



COMBINED TUMOR REGISTRY ANNUAL REPORT 2004

WITH STATISTICAL DATA FROM 2003

JACKSON MEMORIAL HOSPITAL

UNIVERSITY OF MIAMI
SYLVESTER COMPREHENSIVE CANCER CENTER

TABLE OF CONTENTS

A Message From the Chair	1
Jackson Memorial Hospital Annual Report 2004	
Summary of Data and Activities for the Year 2003	2
Figure 1: Cancer Incidence by Anatomic Site, Sex, Class of Case, and AJCC Stage	3
University of Miami Sylvester Comprehensive Cancer Center Annual Report 2004	
Summary of Data and Activities for the Year 2003	5
Figure 2: Cancer Incidence by Anatomic Site, Sex, Class of Case, and AJCC Stage	6
Combined Tumor Registry Annual Report 2004	
Summary of Data and Activities for the Year 2003	8
Figure 3: Cancer Incidence by Anatomic Site, Sex, Class of Case, and AJCC Stage	9
Patient Care Evaluation Study: Cervical Cancer	11
Figure 4: Cervical Cancer: Cancer Incidence by Race, Ethnicity, Age Grouping, County of Residence	
Cancer Committee Members	Inside Back Cover
Tumor Registry Staff	Inside Back Cover
Glossary	Back Cover
References	Back Cover
Abbreviations	Back Cover

A MESSAGE FROM THE CHAIR

During 2003-2004, the combined Cancer Committee for Jackson Memorial Hospital (JMH) and the University of Miami Sylvester Comprehensive Cancer Center (UM/Sylvester) went in a new direction in order to coordinate all cancer-related clinical and research activities throughout these facilities.

Since the role of the cancer physician liaison was expanded by the American College of Surgeons Commission on Cancer (ACoS CoC), a new standing Community Outreach Subcommittee was created and has been ably chaired by Pedro G. Velez, M.D., ACoS liaison and medical director of the Taylor Breast Health Center, and Deborah O. Heros, M.D., assistant professor of clinical neurology and cancer physician liaison at UM/Sylvester.



Meeting monthly, the subcommittee has been proactive in disseminating information to JMH and UM/Sylvester staff, as well as to the surrounding South Florida community, regarding such initiatives as the “Great American Smoke Out.” This annual event, which is hosted by the Miami-Dade County Chapter of the American Cancer Society and held on our campus, presents concrete materials and methods to interested parties that can lead to the cessation of cigarette smoking and a reduction in such deadly diseases as lung cancer and cancers of the head and neck region.

The Cancer Committee also has been pivotal in improving the flow of information regarding our patients who have been enrolled in clinical trials approved by the University of Miami’s Institutional Review Board (IRB). This “Communication Project” Subcommittee has drawn expertise from a variety of areas for both JMH and UM/Sylvester including business, clinical research services, compliance, health information management, informatics, informational technology, marketing and communications, medical, legal, patient privacy, and risk management. Working together, this subcommittee has improved the web-based access of health care providers and research associates regarding the necessary patient information required for both continuity of patient care as well as for proper adherence in conducting clinical trials.

Lastly, I must personally thank all the members of the Cancer Committee for their continued support, energy, and dedication during these past few years. Without their efforts, these vital initiatives would never have flourished, but rather, would have “withered on the vine.” Instead, the future looks very bright as we approach the ACoS CoC survey of both JMH and UM/Sylvester in May 2005. In addition, 2005 will see the addition of a single manager of the tumor registries for each institution. This will greatly facilitate the maintenance of CoC accreditation along with continued improvement in the overall operation of both registries.

A handwritten signature in black ink that reads "Aaron H. Wolfson, M.D.".

Aaron H. Wolfson, M.D.

Chair, Cancer Committee

SUMMARY OF DATA AND ACTIVITIES FOR THE YEAR 2003

The data collected at Jackson Memorial Hospital (JMH) are based on demographic, diagnostic, treatment, and follow-up information on all patients with reportable cancer from 1977 to present in accordance with American College of Surgeons Commission on Cancer (ACoS CoC) and Florida Cancer Data System (FCDS) guidelines. In 1978, the cancer program at JMH was awarded an unconditional three-year approval by the ACoS, which is maintained to this day. Our most recent successful survey was completed on November 16, 2001. The next survey is scheduled for May 2005.

Quality control of registry data is a high priority at JMH. The Cancer Committee is intimately involved with the quality control process at every level, having reviewed 300 analytic cases during 2004, eighty more than the 10% requirement. Registry data are stored using IMPAC software (a provider of health care IT solutions that helps improve the patient care delivery process), which utilizes built-in checks and edits to maintain quality and consistency. In addition, the registry manager periodically reviews abstracts on a random basis to ensure the database's integrity.

The tumor registry has analyzed data for all patients with reportable disease first seen at JMH between January 1, 2003 and December 31, 2003. A total of 2,848 new cases were diagnosed, treated, or seen here during that time, either as inpatients, outpatients, or both. (*Figure 1, Cancer Incidence by Anatomic Site, Sex, Class of Case, and AJCC Stage.*) Of these cases, 2,209 were analytic (78%), meaning they received all or part of their first course of treatment at our facility. The remaining 639 cases (22%) were non-analytic, meaning patients were diagnosed and received all of their initial cancer-directed therapy elsewhere.

According to *Cancer Facts and Figures 2004*, an estimated 1,368,030 new cancer cases were diagnosed in the United States in 2004. Of those, 97,290 (approximately 7%) were diagnosed in the State of Florida, second only to the State of California. These figures do not include carcinoma *in situ* (except bladder), nor do they include basal cell or squamous cell skin cancers.

The top five sites with the highest cancer incidence in the country include prostate at 17%, followed by breast (16%), lung and bronchus (13%), colon (8%), and lymphoma (5%). The top five sites in Florida were prostate (18%), lung and bronchus (14%), female breast (14%), colon and rectum (10%), and urinary bladder (5%). At JMH, the five major cancer sites in 2003 were breast at 11%, followed by bronchus and lung (7%), prostate (7%), colon (5%), and kidney (5%).

Gender/Race/Ethnicity: Part of the reason for the disparity between JMH and state and national data is the unique population this facility serves. In 2003, females accounted for the majority (52%) of first-time cancer patients at JMH (1,476 cases), while males accounted for 48% (1,372 cases). In contrast at the national level, males accounted for 51% of new cancer cases, while females accounted for 49%. At JMH, the majority of first-time cancer patients were white (77%), while 22% were black, and the remaining 1% were of other races. Approximately 56% of these patients were non-Hispanic, while 44% were Hispanic and represented countries throughout the Caribbean, South, and Central America. The majority of patients diagnosed with cancer at JMH were in the 40-79 age group (81%).

Stage at Diagnosis: Many of the cancer patients that presented to JMH for the first time in 2003 were diagnosed with early stage disease, either *in situ* or localized (37%). A significant portion of our new patients presented with regional disease (22%), and the remainder presented with late stage or distant stage of disease at the time of diagnosis (19%).

FIGURE 1
CANCER INCIDENCE BY ANATOMIC SITE, SEX, CLASS OF CASE, AND AJCC STAGE
JACKSON MEMORIAL HOSPITAL

Site	Total		Sex		Class of Case		AJCC Stage at Initial Diagnosis						
	Number	Percent	Male	Female	Analytic	Non-analytic	0	I	II	III	IV	Unk	N/A
All Sites	2,848	100	1,372	1,476	2,209	639	110	339	363	221	335	157	684
Head & Neck	213	7.5	159	54	153	60	2	16	18	16	49	18	34
Lip	5	0.2	5	0	4	1	0	2	1	1	0	0	0
Base of Tongue	18	0.6	16	2	12	6	0	0	0	2	7	3	0
Other & Unspecified Parts of Tongue	16	0.6	11	5	9	7	1	2	1	0	4	1	0
Gum	8	0.3	7	1	5	3	0	0	0	1	4	0	0
Floor of Mouth	13	0.5	5	8	12	1	1	3	3	1	3	1	0
Palate	7	0.2	6	1	3	4	0	0	0	0	1	1	1
Other Parts of Mouth	8	0.3	4	4	5	3	0	0	3	0	0	1	1
Parotid Gland (3)	32	1.1	17	15	26	6	0	3	1	2	3	3	14
Tonsil	20	0.7	16	4	12	8	0	0	0	1	6	2	3
Oropharynx	7	0.2	7	0	5	2	0	0	1	0	2	0	2
Nasopharynx	5	0.2	4	1	5	0	0	0	0	1	2	1	1
Pyriform sinus	2	0.1	2	0	2	0	0	0	0	1	0	1	0
Hypopharynx	2	0.1	1	1	1	1	0	0	0	0	1	0	0
Other Lip, Oral Cavity, & Pharynx	4	0.1	4	0	2	2	0	0	0	0	0	0	2
Nasal Cavity/Middle Ear	7	0.2	5	2	5	2	0	0	0	0	2	0	3
Accessory Sinuses	9	0.3	7	2	8	1	0	0	3	0	1	0	4
Larynx	45	1.6	40	5	32	13	0	6	5	5	13	3	0
Other Parts of Major Salivary Glands	5	0.2	2	3	5	0	0	0	0	1	0	1	3
Digestive Organs	521	18.3	308	213	407	114	5	77	81	63	75	42	64
Esophagus	27	0.9	17	10	24	3	1	2	3	7	5	5	1
Stomach	90	3.2	55	35	84	6	0	18	9	7	17	11	22
Small Intestine	20	0.7	12	8	19	1	0	1	4	1	0	0	13
Colon	151	5.3	87	64	83	68	1	18	11	25	17	7	4
Rectosigmoid Junction	26	0.9	17	9	22	4	0	4	4	6	6	2	0
Rectum	28	1.0	20	8	20	8	0	3	5	1	4	2	5
Anus & Anal Canal	8	0.3	5	3	7	1	2	1	0	1	1	2	0
Liver/Intrahepatic Bile Ducts	62	2.2	38	24	51	11	1	14	12	5	4	10	5
Gallbladder	6	0.2	2	4	4	2	0	0	2	0	1	0	1
Other & Unspecified Parts of Biliary Tract	21	0.7	10	11	19	2	0	6	11	0	1	0	1
Pancreas	80	2.8	44	36	72	8	0	10	20	10	19	3	10
Other Digestive	2	0.1	1	1	2	0	0	0	0	0	0	0	2
Respiratory & Intrathoracic Organs	209	7.3	123	86	174	35	0	33	12	18	78	16	17
Thymus	7	0.2	4	3	6	1	0	0	0	0	0	0	6
Bronchus & Lung	196	6.9	115	81	163	33	0	33	12	18	77	15	8
Thymus	7	0.2	4	3	6	1	0	0	0	0	0	0	6
Heart, Mediastum, & Pleura	6	0.2	4	2	5	1	0	0	0	0	1	1	3
Trachea	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Bones, Joints, & Articular Cartilage	25	0.9	13	12	21	4	0	2	1	0	1	6	11
Bones, Joints, & Articular Cartilage of Limbs	8	0.3	4	4	6	2	0	0	1	0	0	3	2
Bones, Joints, & Articular Cartilage of Other	17	0.6	9	8	15	2	0	2	0	0	1	3	9
Hematopoietic & Reticuloendothelial	83	2.9	50	33	45	38	0	0	0	0	0	0	45
Acute Myeloid Leukemia (1)	11	0.4	5	6	3	8	0	0	0	0	0	0	3
Acute Myelomonocytic Leukemia FAB M4	3	0.1	2	1	3	0	0	0	0	0	0	0	3

1 NOS (Not otherwise specified) 2 Includes cancer in situ 3 Includes benign tumor 4 Excludes extra-nodal lymphomas

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FIGURE 1 — CONTINUED
 CANCER INCIDENCE BY ANATOMIC SITE, SEX, CLASS OF CASE, AND AJCC STAGE
 JACKSON MEMORIAL HOSPITAL

Site	Total		Sex		Class of Case		AJCC Stage at Initial Diagnosis						
	Number	Percent	Male	Female	Analytic	Non-analytic	0	I	II	III	IV	Unk	N/A
Chronic Lymphocytic Leukemia	9	0.3	5	4	3	6	0	0	0	0	0	0	3
Chronic Myeloid Leukemia (1)	4	0.1	2	2	1	3	0	0	0	0	0	0	1
Precursor Cell Lymphoblastic Leukemia (1)	10	0.4	7	3	8	2	0	0	0	0	0	0	8
Other Leukemia	14	0.5	7	7	11	3	0	0	0	0	0	0	11
Multiple Myeloma	23	0.8	15	8	11	12	0	0	0	0	0	0	11
Plasmacytoma (1)	7	0.2	5	2	5	2	0	0	0	0	0	0	5
Waldenstrom Macroglobulinemia	2	0.1	2	0	0	2	0	0	0	0	0	0	0
Skin	72	2.5	48	24	39	33	2	6	4	4	4	1	18
Peripheral Nerves, Connective, Subcutaneous, & Soft Tissue	74	2.6	42	32	58	16	0	3	5	11	3	10	26
Peripheral Nerves and Autonomic Nerves	7	0.2	7	0	7	0	0	0	0	0	0	1	6
Peritoneum & Retroperitoneum	11	0.4	6	5	9	2	0	1	1	2	1	0	4
Connective, Subcutaneous, & Other Soft Tissue	56	2.0	29	27	42	14	0	2	4	9	2	9	16
Breast	323	11.3	6	317	245	78	36	48	64	42	22	26	7
Female Genital Organs	338	11.7	0	338	302	36	54	67	20	33	39	5	84
Cervix Uteri (2)	120	4.2	0	120	105	15	46	19	11	16	11	2	0
Corpus Uteri	61	2.2	0	61	57	4	2	37	4	4	6	2	2
Uterus (1)	7	0.2	0	7	4	3	0	0	0	0	1	0	3
Vagina	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Vulva	18	0.6	0	18	18	0	6	3	1	7	1	0	0
Ovary	114	4.0	0	114	101	13	0	8	4	4	20	1	64
Placenta (3)	18	0.6	0	18	17	1	0	0	0	2	0	0	15
Male Genital Organs	217	7.6	217	0	169	48	1	2	121	5	18	12	10
Penis	9	0.3	9	0	8	1	1	2	2	0	2	0	1
Prostate Gland	195	6.9	195	0	152	43	0	0	119	3	16	10	4
Testis	12	0.4	12	0	8	4	0	0	0	2	0	2	4
Other Male Genital	1	0.0	1	0	1	0	0	0	0	0	0	0	1
Urinary Organs	264	9.4	193	71	188	76	10	67	33	19	35	16	8
Bladder	110	3.9	91	19	59	51	6	12	13	8	13	6	1
Kidney	135	4.7	90	45	113	22	1	50	19	10	21	6	6
Renal Pelvis	7	0.2	4	3	6	1	2	2	0	1	0	1	0
Ureter	9	0.3	7	2	8	1	1	2	1	0	0	3	1
Other Urinary	3	0.1	1	2	2	1	0	1	0	0	1	0	0
Eye & Adnexa (3)	18	0.6	7	11	13	5	0	0	0	0	1	2	10
Central Nervous System	224	7.9	87	137	183	41	0	0	0	0	0	0	183
Meninges (3)	56	2.0	11	45	44	12	0	0	0	0	0	0	44
Brain (3)	127	4.5	60	67	103	24	0	0	0	0	0	0	103
Other Central Nervous System (3)	41	1.4	16	25	36	5	0	0	0	0	0	0	36
Endocrine Glands	134	4.7	45	89	108	26	0	17	4	9	7	1	70
Adrenal Gland (3)	18	0.6	6	12	15	3	0	0	0	0	0	0	15
Thyroid (3)	59	2.1	18	41	48	11	0	17	4	9	7	1	10
Other Endocrine (3)	57	2.0	21	36	45	12	0	0	0	0	0	0	45
Lymphomas (4)	72	2.5	43	29	50	22	0	1	0	1	3	2	43
Hodgkin Lymphoma	20	0.7	13	7	14	6	0	0	0	0	1	1	12
Malignant Lymphoma (1)	14	0.5	8	6	4	10	0	0	0	0	1	0	3
Mature B-Cell Lymphomas	34	1.2	21	13	29	5	0	1	0	1	1	0	26
Other Lymphomas	4	0.1	1	3	3	1	0	0	0	0	0	1	2
Unknown Primary Site	61	2.1	31	30	54	7	0	0	0	0	0	0	54

1 NOS (Not otherwise specified) 2 Includes cancer in situ 3 Includes benign tumor 4 Excludes extra-nodal lymphomas

SUMMARY OF DATA AND ACTIVITIES FOR THE YEAR 2003

The primary function of the University of Miami Sylvester Comprehensive Cancer Center (UM/Sylvester) tumor registry is to accurately collect essential basic data from our cancer patients. These data include demographics, diagnosis, staging, treatment, and follow-up information, including survival. Detailed and sophisticated statistical data are then used to implement quality improvement studies for public education, clinical research, treatment evaluation, quality assessment, patient follow-up, administrative planning, and a wide range of other uses. Electronic reports are submitted to the Florida Cancer Data System (FCDS/state registry) and to the National Cancer Data Base (NCDB) on a quarterly and annual basis respectively. The registry follows and meets the requirements of the American College of Surgeons Commission on Cancer (ACoS CoC). UM/Sylvester successfully has been evaluated and accredited by the ACoS CoC in 1996 and 2000.

At present, approximately 24,408 cases have been accessioned into the registry database and follow up is being performed on 14,072 analytical cases. The numbers and percentages presented in this report represent 3,006 new cases in 2003—a more than 4% increase from 2002. Of this total, 67% were analytical cases, having received all or part of their first course of treatment at our facility, while 33% were non-analytical, in other words patients who were diagnosed and received all of their initial cancer-directed therapy elsewhere (*Figure 2, Cancer Incidence by Anatomic Site, Sex, Class of Case, and AJCC Stage*).

Gender/Race/Ethnicity: Male patients accounted for 59% of cases while females accounted for 41% (*Figure 2*). The patient population at UM/Sylvester is diverse and consists of patients from diverse ethnic and national origin backgrounds. The majority of patients were white (88%), while 9% were black, and 3% were of other races. Blacks had a higher incidence of prostate cancer (21%) compared to whites with 15%. Sixty-nine percent of patients were non-Hispanic, while 31% were of Hispanic origin, with Cubans leading the group with 16%.

Stage at Diagnosis: The most common stage of disease at diagnosis for all sites was Stage II with 27% followed by Stage I with 21% (*Figure 2*).

Cancer Incidence by Anatomic Site: The frequency of cancer at UM/Sylvester shows prostate as the top cancer site at 15%, followed by breast (10%), bladder (7%), skin (5%), and bronchus and lung (5%) as seen in *Figure 2*. Common sites for males include prostate (15%), bladder (7%), skin (5%), colon (4%), and kidney (4%). Top sites in females include breast (25%), lung (6%), skin (5%), colon (5%), and cervix (5%).

Initial Therapy: Surgery (38%) was the most common modality of treatment, followed by surgery-radiation at 7%, surgery-chemotherapy at 7%, radiation at 6%, and all other treatments at 31%. Patients with no treatment accounted for 11%.

Age at Diagnosis: The majority of patients seen/treated at the cancer center fell into the 60-69 age group with 30%, followed by the 50-59 age group (24%), and the 70-79 age group (23%).

The tumor registry participated in two ACoS-sponsored Patient Care Evaluation Studies in 2003. In addition, as part of the tumor registry performance improvement (PI) process, progressive implementation and development of “AJCC Staging by the Managing Physician” was performed under the direction and guidance of the Cancer Committee.

FIGURE 2
CANCER INCIDENCE BY ANATOMIC SITE, SEX, CLASS OF CASE, AND AJCC STAGE
UNIVERSITY OF MIAMI SYLVESTER COMPREHENSIVE CANCER CENTER

Site	Total		Sex		Class of Case		AJCC Stage at Initial Diagnosis						
	Number	Percent	Male	Female	Analytic	Non-analytic	0	I	II	III	IV	Unk	N/A
All Sites	3,006	100	1,764	1,242	2,024	982	159	421	545	259	297	40	303
Head & Neck	357	12	252	105	263	94	6	65	30	45	92	8	17
Lip	4	0.1	1	3	3	1	1	1	1	0	0	0	0
Base of Tongue	35	1.2	30	5	26	9	0	3	0	5	17	1	0
Other & Unspecified Parts of Tongue	40	1.3	27	13	25	15	0	11	4	1	8	1	0
Gum	6	0.2	5	1	4	2	0	1	0	0	3	0	0
Floor of Mouth	10	0.3	7	3	8	2	1	5	1	0	1	0	0
Palate	8	0.3	4	4	5	3	0	0	1	2	1	1	0
Other Parts of Mouth	18	0.6	11	7	12	6	1	3	3	1	4	0	0
Parotid Gland	42	1.4	22	20	39	3	0	14	6	3	11	0	5
Other Parts of Major Salivary Glands	3	0.1	0	3	1	2	0	0	0	0	1	0	0
Tonsil	29	1.0	25	4	25	4	0	0	0	9	13	2	1
Oropharynx	8	0.3	4	4	7	1	0	1	1	2	3	0	0
Nasopharynx	12	0.4	8	4	8	4	0	0	1	3	2	1	1
Pyiform Sinus	9	0.3	7	2	7	2	0	0	1	1	4	1	0
Hypopharynx	16	0.5	10	6	13	3	0	2	0	4	6	0	1
Other Lip, Oral Cavity, & Pharynx	3	0.1	3	0	2	1	0	0	0	0	0	0	2
Nasal Cavity/Middle Ear	9	0.3	5	4	7	2	0	1	2	0	0	0	4
Accessory Sinuses	18	0.6	14	4	12	6	0	3	0	1	5	0	3
Larynx	87	2.9	69	18	59	28	3	20	9	13	13	1	0
Digestive Organs	430	14.3	253	177	301	129	12	68	47	70	75	9	20
Esophagus	35	1.2	29	6	25	10	1	3	5	12	4	0	0
Stomach	58	1.9	34	24	50	8	0	15	8	8	8	3	8
Small Intestine	8	0.3	4	4	7	1	0	0	1	1	0	0	5
Colon	134	4.5	77	57	53	81	5	16	7	10	14	1	0
Rectosigmoid Junction	17	0.6	9	8	14	3	0	1	2	5	5	0	1
Rectum	24	0.8	15	9	13	11	1	6	1	3	1	1	0
Anus & Anal Canal	7	0.2	6	1	3	4	1	0	1	0	1	0	0
Liver/Intrahepatic Bile Ducts	52	1.7	36	16	44	8	0	9	7	13	12	1	2
Gallbladder	5	0.2	2	3	5	0	0	0	2	1	2	0	0
Other & Unspecified Parts of Biliary Tract	13	0.4	8	5	13	0	4	5	3	1	0	0	0
Pancreas	76	2.5	32	44	73	3	0	13	10	16	28	3	3
Other & Ill-Defined Digestive	1	0.0	1	0	1	0	0	0	0	0	0	0	1
Respiratory & Intrathoracic Organs	145	4.8	69	76	93	52	0	22	3	22	38	4	4
Thymus	1	0.0	0	1	0	1	0	0	0	0	0	0	0
Bronchus & Lung	139	4.6	67	72	91	48	0	22	3	22	38	4	2
Heart, Mediastum, & Pleura	4	0.1	2	2	1	3	0	0	0	0	0	0	1
Trachea	1	0.0	0	1	1	0	0	0	0	0	0	0	1
Bones, Joints, & Articular Cartilage	24	0.8	15	9	21	3	0	5	3	0	1	1	11
Bones, Joints, & Articular Cartilage of Limbs	9	0.3	6	3	8	1	0	3	2	0	1	1	1
Bones, Joints, & Articular Cartilage of Other	15	0.5	9	6	13	2	0	2	1	0	0	0	10
Hematopoietic & Reticuloendothelial	124	4.1	76	48	51	73	0	0	0	0	0	0	51
Acute Leukemia, NOS	2	0.1	0	2	1	1	0	0	0	0	0	0	1
Acute Lymphocytic Leukemia	7	0.2	6	1	1	6	0	0	0	0	0	0	1
Acute Myeloid Leukemia, NOS	24	0.8	13	11	15	9	0	0	0	0	0	0	15

1 NOS (Not otherwise specified) 2 Includes cancer in situ 3 Includes benign tumor 4 Excludes extra-nodal lymphomas

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FIGURE 2 — CONTINUED

CANCER INCIDENCE BY ANATOMIC SITE, SEX, CLASS OF CASE, AND AJCC STAGE
UNIVERSITY OF MIAMI SYLVESTER COMPREHENSIVE CANCER CENTER

Site	Total		Sex		Class of Case		AJCC Stage at Initial Diagnosis						
	Number	Percent	Male	Female	Analytic	Non-analytic	0	I	II	III	IV	Unk	N/A
Chronic Lymphocytic Leukemia	21	0.7	14	7	6	15	0	0	0	0	0	0	6
Chronic Myeloid Leukemia	9	0.3	4	5	4	5	0	0	0	0	0	0	4
Hairy Cell Leukemia	3	0.1	1	2	0	3	0	0	0	0	0	0	0
Other Leukemias	7	0.2	5	2	4	3	0	0	0	0	0	0	4
Multiple Myeloma	35	1.2	23	12	12	23	0	0	0	0	0	0	12
Myelodysplastic Syndrome	7	0.2	4	3	3	4	0	0	0	0	0	0	3
Plasmacytoma	5	0.2	4	1	4	1	0	0	0	0	0	0	4
Waldenstrom Macroglobulinemia	4	0.1	2	2	1	3	0	0	0	0	0	0	1
Skin	147	4.9	86	61	87	60	19	28	15	4	4	3	14
Peripheral Nerves, Connective, Subcutaneous, & Soft Tissue	63	2.1	33	30	46	17	0	6	4	9	2	7	18
Retroperitoneum & Peritoneum	8	0.3	4	4	8	0	0	0	0	1	0	2	5
Connective, Subcutaneous, & Other Soft Tissue	55	1.8	29	26	38	17	0	6	4	8	2	5	13
Breast	311	10.3	3	308	216	95	49	60	54	33	16	3	1
Female Genital Organs	152	5.1	0	152	106	46	33	36	9	12	10	1	5
Cervix Uteri (2)	51	1.7	0	51	34	17	25	6	3	0	0	0	0
Corpus Uteri	44	1.5	0	44	37	7	0	22	6	5	2	0	2
Uterus (1)	4	0.1	0	4	1	3	0	0	0	0	0	0	1
Vulva	16	0.5	0	16	14	2	7	2	0	2	2	0	1
Vagina	3	0.1	0	3	2	1	1	0	0	0	0	0	1
Ovary	33	1.1	0	33	18	15	0	6	0	5	6	1	0
Other Female Genital	1	0.0	0	1	0	1	0	0	0	0	0	0	0
Male Genital Organs	487	16.2	487	0	349	138	2	5	302	21	14	1	4
Prostate Gland	462	15.4	462	0	334	128	0	0	298	19	14	1	2
Testes	13	0.4	13	0	6	7	0	4	0	1	0	0	1
Penis	10	0.3	10	0	7	3	1	1	4	1	0	0	0
Other Male Genital	2	0.1	2	0	2	0	1	0	0	0	0	0	1
Urinary Organs	370	12.3	290	80	225	145	38	83	37	30	36	0	1
Kidney	127	4.2	90	37	92	35	0	54	13	10	15	0	0
Renal Pelvis	21	0.7	18	3	17	4	5	4	1	5	2	0	0
Ureter	17	0.6	13	4	14	3	7	5	1	0	1	0	0
Bladder	202	6.7	168	34	100	102	26	19	22	14	18	0	1
Other Urinary	3	0.1	1	2	2	1	0	1	0	1	0	0	0
Eye & Adnexa	83	2.8	33	50	77	6	0	20	37	7	1	0	12
Central Nervous System	104	3.5	55	49	71	33	0	0	0	0	0	0	71
Meninges (3)	9	0.3	2	7	3	6	0	0	0	0	0	0	3
Brain (3)	86	2.9	48	38	62	24	0	0	0	0	0	0	62
Other Central Nervous System	9	0.3	5	4	6	3	0	0	0	0	0	0	6
Endocrine Glands	83	2.8	37	46	50	33	0	23	4	6	8	3	6
Thyroid	76	2.5	33	43	44	32	0	23	4	6	8	3	0
Adrenal	2	0.1	1	1	2	0	0	0	0	0	0	0	2
Other Endocrine (3)	5	0.2	3	2	4	1	0	0	0	0	0	0	4
Lymphomas (4)	101	3.4	64	37	47	54	0	0	0	0	0	0	47
Hodgkin Lymphoma	21	0.7	12	9	12	9	0	0	0	0	0	0	12
Malignant Lymphoma (1)	23	0.8	13	10	4	19	0	0	0	0	0	0	4
Mature B-Cell Lymphomas	50	1.7	34	16	27	23	0	0	0	0	0	0	27
Mature T-and NK- Cell Lymphomas	7	0.2	5	2	4	3	0	0	0	0	0	0	4
Unknown Primary Site	25	0.8	14	11	21	4	0	0	0	0	0	0	21

1 NOS (Not otherwise specified) 2 Includes cancer in situ 3 Includes benign tumor 4 Excludes extra-nodal lymphomas

JACKSON MEMORIAL HOSPITAL, UM/SYLVESTER, BASCOM PALMER EYE INSTITUTE

SUMMARY OF DATA AND ACTIVITIES FOR THE YEAR 2003

The combined tumor registry data for 2003 for Jackson Memorial Hospital (JMH), the University of Miami Sylvester Comprehensive Cancer Center (UM/Sylvester), and the Bascom Palmer Eye Institute provided unique insight into how the combined cancer program is developing into the primary care system for patients with malignant disease in South Florida. With a combined 5,923 cases accessioned, the vast majority of which were analytic (72%), the combined health system provided care for over 6% of the entire cancer population in the State of Florida that year.

Prostate and breast cancer were the most common type of cancers with 11% (658 cases for prostate and 647 cases for breast), followed by bronchus and lung with 6% (359 cases), bladder with 5% (298 cases), and colon with 5% (292 cases). Nationwide, it is estimated that the top five sites during 2003 were prostate at 17% (220,900 cases), breast with 16% (211,300 cases), lung and bronchus with 13% (171,900 cases), colon with 8% (105,500 cases), and urinary bladder with 4% (57,400 cases). Of the total number of cancer cases during 2003, males made up the majority of cancer cases with 53% (3,144) while females made up 47% (2,779) as noted in *Figure 3, Cancer Incidence by Anatomic Site, Sex, Class of Case, and AJCC Stage*.

Prostate cancer had the highest rate of incidence among males with 11% (658 cases), followed by bronchus and lung with 5%, bladder at 4%, and kidney and colon with 3%. Breast cancer had the highest rate of incidence among females at 11% (647 cases), followed by cervix at 3%, and ovary and colon at 2% (*Figure 3*).

The majority (2,374 cases or 79%) of all newly diagnosed cancer cases at JMH, UM/Sylvester, and Bascom Palmer were Stage 0 to Stage III. The remaining 627 cases were all late stage or Stage IV at time of diagnosis. One reason why so many patients are presenting with early stage of disease may be the improved diagnostic techniques now available such as the PET scan and the MRI. In addition, advances in genetic testing and the use of clinical indicators has enhanced our capability to diagnose cancer at an earlier stage, thereby improving the overall prognosis of the patient.

FIGURE 3

**CANCER INCIDENCE BY ANATOMIC SITE, SEX, CLASS OF CASE, AND AJCC STAGE
JACKSON MEMORIAL HOSPITAL, UM/SYLVESTER, BASCOM PALMER EYE INSTITUTE**

Site	Total		Sex		Class of Case		AJCC Stage at Initial Diagnosis						
	Number	Percent	Male	Female	Analytic	Non-analytic	0	I	II	III	IV	Unk	N/A
All Sites	5,923	100	3,144	2,779	4,252	1,671	261	740	895	478	627	208	1,043
Head & Neck	579	9.8	416	163	421	158	7	87	46	61	143	25	52
Lip	9	0.2	6	3	7	2	1	3	2	1	0	0	0
Base of Tongue	54	0.9	47	7	38	16	0	3	1	7	24	3	0
Other & Unspecified Parts of Tongue	57	1.0	39	18	37	20	1	16	5	1	12	2	0
Gum	20	0.3	14	6	13	7	0	3	0	1	8	1	0
Floor of Mouth	25	0.4	14	11	19	6	1	8	3	1	5	1	0
Palate	15	0.3	10	5	9	6	0	0	2	2	3	1	1
Other Parts of Mouth	28	0.5	17	11	20	8	1	5	4	2	5	1	2
Parotid Gland (2)	72	1.2	39	33	63	9	0	16	8	5	13	2	19
Other Parts of Major Salivary Glands	9	0.2	3	6	7	2	0	0	0	1	2	1	3
Tonsil	47	0.8	39	8	36	11	0	0	0	10	19	3	4
Oropharynx	15	0.3	11	4	12	3	0	1	2	2	5	0	2
Nasopharynx	17	0.3	12	5	13	4	0	0	1	4	4	2	2
Pyriform Sinus	12	0.2	10	2	10	2	0	0	1	2	5	2	0
Hypopharynx	18	0.3	11	7	14	4	0	2	0	4	7	0	1
Other Lip, Oral Cavity, & Pharynx	10	0.2	10	0	5	5	0	0	0	0	0	0	5
Nasal Cavity/Middle Ear	15	0.3	9	6	11	4	0	1	2	0	2	0	6
Accessory Sinuses	27	0.5	20	7	19	8	0	3	2	1	6	0	7
Larynx	129	2.2	105	24	88	41	3	26	13	17	23	6	0
Digestive Organs	951	16	555	396	704	247	13	139	130	134	150	55	83
Esophagus	63	1.1	44	19	49	14	2	5	9	17	9	5	2
Stomach	145	2.4	86	59	129	16	0	29	16	14	26	15	30
Small Intestine	25	0.4	14	11	23	2	0	1	4	2	0	0	16
Colon	292	4.9	165	127	147	145	6	35	22	40	31	9	4
Rectosigmoid Junction	43	0.7	26	17	36	7	0	5	6	11	11	2	1
Rectum	54	0.9	35	19	34	20	1	9	6	4	5	4	5
Anus & Anal Canal	15	0.3	11	4	10	5	3	1	1	1	2	2	0
Liver/Intrahepatic Bile Ducts	114	1.9	74	40	93	21	1	23	19	17	15	11	7
Gallbladder	12	0.2	4	8	9	3	0	1	3	1	3	0	1
Other/Unspecified Parts of Biliary tract	34	0.6	18	16	31	3	0	9	16	2	2	0	2
Pancreas	151	2.5	76	75	140	11	0	21	28	25	46	7	13
Other & Ill-defined Digestive	3	0.1	2	1	3	0	0	0	0	0	0	0	3
Respiratory & Intrathoracic Organs	379	6.4	211	168	281	98	0	53	15	40	123	25	25
Thymus (2)	8	0.1	4	4	6	2	0	0	0	0	0	0	6
Bronchus & Lung	359	6.1	201	158	267	92	0	53	15	40	122	23	14
Heart, Mediastinum, & Pleura	11	0.2	6	5	7	4	0	0	0	0	1	2	4
Trachea	1	0.0	0	1	1	0	0	0	0	0	0	0	1
Bone, Joints, & Articular Cartilage	48	0.8	27	21	40	8	0	7	4	0	2	7	20
Bones, Joints & Articular Cartilage of Limbs	17	0.3	9	8	14	3	0	3	3	0	1	4	3
Bones, Joints & Articular Cartilage of Other	31	0.5	18	13	26	5	0	4	1	0	1	3	17

This table also contains data from Jackson South, which is part of the Jackson Health System.

1 NOS (Not otherwise specified) 2 Includes cancer in situ 3 Includes benign tumor 4 Excludes extra-nodal lymphomas

continued on next page

FIGURE 3 — CONTINUED

CANCER INCIDENCE BY ANATOMIC SITE, SEX, CLASS OF CASE, AND AJCC STAGE
 JACKSON MEMORIAL HOSPITAL, UM/SYLVESTER, BASCOM PALMER EYE INSTITUTE

Site	Total		Sex		Class of Case		AJCC Stage at Initial Diagnosis						
	Number	Percent	Male	Female	Analytic	Non-analytic	0	I	II	III	IV	Unk	N/A
Hematopoietic & Reticuloendothelial	200	3.4	116	84	96	104	0	0	0	0	0	0	96
Skin	231	3.9	139	92	132	99	22	34	21	8	8	4	35
Peripheral Nerves, Connective, Subcutaneous, & Soft Tissue	136	2.3	73	63	103	33	0	9	9	21	5	14	45
Peripheral Nerves & Autonomic Nervous System	7	0.1	7	0	7	0	0	0	0	0	0	1	6
Retroperitoneum & Peritoneum	19	0.3	10	9	17	2	0	1	1	4	1	1	9
Connective, Subcutaneous, & Other Soft Tissue	110	1.9	56	54	79	31	0	8	8	17	4	12	30
Breast	656	11.1	9	647	464	192	85	109	118	75	38	31	8
Female Genital Organs	491	8.3	0	491	405	86	87	98	28	44	46	7	95
Cervix Uteri (1)	173	2.9	0	173	141	32	72	25	14	17	11	2	0
Corpus Uteri	104	1.8	0	104	92	12	2	59	8	9	8	2	4
Uterus	13	0.2	0	13	6	7	0	0	0	0	1	1	4
Vulva	30	0.5	0	30	28	2	12	4	1	8	2	0	1
Vagina	3	0.1	0	3	2	1	1	0	0	0	0	0	1
Ovary (2)	149	2.5	0	149	119	30	0	14	4	9	26	2	64
Other Female Genital	1	0.0	0	1	0	1	0	0	0	0	0	0	0
Placenta (2)	18	0.3	0	18	17	1	0	0	1	1	0	0	15
Male Genital Organs	706	11.9	706	0	512	194	4	7	414	26	33	14	14
Prostate Gland	658	11.1	658	0	480	178	0	0	409	22	31	12	6
Testes	25	0.4	25	0	14	11	0	4	0	3	0	2	5
Penis	20	0.3	20	0	15	5	3	3	5	1	2	0	1
Other Male Genital	3	0.1	3	0	3	0	1	0	0	0	0	0	2
Urinary Organs	587	10	445	142	378	209	45	134	62	44	66	16	11
Kidney	234	4.0	156	78	180	54	1	89	28	16	33	6	7
Renal Pelvis	27	0.5	21	6	22	5	6	6	1	6	2	1	0
Ureter	23	0.4	17	6	19	4	7	6	2	0	1	3	0
Bladder	298	5.0	249	49	154	144	31	32	31	21	30	6	3
Other Urinary	5	0.1	2	3	3	2	0	1	0	1	0	0	1
Eye & Adnexa	157	2.7	69	88	139	18	0	25	38	12	1	4	59
Central Nervous System	321	5.4	142	179	247	74	0	0	0	0	0	0	247
Meninges (2)	64	1.1	13	51	46	18	0	0	0	0	0	0	46
Brain (2)	207	3.5	108	99	159	48	0	0	0	0	0	0	159
Other Central Nervous System (2)	50	0.8	21	29	42	8	0	0	0	0	0	0	42
Endocrine Glands	215	3.6	82	133	155	60	0	37	8	18	15	3	74
Thyroid Gland (2)	134	2.3	50	84	91	43	0	37	8	18	15	3	10
Adrenal Gland (2)	20	0.3	7	13	16	4	0	0	0	0	0	0	16
Other Endocrine (2)	61	1.0	24	37	48	13	0	0	0	0	0	0	48
Lymph Nodes or Lymphomas? (3)	174	2.9	106	68	97	77	0	0	0	0	2	2	93
Unknown Primary Site	92	1.6	49	43	80	12	0	0	0	0	0	0	80

This table also contains data from Jackson South, which is part of the Jackson Health System.

1 NOS (Not otherwise specified) 2 Includes cancer in situ 3 Includes benign tumor 4 Excludes extra-nodal lymphomas

**PATIENT CARE EVALUATION STUDY: CERVICAL CANCER
(JACKSON MEMORIAL HOSPITAL AND UM/SYLVESTER)**

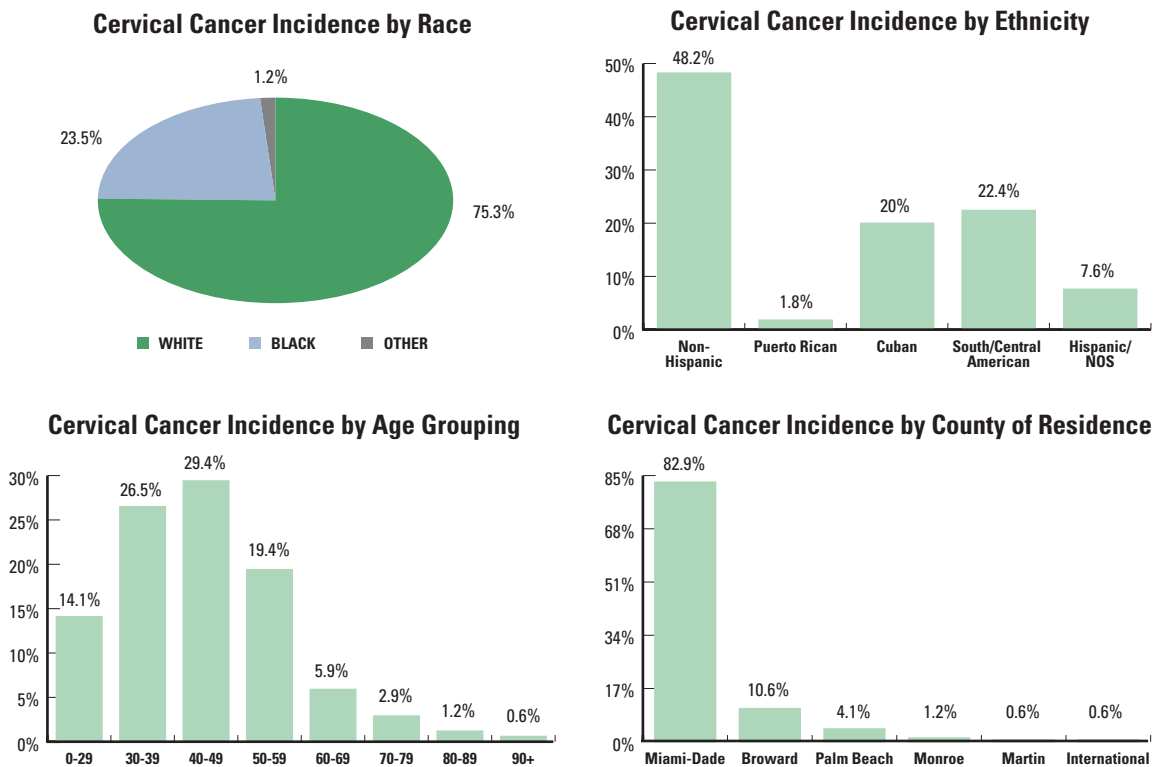
Aaron H. Wolfson, M.D.
Professor, Radiation Oncology
Chair, Cancer Committee

Cervical cancer continues to be a very common disease in patients seen at Jackson Memorial Hospital (JMH) and the University of Miami Sylvester Comprehensive Cancer Center. Of the total 170 patients seen in 2003, approximately 41% (70 cases) were non-invasive (Stage 0). Of the remaining cases, 24% (40 cases) had American Joint Committee on Cancer (AJCC) pathologic Stage I/II disease, while 17% (28 cases) had Stage III/IV cervical cancers.

The majority (70%) of those patients having documented AJCC staging were under 50 years of age at diagnosis, which correlates with national patient demographics associated with an increased risk due to sexually transmitted diseases. The prime modality of initial therapy for these staged patients was definitive surgery (usually hysterectomy) at 59%, followed by the use of both chemotherapy and radiotherapy as a therapeutic adjunct to surgery (43%) for those surgically staged patients with invasive cervical cancer.

Future efforts of the Cancer Committee will focus on increased community outreach regarding early detection strategies, such as Pap smear screenings. As a result, it is anticipated that future surveys will see a decrease in the various stages of invasive cervical cancer and a corresponding increase in the non-invasive (Stage 0) type, which is highly curable with surgery alone.

FIGURE 4
CERVICAL CANCER: CANCER INCIDENCE BY RACE, ETHNICITY, AGE GROUPING, COUNTY OF RESIDENCE
(AGE GROUPING BY AJCC TNM STAGING)



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GLOSSARY

Analytic Case—Diagnosed and/or received all or part of the first course of treatment at this institution.

Non-Analytic Case—Diagnosed and received the entire initial course of treatment prior to the first contact with this institution.

AJCC (TNM) Staging:

The TNM staging system (Stage 0-IV) is a shorthand notation for describing the anatomic extent of malignant neoplasm:

T—Tumor growth represents the size or extent of the primary tumor.

N—The absence or presence and extent of the regional lymph node metastasis.

M—The absence or presence of distant metastasis.

Once T, N, and M have been classified, this information can be used to assign the stage of the tumor. Staging is a method of grouping cases with similar characteristics:

Stage 0—Carcinoma *in situ*

Stage 1—Localized carcinoma

Stage II—Limited local extension and/or limited regional lymph node spread

Stage III—More extensive local or regional lymph node spread

Stage IV—Distant spread

General Summary Stage:

In situ—A tumor that fulfills all of the microscopic criteria for malignancy, except invasion.

Localized—A tumor that appears to be entirely confined to the organ of origin.

Regional—A tumor that has spread beyond the organ of origin into: 1) surrounding organs or tissues by direct extension; 2) regional lymph nodes; or 3) a combination of 1 and 2, but appears to have spread no further.

Distant—A tumor that has spread to parts of the body that are distant from the primary tumor.

Unknown/Not Recorded—Stage is considered unknown when it cannot be determined from the medical record or when information is insufficient to stage properly.

SEER—Surveillance, Epidemiology, and End Results program. A cancer incidence and survival reporting system of the National Cancer Institute (NCI).

REFERENCES

American Cancer Society, Cancer Facts and Figures 2004, Atlanta, Georgia; American Cancer Society.

ABBREVIATIONS

ACS—American Cancer Society

ACoS—American College of Surgeons

ACoS CoC—American College of Surgeons Commission on Cancer

AJCC—American Joint Committee on Cancer

BMTU—Bone Marrow Transplant Unit

BPEI—Bascom Palmer Eye Institute

CAP—College of American Pathologists

CoC—Commission on Cancer

FCCCI—Florida Comprehensive Cancer Control Initiative

FCDS—Florida Cancer Data System (state registry)

IMPAC—A provider of health care IT solutions

IRB—Institutional Review Board

JHS—Jackson Health System

JHS/HIM—Jackson Health System/Health Information Management

JMH—Jackson Memorial Hospital

JSCH—Jackson South Community Hospital

NCDB—National Cancer Data Base

NCI—National Cancer Institute

PI—Performance Improvement

UM/Sylvester—University of Miami Sylvester Comprehensive Cancer Center



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