

II
CO
WA
G

The George Washington Cancer Institute
Cancer Program and Cancer Registry

annual report 2008

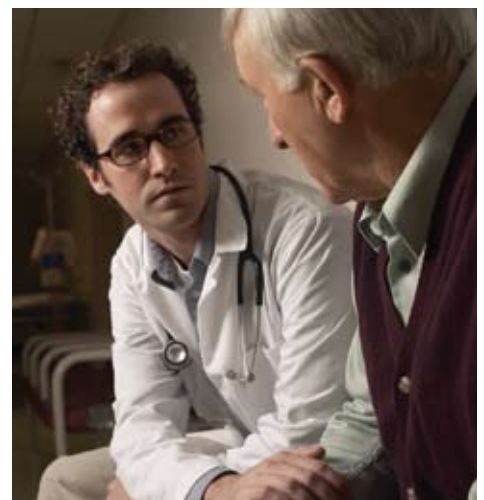
Annual Report 2008

Contents

- 2 Letter from the Executive Director
- 3 Letter from the Chairman
- 4 2008 Committee Members
- 5 Research, Community, and Survivorship
- 13 Cancer Registry
- 19 Report on Melanoma and Brain Cancer
- 23 Dr. Jeanny Aragon-Ching
- 28 Resources
- 29 Support Groups

GWCI

GW Cancer Institute Cancer Program
and Cancer Registry



About the GWCI

GWCI brings together comprehensive multidisciplinary clinical, research, education, and outreach programs that are improving the cancer health care of our community, which happens to be the nations capital.



From the Executive Director

The GW Cancer Institute (GWCI) has had an outstanding year. I am proud to share with you that, through partnerships and persistent community outreach, GWCI has significantly increased cancer prevention in the Washington, DC area through increased awareness about the lifesaving benefits of cancer education and screening.

At the start of the year, the Cancer Institute participated in the NBC4 Health and Fitness Expo, where the GW Prostate Program screened nearly 700 men for prostate cancer. Additionally, GWCI worked with barbershops in the DC metro area, the Washington Redskins, the Washington Nationals, and community churches to spread the message of the importance of early screening for prostate cancer. As a result, hundreds of men have been screened and GWCI has helped to chip away at the high mortality rate of prostate cancer in the DC area.

In May, we celebrated the fifth anniversary of the GWCI Cancer Gala, which brought together donors, doctors, researchers, survivors, and esteemed honorees. This year we honored nationally and internationally recognized leaders in research, clinical care, and advocacy. We honored Archbishop Emeritus Desmond Tutu; Margaret Foti of the American Association of Cancer Research (AACR); Robert and Paula Siegel of GW; and Sean Swarner of the CancerClimber Association. The evening was highlighted with the announcement of a \$500,000 grant from the Avon Foundation for breast cancer initiatives in medically underserved areas of the District. The day after the Gala, Academy Award-winning actress Reese Witherspoon presented the check to me, on behalf of the Institute, during the closing ceremonies of the Avon Walk, in front of thousands of enthusiastic women who completed the 39-mile walk, raising more than \$8.1 million for breast cancer awareness and research.

In addition, GWCI was the recipient of a grant from the DC Department of Health, Community Health Administration, to fund colorectal cancer outreach in the District. Through this grant, GWCI will work to help men and women overcome major access barriers to becoming educated about cancer prevention and screening.

We continue to press forward with our work in oncogenomics research, through an NCI-funded research program, and we continue to have a successful partnership with Howard University and the J. Craig Venter Institute as we explore the genomics of cancer disparities.

Our patient navigation program has grown significantly. By adding Providence Hospital, the Washington Hospital Center Cancer Institute, and Unity Health Care to the program, we've been able to expand our ability to enroll patients in the patient navigation study to help us learn how best to serve those undergoing cancer treatment.

Our Distinguished Lecture Series was another great success that featured important speakers, including Etta Pisano, MD, University of North Carolina, who presented on breast imaging; Snorri S. Thorgeirsson, MD, PhD, National Cancer Institute, who presented on liver cancer and cancer stem cells; and Max S. Wicha, MD, Distinguished Professor of Oncology, University of Michigan Comprehensive Cancer Center, who presented on breast cancer stem cells.

Our work this year, and GWCI as a whole, 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 patients, as well as educating health professionals and our community about cancer prevention and control. We are committed to research that will one day alleviate the suffering caused by cancer.

Warmest regards,

A handwritten signature in black ink, appearing to read "Steven R. Patierno". The signature is fluid and cursive, written over a light-colored background.

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

From the Chairman

It is with pleasure that I introduce the 2008 annual cancer report. Our program has had an exciting year and has much good news to report.

The year began with the announcement that we had again achieved the Commission on Cancer's Outstanding Achievement Award for exceptional performance from a review that was performed in October 2007. In September of this year, Dr. and Mrs. Cyrus Katzen established the Dr. Cyrus and Myrtle Katzen Cancer Research Center at GW with a gift of \$10 million. The funds will be devoted to cancer research, improving the clinical care given to our cancer patients, and promoting cancer education.

Our Department of Radiology received its first digital mammography unit in 2007. In 2008 it added a second digital unit and toward the end of 2008 installed a state-of-the-art MRI scanner that will provide better and more efficient imaging on breast cancer patients and those who are at high risk for breast cancer. In addition, the GW Hospital received its second da Vinci robot.

The fifth annual Cancer Gala in May had 50 percent more attendees than ever before and had a successful fundraising effort. The honorees included Archbishop Emeritus Desmond Tutu.

The annual report for 2008 shows that the number of cancer patients diagnosed and treated at GW has increased by approximately 50 percent since 2003, a trend that shows no sign of slowing. As illustrated in other sections of the annual report, our care of patients with melanoma and brain tumors compares quite favorably with national averages.

The GW Cancer Institute announced that it has received a \$500,000 grant from the Avon Foundation that will support breast cancer outreach, education, and screening services aimed at eliminating cancer disparities in some of the city's most economically disadvantaged neighborhoods. We have also expanded our partnership with the American Cancer Society (ACS) and now have access to an ACS-supported full-time cancer patient navigator within GW's Medical Faculty Associates.

Finally we have the privilege of welcoming several terrific new faculty to our cancer program, including: Jeanny Aragon-Ching, MD, assistant professor of Medicine in the Division of Hematology/Oncology, Anita McSwain, MD, assistant professor in the Department of Surgery, who will work in the Breast Care Center, and Ashima Saini, MD, assistant professor in the Department of Radiology, who will help expand our radiation oncology program. In addition, Mandi Chapman, MA, was appointed director of Cancer Survivorship in the Cancer Institute.

It is with much pride that I present this report that documents the forward progress of our cancer program. As always, I welcome your comments.



A handwritten signature in black ink, appearing to read 'Robert Siegel'.

Robert Siegel, MD
Chairman, Cancer Committee
Professor of Medicine
Director, Division of Hematology and Oncology

The George Washington University Hospital and Cancer Institute 2008 Cancer Committee Members

Robert S. Siegel, MD, Chair
Hematology/Oncology

James D. Ahlgren, MD
Hematology/Oncology

Jeanny Aragon-Ching, MD
Hematology/Oncology

Rachel Balf, LICSW
Social Work/Hematology /Oncology

Rachel F. Brem, MD
Breast Imaging Center/Radiology

Jacqueline Burgess
Outreach and Education

Christine Carter, PhD, MPH
Research/Surgery

Mandi Pratt Chapman, MA
Survivorship

May Chin, MD
Pain Management

Lisa Greening, RN, OCN
Oncology/Surgery

Meggan Healy
Rehabilitation

Donald E. Henson, MD
Prevention and Control

Paul Levine, MD
Prevention and Control

Hong Nguyen, MPH, CTR
Cancer Registry

Joan Panke, APRN, BC-PCM
Palliative Care

Zaida Morris
American Cancer Society

Sue O'Connor, BSN, RN, OCN
Oncology/Surgery

Martin Ojong-Ntui, MD
Radiation/Oncology

Steven Patierno, PhD
Executive Director, GW Cancer Institute

Nader Sadeghi, MD
Surgery

Mateja de Leonni Stanonik, MD, PhD
Neurology

Sana Tabbara, MD
Pathology

Christine B. Teal, MD, FACS
Breast Care Center/Surgery

Patricia Winston, MSN
Administration



**RESEARCH,
COMMUNITY,
AND
SURVIVORSHIP**



Norman Lee, PhD

GW Cancer Institute Genomics Partnership New GWCI Genomics Partnership Brings Research One Step Closer to Eliminating Cancer Disparities

Eliminating cancer disparities among minorities and vulnerable populations is at the heart of the mission of The George Washington University Cancer Institute (GWCI). GWCI is getting closer to reaching this goal by partnering with Howard University, GW's McCormick Genomics Center and the J. Craig Venter Institute (JCVI), a multidisciplinary genomic-focused organization in Rockville, Md. and La Jolla, Calif.

Through the GW/Howard University/JCVI partnership, research into genomics, the study of an organism's DNA, will help scientists learn why certain populations have higher incidence and mortality rates of various types of cancer. This research will help identify why breast cancer found in African American women is different from breast cancer found in Caucasian women, or why African American men have twice as many cases and three times as many deaths from prostate cancer. Examining the genome may also reveal which genes are disrupted, potentially leading to disease, and why some cancers are more aggressive in certain populations.

Norman Lee, PhD, a world class oncogenomicist in GW's Department of Pharmacology and Physiology, will lead the partnership. Researchers will work collaboratively to examine candidate genes, or genes that have a statistical linkage to cancer. GW researchers will work with these genes using a process called functional genomics to find out how each gene is involved in cancer. The team will identify how these genes could eventually be used as targets for intervention and treatment, or how we can use these genes to identify the potential for cancer before it strikes.

Distinguished Lecture

Top Stem Cell Researcher Gives Distinguished Cancer Lecture

The GW Cancer Institute (GWCI), in conjunction with the GW Department of Medicine and Medical Grand Rounds, hosted the Summer 2008 Distinguished Lecture featuring Max Wicha, MD, distinguished professor of Oncology, director, University of Michigan Comprehensive Cancer Center. Dr. Wicha presented "Stem Cells in Mammary Development and Carcinogenesis," on June 26.

"The lessons that we are learning about stems cells in breast cancer," Dr. Wicha told the audience, "we think are widely applicable to many, if not all, other cancers, in terms of understanding the genesis of cancers and the role of stem cells in cancers."

For nearly two decades the news about breast cancer survival rates in the United States and Great Britain has been increasingly positive. Since peaking in 1990, deaths are down 25 percent. Despite those positive numbers, Dr. Wicha believes current methods are missing the mark. The improvements, he said, are due mainly to early detection and early adjuvant therapies such as radiation.

"If you look at metastatic cancers for the four major killers — prostate, breast, colorectal, and lung," he said, "despite the billions we're spending, we aren't really doing well in terms of survival. When we are measuring improvements in metastatic cancers, we're actually talking about improvements in months rather than years or increases in cure rate. At least one important reason we haven't been doing better is that we've probably been targeting the wrong cells in cancer."

American Association for Cancer Research Conference

GWCI Staff Take Lead Roles at Historic Conference Examining Cancer Disparities at National Levels

Executive Director of the GW Cancer Institute (GWCI) Steven Patierno, PhD, co-chaired and keynoted the first American Association for Cancer Research Conference titled, "The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved." Members of GWCI also served as key participants at this historic conference.

In addition to co-chairing a committee, Dr. Patierno took part in the first plenary session, speaking on "Stage-Grade Escalation of Breast and Prostate Cancer in African Americans." Dr. Patierno also taught one of the educational workshops, titled "Cancer Health Care Communications."

Jacqueline Burgess, outreach coordinator for community initiatives, and others from GWCI presented a poster session, titled "Multilevel Prostate Cancer Prevention Social Marketing and Outreach Campaign in African American Men." Nancy LaVerda, MPH, program manager for the Patient Navigation Research Program, and Lisa Alexander, EdD, MPH, PA, assistant dean for Community-Based Partnerships, also presented a poster session, titled "District of Columbia City-Wide Patient Navigation Research Program." Preeti Sood, a student in the GW School of Public Health and Health Services, and Donald Henson, MD, co-director of the Office of Prevention and Control, GWCI, presented an abstract of the study, "Racial Variations in Pancreatic Cancer."

Oberstar Lecture

Dr. Etta Pisano Addresses Future of Breast Imaging



Etta Pisano, MD

The Jo Oberstar Memorial Lecture returned to GW for its 14th installment during Breast Cancer Awareness Month. The lecture was hosted by the GW Cancer Institute (GWCI) in conjunction with the GW Medical Faculty Associates Breast Care

Center and the Breast Imaging and Intervention Center.

Etta Pisano, MD, vice dean for Academic Affairs, Kenan Professor of Radiology and Biochemical Engineering, director of the UNC Biomedical Research Imaging Center, University of North Carolina School of Medicine and one of the world's leading experts in digital mammography, delivered the distinguished lecture, Oct. 29, 2007.

Dr. Pisano discussed advances in breast imaging aimed at finding breast cancer early enough to save all lives. She described how the large-scale study indicated that digital mammography provided better results than standard mammography.

"Ongoing efforts to identify cellular or serum markers," said Dr. Pisano, "will enable physicians to determine who is at higher risk for breast cancer and, therefore is in need of more frequent screening, and, alternatively, who is less likely or likely never to get breast cancer, thus requiring less frequent screening."

ACS Grant

American Cancer Society Funds Pilot Study

The GW Cancer Institute (GWCI) is one of only two universities to receive a new Institutional Research Grant from the American Cancer Society (ACS). The grant will provide up to \$60,000 in pilot awards per year, for three years, for junior cancer researchers.

In early October, GWCI extended the grant funds to three researchers: Heather A. Young, PhD, MPH, associ-



Denise Hyater, MA, CHES, ACS National Capital Region; Guanyu Wang, PhD, Department of Physics in the Columbian College of Arts and Science; Heather A. Young, PhD, MPH, SPHHS; Kyleene Kechn-Hall, PhD, SMHS; Steven Patierno, PhD, GW Cancer Institute

ate professor, Department of Epidemiology and Biostatistics in the School of Public Health and Health Services; Kyleene Kechn-Hall, PhD, assistant research professor, Department of Microbiology, Immunology, and Tropical Medicine in the School of Medicine and Health Sciences (SMHS); and Guanyu Wang, PhD, assistant research professor, Department of Physics in the Columbian College of Arts and Sciences.

Dr. Young's research proposal, "Racial and Socioeconomic Disparities in Breast and Cervical Cancer Treatment in the District of Columbia," will examine disparities in the time it takes to receive treatment and the type of treatments patients of these cancers receive.

Dr. Kechn-Hall will collaborate with Christine B. Teal, MD, director, Breast Care Center and assistant professor of Surgery, and Arnold M. Schwartz, MD, PhD, professor of Pathology, both of SMHS, on her proposal, "Epigenetic Market of the BRCA Protein." Their research will examine BRCA1 and the functional consequences of post-translational modifications in order to understand breast cancer development and treatment.

Dr. Wang's research proposal, titled "Cancer Drug Discovery Guided by Mathematical Analysis", outlines his plan to develop a mathematical model to gain an understanding of the dynamical control properties of cancer networks. This model will offer guidance on producing cancer drug cocktails that provide maximum effectiveness with minimal dosage and toxicity to the patient.

The GWCI is pleased to have received this important grant as another indicator of its growing partnership with the American Cancer Society, and to have extended awards to promising young researchers at GW.

COMMUNITY



Dr. Rachel Brem, Actress Reese Witherspoon, and Dr. Steven Patierno

Avon Grant Avon Grant Funds Breast Cancer Outreach, Education, and Screening

The GW Cancer Institute (GWCI) received a \$500,000 grant from the Avon Foundation to support breast cancer outreach, education, and screening services in the Washington, DC community. GWCI Executive Director Steven Patierno, PhD, and Rachel Brem, MD, director, Breast Imaging and Intervention accepted a check on May 4 as part of the closing ceremony of this year's Avon Walk DC.

Academy Award-winner Reese Witherspoon, honorary chair of the Avon Foundation, presented checks to GWCI, as well as six other area organizations. The grant, the largest the Avon Foundation has awarded to GW, will enable GWCI to further deploy the GW Mammovan, a mobile mammography unit equipped with state-of-the-art digital mammography technology, to medically underserved areas of the District, including Anacostia, a quadrant of the city that currently has no mammography facilities. The GW Mammovan will reach women who have limited access to breast cancer screening, outreach, and education.

The grant also will support GWCI's efforts to create a network of business and faith-based community partnerships that will facilitate culturally competent outreach specialists to work with members of the community to provide educational materials and patient navigation. Additionally, it will enable the establishment of an Avon Imaging Fellowship that will provide training and experience for a Radiology/Mammography Fellow in community-based medicine.



Doctors, nurses and patients came out to sign the Fight Back Bus

ACS Fight Back Bus ACS Fight Back Express Makes Foggy Bottom Stop

The American Cancer Society Cancer Action Network (ACS CAN) Fight Back Express stopped at the GW Cancer Institute (GWCI) June 5, as part of the largest grassroots mobilization campaign ever waged on the issue of cancer. Launched May 4 in Cleveland, Ohio, the Fight Back Express will travel more than 25,000 miles as it crisscrosses the country, stopping in communities to build the movement to make cancer issues a national priority.

Patients, doctors, nurses, and staff from GWCI, GW Medical Center, GW Medical Faculty Associates, and GW Hospital signed the ACS CAN bus and added their voices to those calling for access to quality health care for all Americans.

“Community-by-Community” Amgen Grant Helps to Extend GWCI Reach in the Community Spreading the Early Detection Message from Church Parishes to Community Picnics

Strategic partnerships and participation at community events through the Community-by-Community Cancer Control Campaign, led by Jacqueline Burgess, GW Cancer Institute (GWCI) cancer education and outreach coordinator, who has personally provided over 2,000 face-to-face consultations with citizens in the District, has helped GWCI reach thousands in the DC community with cancer education and prevention messages. Thanks to a renewed grant from the Amgen Foundation, GWCI has provided vital cancer information to attendees of events like the Stone Soul Picnic, the Black Family Reunion, and the Redskins Prostate Cancer Screening Day. In addition, GWCI has become a member of 46 tight-knit church communities, 25 community-based neighborhood organizations, 16 business/government work sites and five fraternal organizations. GWCI and the American Cancer Society have also teamed up to provide information to 12 barbershops in the DC metro area. These barbershops have become an outlet for men to get important information about prostate cancer.

Colorectal Cancer Grant GWCI and DC Department of Health Develop Colorectal Cancer Program

The GW Cancer Institute (GWCI) received a grant from the DC Department of Health to develop a Colorectal Cancer Outreach/Education, Screening, and Patient Navigation program. This program will address major barriers to health care access and will include a community-based intervention that will identify education gaps. Based on these results, GWCI will work to bridge these gaps and ensure that members of the DC community understand the importance of colorectal cancer screening. The program will also provide a fecal occult blood test (FOBT) for the uninsured and underinsured, and GWCI will provide patient navigation to overcome barriers that impede access to care, including transpor-

tation, lack of insurance, time conflicts, language barriers, as well as psychosocial and cultural barriers. The patient navigator will also work closely with patients who require follow-up care by helping them find the resources they need. In March, Colorectal Cancer Awareness Month, GW Hospital will perform colonoscopies at an “at cost” charity care rate.

GWCI Gala Fifth Annual Cancer Gala: Celebrating a Year of Successes



Steven Patierno, PhD

The GW Cancer Institute (GWCI) capped a year marked by significant growth and achievement in high style at its Fifth Annual Cancer Gala on May 3 at the historic National Building Museum. Reflecting upon the importance of

the work ahead, hosts GW President Steven Knapp and Provost and Vice President for Health Affairs, Dr. John F. Williams, joined Gala co-chairs Diane Robinson Knapp and Kimberly D. Russo, associate administrator at GW Hospital, in welcoming the Gala’s honorees, as well as principal benefactors Dr. and Mrs. Cyrus Katzen and Dr. and Mrs. Bernard Katzen.

GWCI recognized five outstanding honorees including Archbishop Emeritus, Desmond Mpilo Tutu, 1984 Nobel Peace Prize winner and cancer survivor, who received the Cancer Compassion Award for his global efforts to extend access to and improve quality of care for medically underserved communities. The Distinguished Public Service Award went to Margaret Foti, PhD, MD (h.c), CEO of the American Association for Cancer Research, the largest cancer research organization in the world. Sean Swarner, the only person to survive both Hodgkin’s Disease and Askin’s sarcoma, received the Spirit of Life Award. After completing treatment, and with only partial use of his lungs, Swarner became famous as the first cancer survivor to summit Mount Everest. Particularly poignant was the presentation of the newly created GW Commitment to Overcoming Cancer Award



John F. Williams, MD, EdD, FCCM; Robert Siegel, MD; Margaret Foti, PhD, MD (h.c.); Archbishop Desmond Tutu; Paula Siegel, RN; Sean Swarner; GW President Steven Knapp

to Robert Siegel, MD ’77, director of Hematology and Oncology with GW’s Medical Faculty Associates and GWCI’s associate director for Clinical Oncology, and his wife Paula Siegel, RN, who serves as a GW oncology nurse.

The broad spectrum of honorees at this year’s Gala reflects the Institute’s comprehensive approach to cancer, which brings together diverse teams of clinicians, nurses, scientists, public health professionals, and health policy experts to tackle the sweeping challenges posed by cancer. “We continue in our quest to build nationally and internationally recognized clinical and research programs, while simultaneously establishing ourselves as the cancer center that cares about its community,” said Steven Patierno, PhD, executive director, GWCI. He added, “Our outreach initiatives are particularly important in a city with the kinds of cancer incidence and mortality disparities that the District faces.”

Leading GWCI’s community outreach initiatives — aimed at raising the level of health consciousness throughout the city and expanding access to treatment and preventive care — are the GW Mammovan and the Prostate Cancer Screening Campaign. To date, more than 20,000 women have been screened for breast cancer because of the Mammovan, and more than 2,000 area men received free prostate screenings (both PSA and DRE), with nearly 700 screened during this year’s NBC4 Health and Fitness Expo.

Nationals GWCI Teams Up with the Washington Nationals

The GW Cancer Institute (GWCI) helped kick off the Washington Nationals’ Cancer Prevention Awareness Month, June 3, during a special Prostate Cancer Aware-

ness game at the start of the Nationals' home stand against the St. Louis Cardinals. Steven Patierno, PhD, executive director of GWCI,



Steven Patierno, PhD, delivers the line-up card at the Washington Nationals Postate Cancer awareness game.

and third base coach Tim Tolman, presented the line-up card to the umpires, and prior to the start of the game the Nationals played GWCI's Prostate Cancer public service announcement on the scoreboard. Throughout the month volunteers from GWCI worked a community table distributing materials about prostate cancer and other GWCI programs.

Smoke Out Medical Center Puts Smokers to the Test



Taking a lung function test

As part of the 31st Annual Great American Smokeout, GW Cancer Institute, GW Medical Center, GW Hospital, and GW Medical Faculty Associates offered area smokers a free, one-second lung function test on Nov. 15, 2007. The test, designed to reveal lung disease before symptoms appear, measures

breathing capacity as participants blow into a device. Volunteers also offered free smoking cessation aides to smokers interested in quitting.

NBC NBC4 Helps GW Cancer Institute Take Its Message to the Community

More than 650 men received free prostate screening exams courtesy of the GW Cancer Institute (GWCI), GW Hospital and GW Medical Faculty Associates Department of Urology during the 15th annual NBC4 Health and Fitness Expo. The Jan. 12–13, 2008 event at the DC Convention Center drew a record crowd of more

than 85,000. Non-stop lines of men gathered to take advantage of GW's free prostate cancer screenings. Prior to the physical exams, men were given a blood test, which is used to measure their PSA (Prostate Specific Antigen) levels. In addition, GWCI teamed up with NBC4 to encourage area residents to get screened for breast and colorectal cancers. The campaign included a series of public service announcements geared toward the 40-plus age group.



Free PSA and DRE tests were offered to men at the NBC4 Health and Fitness Expo

Komen Colonials for the Cure at Komen 5K



An enthusiastic group of Colonials

Nearly 80 members of the GW community, including friends, patients, students, alumni, faculty, and staff teamed up to form GW Colonials for the Cure, joining nearly 50,000 others for the 19th annual Susan G. Komen National Race for the Cure® on June 7.

Overall the 5K run/walk raised \$4.9 million to fund breast cancer research and community health programs for the medically underserved in the region.

Among the GW groups dedicating their efforts to raising awareness and money for the fight against breast cancer were members of the GW Cancer Institute, Public Health Alumni Association, Public Health Student Association, GW Alumni Association, GW Division of Development and Alumni Relations, GW Medical Faculty Associates Breast Care Center, and GW Hospital.

Camp Kesem

GWCI Partners with Camp Kesem for Kids Dealing with Cancer at Home



The George Washington University and the GW Cancer Institute hosted Camp Kesem at Camp Letts in Edgewater, Md., Aug. 18-21. Camp Kesem offers emotional support for children

whose families are experiencing cancer. The week-long camp is open to all eligible children ages 6–13 and features a two-to-one camper to counselor ratio— providing campers with personal attention. Counselors are trained by Camp Kesem National, and a nurse and social worker were on duty at the camp at all times. Camp Kesem began in 2000 at Stanford University and now stretches across 21 different U.S. college campuses. Campers enjoy a fun-filled summer camp and participate in numerous activities with other children who have similar experiences.



Camp Kesem



Survivorship and Cancer Prevention

GWCI Answers Surgeons General Call to Act

Steven Patierno, PhD, executive director, GW Cancer Institute (GWCI), served as a panelist during a National Call to Action (NCTA) on Cancer Prevention and Survivorship Workshop led by Richard H. Carmona, MD, MPH, FACS, 17th Surgeon General of the United States (2002–06) and president of Canyon Ranch Institute (CRI).

Dr. Patierno participated in the second of three panels, titled “Defining a Public Health Approach Toward Cancer Prevention and Survivorship.” The panel focused on identifying public health strategies across the continuum from cancer prevention to survivorship, including the value of comprehensive, patient-centered, personalized care; training and education for health professionals; health system infrastructure; and patient navigation.

Joining Drs. Patierno and Carmona on the panel were Mandi Chapman, MA, director, GWCI’s Office of Cancer Survivorship; Harold P. Freeman, MD, medical director, The Ralph Lauren Center for Cancer Care and Prevention; Peter Greenwald, MD, DrPH, director, Division of Cancer Prevention, National Cancer Institute, National Institutes of Health, assistant Surgeon General, U.S. Public Health Service; and John Clymer, president, Partnership for Prevention.



Mandi Chapman, MA

Office of Cancer Survivorship

GWCI Establishes an Office of Cancer Survivorship

In 2008, the GW Cancer Institute (GWCI) established the Office of Cancer Survivorship to support the rapidly growing number of cancer survivors in our region. The Office was launched in response to the palpable need for integrated, coordinated, culturally-competent, patient-centered care for cancer survivors and the demand for rigorous research on cancer survivorship to improve the quality and length of survivors’ lives. Key objectives of the Office are to coordinate an integrated system of survivorship care in a clinical research setting; to advocate for health policies that improve survivor access to quality cancer care and support services; and to empower survivors to live well.

Mandi Chapman, MA, joined GWCI in April 2008 as the founding director of the Office of Cancer Survivorship. In her first six months, she initiated the GW Cancer Survivorship Task Force comprised of thought leaders in cancer care at GW. She also helped secure \$1.2 million to establish the GW Cancer Patient Navigation, Survivorship, and Health Policy Research and Training Center. Ms. Chapman and Ms. Becky Beauregard of the Department of Health Policy will serve as co-directors for the new center. Ms. Chapman is also co-investigator on a collaborative research study with Children’s National Medical Center and Georgetown University. The study, lead by PI Rebecca Selove, PhD, of Children’s National Medical Center, will establish best practices for providing educational support for pediatric cancer survivors.

Breast Cancer Survivors' Luncheon

Survivors' Luncheon: Celebrating Life's Landmarks



Robert Siegel, MD; Trisha Kelly, MD; Eva Bailey, breast cancer survivor; Raymond Chang, MD

Each October, more than 100 breast cancer survivors gather on the GW campus for a luncheon to commemorate their personal milestones and recognize Breast Cancer Awareness Month. At the luncheon, patients, physicians, and family members get together to enjoy each others company outside of an exam room, and celebrate life after cancer.

Patient Navigators ACS Partnership Helps Patients "Navigate" Rough Waters



Chelsea Phelps

The GW Cancer Institute (GWCI) entered into a partnership with the American Cancer Society (ACS) to bring to GW an ACS-supported full-time cancer patient navigator. The patient navigator, Chelsea Phelps, began in September 2008 and is working with the GW Medical

Faculty Associates Department of Urology. She is helping with the GWCI Men's Oncology Outreach Program. Her goal is to help cancer patients navigate their way through the complicated medical and insurance systems associated with their cancer treatment and ensure that they know how to get the care they need.

Look Good, Feel Better Turning a More Confident Face Toward Cancer

The Look Good, Feel Better program of the American Cancer Society is offered at the GW Medical Faculty Associates Breast Care Center and Breast Imaging and Intervention Center. This program helps woman who are undergoing cancer therapy learn how to manage the changes occurring in their bodies, such as changes in their skin and hair. It also offers the opportunity for patients to share their experiences with others who may be experi-



A shared moment

encing similar treatments. Look Good, Feel Better is a partnership with the National Cosmetology Association and the Cosmetics, Toiletry, and Fragrance Association, where participants can receive free make-up kits, wigs, and durable prosthetics.



**GW CANCER
REGISTRY**

2008 Cancer Registry Report for The George Washington University Hospital

Following is the 2008 summary of the Cancer Registry Report from The George Washington University Hospital and GW Medical Center Cancer Program. The report is based on 2007 cancer data.

Growth in Patient Numbers: Shifts in Distribution of Sites

Figure 1 shows continued growth in the number of cases in the GW Cancer Registry over the last six years. The number of patients diagnosed and/or treated at The George Washington University (GW) Hospital and GW Medical Center increased from 997 in 2002 to 1,527 in 2007. Of these, 1,179 cases (77.3 percent) were analytic cases and the remaining 22.7 percent were non-analytic and physician office cases.

Figure 2 shown on page 15, shows an increase in the percent distribution of genitourinary (GU) and male reproductive cancers seen at GW Hospital in 2007 compared with 2005 and 2006. This shift in percent distribution occurred in the context of a significant increase in GU cancer case volume. Decreases in the percent distribution of female reproductive tract cancers and digestive system cancers are due to temporary decreases in faculty specializing in those cancers.

Table 1 on page 16 shows a breakdown of 2007 cancer cases by primary site. Breast, prostate, lung, colorectal, and urinary bladder cancers remained as major primary sites in 2007. Tables 2a and 2b on page 18 show the increase in numbers of analytic cases of prostate cancer and breast cancer, respectively, from 2005 to 2007. Total prostate cancer cases

continued on page 17

Figure 1:
Number of Cancer Cases Diagnosed and/or Treated at GW Hospital - Years 2002-2007

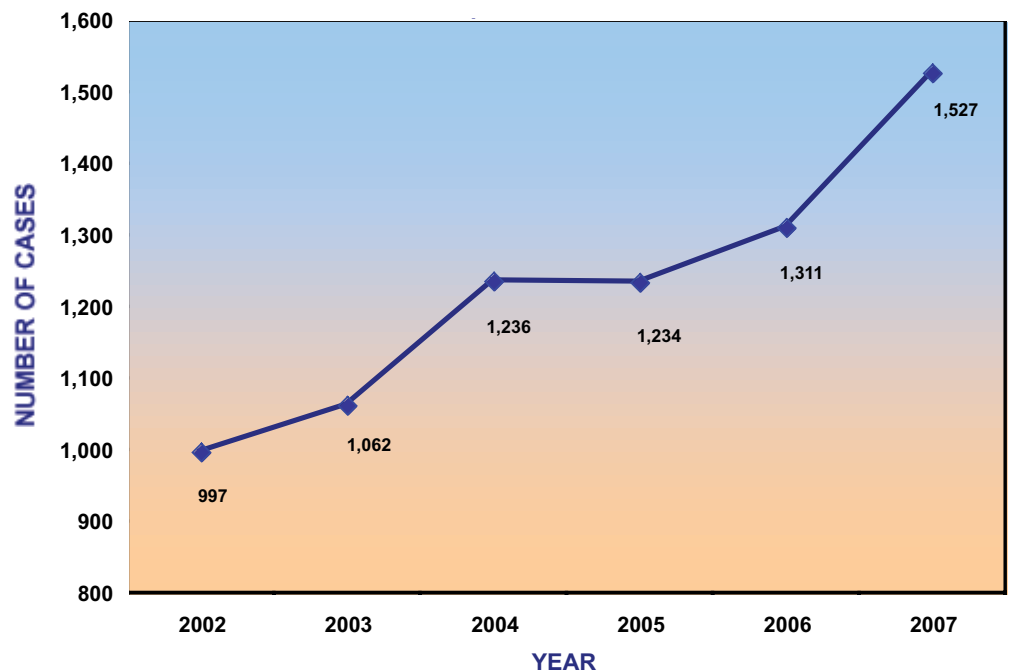
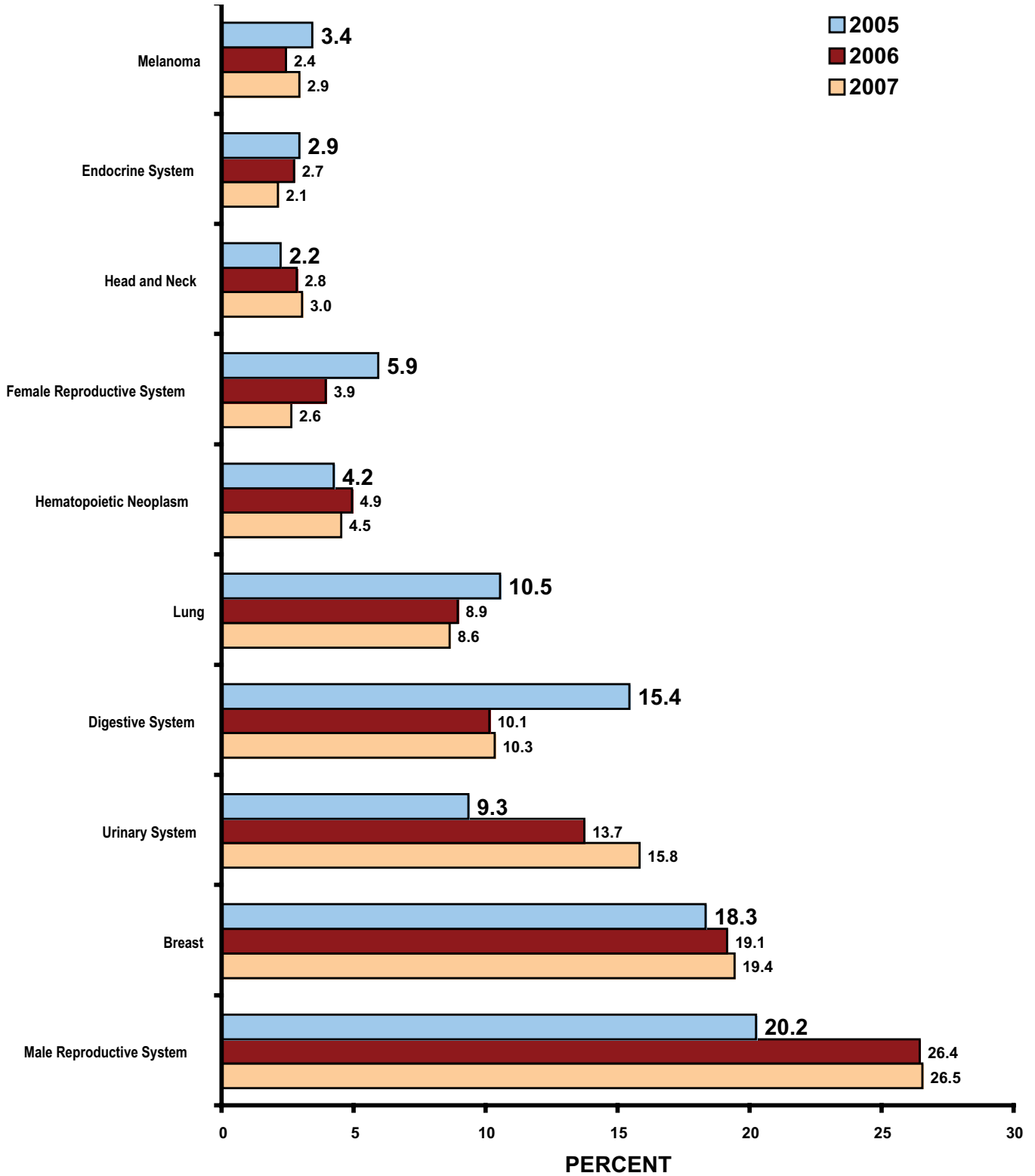


Figure 2:
Distribution of Analytic Cases
Years 2005-2007



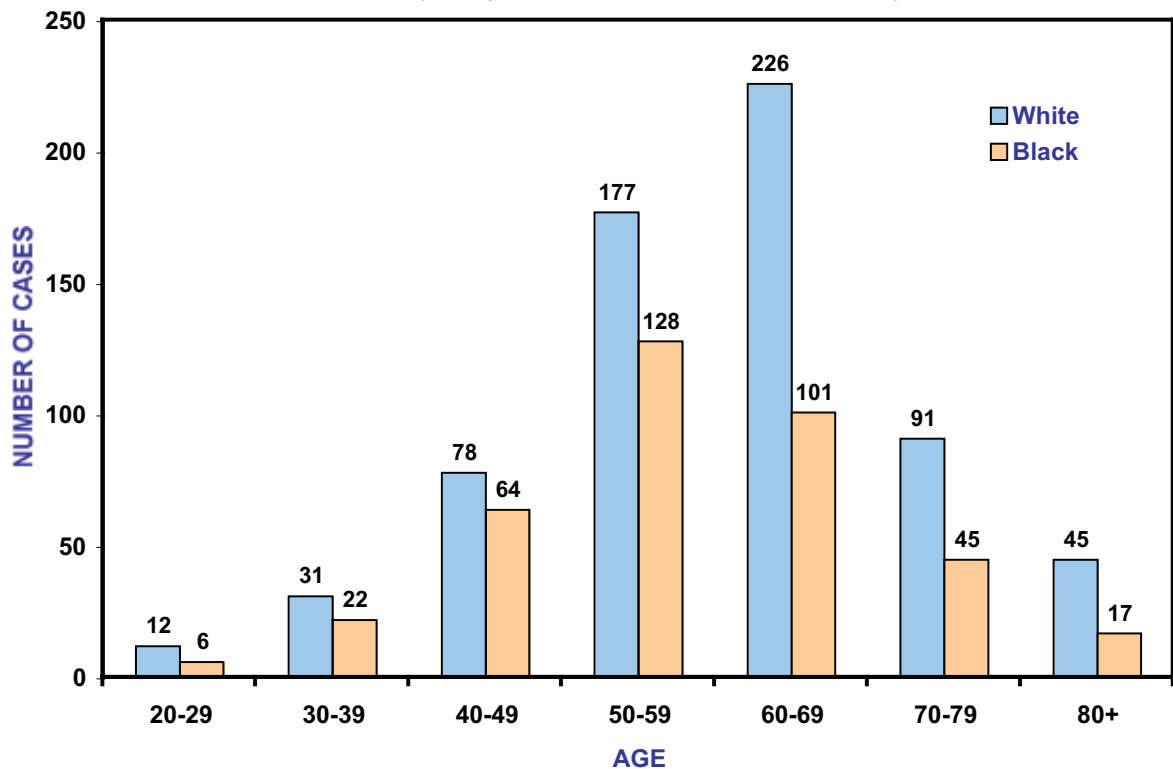
**Table 1: The GW HOSPITAL CANCER REGISTRY
2007 CANCER CASES by ANATOMIC SITE**

Primary site	# 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	41	2.7	31	10	23	16	2	2	10	3	5	8	3	0
Tongue	3	0.2	3	0	3	0	0	0	1	0	1	1	0	0
Salivary glands	6	0.4	3	3	3	2	1	0	1	1	0	0	1	0
Oral Cavity	7	0.5	5	2	5	2	0	0	2	0	0	2	1	0
Oro- & Hypo-pharynx	3	0.2		0	0	2	1	2	0	0	0	1	0	0
Sinuses	3	0.2	3	0	0	3	0	0	0	1	0	1	1	0
Tonsil	8	0.5	5	3	4	4	0	0	1	1	2	1	0	0
Larynx	11	0.7	9	2	8	3	0	0	5	0	0	2	0	0
Digestive System	143	9.4	119	24	54	62	27	5	18	30	28	25	6	7
Rectum/Colon	71	4.7	56	15	24	31	16	5	9	11	16	9	6	0
Anus/Anal canal	5	0.3	5	0	2	3	0	0	0	1	2	0	0	2
Stomach	24	1.6	21	3	9	10	5	0	50	3	3	8	0	2
Pancreas	11	0.7	10	1	4	6	1	0	10	5	2	2	0	0
Liver/Gall Bladder/Bile Ducts	11	0.7	8	3	3	4	4	0	2	4	1	0	0	1
Esophagus	14	0.9	13	1	8	5	1	0	1	4	3	3	0	2
Small Intestines	7	0.5	6	1	4	3	0	0	0	2	1	3	0	0
Respiratory System	120	7.9	98	22	70	40	10	1	42	9	12	22	2	10
Bronchus & Lung	114	7.5	95	19	68	36	10	1	42	9	12	21	1	9
Pleura	6	0.4	3	3	2	4	0	0	0	0	0	1	1	1
Soft Tissues	5	0.3	4	1	3	2	0	0	0	1	1	0	0	2
Bone	2	0.2	2	0	0	2	0	0	0	0	1	0	1	0
Lymphoma	60	3.9	30	30	32	14	14	0	8	6	1	9	0	6
Non-Hodgkin's	48	3.1	22	26	25	11	12	0	6	3	0	8	0	5
Hodgkin's	12	0.8	8	4	7	3	2	0	2	3	1	1	0	1
Breast	279	18.3	218	61	144	101	34	40	79	60	22	7	2	8
Female Genital System	49	3.2	27	22	20	19	10	4	9	2	4	6	1	1
Cervix uteri	24	1.6	7	17	12	7	5	4	0	0	2	1	0	0
Corpus uteri	17	1.1	12	5	7	6	4	0	7	1	1	1	1	1
Ovary	8	0.5	8	0	1	6	1	0	2	1	1	4	0	0
Male Genital System	440	28.8	361	79	240	119	81	0	9	248	84	10	0	10
Prostate gland	421	27.6	344	77	226	116	79	0	0	246	84	10	0	4
Testis	17	1.1	15	2	13	2	2	0	8	2	0	0	0	5
Penis	2	0.1	2	0	1	1	0	0	1	0	0	0	0	1
Urinary System	204	13.4	186	18	135	51	18	33	98	21	10	12	2	10
Urinary Bladder	73	4.8	64	9	52	14	7	29	17	7	3	4	1	3
Kidney & Renal Pelvis	125	8.2	119	6	78	36	11	3	81	13	7	7	1	7
Ureter	6	0.4	3	3	5	1	0	1	0	1	0	1	0	0
Central Nervous System	35	2.3	22	13	16	10	9	0	0	0	0	0	22	0
Brain	23	1.5	13	10	10	7	6	0	0	0	0	0	13	0
Other CNS	12	0.8	9	3	6	3	3	0	0	0	0	0	9	0
Endocrine System	32	2.2	23	9	24	2	6	0	14	4	2	1	0	2
Thyroid gland	30	2.0	23	7	23	1	6	0	14	4	2	1	0	2
Other glands	2	0.2	0	2	1	1	0	0	0	0	0	0	0	0
Hematopoietic Neoplasms	62	4.0	16	46	33	13	16	0	0	0	0	0	16	0
Multiple Myeloma	11	0.7	3	8	4	5	2	0	0	0	0	0	3	0
Leukemia	38	2.5	13	25	19	8	11	0	0	0	0	0	13	0
Other	13	0.8	0	13	10	0	3	0	0	0	0	0	0	0
Melanoma	45	2.9	34	11	36	7	2	1	8	0	8	1	7	9
Unknown	9	0.5	8	1	4	5	0	0	0	0	0	0	8	0
All Sites	1,526	100	1,179	347	834	463	229	86	295	384	178	101	70	65

NOTE:

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

Figure 3:
2007 Analytic Cases:
Age at Diagnoses by Black and White
(This graph does not include other races)



continued from page 14

increased from 213 in 2005, to 327 in 2006, and 421 in 2007. Total renal cancer cases increased from 42 in 2005, to 89 in 2006, and 125 in 2007. This is due to the expansion of the GW Medical Faculty Associates Department of Urology (as described in the 2007 Annual Report) and to the extensive and highly successful prostate cancer outreach, education, and screening campaign launched by the GW Cancer Institute (GWCI) in 2006.

Table 3 on page 18 shows the distribution of cases by race across five primary sites from 2004 to 2007. Year-to-year variations occurred with no remarkable trends in cancers of the GI system, breast, lung, and hematopoietic neoplasms. One exception is the increased distribution of genitourinary cancers among whites, trending upward from 49 percent to 60 percent from 2004 to 2007, while the percent distribution of GU cases in blacks decreased from 44 percent to 28 percent over the same period. Although the GWCI’s screening program targeted African Americans and led to an unprecedented response among blacks, the percent increase of white cases accounted for a larger percent of the total increased case volume.

Comparisons to National Data

Figure 3 shows age at diagnosis by race. GW has a younger cancer population relative to national figures, with the highest incidence seen in the 50-59 and 60-69 age groups. Across age groups 30-39, 40-49 and 50-59, blacks account for at least 40 percent of cases at GW. Blacks account for at least 30 percent of cases in age groups 20-29, 70-79, and 80-plus.

Compared to national data reported by the American Cancer Society (ACS), the percent of prostate and breast cancer cases seen at GW Medical Center was higher than reported for the United States. In 2007, GW Hospital Cancer Registry reported a 48.2 percent increase in primary prostate cancer cases seen compared to the ACS national figure of 29 percent increase. Likewise,

continued on page 18

Table 2A: The George Washington University Hospital (GWH) and American Cancer Society (ACS) 2005-2007 Analytic Cases – Ten Most Frequent Cancers in Males

Primary Sites	2007 cases (%)		2006 cases (%)		2005 cases (%)	
	GWH	ACS	GWH	ACS	GWH	ACS
Prostate	344(48.2)	218,890 (29.0)	260 (45.1)	234,460 (33.0)	167 (35.5)	232,090 (33.0)
Colon-Rectum	28 (3.9)	79,130 (10.0)	27 (4.6)	72,800 (10.0)	50 (10.5)	71,820 (10.0)
Lung	50 (7.0)	114,760 (15.0)	35 (6.1)	92,700 (13.0)	41 (8.7)	93,010 (13.0)
Urinary Bladder	50 (7.0)	50,040 (7.0)	39 (6.8)	44,690 (6.0)	27 (5.6)	47,010 (7.0)
Kidney/Renal Pelvis	91 (12.8)	31,590 (4.0)	56 (9.7)	24,650 (3.0)	23 (5.0)	22,490 (3.0)
Upper GI	23 (3.2)	25,130 (3.0)	11 (1.9)	24,660 (3.0)	17 (3.6)	24,730 (3.0)
Melanoma	22 (3.1)	33,910 (4.0)	23 (4.0)	34,260 (5.0)	17 (3.6)	33,580 (5.0)
Testis	15 (2.1)	7,920 (1.0)	18 (3.1)	8,250 (1.0)	17 (3.6)	8,010 (1.0)
Lymphoma	16 (2.2)	34,200 (4.0)	18 (3.1)	30,680 (4.0)	11 (2.3)	33,050 (5.0)
Thyroid	9 (1.3)	8,070 (1.0)	9 (1.6)	7,590 (2.0)	10 (2.1)	6,500 (1.0)
Others	65 (9.2)	163,220 (22.0)	81 (14.0)	145,540 (20.0)	91 (19.3)	137,750 (19.0)

Table 2B: The George Washington University Hospital (GWH) and American Cancer Society (ACS) 2005-2007 Analytic Cases – Ten Most Frequent Cancers in Females

Primary Sites	2007 cases (%)		2006 cases (%)		2005 cases (%)	
	GWH	ACS	GWH	ACS	GWH	ACS
Breast	214 (45.9)	178,480 (26.0)	194 (42.7)	212,920 (31.0)	164 (35.4)	211,240 (32.0)
Lung	18 (4.0)	98,620 (15.0)	61 (13.5)	81,770 (12.0)	56 (12.2)	79,560 (12.0)
Colon-Rectum	28 (6.0)	74,630 (11.0)	31 (6.8)	75,810 (11.0)	34 (7.4)	73,470 (11.0)
Uterine Corpus	12 (2.6)	39,080 (6.0)	17 (3.7)	41,200 (6.0)	24 (5.4)	40,880 (6.0)
Thyroid	14 (3.0)	25,480 (4.0)	15 (3.3)	22,590 (3.0)	11 (2.4)	19,190 (3.0)
Melanoma	12 (2.6)	26,030 (4.0)	9 (2.0)	27,930 (4.0)	15 (3.3)	26,000 (4.0)
Lymphoma	13 (2.8)	32,710 (5.0)	8 (1.8)	28,190 (4.0)	8 (1.7)	30,690 (5.0)
Upper GI	11 (2.3)	11,690 (2.0)	8 (1.8)	12,170 (2.0)	5 (1.0)	11,650 (2.0)
Kidney/Renal Pelvis	36 (7.7)	19,600 (3.0)	31 (6.8)	14,240 (2.0)	18 (3.8)	13,670 (2.1)
Urinary Bladder	16 (3.4)	17,120 (3.0)	13 (2.8)	16,730 (3.0)	18 (3.8)	16,200 (2.0)
Others	92 (19.7)	154,620 (21.0)	67 (14.8)	145,960 (22.0)	109 (23.6)	140,320 (21.0)

Table 3: Distribution of Analytic Cancer Cases by Race Years: 2004-2007

PRIMARY SITES	White				Black				Other			
	2004 % (cases)	2005 % (cases)	2006 % (cases)	2007 % (cases)	2004 % (cases)	2005 % (cases)	2006 % (cases)	2007 % (cases)	2004 % (cases)	2005 % (cases)	2006 % (cases)	2007 % (cases)
GI System	54 (70)	51 (72)	53 (54)	40 (48)	38 (50)	42 (60)	32 (33)	46 (54)	8 (10)	7 (10)	15 (15)	14 (17)
Breast	48 (89)	48 (82)	46 (88)	53 (116)	38 (71)	40 (68)	43 (83)	37 (81)	14 (27)	12 (21)	11 (22)	10 (21)
Lung	50 (38)	53 (51)	58 (52)	61 (58)	47 (36)	36 (35)	42 (38)	33 (31)	3 (2)	11 (11)	0 (0)	6 (6)
GU System	49 (146)	52 (170)	59 (263)	60 (325)	44 (133)	37 (123)	31 (136)	28 (154)	7 (22)	11 (35)	10 (44)	12 (68)
Hematopoietic Neoplasm	48 (22)	47 (18)	41 (20)	59 (27)	46 (21)	38 (15)	41 (20)	28 (13)	6 (3)	15 (6)	18 (9)	13 (6)

continued from page 17

breast primary cases seen at GW increased 45.9 percent compared to the ACS national rate of 26 percent. This is likely due to the outstanding local and regional reputation of the GW Medical Center for particular excellence in the screening, diagnosis, and treatment of prostate and breast cancer.



**GW
MELANOMA
AND BRAIN
TUMOR
CANCER
REPORTS**



Nader Sadeghi, MD,
Director of Head and Neck Surgery
Associate Professor of Surgery

- Medical Education:
McGill University
- Board Certification:
Otolaryngology
- Clinical Interests:
Minimally Invasive Endoscopic Surgery,
Thyroid and Parathyroid Surgery, Facial
Plastics and Reconstruction, Head &
Neck Cancer Surgery
- Named a *Washingtonian* magazine,
Top Doc

Skin Cancer: Cutaneous Melanoma Report GW Hospital 1998-2007 and National Cancer Database (NCDB) 1998-2005

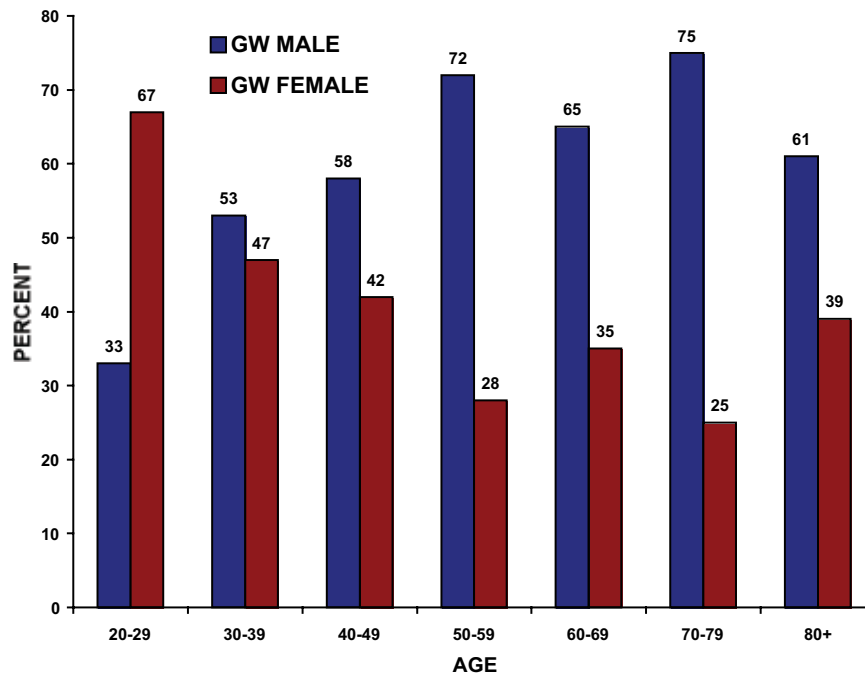
According to the National Cancer Institute (NCI), an estimated 62,480 new melanoma cases and 8,420 deaths occurred from melanoma in the United States in 2008. (Available at http://www.cancer.org/docroot/cric/content/cric_2_4_1x_what_are_the_key_statistics_for_melanoma_50.asp). Mortality from melanoma has been steadily increasing from an incidence of 1 in 1,500 in 1935 up to 1 in 84 Americans now. A total of 316 cutaneous melanoma cases were diagnosed at GW Hospital between 1998 and 2007. Melanoma is more common in Caucasians than in African Americans, and is more common in males than in females.

Figures 1 and 2 shows that in younger populations, especially between ages 20 and 29, melanoma occurs proportionally more commonly among females with a female to male ratio of 67 percent to 33 percent. Within older populations, after age 50, the ratio reverses with melanoma occurring proportionally more commonly among males than females. For instance, between ages 70-79, male to female ratio is 75/25 and 66/34 in GW Hospital and NCDB data respectively. While a definite conclusion cannot be drawn for this trend, exposure to UV light, an established risk factor for melanoma among female population at a younger age compared to males, either from direct sunlight or tanning clinics, may help explain it. Additionally the regions of the body most exposed to UV radiation are at higher risk for developing melanoma. According to GW Hospital data, melanoma in the face, neck, and trunk occur more in men than in women, reflecting the disproportionately higher exposure of these anatomic sites to UV radiation among males. Exposure to UV radiation among females is likely more evenly distributed throughout the body surface, especially with the use of tanning beds.

Figure 4 compares five-year observed survival rates at GW Hospital with those reported in NCDB for early, Stage I and II, melanoma. Relatively small numbers for stage III and IV melanoma at GW Hospital precludes adequate survival estimates. Survival rates at GW Hospital were more favorable but similar in trend compared to NCDB. At GW Hospital, for Stage I melanoma, over 98 percent five-year survival is notable compared to 88 percent for NCDB. For stage II the difference is less apparent, but still favorable at GW Hospital compared to NCDB at 5 years: 78 percent and 72 percent respectively. What is also notable is that even between stage I and II melanoma there is a significant difference in survival rates, highlighting the importance of screening and early detection for this malignancy. While there is good long-term prognosis for early disease, five-year survival for stage III and IV melanoma remains to be very poor. The most important prognostic factor for melanoma remains to be the stage of the disease at the time of diagnosis.

In conclusion, currently there is preponderance in incidence for melanoma in younger patients towards women and in older patients towards men, which is reflected in GW Hospital and NCDB data. Higher exposure at an earlier age to UV radiation among females likely explains this. Education on protection against exposure to UV radiation at a young age especially among females may help to diminish the incidence of melanoma. With an aging population, lifetime cumulative exposure to UV radiation is a risk factor for

**Figure 1:
Distribution of Melanoma Cases by Age and Gender
GW Hospital 1998-2007**



increasing incidence of melanoma, especially among males in sun-exposed areas. For melanoma, like most other cancers, early detection and intervention is key in achieving high cure rates. Survival rates at GW Hospital of over 98 percent at five-years for Stage I melanoma confirms this conclusion. Increasing the public awareness on suspicious pigmented cutaneous lesions and seeking medical advice may improve early detection and successful treatment of this malignancy.

**Figure 2:
Distribution of Melanoma Cases by Age and Gender
National Cancer Database (NCDB) 1998-2005**

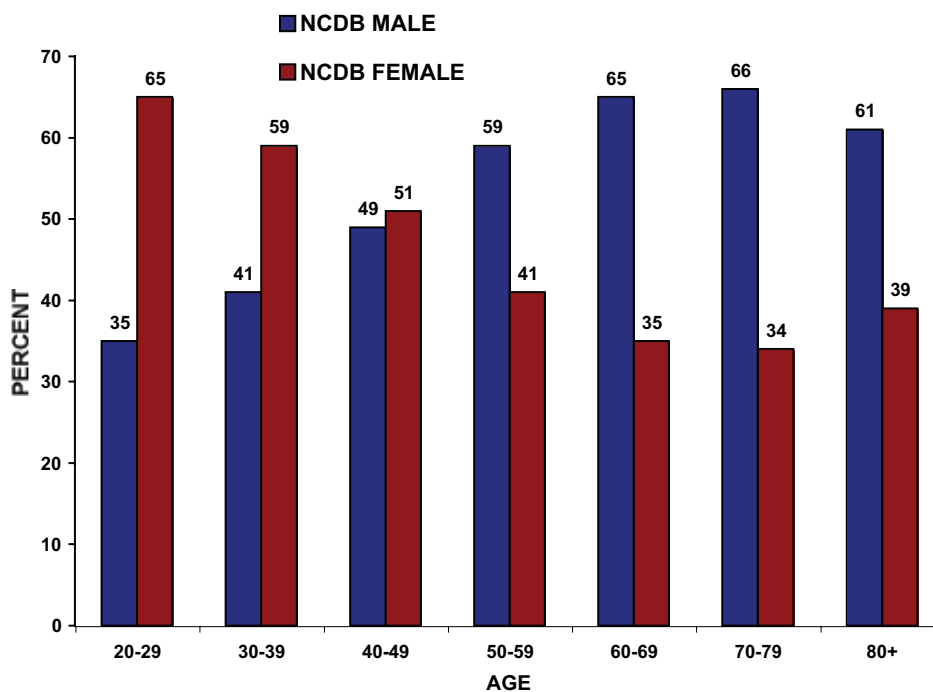


Figure 3:
Anatomical Distribution of Cutaneous Melanoma
at the GW Hospital 1998-2007

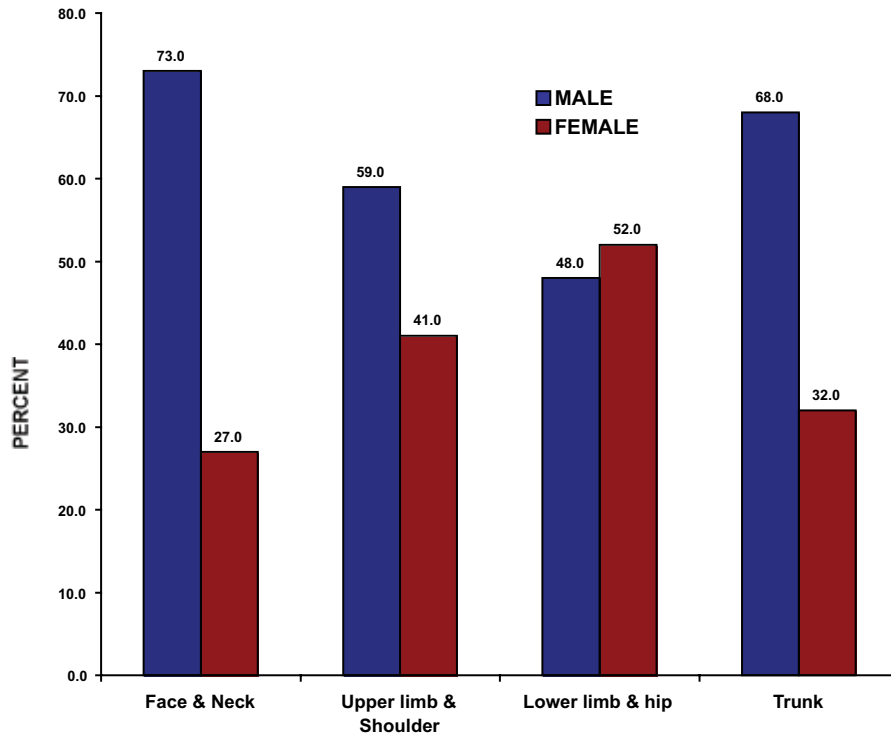
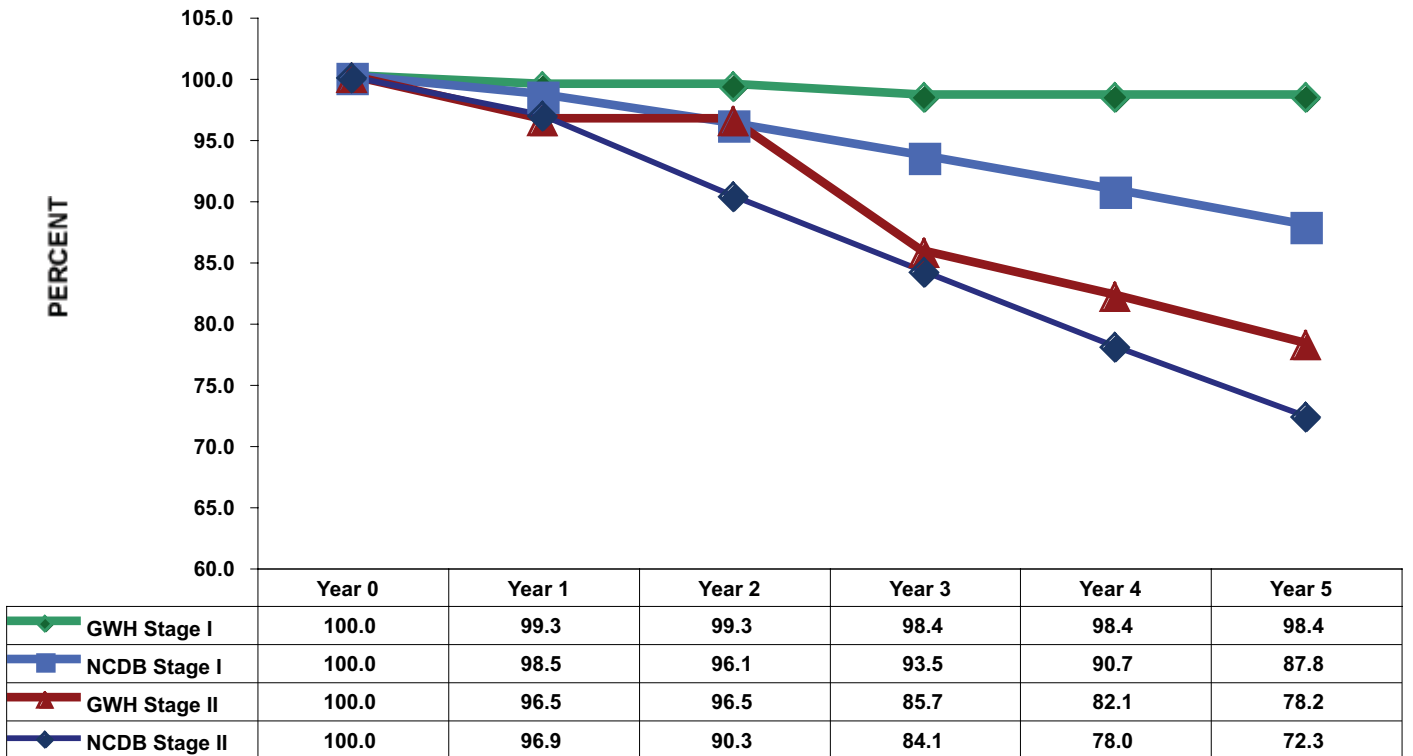
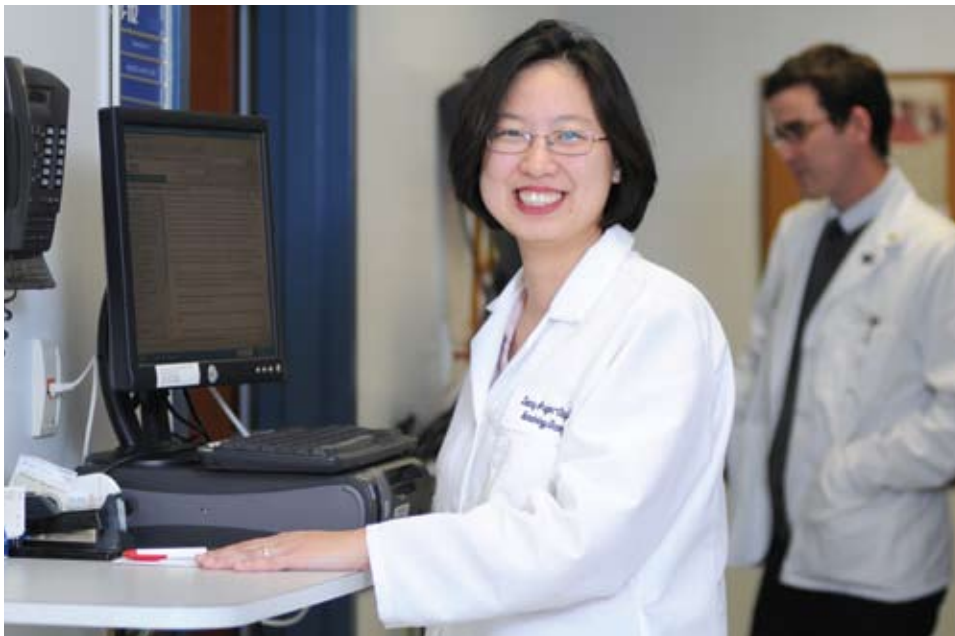


Figure 4:
Melanoma Cancer: 5-Year Observed Survival Rate
GW Hospital (GWH) 1998-2001 and National Cancer Database (NCDB) 1998-1999





Dr. Jeanny Aragon-Ching

Focus on Prostate Cancer

For a young woman in the fast-paced world of oncology, it may seem a bit odd that Jeanny Aragon-Ching, MD, decided to focus her career on prostate cancer, a disease that only affects men. However, Dr. Aragon-Ching is motivated by the study of advanced prostate cancer and recognizes the potential for discovery to treat the disease.

Most instances of prostate cancer are treatable, even curable, during the early stages. Unfortunately, for men with metastatic prostate cancer, there is currently only one chemotherapy agent for treatment that is approved by the FDA. The limited treatment options and the fact that the District of Columbia has the highest incidence of prostate cancer death in the country signifies the great need for research in this field. It is for this reason that Dr. Aragon-Ching believes being in the District and conducting research at GW is the best place for her.

“GW offers me the chance to continue my research, as well as see patients. Experiencing the human aspect of this job is important because it gives me a chance to meet the people that I am working to help and provides a tangible aspect to my job,” said Dr. Aragon-Ching. “In addition, GW’s location and close proximity to the National Cancer Institute provides the best resources for the type of work I do.”

Dr. Aragon-Ching is pleased to be working with fellow doctors Robert Siegel, MD ’77, director, Hematology/Oncology; Imad Tabbara, MD, professor of Medicine; Frederick Rickles, MD, FACP, clinical professor of Medicine; and Thomas W. Jarrett, MD, chair, Department of Urology. Their growing interest in developing the capabilities of urologic oncology at GW provides opportunities for productive collaboration.

As Dr. Aragon-Ching describes their work, her enthusiasm for helping people is apparent. “I have a desire to reach out to people who have advanced prostate cancer and provide hope that they can get better,” she explained.

Dr. Aragon-Ching came to GW in July 2008 from the National Cancer Institute at the National Institutes of Health, where she conducted extensive research in prostate cancer. Before that, she did her residency at Albert Einstein Medical Center where she spent her last year as the chief resident.



Fabio Roberti, MD
Assistant Professor of Neurosurgery

- Medical Education:
University of Modena, Italy
- Board Certification:
Board Eligible in Neurosurgery
- Clinical Interests:
Cranial Base Surgery, Neuro-Oncology,
General Neurosurgery

Brain Tumor Report

GW Hospital: 2001-2007

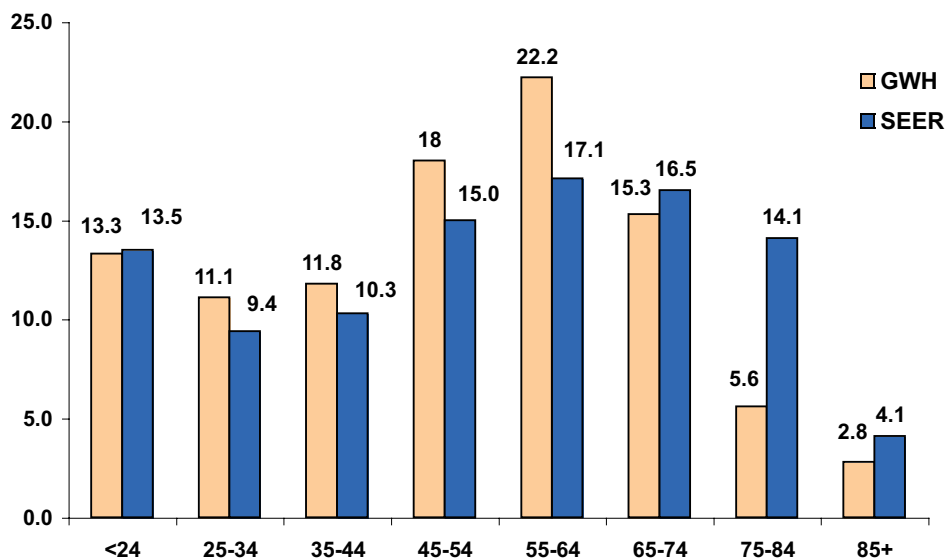
A national database, the Surveillance Epidemiology and End Result (SEER) Cancer Statistics Review, estimated that 21,810 new cases of primary brain tumors, or brain gliomas, will be diagnosed in 2008 (<http://www.cancer.gov/cancertopics/types/brain/>). Between 2001 and 2007 a total of 144 brain gliomas were diagnosed and/or treated at GW Hospital.

Epidemiologic data from patients treated at GW Hospital were consistent with trends reported by SEER (**Figure 1**), with higher incidences of brain tumor diagnoses during the fourth, fifth, and sixth decades of life (18 percent, 22 percent and 15 percent of cases respectively). Brain gliomas were most commonly found to involve the frontal (26.4 percent) and temporal (25.7 percent) lobes, with 13.3 percent of patients harboring diffuse tumors involving more than one cerebral lobe at initial neuroradiological evaluation (**Figure 2**).

High-grade gliomas (grade 3 and 4) accounted for 82.6 percent of diagnosed tumors, while 17.4 percent of patients were found to have low-grade neoplasms (grade 1 and 2). Glioblastomas (grade 4) were the most common gliomas observed out of 144 tumors, accounting for 45.1 percent of cases. The degree of surgical resection was dependent on the location and the grade of the tumor as shown in **Figure 3**. As expected, gross total resection was achieved more frequently in low-grade tumors than in high-grade malignancies (56 percent versus 7 percent).

Tailored multidisciplinary treatments with a combination of surgical resection, adjuvant radiation, and chemotherapy were initiated at GW Hospital in 20.2 percent of

Figure 1: Brain Tumors - Age at Diagnosis
GW Hospital 2001-2007 and SEER 2001-2005



patients with high-grade gliomas, while surgical resection alone was most commonly indicated in patients harboring low-grade neoplasms. Forty percent of patients who were diagnosed with high-grade malignant gliomas received surgical resection at GW Hospital and adjuvant treatments elsewhere (**Figure 4**).

The five year survival rates for glioblastomas are reported on **Figure 5**. GW Hospital data are consistent with and positively compare with the national statistics presented by SEER. The use of new chemotherapy agents and refined surgical techniques may explain the improved prognosis and overall survival in this cohort of patients.

Significant improvements have been achieved in Neuro-Oncology during the past five to 10 years. Nevertheless a prompt early diagnosis still remains key in allowing patients suffering from brain gliomas to benefit from the many treatment options currently available. At GW Hospital patients benefit from a multidisciplinary approach that is based on close collaboration among specialists in the field of radiology, oncology, pathology, radiotherapy, neurology, and neurosurgery. Improved diagnostic modalities (functional MRI, MR spectroscopy and intraoperative tractography with navigation), as well as advanced surgical techniques (awake surgery with intraoperative “brain mapping” or intraoperative chemotherapy) are currently utilized at GW Hospital to improve patients’ outcomes while minimizing treatment-related complications. Our team of specialists also continues to focus on building strong professional relationships with physicians practicing in the surrounding medical communities for the improved collaborative outcome of our common patients.

Reference:

- CBTRUS: Statistics Report Interactive Search <http://www.cbtrus.org/interactive/interactive1.html>
- Surveillance Epidemiology and End Results (SEER). Incidence of brain tumor in the U.S. <http://seer.cancer.gov/statfacts/html/brain.html>
- National Cancer Institute (NCI) [http://www.cancer.gov/cancertopics/types/brain/Treatment for Glioblastoma](http://www.cancer.gov/cancertopics/types/brain/Treatment%20for%20Glioblastoma) <http://www.cancer.gov/cancertopics/pdq/treatment/adultbrain/HealthProfessional/page10>

Figure 2: GW Hospital Brain Tumors Distribution by Location 2001-2007

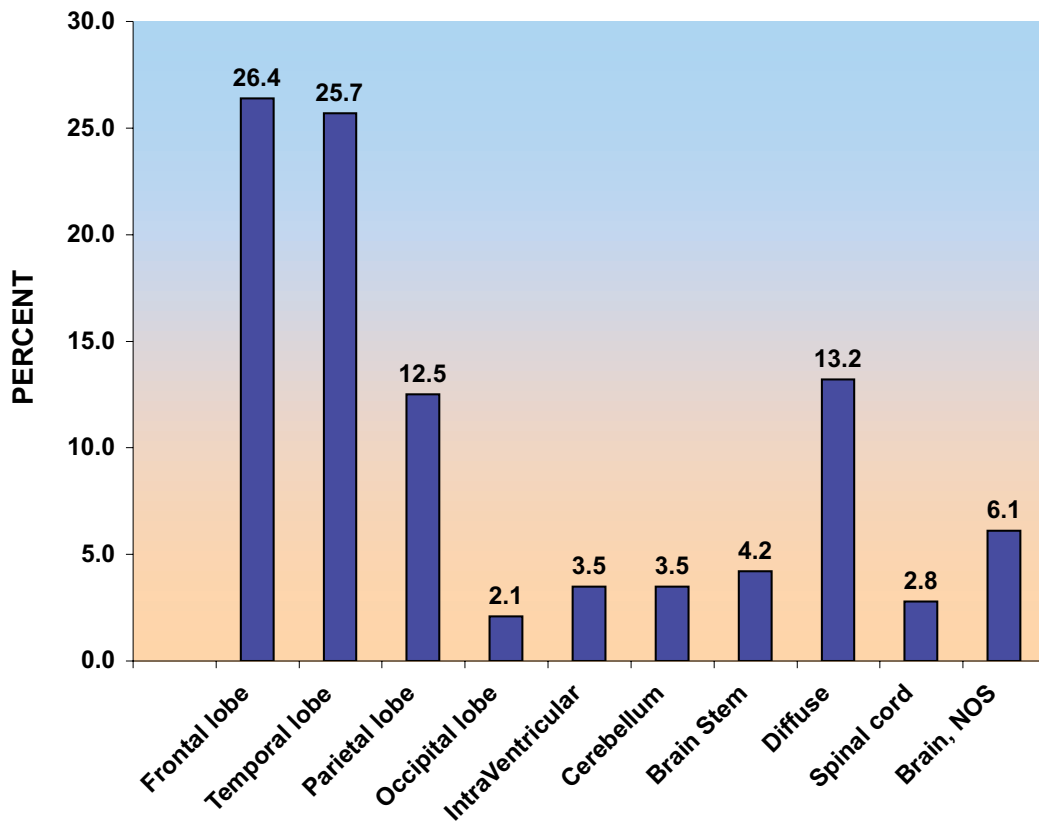


Figure 4: GW Hospital Brain Tumor Distribution by Treatment and Grade 2001-2007

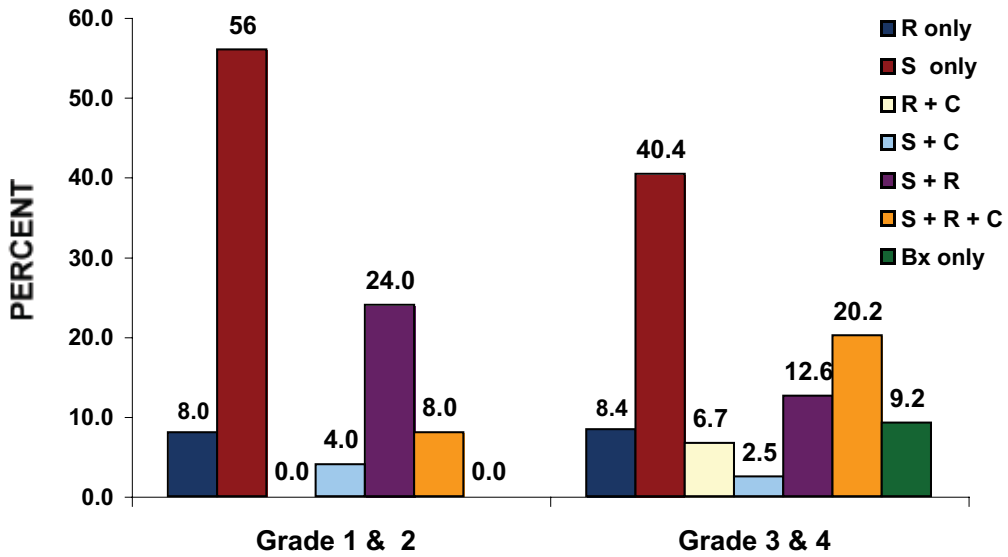
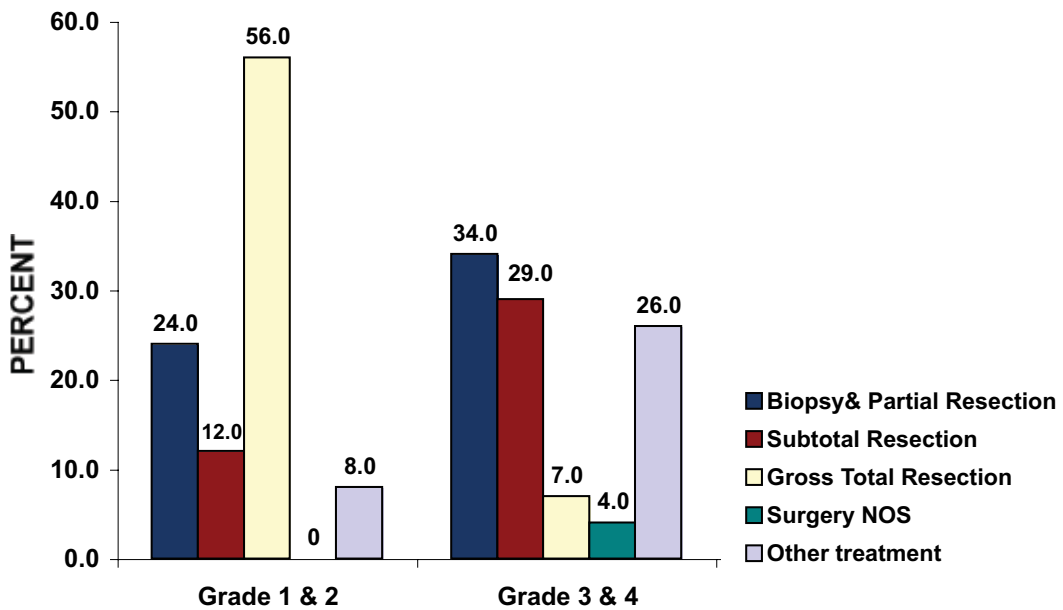
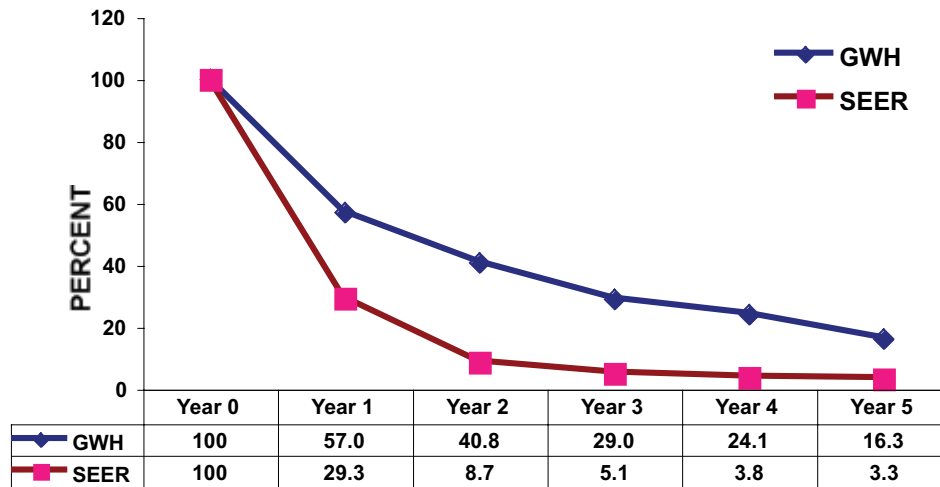


Figure 3: GW Hospital Brain Tumor Distribution by Surgery and Grade 2001-2007



**Figure 5: Five-Year Relative Survival Rate
GW Hospital Grade 4 Glioblastoma 2001-2002 and
SEER Glioblastoma 1973-2002**



The George Washington University and Cancer Institute Resources

The George Washington University Hospital

900 23rd St., NW
Washington, DC 20037 (202) 715-4000
www.gwhospital.com

The George Washington University

Medical Faculty Associates
2150 Pennsylvania Ave., NW or 22nd and Eye St., NW
Washington, DC 20037 1-888-4GW-DOCS
www.gwdocs.com

The George Washington University Cancer Institute

2300 Eye St., NW, Suite 514
Washington, DC 20037 (202) 994-2449
www.gwccancerinstitute.org

Clinical Oncology

2150 Pennsylvania Ave., NW, 3rd Floor
Washington, DC 20037 (202) 741-2210

Radiation Oncology

2150 Pennsylvania Ave., NW, 3rd Floor
Washington, DC 20037 (202) 715-5120

Hematology/Oncology

22nd & Eye St. NW, 3rd Floor
Washington, DC 20037 (202) 741-2210

Pathology

900 23rd St., NW
Washington, DC 20037 (202) 715-4665

Radiology

900 23rd St., NW
Washington, DC 20037 (202) 715-5183

Surgery

2150 Pennsylvania Ave., NW, 6th Floor
Washington, DC 20037 (202) 741-3200

Cancer Registry

900 23rd St., NW
Washington, DC 20037 (202) 715-4383

Breast Care Center

2150 Pennsylvania Ave., NW, DC Level
Washington, DC 20037 (202) 741-3270

Mobile Mammography Program

2150 Pennsylvania Ave., NW, DC Level
Washington, DC 20037 (202) 741-3020

Rehabilitation

2131 K St., NW
Washington, DC 20037 (202) 715-5271

Palliative Care Department

2131 K St., NW
Washington, DC 20037 (202) 715-4599

Social Work Services

2150 Pennsylvania Ave., NW, 3rd Floor
Washington, DC 20037
(202) 741-2218, (202) 994-2449

Cancer Education and Outreach

2300 Eye St., NW, Suite 514
Washington, DC 20037 (202) 994-2062

Cancer Prevention and Control

2300 Eye St., NW, Suite 403
Washington, DC 20037 (202) 994-1966

Patient Navigation Program

2300 Eye St., NW, Suite 514
Washington, DC 20037 (202) 994-2214

Survivorship Program

2300 Eye St., NW, Suite 514
Washington, DC 20037 (202) 994-2449

2008 Cancer Annual Report

Support Groups

Look Good, Feel Better Program

Medical Faculty Associates
Facilitator: Rachel Balf, LGSW
Please call for confirmation of location and time
(202) 741-2218

Washington DC Metropolitan Area

Brain Tumor Support Group

Medical Faculty Associates
2150 Pennsylvania Ave., NW, Room 1-401 or 1-402
Washington, DC 20037
Facilitator: Jeff Schanz
(202) 616-4669 or (703) 836-2276

Bladder Cancer Support Group

Ross Hall Room 105
2300 Eye St., NW
Washington, DC 20037
Facilitator: Ted Billings, LICSW
(202) 232-2001

Breast Cancer Support Group

Medical Faculty Associates
2150 Pennsylvania Ave., NW, Room 1-402
Washington, DC 20037
Facilitator: Rachel Balf, LGSW
(202) 741-2218

Caregivers' Support Group

Medical Faculty Associates
2150 Pennsylvania Ave., NW, Room 1-402
Washington, DC 20037
Facilitator: Rachel Balf, LGSW
(202) 741-2218

Gynecological Cancer Support Group

Medical Faculty Associates
2150 Pennsylvania Ave., NW, Room 1-402
Washington, DC 20037
Facilitator: Rachel Balf, LGSW
(202) 741-2218

Prostate Cancer Support Group

Ross Hall Room 401
2300 Eye St, NW
Washington, DC 20037
Facilitator: Ted Billings, LICSW
(202) 232-2001

For more information about these support groups and other supportive services:

Rachel Balf, LGSW

(202) 741-2218
or send an email to: rbalf@mfa.gwu.edu

Ted Billings, LICSW

(202) 232-2001
or send an email to: Ted.Billings@gmail.com

THE GEORGE
WASHINGTON
UNIVERSITY
MEDICAL CENTER

WASHINGTON DC

THE GW
CANCER INSTITUTE

THE GEORGE WASHINGTON UNIVERSITY

THE GEORGE
WASHINGTON
UNIVERSITY
HOSPITAL

UHS
Universal Health

COMMITMENT • COMPASSION • COMMUNITY

2300 Eye Street, NW • Ross Hall, Room 514 • Washington, DC 20037
(202) 994-2449 • www.gwcancerinstitute.org