Data as of 12/05/2022

Top 10 ADULT CANCERS Guam 2007-2020	# of Cases	Crude rate	Incidence rate Adj to US Std population	Incidence Rate Adj to World Std population	US incidence rate
All Sites	**4669**	**328.1**	**299.5**	**222.8**	**449.0**
Lung & Bronchus	783	55.0	54.0	38.6	56.0
Breast	749	106.3	87.1	67.6	128
Prostate	546	75.3	84.5	58.0	110.0
Colon & Rectum	524	36.8	33.8	25.0	38.0
Liver	230	16.2	13.4	10.6	9.0
Uterus	220	31.5	24.6	19.9	28.0
Thyroid	164	11.5	8.5	7.3	14
Leukemia	156	11.0	11.2	7.8	14.0
Tobacco-related Oral Cavity & Pharynx	102	7.2	5.9	4.7	12.0
Stomach	101	7.1	7.0	4.9	6.0
Cervical Cancer, invasive	99	14.2	10.2	8.8	7.8

Source: Incidence Data reported from Guam to Pacific Regional Central Cancer Registry, 2007-2020

2007-2020: 4669 total cancer cases for age over 20 and 15 childhood leukemia, 2 child Brain (1y,4 y), 2 Bones & Joints, 1 child breast (14y), 2 child colon & rectum (17y), 1 eye & orbit (2 yr), 1 Hodgkin disease(7), 1 child ill defined, 3 Kidney & Renal Pelvis, 2 child non-hodgkin lymphoma, 2 child other digestive, 1 liver(1yr), 1 Other Endocrine(17y), 1 other male genital, 1 other respiratory, 1 ovary, 1 peripheral nerves, 1 small intestine, 1 Soft Tissue, 2 testis, 1 thyroid, 1 urinary bladder

Breast cancer rate is based on female population only. 5 Male breast cancer case(s) reported

36% of adult cancer patients have passed away within 5 years of diagnosis

Another way to look at the cancer data that can help to prioritize public health and clinical efforts is:

- 58% of Guam's adult cancers are tobacco-related
- 32% of Guam's adult cancers are obesity-related
- 41% of these cancers have an evidence-based screening test such as mammography (Breast cancer), Pap smear (Cervical cancer), fecal occult blood testing or colonoscopy (colon cancer), PSA & rectal exam (prostate cancer)
- 16% of cancers could be diagnosed in earlier stages if the patient presents to the doctor early enough and if the doctor does a thorough history and physical

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	Counts	Tobacco related	Obesity related	Screening test available	Early Physical diagnosis	% dead within 5 yrs of diagnosis	% diagnosed stage 1	% diagnosed stage 2	% diagnosed stage 3 or higher
Adult cancers (20 years and older 2007-2020)	**4669**	**58%**	**32%**	**41%**	**16%**	**36%**	**20%**	**3%**	**78%**
1020 other tobacco related cancers: (783) lung; (102) tob-rel OP, (45) esoph, (90) pharynx	**1020**	**x**				**62%**	**9%**	**2%**	**90%**
Breast invasive Note 156 other cases detected early enough for a cure! (Ductal carcinoma in-situ (early, non-invasive cancer))	**749**	**x**	**x**	**x**		**10%**	**28%**	**2%**	**70%**
Prostate	**546**			**x**	**x**	**12%**	**43%**	**1%**	**56%**
Colorectal	**524**	**x**	**x**	**x**		**31%**	**15%**	**6%**	**79%**
Liver	**230**					**79%**	**9%**	**2%**	**89%**
Uterus	**220**	**x**	**x**		**x**	**14%**	**28%**	**5%**	**67%**
Thyroid	**164**					**7%**	**30%**	**2%**	**67%**
Leukemia	**156**					**37%**	**1%**	**0%**	**99%**
Stomach	**101**	**x**				**54%**	**7%**	**0%**	**93%**
Cervical Invasive	**99**	**x**		**x**		**28%**	**19%**	**7%**	**74%**
Nasopharynx	**91**					**26%**	**25%**	**8%**	**67%**

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What are Cancer Incidence & Mortality Rates?

Cancer incidence rates are measures of the risk of being diagnosed with cancer among the general population, while mortality rates are measures of the risk of dying among the general population. Cancer rates in this document represent the number of new cases of cancer per 100,000 population (incidence). For example, if the state's average annual lung and bronchus cancer incidence rate among males is 70.0; that means for every 100,000 men in a given population approximately 70 new cases of lung and bronchus cancer are diagnosed each year. If the adult male population numbers 500,000, then approximately 350 new cases of lung and bronchus cancer are diagnosed among men each year (five times the number of cases diagnosed in a 100,000 population):

$$\frac{\text{70 new cases diagnosed in one year}}{\text{100,000 population}} = \frac{\text{350 new cases diagnosed in one year}}{\text{500,000 population}}$$

A similar example can be used for an area smaller than the state or for specific race/ethnic groups. For example, if a county's adult male population numbers 50,000, then approximately 35 new cases of lung and bronchus cancer are diagnosed among men in the county each year (one-half the number of cases diagnosed in 100,000 population):

$$\frac{\text{70 new cases diagnosed in one year}}{\text{100,000 population}} = \frac{\text{35 new cases diagnosed in one year}}{\text{50,000 population}}$$

Rates provide a useful way to compare the cancer burden irrespective of the actual population size. Rates can be used to compare demographic groups (males have higher lung cancer rates than females), racial/ethnic groups (Native Hawaiian females have higher breast cancer rates than other racial/ethnic groups), or geographic areas (the USAPI has higher cervical cancer rates than the United States).

Note that because of the small population size in most USAPI jurisdictions, as well as challenges with diagnosing cancer, some cancer types might only have a few cases reported in a 5-year period. **To discourage misinterpretation of rates or counts that are unreliable because of the small number, incidence rates are not shown in tables if the case counts are below 16. Crude rates are presented here and can be used internally by the jurisdiction to trend certain cancers over time.**

Mortality rates depend on the incidence of the cancer, as well as the stage at diagnosis, survival, and treatment for the cancer type. Survival estimates reflect the risk of death among newly diagnosed cancer cases, while mortality rates reflect the risk of death among the general population. New screening programs, aimed at early detection and increased survival, tend to result in a greater number of new cancers being diagnosed (i.e., higher incidence rates) with little delay. However, as most people dying of cancer today were diagnosed several years ago, mortality rates and survival estimates take time to show the influence of new programs. **Because of present challenges with reporting and recording of deaths in the USAPI, mortality rates are not presented in this document.**

Adapted from: "Hawaii Cancer Facts & Figures 2010" and
Suppression for Reliability (CDC National Program of Cancer Registries) http://www.cdc.gov/cancer/npcr/uscs/technical_notes/stat_methods/suppression.htm