



**GW**  
**Cancer Program**  
& Cancer Registry

Annual Report 2007



PANCREATIC  
LEUKEMIA  
COLON  
BREAST  
MELANOMA  
HEAD & NECK  
LUNG  
OVARIAN  
KIDNEY  
BRAIN  
LYMPHOMA  
UTERINE  
SARCOMA

# **The 2007 Annual Report of the GW Cancer Program and Cancer Registry**



**Commitment, Compassion, Community**



## 2006 Director's Report

The GW Cancer Institute is an Urban Oncology Center in the heart of Washington, DC, bringing multidisciplinary clinical care, research, education and outreach programs together in a comprehensive approach to cancer prevention, screening, diagnosis, treatment and survivorship. We are pleased to present the 2007 Annual Report of the Clinical Cancer Program and Cancer Registry of the GW Medical Center.

The Breast Care and Breast Imaging Centers, and the Prostate Cancer program stand as exemplars of this comprehensive effort. Both offer state-of-the-art innovative clinical care, while maintaining a heart for our community, embodied in the GW Mobile Mammography Program (GW Mammovan) and Men's Oncology Outreach Program. The Mammovan offers digital mammography to more than 2,500 women per year, and our Men's Oncology Outreach Program has achieved unprecedented success in DC, screening nearly 700 men per year for both PSA and DRE and logging more than 900 face-to-face community educational encounters. Additional outreach and screening efforts included hosting the Great American Smokeout and conducting colorectal cancer education and screening through our Community-by-Community Cancer Control Campaign.

We were delighted to welcome Dr. Norman Lee, a world-class expert in Onco-genomics with an NCI-funded research program in gene network disruption in colon cancer. Dr. Lee is also the lead researcher in a new collaborative research agreement between the GWCI and the J. Craig Venter Institute focused on exploring the genomics of cancer disparities.

Our Distinguished Lecture Series included special visits by Dr. Peter Greenwald (Director of Prevention

and Control at NCI), Dr. Daniel Sullivan (Director of Cancer Imaging at NCI), and Dr. Stephen Baylin (Chief, Cancer Biology Division, Johns Hopkins), one of the world's leading authorities on the epigenetics of cancer. The GWCI, together with the Department of Health Policy, offered one of the very first Cancer Health Policy courses in the country, moving toward developing a degree program and a Cancer Health Policy Fellows Program.

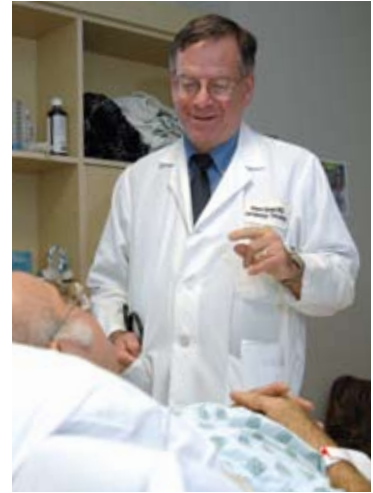
We are also pleased that our Offices of Cancer Prevention and Control, and Cancer Education and Outreach, have been joined by the Office of Cancer Survivorship. This Office will focus on developing both service and research programs aimed at improving the quality of life of cancer survivors and integrating our Patient Navigation, Palliative Care, Patient Resources, Social Services and other quality-of-life enhancing programs.

As always, the GWCI is guided by our three principle ideals: commitment, compassion and community. We are committed to offering leading-edge technology and compassionate clinical care for our cancer patients. We are committed to educating both health professionals and our community about cancer and about prevention and control. We are committed to the research that will one day alleviate the suffering and death from this dreaded disease.

A handwritten signature in black ink, appearing to read "Steven R. Patierno". The signature is fluid and cursive, written in a professional style.

Steven R. Patierno, PhD  
Executive Director, GW Cancer Institute

# 2006 Chairman's Report



Four years ago, our cancer program received the highest rating of “Commendable” from the American College of Surgeons (ACS). Since then, we have continued in our commitment to provide the best outcome and best quality of life for each of our cancer patients, and to meeting the standards of the American College of Surgeons.

We welcomed Dr. Reema Batra in Hematology/Oncology and Dr. Sandra Joo in Radiology (Breast Imaging). Under the direction of Dr. Nader Sadeghi, our Head and Neck surgery program now provides endoscopic organ preservation laryngeal cancer surgery with great success. The Division of Radiation Oncology was approved for a new breast irradiation clinical trial and also began treating patients with the latest treatment software, Dynamic Image-Guided Radiation Therapy (IGRT). Dr. Fernando Bianco and the Department of Urology established a Genitourinary (GU) Oncology registry for tracking surveillance and outcomes, and established a GU Oncology cancer conference, approved for category I CME.

We also welcomed the new director of Nursing at The GW Hospital, Patricia Winston. The Hospital's Oncology Unit nurses hosted a Leukemia and Lymphoma Society seminar for patients and caregivers on bone marrow transplant. Approximately 80 percent of the oncology nursing staff is now chemotherapy certified. Joan Panke and her Palliative Care Program received the 2006-2007 Blue Cross Blue Shield Award for “Outstanding New Palliative Care Program,” which was highlighted in the Washington Post Health Section.

Through the GW Cancer Institute, our outstanding clinical programs are integrated with leading-edge

research, innovative education and uniquely effective outreach. The GWCI continues to play a local, regional and national leadership role in understanding cancer health disparities in racial and ethnic minorities and in catalyzing complex trans-disciplinary partnerships that allow us to engage our community with unprecedented city-wide success in interventional education and screening.

The GW Cancer Registry, under the direction of Hong Nguyen, remains a critical component of cancer care at GW. She and her staff are responsible for tracking all new cancer patients who enter GW's program. The number of patients diagnosed and/or treated at the GW Hospital increased from 993 in 2002 to 1,306 in 2006.

I am proud to be a part of our Cancer Program and greatly appreciate the hard work and the commitment that everyone has shown in the past year. I look forward to the coming year, anticipating more growth and success.

Sincerely,

Robert Siegel, MD  
Chairman, Cancer Committee  
Director, Division of Hematology and Oncology  
GW Medical Faculty Associates  
Associate Director for Clinical Oncology, GWCI

# 2007 Cancer Committee Members

**Robert S. Siegel, MD, Chair**  
Hematology Oncology

**Christine B. Teal, MD, Liaison**  
Breast Care Center

**James D. Ahlgren, MD**  
Hematology Oncology

**Rachel Balf, LICSW**  
Hematology Oncology

**Reema Batra, MD**  
Hematology Oncology

**Richard Becker, MD \*ex officio**  
CEO - GW Hospital

**Fernando J. Bianco, MD**  
Urology

**Ingrid Black, PT, MBA**  
Rehabilitation

**Rachel F. Brem, MD**  
Radiology/Breast Imaging

**Jacqueline Burgess, MPH**  
GW Cancer Institute

**Christine Carter, PhD, MPH**  
Research/Surgery

**May Chin, MD**  
Pain Management

**Sandra Cushner, MA**  
GW Cancer Institute

**Donald E. Henson, MD**  
Pathology

**Paul Levine, MD**  
GW Cancer Institute

**Mark McClelland, RN**  
Quality Assurance

**Zaida Morris**  
ACS representative

**Hong Nguyen, MPH, CTR**  
Cancer Registry

**Sue O'Connor, BSN, OCN**  
Oncology Nursing/Surgery

**Thomas O'Connor, MD**  
Hematology Oncology

**Martin Ojong-Ntui, MD**  
Radiation Oncology

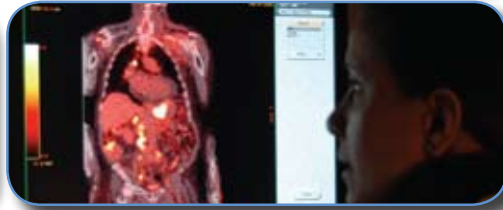
**Joan Panke, APRN, BC-PCM**  
Palliative Care

**Steven Patierno, PhD**  
Director, GW Cancer Institute

**Nader Sadeghi, MD**  
Surgery

**Carlos Silva, MD**  
Medical Director - GW Hospital

**Sana Tabbara, MD**  
Pathology



## Highlights 2007

- GWCI Executive Director Dr. Steven Patierno co-chaired the AACR-MICR (American Association for Cancer Research and Minorities in Cancer Research, a cancer health disparities think tank in Philadelphia) and national conference titled, “The Science of Cancer Health Disparities in Racial and Ethnic Minorities and the Medically Underserved,” in Atlanta, GA.
- The Department of Surgery and GWCI hosted a special Lecture-Discussion with Celera Corporation titled: “The Celera-GW Partnership: A Genomic-Proteomic Platform for Tumor Data Mining.”
- The GWCI sponsored and participated in the inauguration and grand opening celebration of the new Wellness Community facility in Washington, DC.
- The GWCI hosted its 4th Annual Cancer Gala at the National Building Museum in Washington, DC, including a special reception for honoree Vivian Fernández de Torrijos, the first lady of Panama.
- GWCI Executive Director Dr. Steven Patierno presented on GW research at the AACR/JCA (American Association for Cancer Research and the Japanese Cancer Association) Basic and Translational Research Conference in Hawaii titled, “In the Forefront of Basic and Translational Cancer Research.”
- GWCI Executive Director Dr. Steven Patierno spoke on prostate cancer research at GW at the Center for Prostate Disease Research (CPDR) Headquarters.
- The GWCI and the McCormick Genomics Center, with the GW Department of Biochemistry, hosted a distinguished lecture with speaker Dr. Steven Baylin (Johns Hopkins) titled, “Defining the Cancer DNA Hypermethylome—Implications for Cancer Inhibition and Progression.”
- The GWCI was honored at the 22nd Annual California Barrel Tasting, featuring the 2005 Vintage and Vintners Dinner to benefit the GWCI’s Addy and Bruce Bassin Memorial Cancer Research Fund.
- The GWCI, along with the American Cancer Society, participated in February’s Family Health Day hosted by 100 Black Men of America Inc., a group dedicated to improving the quality of life within communities and enhancing educational and economic opportunities for all African Americans. The GWCI and the ACS provided free prostate cancer screenings to men during the event.
- The GWCI attended the International Ethnic Health Fair hosted by the FACES Project to provide prostate cancer awareness information to attendees at the fair.
- The GWCI participated in the Ophelia Egypt Clinic health fair hosted by the Assembly of Petworth by providing free prostate cancer screenings at the health fair.
- The GWCI, in partnership with the Assembly of Petworth and the American Cancer Society, participated in the Shaw Community Health Fair, hosted by local churches in the DC metropolitan area. Free prostate cancer screenings were provided to attendees at the health fair.
- GWCI Executive Director Dr. Steven Patierno spoke at Research America: The 2007 Annual Meeting of Members and National Forum hosted at the National Press Club in Washington, DC.
- The GWCI attended the Leadership Greater Washington’s Health Day at Providence Hospital. Dr. Steven Patierno was a speaker and hosted a special section on Health Disparities.
- The GWCI attended the American Cancer Society Conference titled, “Bridging the Health Care Divide: Research and Programs to Eliminate Cancer Disparities,” in New Orleans. Jacqueline Burgess, outreach coordinator, spoke about the Community-by-Community Cancer Control Campaign and Patient Navigator Research Program.



- The GWCI attended 4th Annual National Summit on Health Disparities. Dr. Donald Henson, co-director, Cancer Prevention and Control, spoke on cervical cancer.
- GW Molecular and Cellular Oncology graduate student Gina Chun won the Pharmaceutical Manufacturers Association Pharmacology/Toxicology Scholarship for her research on gene disruption in cancer initiation. The award was presented at the Annual Meeting of the American Society of Pharmacology at the Washington Convention Center.
- GWCI Executive Director Dr. Steven Patierno was a guest speaker at the National Institutes of Health (NIH) in Bethesda, where he presented on “The Colors of Chromium Carcinogenesis: Beauty to Molecular Wickedness.”
- The GWCI attended and presented at “Building a Critical Mass of Cancer Health Disparities Researchers within Regions,” a planning meeting hosted by The National Cancer Institute’s (NCI’s) Center to Reduce Cancer Health Disparities (CRCHD).
- The GWCI attended the GW Hospital Women’s Board Golf Tournament at Bretton Woods Country Club to raise funds for GWCI’s community outreach programs.
- The GWCI, the GW Alumni Association and the GW Medical Faculty Associates participated in the Komen Race for the Cure 5k Walk/Run in Washington, DC.
- The GWCI attended and presented at the National Cancer Institute’s Cancer Health Disparities Summit

2007. GWCI’s Executive Director Dr. Steven Patierno gave the opening Plenary Lecture on, “Catalyzing Trans-Disciplinary Regional Partnerships to Eliminate Cancer Health Disparities.” The Summit was co-sponsored by the National Center on Minority Health and Health Disparities (NCMHD), and the National Center for Research Resources (NCRR).
- Dr. Paul Levine presented a paper at the San Antonio Breast Cancer Symposium in San Antonio, Texas.
  - Dr. Paul Levine co-chaired the Cancer Disparities Subcommittee of the DC Health Disparities Advisory Board.
  - Dr. Paul Levine co-chaired the Early Detection Subcommittee of the DC Cancer Consortium.
  - Dr. Paul Levine chaired the DC Cancer Registry Advisory Board.
  - The GWCI attended and presented at the “Community Health Workers: Where We Live, Work and Play” Annual Conference, Metropolitan Washington Public Health Association (MWPHA), in Washington, DC.
  - The GWCI, The GW Medical Faculty Associates and the GW Hospital took part in prostate cancer awareness activities during a televised GW Men’s Basketball game vs. Marshall University on Saturday, January 6 to promote Prostate Cancer Awareness.
  - The GW Cancer Institute, along with the Brain Tumor Society, inaugurated the Washington, DC Metropolitan Area Brain Tumor Support Group located at The George Washington University.
  - GWCI had an exhibit at the “Love the Smoker, Hate the Addiction” Health Fair Hosted by the DC Department of Health (DCDOH).
  - GWCI’s Outreach program recruited barbershops in DC’s Wards 4, 7 and 8 to partake in the barbershop outreach program in which lay health workers were trained in prostate cancer education and how to relay the information to customers about the importance of early detection.
  - The GWCI, in partnership with the American Cancer Society, attended the Prostate Cancer Roundtable Meeting organized by local grassroots prostate cancer programs.
  - The GWCI provided free prostate cancer screenings at the Health Fair at St. Mary’s Court in Washington, DC.
  - The GWCI, in partnership with the American Cancer Society, La Clinica del Pueblo and Capital Hospice, provided free prostate cancer screenings at “Caminando Juntos” Health Fair at the Carlos Rosario International School in Washington, DC.
  - The GWCI, in partnership with the Assembly of Petworth and the American Cancer Society, attended the Edgewood/Brookland Collaborative Health Fair.
  - The GWCI, in partnership with the American Cancer Society and the DCDOR, participated in a health

fair at the SuperTots Department of Recreation Health Fair hosted by the Department of Recreation Health Advisory Board.

- The GWCI, in partnership with the American Cancer Society, provided prostate cancer education and awareness training to members of the Crest Hill Baptist Church.
- The GWCI, in partnership with the American Cancer Society, participated in the 2007 Community and Wellness Health Fair at the Emery Recreation Center in Washington, DC.
- The GWCI provided free prostate cancer screening to members of St. Michael's Church in Washington, DC.
- The GWCI attended the First Baptist Church of Glen Arden's Health Fair in Washington, DC to provide prostate cancer educational information to the public.
- The GWCI attended the Public Library Senior Health Fair in Washington, DC to provide prostate cancer education information to the public.
- The GWCI participated in the Stone Soul Picnic hosted by Radio One in Washington, DC. Free prostate cancer screenings were provided to more than 60 men throughout the event, held at RFK Stadium.
- The GW Cancer Institute was an exhibitor at the DC Idol Hand's Fatherhood Initiative Health Fair targeting Ward 4 community members in Washington, DC.
- The GW Cancer Institute was a health exhibitor at the DC Department of Aging's Annual Elderfest.
- The GW Cancer Institute provided free prostate cancer screenings at the Black Family Reunion health fair hosted by the National Conference of Negro Women.
- The GW Cancer Institute had a cancer prevention and screening exhibit at the Paramount Baptist Church Health Fair in Washington, DC.
- The GW Cancer Institute provided free prostate cancer screenings at the Sixth Annual Community and "Healthcare on Wheels" Health Fair hosted by The South Washington/West of the River Family Strengthening Collaborative.
- The GW Cancer Institute made a presentation to the congregation at the St. Matthews Memorial Baptist Church in Washington, DC, providing prostate cancer screenings and information on early detection.
- The GW Cancer Institute participated in the Prostate Awareness and Cancer Education (PACE) 5km Race in Washington, DC.
- The GW Cancer Institute attended and presented a paper at the OWH (Office on Women's Health) Minority Women's Health Summit on Capitol Hill in Washington, DC.
- The GW Cancer Institute, in collaboration with the GW Medical Faculty Associates and the GW Hospital, organized a successful September Prostate Cancer Screening Month and a November Great American Smokeout to promote the lung cancer awareness.
- GW Hospital Information Technology (IT) Department developed a NetPresenter to alert an employee or physician of any event that may disrupt operations or to share with the hospital community a new service, new staff or new events.
- GW Hospital Information Technology Department provided Wireless Guest Services for patients and their family members.
- GW Hospital organized the first skin cancer screening and awareness day at the Employee Health Office for Hospital and MFA staff to increase awareness of the dangers of over exposure to the sun.
- MFA Department of Urology developed a new IRB-approved Oncology Registry and Oncology Conference to register Urology patients in an effort to improve patient care.
- GW Hospital Palliative Care in the News: A front-page article in *The Washington Post* Health Section (July 3) highlighted palliative care services.

"Our Outreach Subcommittee, working with and through the GWCI Office of Cancer Education and Outreach, conducted highly successful screening programs for prostate, colorectal, breast and skin cancer. Prostate cancer screening continues every Friday year round, the GW Mammovan continues to provide regular breast cancer screening out in our community, and we host the Great American Smokeout every November."



- GW Hospital Palliative Care received 2006-2007 CareFirst BlueCross BlueShield Palliative Care Award for Outstanding New Palliative Care Program.
- GW Hospital Palliative Care established a palliative care rotation for residents.
- GW Hospital Palliative Care developed a Palliative Curriculum for medical students in collaboration with Geriatrics and Palliative Medicine in the MFA.
- GW Hospital Palliative Care published *Conversations in Palliative Care* (2nd Ed), available through the Hospice and Palliative Nurses Association ([www.hpna.org](http://www.hpna.org)).
- GW Hospital Palliative Care provided “Pain Lectures: Improving Pain” for nursing orientations and nursing interns.

- GW Hospital Palliative social work awarded an educational opportunity to work with the City of Hope National Medical Center on improving care for patients and families (ACE Project).
- Through the generosity of a patient, GW Hospital was able to create a Patient Resource Center for Metastatic Cancer.
- GW Oncology nurses attended the National Oncology Nursing Society Congress in Las Vegas, NV.
- GW Hospital Oncology Department hosted a Leukemia and Lymphoma Society seminar for patients and caregivers on Bone Marrow Transplantation.
- GW Hospital Oncology nurses attended Chemotherapy Training. Eighty percent of staff RNs are chemotherapy-certified.
- GW Hospital Oncology Nurses received special training in Bone Marrow transplantation.
- GW Hospital, in partnership with the GWCI and the GW MFA, developed a year-long public service message cancer campaign with NBC4 to promote awareness of colorectal cancer in March, prostate cancer in September and breast cancer in October.
- GW Hospital organized seminars on robotic surgery and its application to prostate cancer treatment.
- GW Hospital and the MFA Department of Radiology began performing all prostate cancer seed implants at the new GW Ambulatory Surgery Center on L Street.
- GW Hospital and the MFA Department of Radiology began to treat patients with Dynamic Targeting Image Guided Radiation Therapy (IGRT).
- GW Hospital and the MFA Department of Radiology were credentialed for participation in the NSABP Protocol B-39/RTOG 0413 Trial: A Randomized Phase III Study of Conventional Whole Breast Irradiation (WBI) Versus Partial Breast Irradiation (PBI) for Women with Stage 0, I or II Breast Cancer.
- GW Hospital and the MFA Head and Neck Surgery Program developed and implemented advanced endoscopic organ preservation laryngeal cancer surgery with great success. Five presentations on this surgery were made at national and international conferences.
- GW Hospital and the MFA Department of Radiology received a new highly accurate PET CT scanner that provides nuclear medicine and CT images as an advance in diagnostic services for physicians.
- The MFA Social Workers Service provided personalized social work services available to cancer patients and their families through the Breast Care Center and the division of Hematology Oncology.
- The GW Hospital Marketing Department continued the Senior Advantage Program by offering free education, screenings and discounts for those over 65 years of age.

# The Cancer Registry 2007 Report



Figure 1 shows the growth of the GW Cancer Registry during the last five years. The number of patients diagnosed and/or treated at the GW Hospital increased from 993 in 2002 to 1,306 in 2006. Of these, 1,009 cases or 77.3 percent were analytic cases and the remaining 22.7 percent were non-analytic and physician office cases. Figure 2 shows the increased distribution of the genital urinary (GU) cancers at the GW Hospital in 2006 compared with 2004 and 2005. Breast, prostate, lung, colon-rectum and urinary bladder cancers remained major primary sites in 2006.

Table 1 shows a breakdown of 2006 cancer cases by primary site. There was a significant increase in cases of prostate cancer from 36.7 percent

*continued on page 8*

**Table 1: The GW Cancer Registry - 2006 Cancer Cases by Anatomic Site**

Primary site	Total # cases	% cases	Class of cases		Race***			AJCC Stage at Diagnosis (Analytic Cases Only)					
			Analytic *	Non-Analytic **	W	B	O	0	I	II	III	IV	NA & UNK
Head and Neck	32	2.5	28	4	10	18	4	0	5	4	2	16	1
Tongue	3	0.2	2	1	0	3	0	0	0	0	0	2	0
Salivary glands	1	0.1	1	0	0	0	1	0	0	0	0	1	0
Floor & other mouth	8	0.6	7	1	2	5	1	0	2	1	1	3	0
Oropharynx & Hypopharynx	4	0.3	4	0	0	2	2	0	0	1	0	3	0
Nasopharynx	2	0.2	2	0	0	2	0	0	0	0	0	2	0
Nose/Nasal cavity	1	0.1	1	0	0	1	0	0	0	0	0	1	0
Tonsil	4	0.3	4	0	3	1	0	0	0	1	0	2	1
Larynx	9	0.7	7	2	5	4	0	0	3	1	1	2	0
Digestive System	124	9.5	102	22	65	39	20	7	21	29	17	22	6
Rectum/Colon	69	5.3	57	12	38	22	9	5	11	15	13	11	2

*Table 1 continued on page 9*

**Table 1: The GW Cancer Registry - 2006 Cancer Cases by Anatomic Site, continued from page 8**

Anus/Anal canal	5	0.4	3	2	3	1	1	1	1	1	0	0	0
Stomach	11	0.8	11	0	5	4	2	0	2	1	2	5	1
Pancreas	13	1.0	10	3	6	6	1	1	2	3	0	4	0
Liver/Gall bladder/Bile Ducts	14	1.1	9	5	5	3	6	0	4	2	2	0	1
Esophagus	8	0.6	8	0	5	2	1	0	1	5	0	1	1
Small Intestines	4	0.3	4	0	3	1	0	0	0	2	0	1	1
Respiratory System	106	8.1	90	16	61	43	2	3	30	9	18	21	9
Bronchus & Lung	106	8.1	90	16	61	43	2	3	30	9	18	21	9
Soft Tissues	2	0.2	2	0	1	1	0	0	0	0	0	0	2
Skin	37	2.8	27	10	29	2	6	2	10	0	1	0	14
Melanoma of the skin	34	2.6	24	10	28	1	5	1	8	0	1	0	14
Other skin cancer	3	0.2	3	0	1	1	1	1	2	0	0	0	0
Breast	247	18.9	193	54	111	102	34	44	65	60	17	5	2
Female Genital System	61	4.7	39	22	31	19	11	7	11	6	6	5	4
Cervix uteri	23	1.8	9	14	8	7	8	5	2	0	0	2	0
Corpus uteri	20	1.6	17	3	9	9	2	0	6	5	1	2	3
Ovary	16	1.1	11	5	12	2	1	1	3	0	5	1	1
Vulva	2	0.2	2	0	1	1	0	1	0	1	0	0	0
Male Genital System	327	25.1	266	61	174	105	48	0	11	213	30	8	4
Prostate gland	308	23.6	248	60	160	104	44	0	0	211	28	8	1
Testis	19	1.5	18	1	14	1	4	0	11	2	2	0	3
Urinary System	161	12.3	138	23	106	37	18	28	78	8	13	9	2
Urinary bladder	67	5.1	50	17	49	11	7	23	19	3	2	3	0
Kidney & Renal Pelvis	89	6.8	84	5	55	24	10	5	58	5	8	6	2
Ureter	3	0.2	2	1	2	0	1	0	0	0	2	0	0
Other	2	0.2	2	0	0	2	0	0	1	0	1	0	0
Central Nervous System	36	2.8	33	3	18	9	9	0	0	0	0	0	33
Brain	23	1.8	21	2	12	4	7	0	0	0	0	0	21
Other CNS	13	1.0	12	1	6	5	2	0	0	0	0	0	12
Endocrine System	34	2.6	27	7	16	6	12	0	18	2	2	2	3
Thyroid gland	29	2.2	24	5	15	3	11	0	18	2	2	2	0
Other endocrine glands	5	0.4	3	2	1	3	1	0	0	0	0	0	3
Hematopoietic Neoplasms	101	7.7	49	52	50	28	23	0	10	6	5	6	22
Lymphoma	53	4.0	32	21	30	13	10	0	10	6	5	6	5
Multiple Myeloma	13	1.0	5	8	2	7	4	0	0	0	0	0	5
Leukemia	35	2.7	12	23	18	8	9	0	0	0	0	0	12
Unknown	38	2.9	15	23	17	14	7	0	0	0	0	0	15
All sites	1,306	100	1009	297	689	423	194	91	259	337	111	94	117

**NOTE:**

- \* Analytic – initially diagnosed at GW Hospital and all or part of first course of therapy at GW Hospital or case diagnosed elsewhere and all or part of first course of therapy at GW Hospital.
- \*\* Non-analytic case – initially diagnosed and treated elsewhere, referred to GW Hospital for recurrence or subsequent therapy and physician office cases
- \*\*\* Race - W=White; B=Black; O=Other

in 2005 to 44.1 percent in 2006 (Table 2a) and in cases of breast cancer from 37.4 percent in 2005 to 42.2 percent in 2006 (Table 2b). Compared to national data reported by the American Cancer Society (ACS), the percent of prostate and breast cancer cases seen at The George Washington University Hospital was higher than that reported for the US. In 2006, the comparisons were 44.1 percent (GW Hospital) vs. 33.0 percent (ACS) for prostate primary and 42.2 percent (GW Hospital) vs. 31.0 percent (ACS) for breast primary, respectively.

Table 3 shows the distribution of new cases by race from 2004-2006. GU cancer cases seen at the GW Hospital among Whites increased from 49 percent in 2004 to 59 percent in 2006. This increase may be explained by the

**Table 2a**  
**The GW Cancer Registry & American Cancer Society (ACS)**  
**2005-2006 Analytic Cases – Male/The Most Frequent Sites**

Primary site	2005 cases (%)		2006 cases (%)	
	GWH	ACS	GWH	ACS
Prostate	36.7	33.0	44.1	33.0
Colon-Rectum	10.8	10.0	4.9	10.0
Lung	8.9	13.0	6.0	13.0
Urinary bladder	5.9	7.0	6.9	6.0
Kidney	4.8	3.0	8.4	3.0
Melanoma	4.1	5.0	4.1	5.0
Testis	3.7	1.1	3.2	1.1
Brain	2.6	1.5	2.8	1.5
Lymphoma	2.4	4.0	3.2	4.0
Thyroid	2.2	0.9	1.6	1.0
Other	17.9	21.5	14.8	22.4

**Table 2b**  
**The GW Cancer Registry & American Cancer Society (ACS)**  
**2005-2006 Analytic Cases – Female/The Most Frequent Sites**

Primary Sites	2005 cases (%)		2006 cases (%)	
	GWH	ACS	GWH	ACS
Breast	37.4	32.0	42.2	31.0
Lung	12.6	12.0	12.6	12.0
Colon-Rectum	7.7	11.0	8.0	11.0
Uterine Corpus	5.7	6.0	3.8	6.0
Urinary Bladder	4.1	2.0	2.9	2.0
Cervical Uterine	3.8	1.6	2.0	1.4
Kidney	3.8	2.1	6.7	2.1
Melanoma	3.4	4.0	2.0	4.0
Thyroid	2.7	3.0	3.4	3.0
Brain	2.5	1.2	2.0	1.2
Ovary	2.3	3.0	2.5	3.0
Other sites	14.0	23.1	11.9	23.3

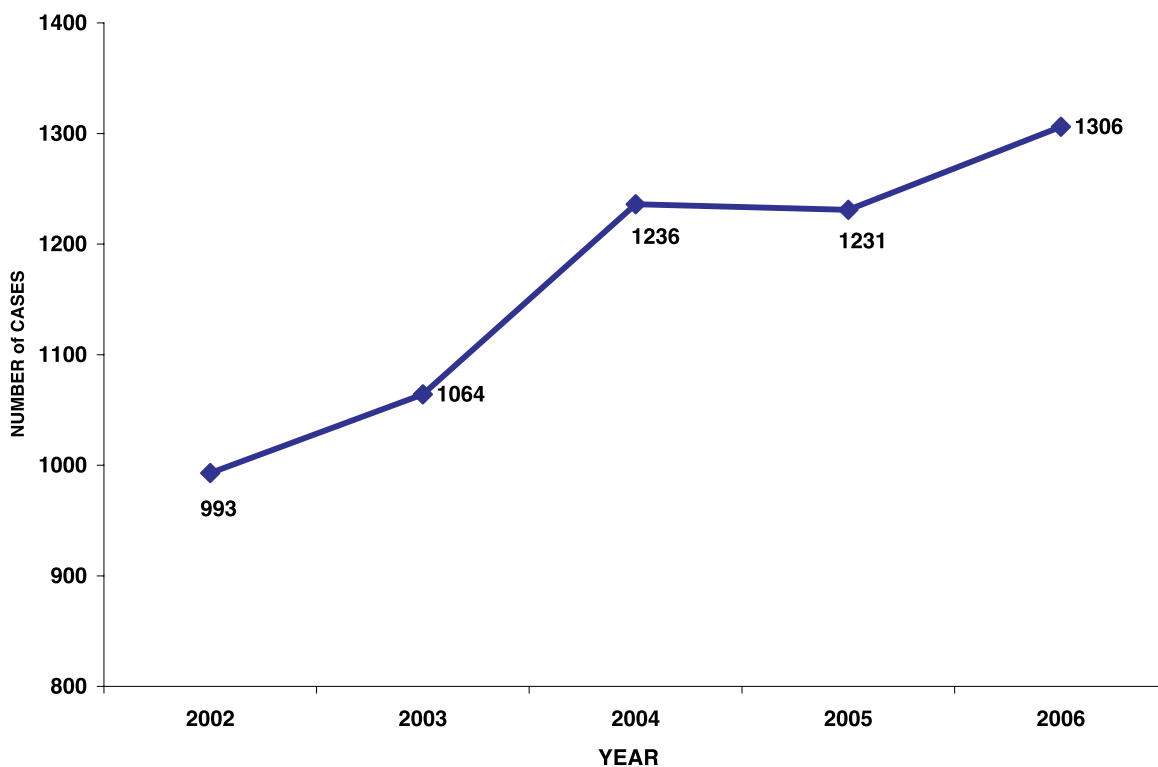
**Table 3**  
**The GW Cancer Registry 2004-2006**  
**Analytic Distribution of Cancer Cases by Race**

Primary Sites	White			Black			Other		
	2004 % (cases)	2005 % (cases)	2006 % (cases)	2004 % (cases)	2005 % (cases)	2006 % (cases)	2004 % (cases)	2005 % (cases)	2006 % (cases)
GI System	54 (70)	51 (72)	53 (54)	38 (50)	42 (60)	32 (33)	8 (10)	7 (10)	15 (15)
Breast	48 (89)	48 (82)	46 (88)	38 (71)	40 (68)	43 (83)	14 (27)	12 (21)	11 (22)
Lung	50 (38)	53 (51)	58 (52)	47 (36)	36 (35)	42 (38)	3 (2)	11 (11)	0 (0)
GU System	49 (146)	52 (170)	59 (263)	44 (133)	37 (123)	31 (136)	7 (22)	11 (35)	10 (44)
Hematopoietic Neoplasm	48 (22)	47 (18)	41 (20)	46 (21)	38 (15)	41 (20)	6 (3)	15 (6)	18 (9)

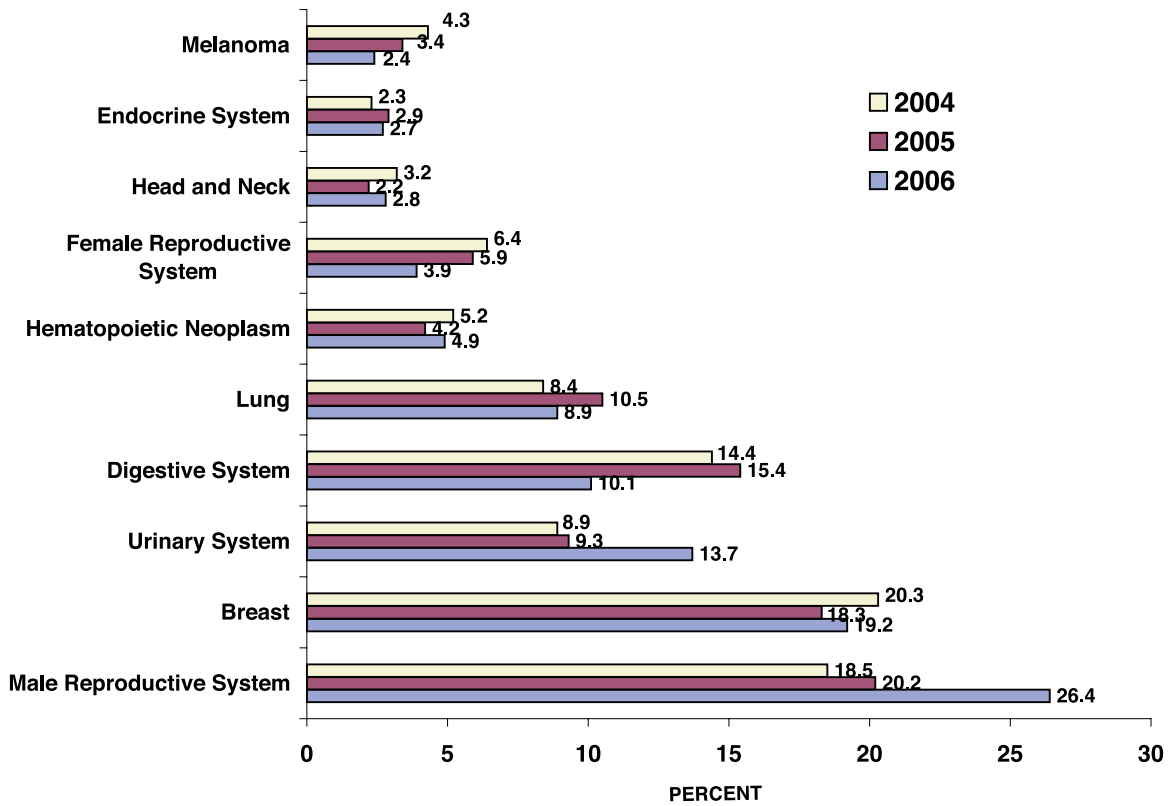
successful GW Prostate Cancer Awareness and Screening Campaign in September that led to early diagnoses in the men. However, it also shows a need to continue to promote prostate cancer screening among Black men.

Another important function of the Cancer Registry is lifetime follow up of all cancer patients. At GW Hospital, follow up has been conducted annually and remains on the 90 percent target rate that is recommended by the Commission on Cancer of the American College of Surgeons. GW Hospital cancer data are submitted to the Central Cancer Registry of the District of Columbia, Department of Health, the National Cancer Database (NCDB), and are available for use by authorized individuals, such as the medical staff, administrators and health services researchers. Requests for data should be directed to Hong Nguyen at 202-715-4383.

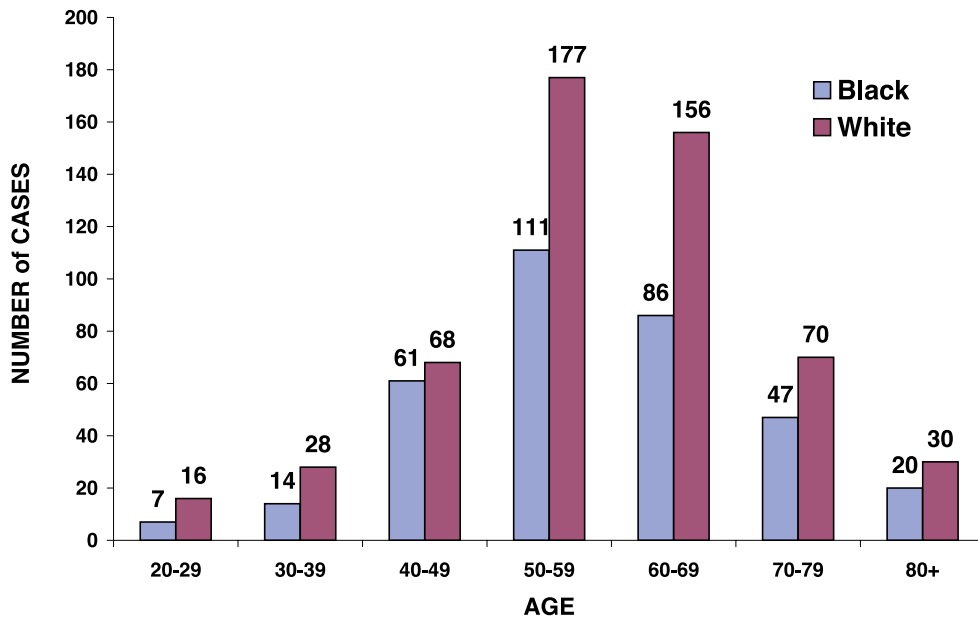
**Figure 1: NUMBER of CANCER CASES  
 DIAGNOSED and/or TREATED AT GW HOSPITAL  
 YEAR 2002-2006**



**Figure 2: DISTRIBUTION of 2006 ANALYTIC CASES by PRIMARY SITE**



**Figure 3: 2006 ANALYTIC CASES: AGE at DIAGNOSIS by BLACK and WHITE**  
(This graph does not include other races)



# GW Kidney Cancer Reports: 2002 - 2006

According to the annual report of the American Cancer Society (ACS), the incidence of kidney cancer has been increasing in the U.S. In 2006, 38,890 cases were reported, but in 2007, 51,190 new cases are expected. However, the death rate has not increased significantly, as 12,660 persons died in 2006 and 12,890 are expected to die from this disease in 2007 (Available at <http://www.cancer.org/downloads/STT/CAFF2007PWSecured.pdf>). Due to growing regional prominence of our clinical program, kidney cancer has become one of the primary cancer sites for which people are treated at the GW Hospital increasing from 39 cases in 2005 to 78 cases in 2006 (Figure 1). In 2006, the increase occurred predominantly in the White population (Figure 4).



Thomas Jarrett, MD  
Professor and Chairman of Urology,  
right, reviews a case with a GW resident

Unlike patients with renal cell carcinoma listed in the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute, renal cell carcinoma patients at GW Hospital are diagnosed at a younger age. Figure 2 shows that the distribution of kidney cancer at GW Hospital

reflects a higher proportion of younger patients. The percent has increased between age 45 and 54 (23 percent at GW vs. 17 percent in SEER) and reaches the peak between age 55 and 64 (31 percent

vs. 25 percent respectively). This trend might reflect a younger age population in the District of Columbia than is seen nationally. The combined AJCC Stage distribution in Figure 3 shows a

Figure 1: Kidney Cancer-GW 2002-2006  
Number of New Cases by Race

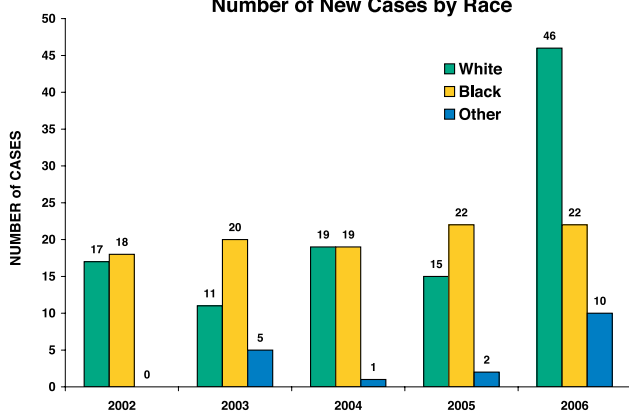
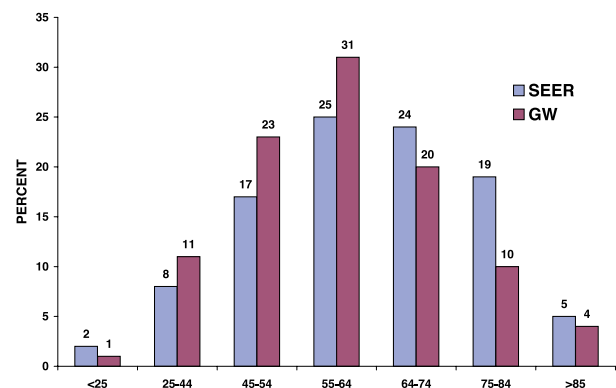


Figure 2: Kidney Cancer-SEER 2002-2004 & GW 2002-2006  
Age at Diagnosis

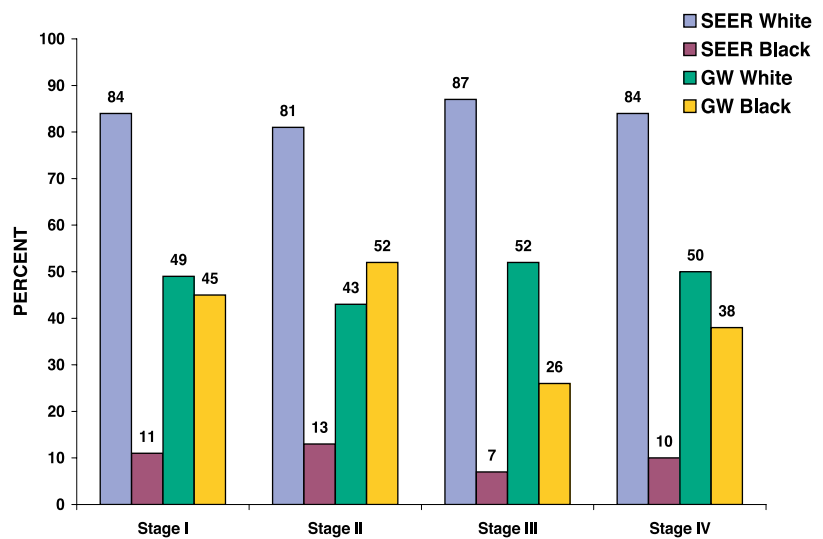


higher overall staging rate (percent) among Whites compared with Blacks in SEER. This might be explained by the higher incidence rate among Whites recorded in the SEER population (Figure 4). At GW Hospital, more Whites had advanced Stages III and IV disease at time of diagnosis: 52 percent in White versus 26 percent in Black in Stage III and 50 percent vs. 38 percent in Stage IV for Whites and Blacks respectively. This is a significant observation, since the incidence of kidney cancer is comparable for both Whites and Blacks at GW Hospital, 48 percent vs. 45 percent from Figure 4, respectively.

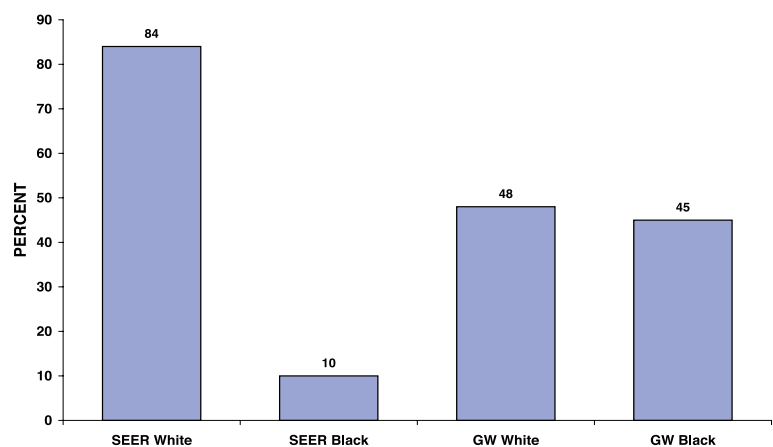
Figure 5 compares the five-year survival rates at GW Hospital with those reported in SEER (percent). Overall, survival rates at GW were more favorable compared with SEER, although the small sample size at GW may limit the accuracy of the survival analysis. The more favorable survival might reflect the trend toward more aggressive treatment at GW Hospital compared with national data. According to a report from the National Cancer Database (NCDB) in 2000, partial rather than total nephrectomy is the preferred surgical treatment for patients with Stage I renal cell carcinoma (Marshall, Stewart, and Menck, 2000). At GW Hospital, one-third of Stage I patients had a radical nephrectomy, one-third had partial nephrectomy, and another one-third had other procedures including, cryosurgery and ablation. Radical rather than partial nephrectomy is the predominant surgery treatment for patients with Stage II, III or IV renal cell carcinoma at GW Hospital.

In conclusion, more young patients were diagnosed with renal cell carcinoma at GW Hospital as observed in the SEER Program. Renal cell carcinoma patients at GW also had more advanced stages at the time of diagnosis. This explains the more aggressive treatment of the disease at GW Hospital.

**Figure 3: Kidney Cancer- SEER 2002-2004 & GW 2002-2006 Combined AJCC Staging at Diagnosis**



**Figure 4: Kidney Cancer-SEER 2002-2004 & GW 2002-2006 Percent of New Cases by Race**



**Figure 5: Kidney Cancer - SEER 1998-2002 & GW 1998-2002 Overall Five-Year Relative Survival**



# New Discoveries, Relationships Welcome Physician to GW Oncology Department

“Oncology is at the forefront of medicine. It is a truly exciting field, with something new being discovered every day,” says Reema Batra, MD, assistant professor of Medicine. Following medical school at the New York Medical College and a residency in Internal Medicine at Beth Israel Medical Center, Dr. Batra originally came to GW to complete a fellowship in Hematology/Oncology. She decided to stay because of the wonderful people and the tremendous opportunities that working at GW offers.

“Dr. Robert Siegel and Dr. Imad Tabbara are great mentors—but what I like best about GW is that it provides me with a combination of experiences. I not only see patients in the clinical setting, but also, I have the opportunity to interact with and teach medical students, residents and fellows.”

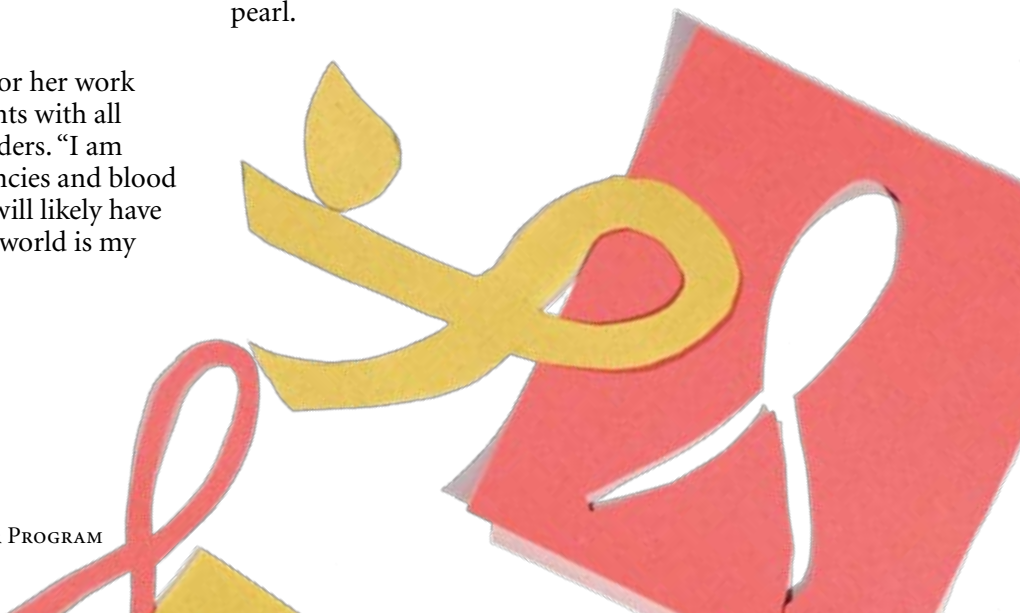
What drew Dr. Batra to the field of Oncology is the patients. “Cancer patients are a unique group who require special attention. Often times, in addition to working with the patient, you interact with the families very closely, and patient care is often optimized by the involvement of a multidisciplinary team that includes the entire healthcare support system—physicians, social workers, rehabilitation, and palliative care, among others.”

In talking to Dr. Batra, her enthusiasm for her work shines through. She currently sees patients with all types of cancer and hematological disorders. “I am interested in seeing all types of malignancies and blood disorders,” she declares. In the future, I will likely have to choose a specialty, but right now, the world is my oyster.”



Reema  
Batra, MD  
Assistant  
Professor of  
Medicine

Focused on taking advantage of every learning and teaching opportunity, Dr. Batra looks forward to making her own contribution to the field. “I see the GW Cancer Institute growing so rapidly and doing wonderful things. I just want to be a part of that.” In Dr. Batra, the Cancer Institute has certainly found a pearl.



# GW Acute Myeloid Leukemia (AML) Report 1995-2006

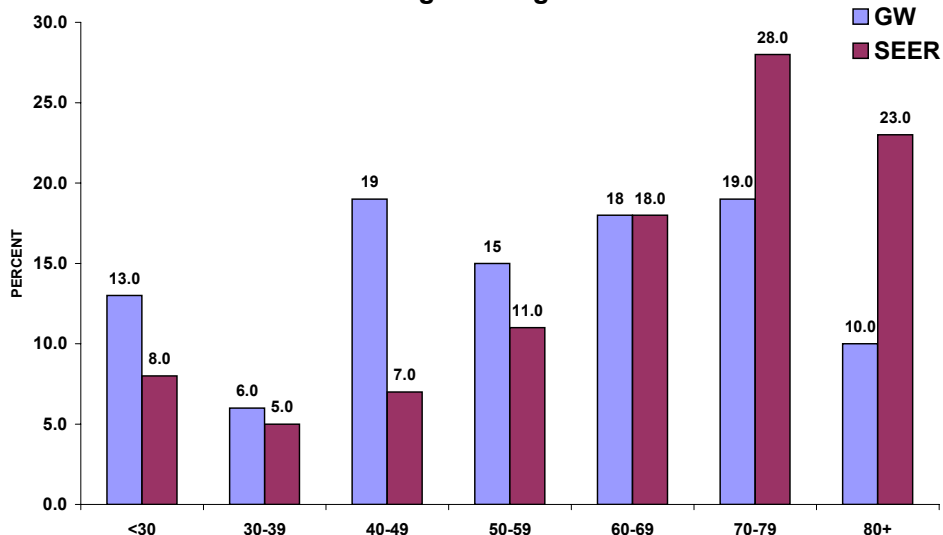
According to the Surveillance, Epidemiology and End Results (SEER) Program, an estimated 11,368 persons in the United States were diagnosed with Acute Myeloid Leukemia (AML) between 1995 and 2004. The American Cancer Society (ACS) Facts and Figures estimated that one out of three leukemia cases diagnosed in the U.S. during 2007 would be AML. The lifetime risk of getting AML for the average man is about 1 in 225, and for the average woman, the risk is about 1 in 300.

Age is a well-established risk factor for the development of AML. In Figure 1, both SEER and The George Washington University

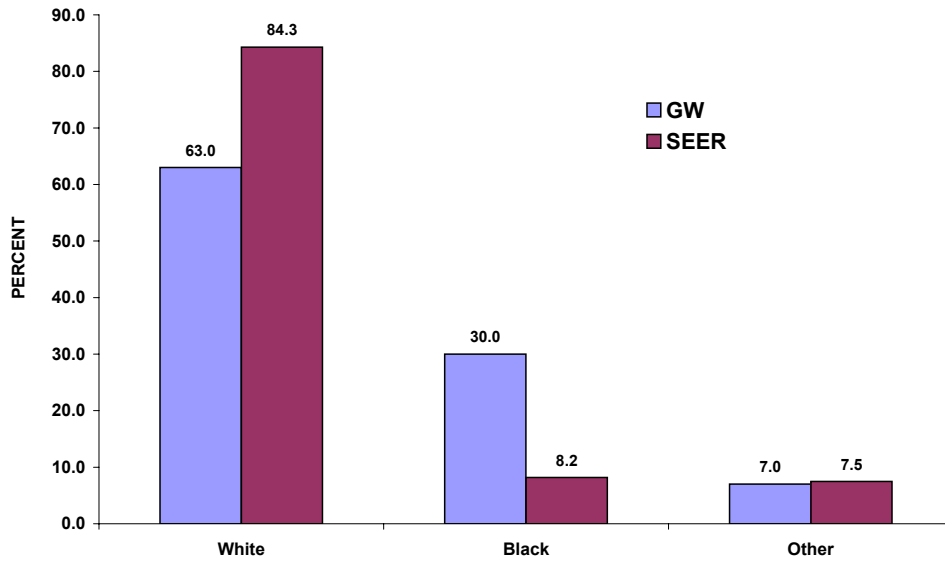


Imad Tabbara, MD, FACP  
 Professor of Medicine  
 Director, Bone Marrow Transplant Program; Director, Thoracic Oncology, Director, Fellowship Training Program

**Figure 1: Acute Myeloid Leukemia (AML)  
 GW 1995-2006 & SEER 1995-2004  
 Age at Diagnosis**



**Figure 2: Acute Myeloid Leukemia (AML)  
SEER 1995-2004 & GW 1995-2006  
Distribution by Race**

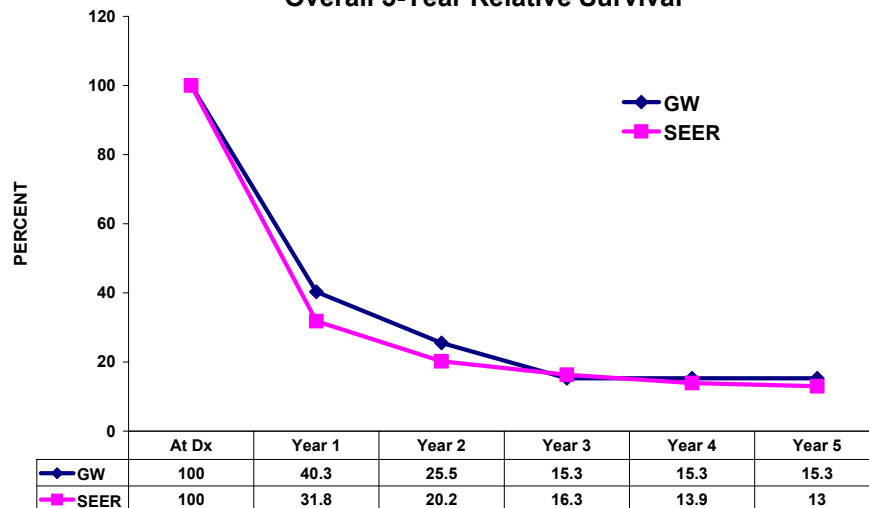


Hospital (GW Hospital) data show a low incidence of AML at age younger than 40. However, unlike the SEER data, AML patients treated at GWH tend to be younger (19 percent vs. 7 percent between ages 40 and 49).

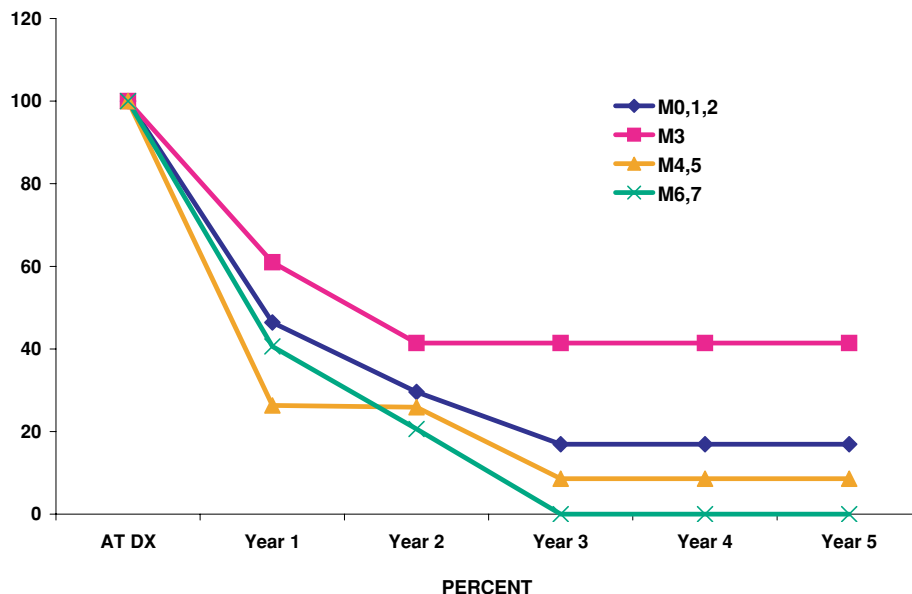
The incidence of AML is higher in Whites compared to Blacks in both SEER (84.3 percent vs. 8.2 percent) and GW Hospital (63 percent vs. 30 percent) data as shown in Figure 2. After stratifying by race and age, more White patients were diagnosed with AML compared to Black patients, regardless of age, as shown in Table 1.

The overall five-year survival rate at GW Hospital was more favorable compared with SEER (Figure 3). This may be due to a younger AML population at GW. The prognosis of AML depends on the subtypes of AML. The French-American-British Cooperative Group (FAB) type system was introduced in 1976. This classification is being replaced by the World Health Organization (WHO) classification. Figure 4 shows that GW Hospital patients with M3 AML had the best survival rates.

**Figure 3: Acute Myeloid Leukemia (AML)  
SEER 1995-2004 & GW 1995-2006  
Overall 5-Year Relative Survival**



**Figure 4: Acute Myeloid Leukemia (AML) - GW 1995-2006  
Five-Year Relative Survival by Morphology**



Due to lack of complete cytogenetic data, an analysis of survival rate according to cytogenetic abnormalities could not be performed on patients.

In summary, AML patients at GW Hospital tend to be younger than those in the SEER data and are mostly White. They tend to have similar overall survival rates to patients in the SEER survival data. M3 subtype is associated with the best survival rates consistent with established data in the medical literature.

**Table 1: Acute Myeloid Leukemia (AML)  
SEER 1995-2004 & GW 1995-2006  
Incidence by Age and Race**

	GW			SEER		
	White % (cases)	Black % (cases)	Other % (cases)	White % (cases)	Black % (cases)	Other % (cases)
< 30	64.3 (9)	28.6 (4)	7.1 (1)	75.0 (667)	13.0 (116)	12.0 (108)
30-39	50.0 (3)	33.3 (2)	16.7 (1)	70.0 (365)	17.0 (89)	13.0 (68)
40-49	65.0 (13)	30.0 (6)	5.0 (1)	77.8 (640)	12.2 (100)	10.0 (83)
50-59	56.3 (9)	37.5 (6)	6.2 (1)	81.5 (1,060)	10.0 (131)	8.5 (109)
60-69	47.4 (9)	36.8 (7)	15.8 (3)	85.5 (1,732)	7.0 (132)	7.5 (149)
70-79	65.0 (13)	15.0 (3)	20.0 (4)	87.0 (2,747)	6.5 (205)	6.5 (204)
80+	70.0 (7)	20.0 (2)	10.0 (1)	89.0 (2,370)	6.0 (156)	5.0 (137)

# The George Washington University & Cancer Institute Resources

**The George Washington University Hospital**  
900 23rd Street, NW  
Washington, DC 20037  
202-715-4000  
[www.gwhospital.com](http://www.gwhospital.com)

**The George Washington University  
Medical Faculty Associates**  
2150 Pennsylvania Ave., NW  
Washington, DC 20037  
[www.gwdocs.com](http://www.gwdocs.com)

**The George Washington University Cancer Institute**  
2300 Eye Street, NW, Suite 514  
Washington, DC 20037  
202-994-2449  
[www.gwcancerinstitute.org](http://www.gwcancerinstitute.org)

**Radiation Oncology**  
202-715-5120

**Hematology Oncology**  
202-741-2478

**Pathology**  
202-715-4665

**Radiology**  
202-715-5183

**Surgery**  
202-741-3200

**Cancer Registry**  
202-715-4383

**Breast Care Center**  
202-741-3270

**Mobile Mammography Program**  
202-741-3020

**Rehabilitation**  
202-715-5271

**Palliative Care Department**  
202-715-4599

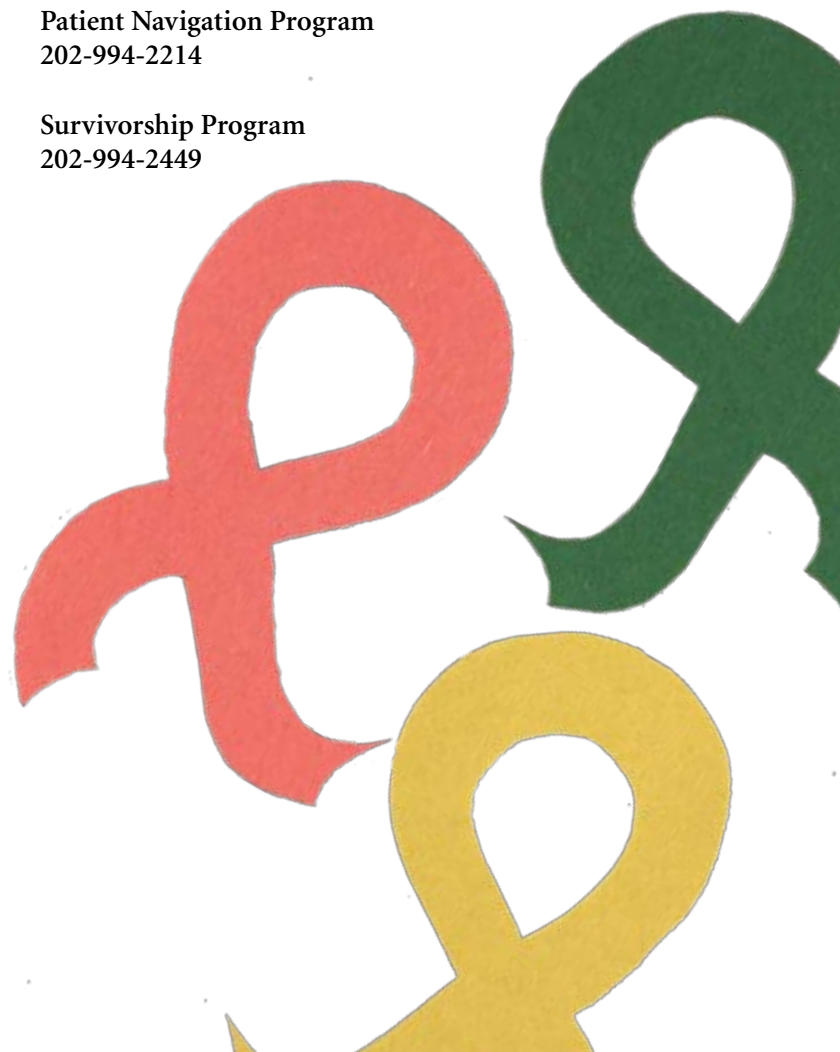
**Social Work Services (Support groups and other  
services)**  
202-741-2218, 202-994-2449

**Cancer Education and Outreach**  
202-994-2062

**Cancer Prevention and Control**  
202-994-1966

**Patient Navigation Program**  
202-994-2214

**Survivorship Program**  
202-994-2449





GW brings together comprehensive multidisciplinary clinical, research, education and outreach programs that are improving the cancer healthcare of our community, which happens to be the Nation's Capital.

Commitment

Compassion

Community

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UNIVERSITY  
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THE GW  
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