

Cancer Report 2011

Using Statistical Data From 2010



St. Anthony's Hospital



Cancer Committee - Chairman's Report

St. Anthony's Hospital Cancer Committee is proud to present the 2011 Annual Cancer Report, reflecting the collected data from 2010 cancer registry statistics. The Cancer Committee monitors and guides the cancer program to ensure that our patients receive the highest standards of care in the diagnosis and treatment of their malignancies.

In 2010, there were 797 new cases of cancer diagnosed and/or treated at St. Anthony's Hospital. Fifty-one percent of these patients were both diagnosed and received their first course of treatment at St. Anthony's Hospital, 27 percent came from other facilities to continue first course of treatment at St. Anthony's Hospital, while 22 percent of the newly diagnosed cases were too ill for further treatment, declined treatment and/or decided to seek treatment at another institution. The five most common sites were breast at 25 percent, lung at 17 percent, colorectal at 6 percent, prostate at 6 percent and lymphoma at 4 percent.

Quality improvement standards and goals were established with collaborative efforts between the St. Anthony's NAPBC-accredited Breast Program Leadership Committee and St. Anthony's Hospital Cancer Committee. One study identified that 64.4 percent of the breast cancer patients undergo breast conservation surgery rather than mastectomies. Another endometrial study demonstrated that with the help of a dedicated gynecologic oncology surgeon, robotic surgery for endometrial cancer has increased from 22 percent in 2008 to more than 80 percent in 2010.

In 2011, St. Anthony's Hospital continued weekly Breast Cancer Conferences as well as weekly General Tumor Board Conferences with both NCCN guidelines and staging being discussed for each case to ensure expeditious review of cases to obtain multidisciplinary input directly influencing treatment planning and management of each patient's quality care.

Clinical goals focused on increasing the number of oncology-certified nurses (OCN) staff on the oncology unit. This was achieved by the encouragement of the Nurse Education department in having group study classes; three new nurses achieved OCN status in 2011. In 2011, St. Anthony's Hospital continued to hold the Chemotherapy Administration Education for Nurses to facilitate the development of oncology-certified registered nurses.

Along with the success of the Breast Center, there has been further growth in other high-quality cancer programs (robotic cancer surgery, access to participation in research trials and Intensity-Modulated Radiation Therapy) that contribute to the successful outcomes for patients treated at this hospital. The Cancer Committee will continue its commitment to patient monitoring and quality improvement activities and strive to expand the care available to cancer patients in our community.

Michael Diaz, MD
Chairman Cancer Committee

Quality Assessment and Improvements

When establishing goals for the year, the St. Anthony's Hospital Cancer Committee (SAHCC) first assesses opportunities for improvement in service, outcome and cost indicators. The Committee recognizes that our customers define quality, and that meeting or exceeding the needs and expectations of each customer is paramount to our success as a program. At St. Anthony's Hospital (SAH), this is achieved through looking for ways to continually improve the cancer care process, one patient and one caregiver at a time.

The SAH reporting system for quality assessment and improvement is known as Team MAP. The process includes the following steps:

- Select indicators to monitor
- Monitor these indicators and identify improvement opportunities
- Prioritize processes to be improved, focusing on Service, Outcome and Cost
- Take action to improve the process
- Evaluate the impact the process change has on customer needs through a pilot program
- Implement process changes system-wide which demonstrate positive impact on customer service, improved outcomes and reduced cost

In 2011, the SAHCC identified both short-term and long-term goals based on the needs of our customers. One short-term goal was to increase the number of oncology-certified nurses (OCN) providing cancer care for both the inpatient unit and outpatient cancer services. There were an additional three nurses who passed their certification exam during 2011, bringing the total number of OCN nurses to 12. Certified nurses enhance patient safety by having knowledgeable caregivers available throughout the cancer care continuum who partner with the physician to provide superior care and outcomes.

Another goal achieved in 2011 was moving to a weekly breast cancer tumor board that was strongly recommended during last year's National Accreditation Program for Breast Centers (NAPBC) survey. The surveyor commented that the breast cancer cases can be combined with cases from other sites, but it is essential that the Physician Breast Leadership (BPL) committee provided oversight of the conference discussions. If the breast cancer volume increases, the BPL and SAHCC may consider establishing a separate weekly breast cancer conference.

Finally, the St. Anthony's Hospital Radiation Safety Committee has recommended that the Radiation Safety Officer (RSO) provide a brief educational class about radiation safety and protection for all new team members during their orientation period. The RSO developed a 15-minute overview and started providing that to new team members in December 2011. This is in addition to the annual update he provides for nurses who have the potential for radiation exposure while providing patient care. This includes cath lab, OR and interventional radiology nurses and techs who are exposed to fluoroscopy, as well as inpatient nurses who provide care for patients I-121 therapy for thyroid cancer.

The SAHCC monitors indicators and improvements during Cancer Committee meetings. All SAH improvement activities are ultimately reported to the system president as well as the Board of Trustees through the Quality Leadership Task Force.

Tim McMahon

Cancer Program Administrator

2010 Statistical Summary

Incidence: In 2010, there were 797 new cancer cases and 94 cases with recurrent or metastatic cancer from cases diagnosed and treated elsewhere (non-analytic). Figure 1 depicts the annual new accessions (patients) for the last 10 years.

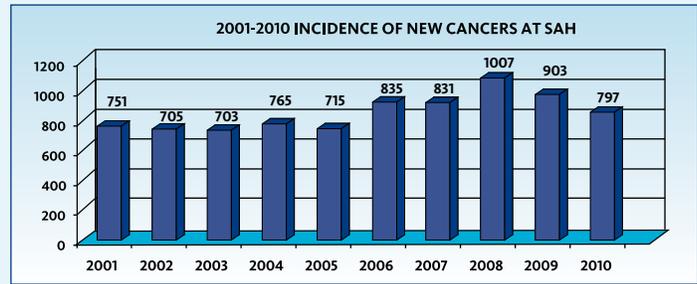


Figure 1

Class of Case: During 2010, there were a great deal of changes to the coding process within the registry and Class-of-Case was one of those changes. Class 0 became Class 00 and is no longer followed by registry staff, though the data is still required to be reported to CoC as an analytic case. Class 00 are cases that are diagnosed only at our facility and it is known where they have gone elsewhere for further treatment. Other analytic cases are: Class 1 which became Class 10-14, and are cases that are diagnosed and treated within the St. Anthony's Hospital system, or St. Anthony's was involved in the diagnosing process and/or the decision for only palliative care was made. There are subcategories that include diagnosing and/or treatment within a SAH physician office and all are being followed for treatment and/or recurrence. Class 2 became Class 20-22 and are cases that have been diagnosed elsewhere and come to SAH for treatment and also continue to be followed for treatment and/or recurrence.

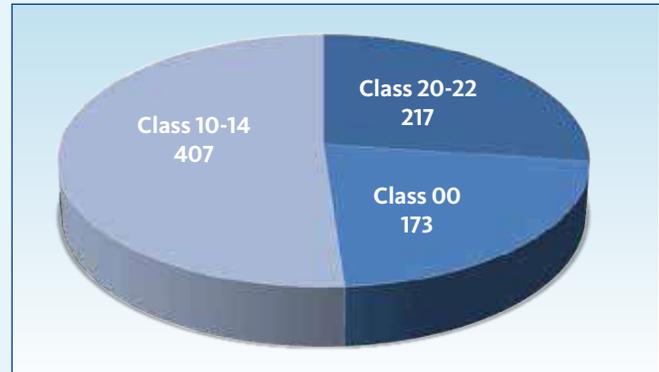


Figure 2

During 2010, St. Anthony's Hospital had 173 Class 00 cases or 21.7 percent of all 2010 analytic cases. There were 407 Class 10-14 cases or 51 percent. Class 20-22 had 217 cases or 27.2 percent. See figures 2 and 3.

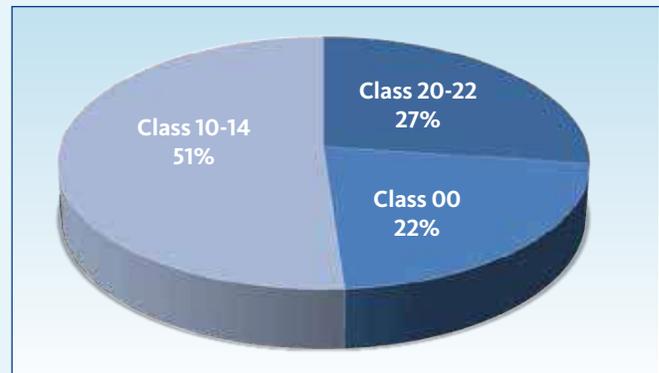


Figure 3

Top Five Primary Cancer Sites at SAH

During 2010: The top five most frequent occurring cancers at St. Anthony's Hospital during 2010 were breast at 24.7 percent, lung 17.4 percent, prostate at 6.2 percent, colorectal at 6 percent and lymphatics at 4 percent. This can be compared to the American Cancer Society National Data of breast at 13.5 percent, lung at 14.5 percent, prostate at 14.2 percent, colorectal at 9.3 percent and lymphatics at 5 percent. See figure 4.

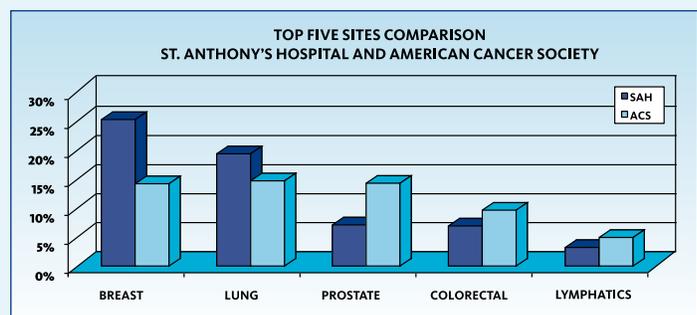


Figure 4

All primary site distribution by gender are shown in Table 1.

Primary Site	Total	Male	Female
All Sites	797	318	479
Oral cavity	25	18	7
Tongue	13	9	4
Lip	1	0	1
Other	11	9	2
Digestive system	130	75	55
Esophagus	7	5	2
Stomach	7	2	5
Colon	48	23	25
Rectum	18	12	6
Anus/anal canal	10	7	3
Liver	15	12	3
Pancreas	14	7	7
Other	11	7	4
Respiratory system	155	84	71
Nasal/sinus	6	6	0
Larynx	9	7	2
Lung/bronchus	139	71	67
Other	1	0	1
Blood and bone marrow and bone	14	5	9
Leukemia	7	3	4
Multiple myeloma	4	1	3
Other	4	2	2
Connect/soft tissue	2	2	0
Melanoma and other skin	22	12	10
Breast	197	0	197
Female genital	47	0	47
Cervix uteri	2	0	2
Corpus uteri	38	0	38
Ovary	7	0	7
Vulva	0	0	0
Other	0	0	0
Male genital	50	50	0
Prostate	50	50	0
Testis	0	0	0
Urinary system	37	25	12
Bladder	12	8	4
Kidney/renal	24	16	8
Other	1	1	0
Brain and CNS	41	12	29
Brain (benign)	3	2	1
Brain (malignant)	9	5	4
Other/meninges	29	5	24
Endocrine	23	5	18
Thyroid	14	3	11
Other	9	2	7
Non-Hodgkin/lymph system	32	17	15
Hodgkin/lymph system	6	5	1
Unknown primary/ill-defined	15	7	8

Table 1

Demographics: Data from American Cancer Society *Facts and Figures for 2010* estimated that there will be over 1,529,560 new cancer cases reported in the U.S., with 107,000 new cases from Florida alone. At SAH the data on distribution of cancer by gender was 318 for males or 40 percent, and for females 479 or 60 percent. When compared to the ACS percentage, St Anthony's has a greater percentage of female than male, but this certainly would be correct given the fact that over 1/3 of our cases are breast cases, with the Susan McGillicuddy Breast Center attracting a larger female population. See figure 5.

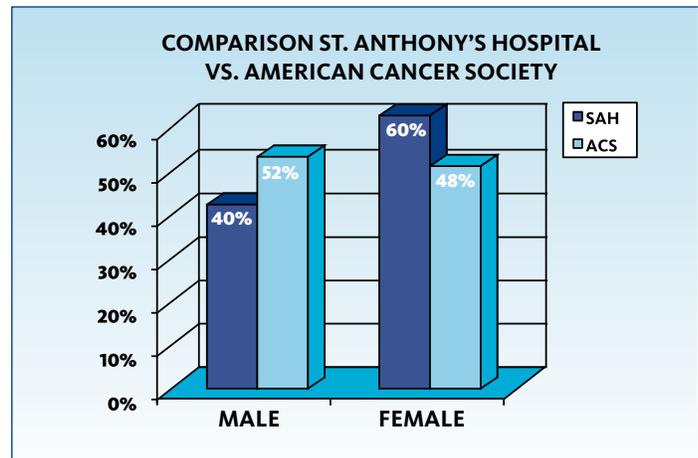


Figure 5

Age at Diagnosis: The median age was 67 years of age for all cancer sites diagnosed or treated at SAH during 2010. The majority of cancers diagnosed were in the age ranges of 60 through 79. There were 10.5 percent males and 13.6 percent females ages 60 through 69 with 9.2 percent males and 12.2 percent females ages 70 through 79. See figure 6.

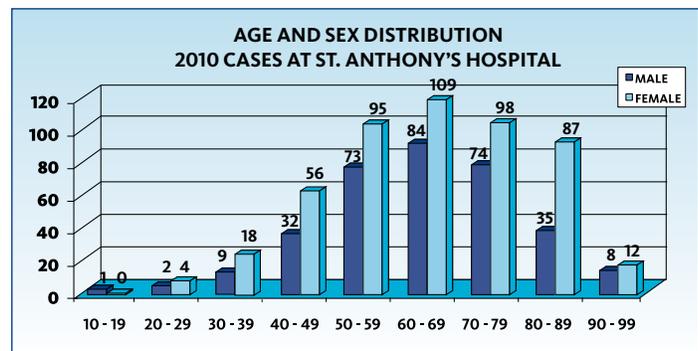


Figure 6

Stage at Diagnosis: Stage-at-diagnosis plays an important role in the prognosis and treatment of cancer. During 2010, a new 7th edition of AJCC (American Joint Commission on Cancer) Staging Manual was published that contained several changes in the staging system, and the registry and physicians had to incorporate these changes into the data collection of cancer cases. Some areas changed completely, i.e. melanoma now has more subcategories. Some cancers that were not previously staged, i.e. neuroendocrine tumors are now staged, as are carcinoids and gastrointestinal stromal tumors. Since staging has importance in the prognosis and

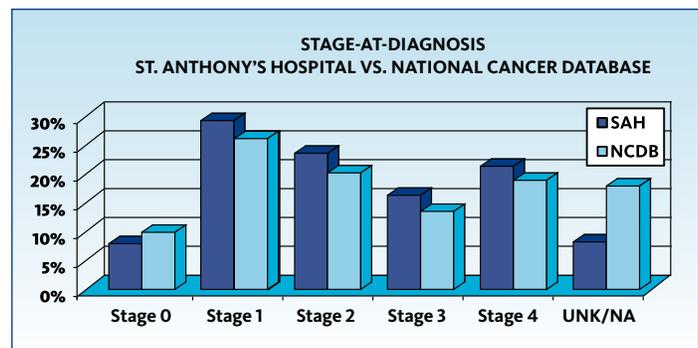


Figure 7

and treatment of cancer, it became important to focus on clinical staging and prognostic factors. For this reason the process of discussing the National Comprehensive Cancer Network (NCCN) treatment guidelines and staging at diagnosis for each case was reemphasized in our Tumor Boards as we began the 2011 year.

During 2010, the St. Anthony's cancer registry recorded 6.7 percent stage 0, 28.8 percent stage 1 and 22.3 percent stage 2 cancers. For stage 3, there were 15.3 percent and for stage 4 we had 20.3 percent. One of the reasons we have such a high incidence of stage 4 cancers is probably due to the fact that we have a radiation center where we treat a great number of lung cancers. This site, unfortunately, is one of those cancers that present in advanced stage of disease at the time of diagnosis. At times due to the advanced ill health of the patient staging studies are not able to be carried out, and for some cancers there is no staging schema. In 2010, the registry recorded 6.7 percent of the cases that fell into this category. For comparison with National Cancer Data Base (NCDB) for stage at diagnosis, see figure 7.

2011 Patient Care Evaluation

Endometrial Cancer at St Anthony's Hospital with Survival Data

Purpose: Endometrial cancer had not been studied before at St. Anthony's Hospital and for 2010 the SAH Cancer Committee chose to review this site to evaluate patient care for a five-year period of 2005 through 2010 with inclusion of comparison data from the National Cancer Data Base (NCDB). Survival data includes endometrial cancer data from 2000 through the year 2005 and is compared to the American Cancer Society *Facts and Figures for 2010*.

Method: The committee reviewed 117 analytic cases of female endometrial cancer diagnosed and/or treated at St. Anthony's Hospital and documented by the St Anthony's Hospital Cancer Registry from 2005 through 2010. Survival data includes the years 2000 through 2005 and is compared to the American Cancer Society *Facts and Figures for 2010* since no NCDB survival data was available for this site.

Findings and Conclusion: According to the American Cancer Society *Facts and Figures for 2010*, there will be an estimated 43,470 new cases of cancer of the uterine corpus. These usually occur in the endometrium (lining of the uterus). Because of the limited data on endometrial cancer nationally, the American Cancer Society *Facts and Figures 2005 through 2010* was used in this comparison study of incidence.

- **Incidence:** In St. Anthony's Hospital during 2005 there were 15 cases of endometrial cancer or 2 percent of the total cases reported that year. This declined in 2006 with six patients (0.7 percent) and in 2007 with six patients (0.7 percent). However, with the arrival of a second dedicated gynecologic surgical oncologist to our staff, the case load in 2008 rose to 21 patients (2 percent) and in 2009 to 35 patients (4 percent). The total endometrial caseload for 2010 was 33 patients or 4.1 percent of total caseload that year. When comparing this to the American Cancer Society data for the years 2005 through 2010, it would appear that St. Anthony's Hospital has a greater percentage than the national data in the years 2009 and 2010, again this could be contributed to the addition of another dedicated gynecologic surgeon on staff as well the advanced age of the patient population in this area.
- **Signs, Symptoms and Detection:** The most common signs of endometrial cancer at presentation in our St. Anthony's Hospital patients were abnormal uterine bleeding or spotting especially in postmenopausal women, and pain during urination, intercourse or in the pelvic area. According to the American Cancer Society, approximately 69 percent of cancers detected present in this manner. There is no standard routine screening test for endometrial cancer. However, patients at high risk (i.e. Lynch syndrome, etc.) are advised to have annual screening with endometrial biopsy or transvaginal ultrasound from age 35 onward.
- **Age at Diagnosis:** Between 2005 and 2010, the average age at diagnosis of endometrial cancer at St. Anthony's Hospital was in the 60 to 69 age range, which is consistent with the NCDB data nationally. St. Anthony's patients overall present at a more advanced age, which is probably due to the fact that the state of Florida has a greater population of aged persons.
- **Treatment:** Endometrial cancer is usually treated with surgery, radiation, hormones and/or chemotherapy depending on the stage of the patient. Hysterectomy with or without fallopian tube and ovaries resection is the standard surgical procedure for endometrial cancer. The advances in surgical techniques with robotic surgery have improved the length of stay and the recovery time of our patients. During 2008, St. Anthony's Hospital began performing robotic surgery for endometrial cancer with 22 percent of those surgeries being robotic. This increased to 80.2 percent in 2009 and to 84.4 percent in 2010.

St. Anthony's Hospital recently purchased new gynecologic applicators (tandem and ovoids) to be used with the Varian HDR (high-dose rate) afterloading Iridium device. This provides the radiotherapists with more options in treating women with uterine cancer and avoids the need for hospitalization, which was necessary with the previous LDR (low-dose rate) techniques. The radiation can now be completed as an outpatient in three to five treatments.

- **Staging:** Staging-at-diagnosis plays an important role in the treatment planning and survival of the endometrial cancer patient. With the increase in planned robotically assisted surgery beginning in 2009, the focus on clinical staging became more important from the overall treatment approach. The surgeon used the pathologic staging after surgery to confirm the clinical stage and solidify the patient-specific treatment plan. Based on the data presented in the table below, the St. Anthony's Hospital patient's stage-at-diagnosis appears to be consistent with the NCDB national data. In any given year studied, the majority of patients are diagnosed with early stage disease. There are a small number of endometrial cancers that cannot be staged due to the comorbid condition of the patient or the patient refuses further staging studies.

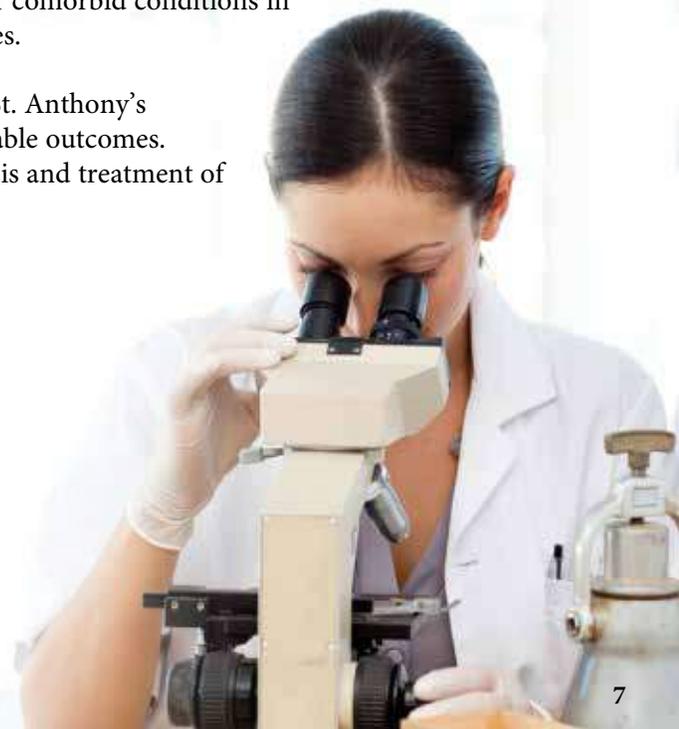
	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4
2005	0%	40%	20%	7%	27%
2006	0%	50%	33%	0%	0%
2007	0%	33%	33%	17%	0%
2008	0%	76%	5%	5%	5%
2009	0%	74%	10%	13%	3%
2010	0%	82%	3%	5%	8%
2011	4%	79%	7%	7%	4%

- **Survival Rates:** Due to the fact that there are a smaller number of endometrial cancers compared to some other cancers such as breast and lung, there was no comparison data on survival within the NCDB data. However, the American Cancer Society *Facts and Figures for 2010* states that the 1- and 5-year survival rates for endometrial cancer is approximately 92 percent and 83 percent respectively. In comparison SAH had 92 percent survival the first year but differs by the fifth year with 78.4 percent survival rate. Once again, this could be attributed to other comorbid conditions in an aging population unique to the Florida cancer registries.

In general, patients diagnosed with endometrial cancer at St. Anthony's Hospital present at an early stage resulting in overall favorable outcomes. This study did not demonstrate any changes in the diagnosis and treatment of endometrial cancer in our hospital.

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Gynecological Oncology
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St. Anthony's Hospital Cancer Registry



2011 Cancer Committee

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Frances Brown, RLD	Nutrition
Dinah Merrill, CTR	Manager, Oncology Data Services

Mission

St. Anthony's Hospital will improve the health of all we serve through community-owned health care services that set the standard for high-quality, compassionate care.

Vision

St. Anthony's Hospital will advance superior health care by providing an exceptional patient-centered experience with a focus on spiritual well-being.

Values

The values of the St. Anthony's Hospital are trust, respect, and dignity and reflect our responsibility to achieve health care excellence for our communities.

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