



Speaker Won Pat <speaker@judiwonpat.com>

Messages and Communications: Guam Cancer Registry Annual Report

1 message

Speaker Won Pat <speaker@judiwonpat.com>

Wed, Mar 19, 2014 at 2:08 PM

To: Guam Legislature Clerks Office <clerks@guamlegislature.org>

3/19/2014 3/5/2014

University of Guam

Guam Cancer Registry Annual Report
CRC Technical Report 13-01 *emailed

32-14-1425

----- Forwarded message -----

From: **Brencis Briones** <brencis@uguam.uog.edu>
Date: Wed, Mar 19, 2014 at 10:03 AM
Subject: Guam Cancer Registry Annual Report
To: "Honorable Judith T. Won Pat" <speaker@judiwonpat.com>

32-14-1425
Office of the
Honorable Judith T. Won Pat
Date 3.19.14
Time 2:08 PM
Received by [Signature]

Hafa Afai,

Please see attached:

- 1) Cover Letter
- 2) Annual Report

Thank you,

Brencis Briones

Extension Associate - Guam Cancer Registry
University of Guam

2014 MAR 19 PM 2:13 [Signature]

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Office of Speaker Judith T. Won Pat Ed.D.
Kumiten Idukasion yan Laibirihan Publeko
Committee on Education and Public Libraries & Women's Affairs

155 Hesler Place, Suite 201, Hagatna, Guam 96910
Tel: (671) 472-3586 Fax: (671) 472-3589
www.guamlegislature.com / speaker@judiwonpat.com

2 attachments

1425

CoverLetter.WonPat.GCR AnnualRept 2013.pdf
252K

FINAL 2013.GCR.Annual.Report.to.DPHSS.Lawmakers.pdf
383K



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Cancer Research Center
Guam Cancer Registry

March 5, 2014

Honorable Judith T. Won Pat, Ed.D.
Speaker, 32nd Guam Legislature
155 Hesler Street, Suite 201
Hagåtña, Guam 96910

Dear Speaker Won Pat,

The Guam Cancer Registry was created by the Guam Legislature to collect and analyze data on cancer cases occurring among residents of Guam. By Memorandum of Agreement, it is currently a joint activity of the University of Guam and the Guam Department of Public Health and Social Services. It is supported by a U.S. National Institutes of Health grant and local tobacco tax revenues.

The primary objectives of the Guam Cancer Registry are to enhance the quality, completeness, comparability, and usefulness of cancer data for Guam. We are pleased to provide you with our most recent annual report and hope that it will be of interest to you. Additional information about cancer on Guam is available at our web site at: <www.guamcancerresearch.org>.

We believe that as the burden of chronic diseases continues to impact the population of Guam, the work of the Guam Cancer Registry will become an increasingly valuable element of the island's health care activities and that your participation will be a significant contribution to this effort.

Your part in supporting this program is greatly appreciated. Should you have any questions regarding our program, please feel free to contact us.

Sincerely,

Robert L. Haddock, DVM, MPH
Director, Guam Cancer Registry

Renata Bordallo, MSW, CTR
Manager, Guam Cancer Registry

"The University of Guam is an Equal Opportunity Employer"

The Guam Cancer Registry is a Joint Project of the UOG Cancer Research Center and the Dept. of Public Health & Social Services
Dean's Circle, House #7, UOG Station, Mangilao, GU 96923

Tel. (671) 735-2988/89 Fax. (671) 734-2990

WEB SITE: <http://www.uog.edu/dynamicdata/CancerResearchCenterHome.aspx?siteid=1&p=47>

GUAM CANCER REGISTRY

Annual Report

CRC Technical Report 13-01

This document provides information at the end of each calendar year on how the funds provided by PL 30-80 to the Guam Cancer Registry have been used and the progress made in collecting cases and supporting cancer research, education and outreach on Guam.

University of Guam Cancer Research Center

Funded by: PL 30-80 and NIH Grant no. 5 U54 CA143728-04, Dr. A. Enriquez, PI

12/31/2013



Guam Cancer Registry

Annual Report

Background

The Guam Cancer Registry (GCR) is a population-based registry that is tasked with recording all cancer cases occurring among residents of Guam. The Registry had a very humble beginning in 1968 as just one of many collateral duties of the Territorial Epidemiologist. At that time the main sources of data were death certificates on file at the Office of Vital Statistics, Department of Public Health and Social Services (DPHSS), and records provided by the American Cancer Society-Guam Chapter (ACS-Guam).

The GCR became a unit of the Cancer Research Center of Guam (CRCG) in 2004, a joint venture of the University of Guam (UOG), the Guam DPHSS, and the University of Hawaii (UH). With funding provided by the National Institutes of Health (NIH), the GCR was able to hire a full-time data collection specialist. This greatly improved the ability of the GCR to collect more accurate and complete information regarding Guam cancer cases. In recognition of its progress, in 2006 the GCR was awarded full-member status in the North American Association of Central Cancer Registries (NAACCR), of which it remains a member. A second data collection specialist was hired in February 2007. Today in 2013, the GCR is comprised of four staff: part-time Director Robert Haddock, DPHSS's epidemiologist (10% FTE), two full-time research associates trained in cancer case abstraction and case collection (one a Certified Tumor Registrar), and one part-time employee who performs dual administrative and case collection duties. Through mentoring by the Hawaii Tumor Registry (HTR), the GCR continues to seek improvement of the accuracy, completeness, and timeliness of its cancer data in order to meet the exacting standards set by the NAACCR and the National Cancer Institute/Surveillance & Epidemiological End Results (NCI/SEER) research programs. Achievement of these objectives is important because the GCR is a resource cornerstone for health planners and the ongoing effort of the University of Guam to develop excellence in the fields of health education and research.

“Data are an essential part of any RATIONAL program of cancer control.” - Muir et al

Cancer research, education, training, prevention, control, and outreach depend on data provided by the Guam Cancer Registry.

A condition of continued financial support of the GCR by the NIH is evidence of local support by the Guam community. Passage of Public Law 30-80 by the Guam

Legislature which stipulates that the GCR will receive 1% of tobacco tax revenues annually provides evidence of that support. This local support is critical to the sustainability of GCR, especially during this – our final year of the federal U54 Grant. While the UH-UOG Partnership has submitted another cancer research grant proposal, these grants are highly competitive; we can only hope that federal support for the GCR and the other components of UOG's Cancer Research Center will continue.

Data Collection, Outreach and Community Work

The GCR continues to seek improved data collection by developing community-based partnerships and data sharing agreements with local and regional area hospitals, physicians, medical clinics and outpatient treatment centers. Outreach to “mandated reporters” is a continuous challenge as the number of medical and non-medical service providers to cancer patients. The inclusion of non-medical service providers - such as non-profits and insurance companies - since DPHSS updated its regulations for GCR in October 2010 (under authority of Public Law 24-198) has increased GCR's ability to collect more complete incident cases of cancers diagnosed among Guam residents.

Tools such as GCR's Outreach Poster, Mandated Reporters Policy & Procedure Manual, confidential online WebPlus reporting capability, and the Cancer Research Center website continue to educate service providers and the general public about the importance and outcomes of reporting to the registry.

GCR regularly participates in the Data & Research, Policy & Advocacy, and Survivorship & Quality of Life Action Teams of the Guam Comprehensive Cancer Control Program (GCCCCP), as well as the Non-Communicable Disease (NCD) forums hosted by DPHSS. It strives to be of use to our island community by disseminating information collected about cancer on Guam and other parts of Micronesia (as well as other US-affiliated Pacific Island jurisdictions). Some examples from the past fiscal year:

- Article was published March 2013 in the Hawaii Journal of Medicine & Public Health on the history, development and significance of cancer registries in the Pacific: Haddock, RL. Shining light on cancer in the Pacific. Hawaii J Med. Public Health. 2013 Mar 72(3):107-8.
- Article was published in Summer 2013 in the Asian Pacific Journal of Cancer Prevention on the association of hepatitis and liver cancer in Guam. Hepatitis C was the form of viral hepatitis most common among liver cancer cases on Guam: Haddock RL, Paulino Y, Bordallo R. Viral Hepatitis and Liver Cancer on the Island of Guam. Asian Pac J Cancer Prev. 2013; 14(5):3175-6.
- Assisted UH cancer researchers with minority and health disparity grant applications and reports by sharing de-identified data on cervical cancer from GCR. Dr. Haddock in August 2013 provided 40-year tables of Guam cervical cancer incidence and mortality for UOG-UH research partners.

- GCR staff continue to support and work closely with DPHSS-hired consultants conducting studies for the GCCCP on Economic Costs of Cancer in Guam, and Survival Rates for Specific Cancers on Guam. Both reports should be completed by the end of June 2014.

GCR continues to partner with and support community organizations involved in data and surveillance activities in Guam and the Pacific Region as well as concerned citizens such as cancer survivors and their families. In addition to GCCCP and NCD – both organizations under DPHSS's umbrella, GCR works with Pacific Island Health Officers Association (PIHOA), Cancer Council of the Pacific Islands (CCPI), UH-UOG "U54 Grant" Partnership, and Pacific Regional Central Cancer Registry (PRCCR).

Registry staff fielded at least 21 research inquiries during Fiscal Year 2013, and provided cancer data to five UOG graduate student researchers, two university professors, three U54 Grant researchers, two DPHSS personnel, one medical professional, two Governor's Office staff, one community non-profit agency, several off-island researchers and four concerned citizens including three cancer survivors. Requests for data were for information about Guam's more prevalent cancers – breast, lung, prostate and cervical – as well as mortality rates, cancer and NCDs, tobacco and lung cancer, and cancer in relation to environmental toxins such as asbestos and Agent Orange – which was sprayed on Guam during the Vietnam War era.

Activities

The following is a Summary Report of GCR activities funded with tobacco tax monies during the recent budget cycle – Fiscal Year 2013. This report covers the time period from October 1, 2012, to September 30, 2013. While only two of four GCR staff are funded with tobacco tax monies, registry outcomes are dependent on the work of all staff working together to produce these outcomes.

A New and Secure Workspace

GCR staff began Fiscal Year 2013 by moving into its new office space at renovated House #7 Dean Circle on the UOG Campus. House #7 is one of three houses (#27, #7, #8) which comprise the CRCG. Although the 2 full-time GCR staff still share one office, it is larger, has an adjoining kitchen area, a larger conference room, a dedicated File Room, and an Americans with Disabilities Act (ADA)-accessible restroom.

Data security concerns were primary during and after the move. Visitors are asked to sign in to the center, signage indicates that the GCR Office is for Employees Only, motion sensors and more security alarms were installed on doors and windows throughout the building. All GCR employees, and any CRCG staff who may come in contact with confidential records must sign Confidentiality Agreements and are trained in data security procedures. These include lockable file cabinets, encrypted drives in all GCR desktop and laptop computers, secure servers and use of WebPlus for secure online transmission of confidential documents.

The larger GCR office has four work stations, including a dedicated centralized desktop computer which houses the Main Database (MDB) and associated databases. This structural change allows more efficient access by GCR abstractors to the MDB for abstracting and auditing procedures. A MDB Logbook tracks all activities and the limited personnel who are authorized to use it.

GCR benefits greatly from being part of the UOG family, including use of Campus Security, Computer Center assistance, and information technology (IT) assistance which conveniently is housed next door at House #6 – Telecommunications & Distance Education Operation (TADEO). GCR's MDB is backed up weekly by IT staff and kept in secure on-site and an off-site location nearby. IT staff regularly consult with Centers for Disease (CDC) IT staff when necessary to problem-solve and assist with system upgrades. GCR staff performs regular backups of their own computer documents.

Personnel & Training

- There was one staff and position change. A staff who was hired as an abstractor and case collector in July 2012 did not have her contract renewed due to limited available hours for the position.
- Two part-time positions were combined into an Extension Associate position with both administrative and case collection duties. Mr. B. Briones, who had been doing administrative work for both GCR and PRCCR, was hired in August 2013 for that position which allows him to work 39 hours weekly. He is currently being trained in case collection procedures.
- Use of "GoToMeeting" teleconference) training with Hawaii Tumor Registry staff and all Pacific Island Jurisdiction (PIJ) registrars continued. Five trainings were conducted in this Fiscal Year, focused on abstracting difficult cases.
- GCR's two Research Associates R. Bordallo and Ms. F. Okubo attended the following off-island trainings (some funding for these trainings was provided by PRCCR): a) Annual PRCCR Training March 9-15 in Honolulu; b) annual National Cancer Registrars Association (NCRA) conference in San Francisco, May 30 – June 2; and c) annual North American Association for Central Cancer Registries (NAACCR) conference in Austin, Texas from June 10-14, 2013.
- Cancer registry training is frequent and ongoing due to annual changes in coding and abstracting principles set by national registry standard setters. They prepare registry staff to become Certified Tumor Registrars (CTRs), and offer educational credits to maintain CTR status.
- GCR augmented its Reference Library, receiving training materials in case abstraction and human anatomy and physiology.
- F. Okubo completed an online course needed to apply for her CTR examination.

Abstracting, Active & Passive Case Collection

Active Case Collection is the active pursuit of cancer case documents located in hospitals, laboratories, and surgical/medical clinics for purposes of abstracting. Passive case collection occurs when mandated cancer case reporters submit cancer case documents or cancer patient listings for a specific time period. GCR acts as both a

hospital registry (abstracting cases they diagnose and treat) and a central registry (collecting, consolidating and editing already abstracted cancer cases).

- Ms. Okubo, GCR's lead case collector, collected cases from Latte Stone Cancer Care, FHP Cancer Center, DPHSS Vital Statistics Office (DPHSS-VS), and LabTech Inc. this fiscal year. Time was limited for active case collection due to the volume of cases submitted passively and abstracting deadlines.
- Conducted formal outreach to Latte Stone Cancer Care clinic (at the time Guam's newest oncology outpatient clinic). Educated staff in cancer reporting process, brought outreach posters, and a Mandated Reporters Manual. Scheduled times for future active case collection.
- Met with LabTech staff in March; introduced F. Okubo for data collection; reviewed LabTech's Progress Report with staff (one new initiative this year).
- Completed abstracting backlog of insitu cervical cancer cases reportable only to PRCCR (not nationally reportable). In August 2013 exported to PRCCR 104 "CIN III" (insitu cervical cancer cases) diagnosed from 2001-2011.
- Imported first batch of (44 ea.) "INC" (incomplete) 2012 abstracts from Ms. Okubo's field copy of Abstract Plus (database program) into GCR MDB (second new initiative).
- GCR staff continued to receive monthly death certificates from DPHSS-VS and do "death clearance" (resolve vital status) for abstracts.
- For this Fiscal Year, GCR received cancer cases from the following: Express Care Hagatna, Guam SurgiCenter LLC, PMC Isla Health Systems, Latte Stone Cancer Clinic, Guam Radiology Consultants, DPHSS-VS, Guam Medical Imaging Center, Marianas Physicians Group, FHP Cancer Center, Hawai'i Tumor Registry (HTR), Dr. Shieh's Clinic, DPHSS Breast & Cervical Cancer Early Detection Program (BCCEDP), Pacific Daily News Obituaries, LabTech Diagnostics, Health Partners LLC, Pacific Surgical Arts, Good Samaritan Clinic, Guam Memorial Hospital Authority (GMHA) Pathology Lab, The Doctors Clinic.
- For this Fiscal Year, GCR received Patient Listings from the following: DPHSS BCCEDP, PMC Isla Health Systems, Guam Seventh Day Adventist Clinic, GMHA Discharge Listing, Guam Surgical Group, American Cancer Society-Guam, DPHSS MIP/Medicaid Office.
- Mr. Briones conducted case audits for Guam Seventh Day Adventist Clinic and PMC Isla Health Systems patient listings, Guam Memorial Hospital Authority (GMHA) Patient Discharge Listings (2010-2012) received in April 2013, and American Cancer Society-Guam's client listing. Most cases were serviced in 2011 and 2012.
- Created "GCR Receipt for Submittal" form in June 2013 to be given to providers when they submit Patient Listings and/or large "batches" of cancer cases (third initiative).
- Assisted PRCCR staff with updating medical/non-medical clinics, agencies and doctors for later input and upgrade of Abstract Plus program. Supported PRCCR memo faxed to mandated reporters encouraging use of WebPlus program to securely transfer confidential files online.

- Ms. Okubo resumed formal Death Clearance Activities at DPHSS-VS for years 2010 and 2011 in August and September 2013.
- Received in September 2013 insurance claims listings from DPHSS MIP/Medicaid Office for period of March 1, 2011, through August 31, 2013! Issued formal receipt with feedback for future submittals.

Assistance to Pacific Island Jurisdiction (PIJ) Registry Partners

- GCR staff continue to work with PIJ registrars on case collection, identifying abstracts that belong to their jurisdictions, and collaborative training. Partially-abstracted PIJ cases (non-Guam residents) with Date of Diagnoses 2007 to 2010 were identified, completed and exported to PRCCR. Majority were Commonwealth of the Northern Marianas (CNMI) cases.
- GCR successfully exported un-abstracted PIJ cases to Hawaii Tumor Registry (HTR) via secure online WebPlus program. HTR disseminated these cases to the proper PIJ registries to be abstracted.
- Held teleconference meeting regarding Certified Tumor Registrar (CTR) exam and preparation with T. Torris (PRCCR), registrars Nina (A. Samoa), Melani (PRCCR) & Frances (GCR).
- GCR regularly scans non-resident cancer cases, and documents exchange of cases with Transmittal Letters to CNMI and Federated States of Micronesia (FSM). Cases were hand-carried to Honolulu and delivered to PIJ registrars during Honolulu PIJ training. PIJ cases also are transmitted to the proper registries using WebPlus secure online transmission.

Quality Control & New Initiatives

- GCR staff completed formal Death Clearance for 2009, 2010, and 2011 at DPHSS-VS, comparing DPHSS's log of 2009/2010 death certificates to cases in GCR database, and manually looking for "missed cases." About 100 D.C.s were collected and reviewed. F. Okubo completed formal Death Clearance at DPHSS-VS on September 6, 2013, clearing up quite a backlog – as Death Clearance is usually done annually for one year only.
- GCR Policy & Procedures (P&P): Created and/or revised the following – 1) Paper Workflow P&P dealing with a) source documents, b) patient listings, and c) death certificates. 2) Memo on Coding Race & Ethnicity in Abstracts – incorporated SEER 2011 Manual with "Guam-specific" guidelines. 3) Death Clearance P&P – incorporated 2009 Death Clearance Manual with "Guam-specific" guidelines. 4) P&P regarding initial entry of "INC" (incomplete/"shell") cases into MDB for quick incidence counts.
- Implementing "Progress Report" project to provide feedback mechanism, improve communications between reporting entities and GCR, and increase quality and completeness of cancer abstracts. Created Progress Report ("Report Card" for reporters) and Feedback Forms (reporters evaluate GCR) – began distribution on case-by-case basis in February 2013.
- Documented receipt of Patient Listings and/or Source Documents for cancer cases to recognize mandated reporters' efforts and to provide feedback as

needed. Created form and are distributing "Receipts" for cancer submissions on case-by-case basis.

- Reviewed National Program of Cancer Registries online resources to assist registries to obtain cancer cases from Veterans Administration (VA) and Department of Defense (DOD). Completed online application in March 2013 to gain access to Tripler Hospital records in Honolulu (V.A. hospital); awaiting reply. Working via email with new DOD contact on Memorandum of Understanding (MOU) to obtain Guam cancer data.
- Staff continue to update abstracts with new information. Consolidated and deleted 125 abstracts from Abstract Plus and CanReg4 MDBs due to duplicate, non-resident, or non-reportable status.

Research & Data Presentations

- October 22, 2012: Dr. Haddock gave a presentation on the epidemiology of chronic disease on Guam to the Pacific Regional Medical Conference.
- October 26, 2012: Dr. Haddock gave a presentation on data from the GCR for UOG and UH students at the Micronesian Studies Cancer and Health Disparities Seminar.
- Produced an Excel file on Breast cases diagnosed 1999-2009, de-identified, for a U54 Biostatistics Core researcher for analysis as requested.
- Working with Guam Cancer Coalition paid consultants who will do pilot studies of Cancer Costs on Guam and Survival Rates for specific cancers on Guam.
- Dr. Haddock collected data on Agent Orange use on Guam as a defoliant during the Vietnam War era for possible article on relation to cancer cases. Dr. Haddock collated cancer data by site and village for the period 1970-2009 in preparation for possible studies of Agent Orange and TCE related cancers associated with municipal water source. Currently collecting pre-1970 cancer data to evaluate possible impact of Agent Orange spraying on Guam by military during Vietnam War era. Dr. Haddock is working with Malaysian 4th year medical student to develop research project on cancer related to Agent Orange use on Guam. Obtained permission for student to review 1960's death certificates to supplement existing GCR data. Provided summary data to medical student on Guam cancer mortality by regions affected by Agent Orange herbicide spraying during Vietnam War era.
- Dr. Haddock presented summary of Guam ethnic cancer disparities to UOG-UH Micronesian Studies Cancer and Health Disparities Seminar on September 27, 2013. Developing tables to calculate Guam age-adjusted cancer rates by ethnicity for the period 2008-2012.
- GCR's CTR R. Bordallo, with F. Okubo's assistance, presented recent Guam cancer data in December 2013 at the GCCCP's Planning Retreat.

Conclusion

It is a goal of the University of Guam to become a center of outreach, learning and research about cancer and cancer health disparities in our region. The continued

support of the Guam Legislature and the Governor of Guam in achieving this goal is greatly appreciated by the University and will undoubtedly be of great future benefit to the people of our island as well as our island neighbors.

Please access our website – www.guamcancerresearch.org – for more detailed information about cancer health disparities research and research findings, as well as our publications. Also please see Addendum A for tables on recent Guam cancer data.

With appreciation and thanks to Dr. Robert Haddock, Renata Bordallo, Frances Okubo, Melani Montano, Brencis Briones and Lenna Santos.

ADDENDUM A – RECENT GUAM CANCER DATA

The Guam Cancer Coalition's Data and Research Action Team (DRAT) analyzed recent cancer data for Guam in preparation for their planning retreat in December 2013. Data are PRELIMINARY and are from Guam Cancer Registry's database as of October 14, 2013. We must be cautious in how we interpret the data due to relatively small case numbers for Guam and use of "raw data" – that is, recent data that has not yet been subject to the rigorous editing processes they would normally undergo before publishing. While not perfect, the data has a high degree of reliability.

Comparison of Cancer Incidence & Mortality Counts GUAM: 1998-2002, 2003-2007, 2007-2011

YEARS	INCIDENCE (NEW CASES)	MORTALITY (DEATHS)
1998 – 2002	1,336	653
2003 – 2007	1,580	720
2007 – 2011*	1,942	758
*Note the last two time periods include overlapping year of 2007.		

SOURCE: University of Guam, Cancer Research Center of Guam, Guam Cancer Registry, 2009, Guam Facts & Figures pg. 2 ; Counts from 2007-2011 are from the Guam Cancer Registry Database as of Oct. 14, 2013.

TOP FIVE GUAM CANCER SITES 2007-2011 Source: Guam Cancer Registry October 2013

INCIDENCE	MORTALITY
BREAST 301 (15.5%)	LUNG & BRONCHUS 225 (29.7%)
LUNG & BRONCHUS 278 (14.3%)	LIVER & BILE DUCTS 82 (10.8%)
PROSTATE 227 (11.7%)	COLON & RECTUM 77 (10.2%)
COLON & RECTUM 188 (9.7%)	PROSTATE 51 (6.7%)
LIVER & BILE DUCTS 98 (5%)	BREAST 49 (6.5%)
ALL SITES 1,942 (100%)	ALL SITES** 758 (100%)

ADDENDUM A – RECENT GUAM CANCER DATA

TOP 10 CANCER SITES, GUAM 2007-2011

SOURCE: GUAM CANCER REGISTRY, OCTOBER 2013

RANK	SITE GROUPS (ICD-03)	NEW CASES
1	BREAST	301 (15.5%)
2	LUNG & BRONCHUS	278 (14.3%)
3	PROSTATE GLAND	228 (11.7%)
4	COLON & RECTUM	188 (9.7%)
5	LIVER & INTRAHEP BILE DUCTS	98 (5%)
6	THYROID GLAND	84
7	UTERUS	69
8	LYMPHOMA	62
9	CERVIX UTERI	53
10	STOMACH	40
	ALL CANCER SITES	1,942 (100%)

THESE ARE IN-SITU AND INVASIVE CANCERS

SITE GROUPINGS ARE FROM THE INTERNATIONAL CLASSIFICATION OF DISEASES FOR ONCOLOGY 3RD EDITION.

(%) IS PERCENT OF TOTAL INCIDENCE CANCERS – NUMBER OF NEW CASES - DIAGNOSED OVER 5-YEAR PERIOD.

TOP 5 GUAM CANCER INCIDENCE 2007-2011 BY SITE AND GENDER

SOURCE: GUAM CANCER REGISTRY DATABASE, OCTOBER 2013

MALE Count (% Total)	FEMALE Count (% Total)
PROSTATE 227 (23.4%)	BREAST 300 (30.9%)
LUNG & BRONCHUS 191 (19.7%)	CERVIX 140 (14.4%)
COLON & RECTUM 112 (11.5%)	LUNG & BRONCHUS 87 (9%)
LIVER 82 (8.4%)	COLON & RECTUM 76 (7.8%)
ORAL CAVITY Pharynx 53 (5.5%)	THYROID 70 (7.2%)
TOTAL MALE = 971	TOTAL FEMALE = 971

TOP 5 GUAM CANCER DEATHS 2007-2011 BY SITE AND GENDER

SOURCE: GUAM CANCER REGISTRY DATABASE, OCTOBER 2013

MALE DEATHS Count (% Total)	FEMALE DEATHS Count (% Total)
LUNG & BRONCHUS 154 (32.2%)	LUNG & BRONCHUS 71 (25.4%)
LIVER 68 (14.2%)	BREAST 49 (17.6%)
PROSTATE 51 (10.6%)	COLON & RECTUM 26 (9.3%)
COLON & RECTUM 51 (10.6%)	LIVER 14 (5%)
ORAL CAVITY Pharynx 21 (4.4%)	UTERUS 13 (4.7%)
TOTAL MALE = 479	TOTAL FEMALE = 279

ADDENDUM A – RECENT GUAM CANCER DATA

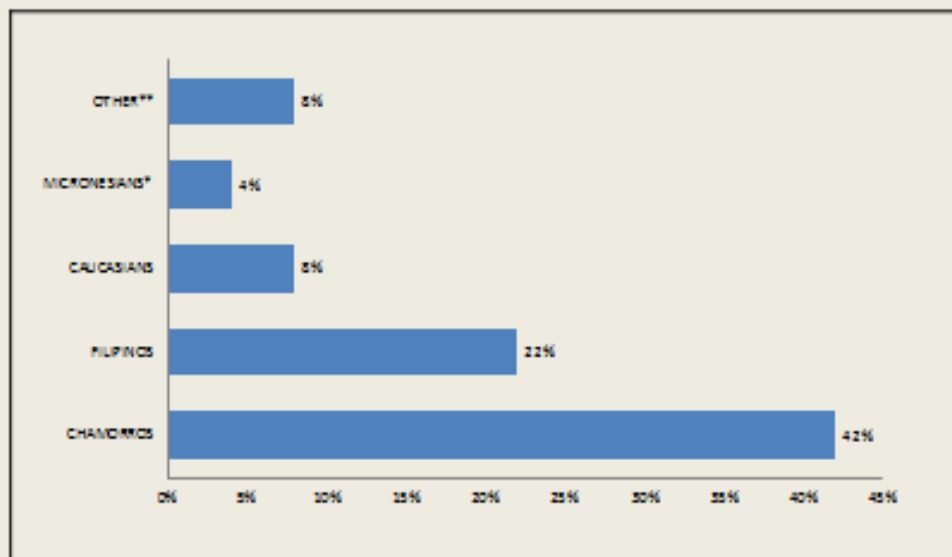
The Racial/Ethnic distribution of Guam Cancer Cases diagnosed in 1998-2010 follows:

(starting from the longest bar at bottom of chart going upward)

Chamorros - 42%, Filipinos - 22%, Caucasians - 8%,

Micronesians (other than Chamorros) - 4%, and Others - 8%.

Racial/Ethnic Distribution of Cancer Cases Diagnosed in 1998-2010 in Guam Residents



SOURCE: GUAM CANCER REGISTRY, OCTOBER 2013. Data analyzed with assistance from University of Hawai'i Cancer Center, U54 Partnership Grant.

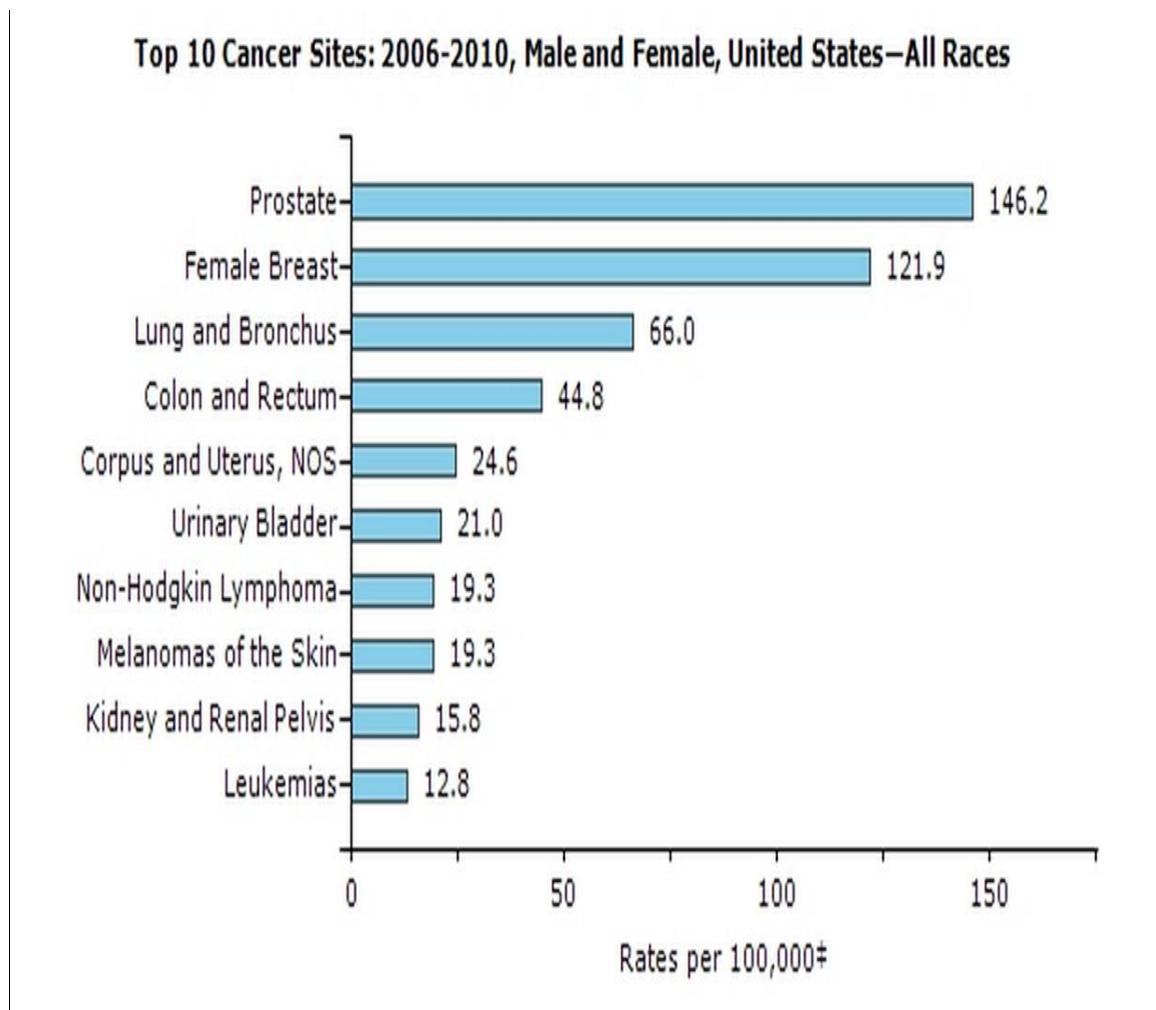
ADDENDUM A – RECENT CANCER DATA

United States Cancer Statistics (USCS)

2006-2010 Top Ten Cancers

Age-Adjusted Invasive Cancer Incidence Rates for the 10 Primary Sites with the Highest Rates within Race- and Ethnic-Specific Categories (Table 4.1.MF1)*†

★ Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population (19 age groups - Census P25-1130).



ADDENDUM A – RECENT CANCER DATA

United States Cancer Statistics (USCS)

2006-2010 Top Ten Cancers

Age-Adjusted Invasive Cancer Incidence Rates for the 10 Primary Sites with the Highest Rates within Race- and Ethnic-Specific Categories (Table 4.1.MF1)*†

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