driven, evidence-based cancer prevention and control programs can be implemented in the state and nationally to reduce cancer morbidity and mortality. - Connie Hinch, CMC Tumor Registry**