

3 · Cancer Disparities



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3

CANCER DISPARITIES

The persistence of health disparities continues to hamper the overall improvement of the nation's health, despite tremendous technological advances in health and medical care that have helped to increase life expectancy and realize better health outcomes.^{1,2}

DID YOU KNOW?

More than 30% of direct medical costs faced by some minorities are excess costs due to health inequities.

OVERCOMING PERSISTENT HEALTH DISPARITIES and promoting health for all Americans rank as our nation's foremost health challenge.³ The need to overcome this challenge is more urgent as the nation and indeed Maryland become more diverse. The US Census Bureau estimates that by 2050 minorities will constitute more than half of the total US population.⁴

While numerous initiatives by federal, state, and local governments have been put in place to address this challenge, there has been limited success, as minorities continue to experience higher disease incidence, morbidity, and mortality, thereby placing an undue burden on these populations.⁵ The reasons for these health disparities and their persistence are related to the complex interaction among biological factors, the environment, specific health behaviors, socioeconomic differences, and unconscious bias.^{6,7}

Despite scientific advances, cancer remains a threat to the health of the nation. In the United States, the number of living Americans who have been diagnosed with cancer as of January 2007 is 11,713,736.⁸ One in four deaths is due to cancer both nationally and in Maryland. The total cost of cancer (including medical and economic costs) to the nation for 2009 is estimated at \$263.8 billion, and does not include intangible costs that have to do with emotions, anguish, and reduced or diminished quality of life for cancer patients and their families.^{9,10} In Maryland, the total hospital charges for state residents in whom the primary diagnosis on discharge was any type of cancer was \$374,880,863 and is believed to be an underestimate of the total cost.¹¹

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A 2009 study commissioned by the Joint Center for Political and Economic Studies looked at the direct costs associated with provision of care to sicker and disadvantaged populations and the indirect costs of health inequities (lost productivity, lost wages, and premature death, etc.).¹² It found that more than 30% of direct medical costs faced by some minorities—more than \$250 billion over four years—were excess costs due to health inequities. When adding the indirect cost of these inequities to the direct medical costs over the same period, the total cost comes to \$1.24 trillion. Because cancer contributes largely to health problems in these populations, the cancer-related costs are high.

Overview of Health Disparities

Health disparities include cancer disparities and have been defined in several ways. For the purpose of this chapter a *health disparity* is a difference in the burden of illness, injury, disability, or mortality experienced between one population group and another. A *healthcare disparity* is defined as differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention.

THE “POPULATION GROUPS” referred to in the definition are based on gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation. These population groups face obstacles that prevent them from accessing and receiving effective health services including health promotion, disease prevention, early detection, and high-quality medical treatment and as such are faced with poorer health outcomes. The following provides an overview of these specific health disparities in Maryland.

Gender differences are exemplified by the fact that in Maryland, men have higher death rates for some leading causes of deaths including cardiovascular diseases, cancer, stroke, and diabetes. Life expectancy of men is six years less than that of women in Maryland.¹³ While overall death rates for women are lower than for men, women experience increased deaths rates in some areas where men have experienced improvements. One such area is pancreatic cancer mortality.

Racial or ethnic differences are illustrated in Maryland in many ways. For example, compared to whites:

- **BLACKS OR AFRICAN AMERICANS** are more likely to be uninsured and unable to afford healthcare, and experience higher death rates for cardiovascular disease, cancer, diabetes, stroke, and HIV/AIDS.
- **AMERICAN INDIANS OR ALASKA NATIVES IN MARYLAND** are also more likely to be uninsured and unable to afford care, have a higher rate of new cases of end-stage kidney disease, and experience higher rates of infant mortality.
- **ASIAN/PACIFIC ISLANDERS IN MARYLAND** are more likely to be uninsured and unable to afford care, have a higher rate of new cases of end-stage kidney disease, and experience higher death rates for stomach and liver cancers.
- **HISPANICS OR LATINOS IN MARYLAND** are more likely to be uninsured and unable to afford care, and have a higher rate of new cases of end-stage kidney disease.¹⁴

Geographic location differences can be seen for many diseases in Maryland. Both black or African American and white populations on the Eastern Shore of Maryland (a mainly rural region of the state) have higher-than-state-average mortality rates for their racial groups for heart disease, breast cancer, lung cancer, prostate cancer, and diabetes.

Disparities may exist for people living with disabilities, but in Maryland cancer statistics data for them are not currently available. A report entitled “National Study of Women with Physical Disabilities” concluded that women in the US with physical disabilities are at a higher risk for delayed diagnosis of breast and cervical cancer, primarily for reasons of environmental, attitudinal, and information barriers.¹⁵

America’s gay and lesbian population comprises a diverse community with disparate health concerns.¹⁶ A supplement of The Healthy People 2010 report suggests that lesbians and bisexual women have higher rates of smoking, overweight, alcohol abuse, and stress than heterosexual women, and are at increased risk for certain cancers, including breast and gynecologic cancers.¹⁷

Social Determinants of Health

The World Health Organization defines social determinants of health as “the conditions in which people are born, grow, live, work and age, including the health system.”¹⁸

SOCIAL DETERMINANTS have been called the fundamental causes of health and disease¹⁹ and recent evidence suggests that these social, economic, and environmental factors (including education, occupation, access to health-care and delivery, racial injustice, poverty, income inequality, and chemical toxicants and pollutants associated with industrial development^{20,21,22,23}) play a far more pivotal role in health disparities than biological factors.²⁴ The rationale for focusing on social determinants includes the need to move beyond controlling disease, to address factors that lay at the root causes of disease.²⁵ In order to attain true improvement in cancer health disparities and achieve health equity across populations, society must assure there are conditions in which people can be healthy. New opportunities exist with multilevel and interdisciplinary approaches recommended.²⁶ Future opportunities will need to address inequalities in the physical and social environment (e.g., housing, education, crime, transportation, food supply).

Socioeconomic Status

Several factors that underlie the social determinants of health are encompassed in the term socioeconomic status (SES). SES can be described as the total combined measure of an individual’s social status based on factors such as income level, educational attainment, occupation, and neighborhood of residence. A strong association persists between SES and health, as people with low SES have higher rates of morbidity and mortality when compared to their counterparts with higher SES.^{27,28}

SES is widely accepted as a major contributor to health status, and specifically cancer disparities. In a recent study assessing the impact of SES on cancer mortality rates in the US, high-SES whites, high-SES blacks or African Americans, and middle-SES Hispanics or Latinos had the largest declines in mortality rates.²⁹ Interestingly, middle-SES American Indian/Alaska Natives demonstrated the smallest decline. This trend was ascribed to a

fragmented healthcare system between the Indian Health Service and private insurance providers.

Poverty and Income Inequality

Poverty drives health disparities more than any other factor.³⁰ People living in poverty experience higher stress, less access to quality health services, less resources to practice good health behaviors, and greater access to unhealthy foods. Long standing sustained stress reduces the body’s defenses to disease and has been found to increase the risk of some cancers. Overall, the incidence of cancer is higher among poor individuals compared to those with greater access to economic resources.³¹ Between 1993 and 2007, the income of the wealthiest 1% of US families increased by 10.3% compared to a 3% US average income growth over this same time period.³² Income inequality is further complicated by race. Between 1984 and 2005, the wealth gap between whites and blacks or African Americans increased from \$20,000 to \$95,000.³³

Approximately 15.1% of Maryland’s 5.5 million residents are living in poverty (in 2008, the U.S. Census Bureau defined poverty as a family of four with an income less than \$21,834).³⁴ From 2007 to 2008, blacks or African Americans and Hispanics or Latinos composed 37% of the state’s population but accounted for 40.8% of the poverty rate.³⁵ Consequently, these demographic groups may be at an increased risk for cancer. Additionally, some research shows that poor and minority communities are selectively targeted by marketing strategies of tobacco companies, further increasing cancer risk for these demographic groups.³⁶

Occupational and Residential Environments

Occupational and environmental exposures can also play an important role in the etiology of cancer. Various occupational hazards, including exposure to ionizing radiation and asbestos, may lead to some cancers. These occupational exposures are thought to have a greater burden on ethnic minority groups as opposed to whites, due to increased job placement in less skilled and more hazardous positions.³⁷ Residential environmental exposures (such as indoor and outdoor air pollution) can also be carcinogenic for humans.

The residential environment can also influence other cancer risk factors. Poor nutrition,

obesity, and physical inactivity are risk factors for some types of cancer. However, eating well and exercising may be difficult in some low-income urban areas that do not have amenities such as sidewalks, bike paths, and recreational areas, and where the threat of violent crime keeps many people inside.^{38,39} Additionally, lack of supermarkets in these neighborhoods limits residents' access to fresh, healthy foods.

The population in Maryland's rural communities is more likely to be poor, uninsured, unemployed, and experience physician shortages and inadequate health infrastructure compared to the state as a whole. Consequently, rural residents have poorer health outcomes than the statewide average.⁴⁰

Racial Injustice

When combined with racial and ethnic demographics, many of these social determinants of health show an increased adverse occurrence among minority populations compared to non-minority populations. Even when individuals have the same health insurance and comparable access to a healthcare provider, research indicates that racial and ethnic minorities tend to receive a lower quality of healthcare than whites.^{41,42} Differential treatment and access to services based on an individual's race impact the daily experiences of individuals, including their treatment-seeking, healthcare delivery, and patient-provider interactions. Regardless of whether racism takes the form of institutionalized racism ("differential access to the goods, services, and opportunities of society by race"), personally mediated racism ("prejudice and discrimination"), or internalized racism ("acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth"), the effects of racism on health outcomes warrant further exploration.⁴³

Classification of Race and Ethnicity

THIS CHAPTER WILL USE FOUR SINGLE RACE CATEGORIES: American Indian or Alaska Native, Asian or Pacific Islander, black or African American, and white. For ethnicity, the two categories: "Hispanic or Latino" and "Not Hispanic or Latino" will be used. For more information on data sources, see the Appendix: Data Terms, Sources, and Considerations.

Factors Associated with Racial and Ethnic Cancer Disparities

The influence of economic, social, and cultural factors on these risk factors is thought to contribute to the development of racial and ethnic cancer disparities.

- **POVERTY** is believed to be an important influence on health disparities, and is associated with lack of resources, information, and knowledge; substandard living conditions; risk-promoting lifestyles; and less access to healthcare.⁴⁴ In Maryland, almost half a million people live below poverty; 60% of them are minorities.
- **LOW SOCIOECONOMIC STATUS.** Minorities are believed to be more likely to present with advanced stage cancer at diagnosis due to factors such as low socioeconomic status, and not having health insurance, both of which disproportionately affect minorities.
- **CULTURAL BELIEFS** have a role in seeking healthcare such as cancer screening services. For example, studies of some Asian/Pacific Islanders reveal beliefs that cancer is a result of karma, that death from cancer is inevitable, and that western medicine is not to be trusted.⁴⁵

Studies have also indicated that Hispanic or Latina and Asian/Pacific Islander women are reluctant to participate in an examination of the breast and genitals because of fear of embarrassment and as a result are less likely to have breast or cervical cancer screening services.⁴⁶

Among black or African American women, cultural barriers have also been shown to influence participation in cancer screening activities. Such barriers include mistrust of medical providers due to fear of being misdiagnosed or improperly treated, poor experiences with mammograms, and beliefs that cancer is fatal.⁴⁷

- **SOCIAL INJUSTICE, INCLUDING INSTITUTIONAL RACISM,** is also believed to play an important role in racial and ethnic cancer disparities. Blacks or African Americans are more likely to live in areas of low social economic status that tend to be targeted by marketing from tobacco companies, lack adequate and safe environments to conduct physical activities, and lack groceries stores that sell fresh and healthy foods.⁴⁸
- **RACIAL BIAS** is also believed to influence patient-provider communication and the patient-provider relationship as evidenced by the IOM report that revealed that blacks or African Americans compared with whites with the same socioeconomic and insurance status are less likely to receive the same treatments for cancer.⁴⁹

For any intervention or policy to be effective in eliminating racial and ethnic cancer disparities, it must incorporate strategies that help minorities to overcome these economic, social, and cultural barriers.

Emerging Populations of Concern for Cancer Disparities

Cancer disparities in ethnic minorities have been documented and continue to be investigated, but other population groups are also experiencing poor health outcomes.

LESBIAN, GAY, BISEXUAL, OR TRANSGENDER PERSONS (LGBT)

- According to the National Coalition for LGBT Health, LGBT people are more likely to have poor health due to their reluctance to seek care from health providers, and gay men and lesbian women are at an increased risk for certain cancers such as lung, cervical, breast, and anal cancer, due to a higher prevalence of smoking and inadequate risk assessments.
- To address these disparities, the Healthy People 2010 Companion Document for LGBT Health was developed. Some of the recommendations in the document include prohibiting federally funded organizations from discriminating against LGBT individuals, incorporating LGBT cultural competence into the training of all health professionals, designating the LGBT population as a “special population” of concern by federal health agencies, targeting the LGBT population in regards to smoking-cessation health promotion campaigns, and increasing national surveys in regards to health to better identify the LGBT populations’ health status.

IMMIGRANTS

- Maryland’s foreign-born population increased by more than 150,000, a 33% increase between 2000 and 2008. Immigrants are at an increased risk for some cancers because of risk factors that they are exposed to from their countries of origin. An indication of this is that the higher rates of stomach cancer experienced by Asian/Pacific Islanders in Maryland is believed to reflect the higher prevalence of *H. pylori* infection in their countries of origin, particularly Japan and Korea.⁵⁰
- Another study concluded that Mexican-born women were at a higher risk of contracting HPV infection, a significant risk factor for cervical cancer, than US-born Mexican-American women.⁵¹ This becomes especially important for Maryland as Hispanic/Latina females have higher incidence rates for cervical cancer than any other racial/ethnic minority group in the state. Other studies have also revealed that other non-English-speaking immigrant women face language and cultural barriers to Pap smear screening, including modesty, fatalism, and prohibitions against receiving pelvic examination from male practitioners.^{52,53}

The definitions of these racial and ethnic categories are as follows:

- **AMERICAN INDIAN OR ALASKA NATIVE:** A person having origins in any of the original peoples of North and South America and who maintains tribal affiliations or community recognition.
- **ASIAN OR PACIFIC ISLANDER:** A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.
- **BLACK OR AFRICAN AMERICAN:** A person having origins in any of the black racial groups of Africa.
- **HISPANIC OR LATINO:** A person of Cuban, Mexican, Puerto Rican, Central or South American, or other Spanish culture or origin, regardless of race.
- **WHITE:** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Cancer Disparities in Maryland

In Maryland, data indicate that cancer disparities exist by race and ethnicity, gender, and geographic location. These disparities are seen in cancer incidence, mortality, and stage at diagnosis.

THEY ALSO EXIST IN ACCESS and use of cancer screening tests such as mammograms, Pap tests, colonoscopy, and fecal occult blood test (FOBT).

While the availability of data for cancer disparities by language, disabilities, and sexual orientation are almost nonexistent in Maryland (mostly due to inadequate data collection and reporting) studies done nationally and in other states have shown that they exist.

Race and Ethnicity

In Maryland, the total racial and ethnic minority population as of July 2008 was more than 2 million or 41% of the total population. This includes a black or African American population of 1,692,495; an Asian/Pacific Islander population of 305,847; an American Indian population of 23,468; and a Hispanic population of 375,830. For some cancers, minority populations have higher cancer incidence, mortality and/or survival rates and may present at a later stage of diagnosis than the white population.

TABLE 3.1

Maryland Cancer Incidence and Mortality, All Sites Combined, 2002-2006

RACE/ETHNIC GROUP	OVERALL INCIDENCE	OVERALL MORTALITY
African American/Black	448.8	222.6
White	473.5	188.7
Hispanic/Latino	330.6	76.8
Asian/Pacific Islander	233.4	97.6
American Indian/Alaska Native	155.4	102.1

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.2

Colorectal Cancer Incidence and Mortality by Race in Maryland, 2002-2006

RACE/ETHNIC GROUP	INCIDENCE	MORTALITY
African American/Black	53.4	25.2
White	46.7	18.1
Hispanic/Latino	35.5	8.1
Asian/Pacific Islander	28.4	9.0
American Indian/Alaska Native	N/A	N/A

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.3

Prostate Cancer Incidence and Mortality by Race in Maryland, 2002-2006

RACE/ETHNIC GROUP	INCIDENCE	MORTALITY
African American/Black	217.4	56.3
White	147.3	23.1
Hispanic/Latino	136.3	12.3
Asian/Pacific Islander	64.2	10.5
American Indian/Alaska Native	58.2	N/A

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

Barriers thought to play a role in minority cancer disparities include:^{54,55}

- Poverty, cultural and language differences, poor nutrition, physical inactivity, high smoking rates, and lack of or inadequate health insurance.
- Lack of access to early detection, treatment, palliative care, and clinical trials.

Cancer disparities by race and ethnicity are presented in Tables 3.1-3.12. Some rates are not available for Asian/Pacific Islanders, Hispanics/Latinos, and American Indians/Alaska Natives for some cancer sites due to statistical limitations. In the tables, the categories of race include Hispanic ethnicity; Hispanic/Latinos include those of Hispanic/Latino ethnicity regardless of race.

CANCER DISPARITIES IN AFRICAN AMERICANS

Blacks or African Americans in Maryland have the highest overall cancer mortality rate of any racial or ethnic group, including whites (Table 3.1), as well as the highest incidence rates for some specific cancer sites, like colorectal and prostate cancer (Tables 3.2 and 3.3). Cancer mortality is also higher among blacks or African Americans than whites for specific cancer sites such as colorectal, prostate, lung, and breast (Tables 3.2-3.5).

Black or African American males in Maryland have the highest incidence and mortality rates (Table 3.3) and the highest late-stage diagnosis for prostate cancer.⁵⁶ The incidence of prostate cancer in black or African American males is almost 50% higher than that in white males, and mortality rates are more than 2.4 times higher in black or African American males than white males.

Among all women in Maryland, black or African American females have the highest incidence and mortality rates for colorectal, cervical, and pancreatic cancer.⁵⁷ While white females have the highest overall breast and uterine cancer incidence rates, black or African American females experience higher mortality rates from breast and uterine cancer than any other racial or ethnic group (Tables 3.5, 3.6). Additionally, in 2006, only 49.1% of black or African American females were diagnosed at the most treatable stage of breast cancer, the local stage, compared to 60.4% of whites who were diagnosed at the local stage.⁵⁸

Blacks or African Americans are diagnosed

TABLE 3.4

Lung and Bronchus Cancer Incidence and Mortality by Race in Maryland, 2002-2006

RACE/ETHNIC GROUP	INCIDENCE	MORTALITY
African American/Black	66.2	59.2
White	69.8	55.4
Hispanic/Latino	32.1	12.8
Asian/Pacific Islander	26.8	22.1
American Indian/Alaska Native	N/A	32.2

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.5

Female Breast Cancer Incidence and Mortality by Race in Maryland, 2002-2006

RACE/ETHNIC GROUP	INCIDENCE	MORTALITY
African American/Black	114.6	32.5
White	127.6	25.2
Hispanic/Latino	81.9	8.9
Asian / Pacific Islander	61.5	11.1
American Indian/Alaska Native	41.9	N/A

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.6

Female Uterine Cancer Incidence and Mortality by Race in Maryland, 2002-2006

RACE/ETHNIC GROUP	INCIDENCE	MORTALITY
African American/Black	20.0	7.1
White	23.9	3.7
Hispanic/Latino	19.8	N/A
Asian/Pacific Islander	10.6	N/A
American Indian/Alaska Native	N/A	N/A

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.
N/A means rates were suppressed if counts were fewer than 16 or if the population of the specific category (race, ethnicity) is less than 50,000.

TABLE 3.7

Distribution of Cancer Stage at Diagnosis, All Sites Combined, Maryland, 2006

	LOCALIZED	REGIONAL	DISTANT
MD Whites	44.4 %	20.9 %	20.5 %
MD Blacks	40.4 %	21.7 %	21.7 %

Source: Maryland Cancer Registry, 2006.

with cancer at later stages than whites, based on all cancers diagnosed in Maryland in 2006 (Table 3.7). The same is also true for several site-specific cancers. For example, blacks or African Americans with invasive cervical, breast, and prostate cancers are less likely to be diagnosed in Stages I or II than are whites.⁵⁹ Data from the Maryland BRFSS reveals that blacks or African Americans have similar prevalence rates to whites for screening exams such as colonoscopy, mammograms, Pap tests, and prostate-specific antigen (PSA) tests. However, low follow-up rates for abnormal results of screening exams may influence higher mortality, poorer survival rates, and greater late-stage diagnosis rates seen among blacks or African Americans for colorectal, breast, cervical, and prostate cancers.⁶⁰

CANCER DISPARITIES IN AMERICAN INDIANS AND ALASKA NATIVES (AI/AN)

It is estimated that Maryland has 46,076 American Indians or Alaska Natives who belong to approximately 28 Native American tribes, several of which are indigenous to the state.⁶¹ Data that specifically identify or define cancer disparities in incidence, mortality, and screening prevalence in this population in Maryland are scarce or nonexistent. Data from United States Cancer Statistics do show that American Indians or Alaska Natives have the third-highest mortality rate for lung cancer of all races/ethnic groups in Maryland (Table 3.4), similar to what is seen nationally. Other disparities that are seen nationally are that American Indians or Alaska Natives have higher mortality rates than whites for liver and stomach cancers (Table 3.8). This may be similar in Maryland. The American Indian and Alaska Native population of Maryland increased nearly 12.4% from 2004 to 2008,^{62,63} so improved surveillance and reporting are needed to provide a description of cancer at the state level.

TABLE 3.8

Cancer Mortality Rates for Selected Cancer Sites by Race, United States, 2002-2006

CANCER SITE	US WHITE	US AMERICAN INDIANS/ ALASKA NATIVES	US TOTAL
Liver and Intra-hepatic Bile Duct	4.7	6.2	5.1
Stomach	3.5	4.5	4.0

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.9

Cancer Incidence Rates for Selected Cancer Sites by Race, Maryland, 2002-2006

CANCER SITE	MD WHITE	MD ASIAN/PI	MD TOTAL
Bile Duct	4.5	8.2	5.1
Stomach	5.2	12.6	6.6

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.10

Cancer Mortality Rates for Selected Cancer Sites by Race, Maryland, 2002-2006

CANCER SITE	MD WHITE	MD ASIAN/PI	MD TOTAL
Liver and Intra-hepatic Bile Duct	4.2	7.9	4.8
Stomach	3.1	7.9	4.0

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.11

Cervical Cancer Incidence Rates by Race in Maryland and the United States, 2002-2006

	WHITE	BLACK	HISPANIC	ALL RACES
Maryland	7.2	9.6	14.4	8.0
United States	7.9	11.1	12.8	8.3

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

CANCER DISPARITIES IN ASIAN/PACIFIC ISLANDERS

Cancer disparities in Asian/Pacific Islanders in Maryland include stomach cancer incidence and mortality rates being the highest in the state and liver cancer mortality rate being 65% higher than the state liver cancer mortality rate (Tables 3.9, 3.10). Another disparity for this population is evident in the stage of diagnosis for female breast cancer: only 55% of Maryland’s Asian/Pacific Islander female breast cancer cases were diagnosed in the most treatable local stage compared to 60% in whites (2002-2006).⁶⁴ Though Asian/Pacific Islanders in Maryland experience lower overall cancer incidence and mortality rates (where reported and/or available) compared with other racial/ethnic groups, Asian/Pacific Islanders are not a homogenous population and contain subgroups that have different cancer rates. In Maryland this population increased nearly 12% from 2004 to 2008,^{65,66} so improved surveillance and reporting are needed to provide an accurate description of cancer at the state level.

CANCER DISPARITIES IN HISPANICS OR LATINOS

Hispanic or Latina females have higher incidence rates for cervical cancer than any other racial or ethnic group in Maryland (Table 3.11) and also experience disparity in the early diagnosis of breast cancer: only 50% are diagnosed in the most treatable localized stage compared to 60% in whites (2002-2006).⁶⁷ Considering the rapid population growth in this particular population in Maryland—an increase of more than 25% between 2004 and 2008^{68,69}—there is a need for more complete and accurate cancer data for this population.

Gender

Cancer incidence and mortality data reveal the existence of disparities by gender for some cancers. Generally men have higher cancer incidence and mortality rates for all cancer sites combined in Maryland, and nationwide. As seen in Table 3.12, cancer incidence in Maryland is higher for men in cancers of lung and bronchus, colon and rectum, oral cavity and pharynx, and melanoma of the skin. Women have higher incidence for thyroid cancer. A similar disparity for men is seen in mortality from several major cancers in Table 3.13.

TABLE 3.12

Cancer Incidence Rates for Selected Cancer Sites by Gender, Maryland, 2002-2006

	MD MALES	MD FEMALES	MD TOTAL
Lung and Bronchus	82.4	57.7	68.0
Colon and Rectum	56.0	42.7	48.4
Melanoma of the Skin	25.9	16.1	20.1
Oral Cavity and Pharynx	14.7	5.6	9.7
Thyroid	5.5	15.6	10.8

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

TABLE 3.13

Cancer Mortality Rates for Selected Cancer Sites by Gender, Maryland, 2002-2006

CANCER SITE	MD MALES	MD FEMALES	MD TOTAL
Lung and Bronchus	71.5	43.8	55.3
Colon and Rectum	23.3	16.3	19.3
Pancreas	12.9	10.3	11.9
Melanoma of the Skin	4.3	1.7	2.8
Oral Cavity and Pharynx	4.2	1.4	2.7

Rates are per 100,000 and are age-adjusted to the 2000 US standard population.
Source: United States Cancer Statistics: 1996-2006 Incidence and Mortality Web-based Report.

Geographic Location

Cancer disparities are also seen by geographic location in Maryland. Baltimore City, a densely populated region with more than 8,000 persons per square mile, illustrates such geographic disparities. The 2010 Baltimore City Health Disparities Report Card released by the City’s health department details those disparities. For all cancer sites, the cancer mortality rate in Baltimore City is 23% higher than the statewide cancer mortality rate (Baltimore City not included).⁷⁰ Disparity in cancer mortality is further complicated by sociodemographic factors such as race, gender, educational attainment, and access to healthcare. Geographic differences in cancer largely result from geographic differences in race and in the social determinants of health.

Maryland’s rural population also experiences cancer disparities. According to the 2007 Maryland Rural Health Plan, the cancer mortality rate in rural populations is higher than the state average.

Thirty percent of the of the state’s population reside in rural communities which vary in population density, remoteness from urban areas, and economic and social characteristics. Nine out of the 24 jurisdictions in Maryland are referred to as “federally designated rural” jurisdictions. In these jurisdictions, the population is faced with many challenges that promote poor health outcomes including higher-than-state-average rates for unemployment, poverty, uninsured persons, smoking, obesity, and limited availability of healthcare providers and services.⁷¹

Language

In Maryland, the population of individuals ages five years and older who speak a language other than English at home is approaching 1 million. Out of this, 40% have limited English proficiency or speak English less than very well.⁷² The role of language as a barrier in accessing health-care services has been adequately documented by various studies nationwide. An Institute of Medicine (IOM) report that examined inequities in healthcare indicates that language barriers prevented minorities and underserved from receiving quality healthcare.⁷³

One study found that women who report not reading or speaking English at all, or who report speaking English “less well” than any other language, are less likely to receive breast and cervical cancer screening than are women of the same race/ethnicity who read and speak only English “very well.”⁷⁴ Another study showed that Hispanic/Latina women with higher English proficiency had a higher prevalence of Pap tests after controlling for sociodemographic factors.⁷⁵

Language barriers are not insurmountable. For example, one study demonstrated that providing interpreter services increases usage of preventive healthcare services and adherence to healthcare provider recommendation by increasing trust and patient satisfaction.⁷⁶

FAST FACT

To address health disparities in Maryland, the Maryland Office of Minority Health and Health Disparities published the “Maryland Plan to Eliminate Minority Health Disparities, Plan of Action 2010-2010.”

Sexual Orientation

Cancer disparity issues for the lesbian, gay, bisexual, and transgender (LGBT) population are not fully understood due to inadequate data collection and reporting at the state and national level. At least eight state Behavioral Risk Factor Surveillance System surveys (BRFSS) include questions relevant to LGB or LGBT populations; Maryland does not.⁷⁷

Based on available research studies, “Healthy People 2010: Companion Document for Lesbian, Gay, Bisexual, and Transgender (LGBT) Health” suggests that LGBT people may be disproportionately affected by some types of cancers, including breast cancer, lung cancer, and cancers linked to human papillomavirus (HPV), such as cervical and anal cancer.⁷⁸

California collects data on sexual orientation through the California Health Interview Study (CHIS). That statewide data confirms a cancer disparity based on sexual orientation with 6% of heterosexual adults ever diagnosed with cancer versus 9% for LGB adults. The study also found a significant difference in smoking, a cancer-related behavioral risk factor. LGB adults smoked at a rate of 27%, while 16% of heterosexuals in the survey were smokers. The gap in current smoking rates was even wider for LGB youth (38% vs. 14%).⁷⁹ A disparity was also seen in breast cancer screening rates. The percentage of women who had a mammogram in the past two years was similar for black or African American and white heterosexuals (69% and 68%) but lower for white lesbians/bisexuals (60%) and lowest of all for black or African American women who are lesbian/bisexual at just 35%.⁸⁰

Cancer disparities are also likely to be related to differential access to healthcare in the LGBT community. Data from the CHIS found that LGBT adults are significantly less likely to have health insurance, and they are more likely to delay or not seek medical care, to not get needed prescription medication, and to receive healthcare services in emergency rooms.⁸¹

New Interventions and Promising Practices to Eliminate Cancer Disparities

Maryland has committed and continues to commit substantial resources to interventions aimed at reducing cancer incidence and mortality in its residents.

IN PARTICULAR, the state of Maryland in 2009 alone provided \$21.8 million through its Cigarette Restitution Fund Program, to assist local health departments and community health coalitions in planning and implementing comprehensive cancer prevention, education screening, and treatment programs with the aim of reducing cancer mortality and cancer health disparities.⁸²

The Maryland Office of Minority Health and Health Disparities (MHHD) utilizes a model designed to reduce minority disparities in a variety of disease categories. This model includes developing coalitions of local stakeholders, developing culturally and linguistically competent materials, employing lay health communicators/workers, and tracking process and outcome measures. The MHHD published its “Maryland Plan to Eliminate Minority Health Disparities, Plan of Action 2010-2014,” in which this model and strategies for cultural competency are identified for the state.⁸³ The MHHD also

recognizes three key roles of data in the elimination of disparities: identifying and quantifying disparities, understanding causes to design intervention, and tracking progress toward elimination of disparities. To promote the use of data in disparities-reduction planning, the MHHD published its “Maryland Chartbook of Minority Health and Minority Health Disparities Data,” Second Edition in 2009.⁸⁴

These and other programs have contributed to some positive progress in the reduction of cancer disparities in Maryland. From 2000–2008, the overall cancer mortality disparity for blacks or African Americans compared to whites was reduced by 14.9%.⁸⁵ This disparity reduction can be seen in many individual cancers for the period 2002–2006, where although rates are decreasing for both blacks or African Americans and whites, there have been greater declines among blacks or African Americans. These disparity reductions were seen during the 2002–2006 period in breast cancer mortality rates, colorectal cancer mortality rates, prostate cancer incidence and mortality rates, and cervical cancer incidence and mortality rates.⁸⁶

Despite these efforts and some progress, disparities still remain a concern in the state. Interventions that have been designed to eliminate health disparities have been limited by several factors. Some interventions target only a limited number of health determinants, are unable to be repeated or adapted to other settings, and/or are not culturally tailored for the ethnic minority groups that they seek to help. Some interventions that focus on changing provider behavior do not address barriers such as lack of self-efficacy or a lack of outcome expectancy, which may prevent providers from changing their behaviors.⁸⁷

Literature suggests that any efforts to reduce or eliminate cancer disparities without addressing social issues such as poverty, culture, and social injustice are likely to be unsuccessful.^{88,89,90} Though these issues are fundamental and might require a total restructuring of society to resolve them, their effect on cancer disparities can be minimized by designing and implementing interventions that alleviate the effect of poverty, culture, and social injustice on society.

Careful reviews of several interventions in which minority groups have experienced improved health outcomes indicate that such interventions are modeled on several factors associated with success, including:⁹¹

- Using intensive recruitment and follow-up methods.
- Ensuring community commitment and input from community leaders and stakeholders.
- Using culturally competent intervention staff and educational materials.
- Employing the use of multidisciplinary teams and multiple strategies.
- Conducting a prior needs assessment that helps to define the specific areas of concentration.
- Providing resources that help the intervention to be sustainable.

GOALS · OBJECTIVES · STRATEGIES

GOAL

Reduce cancer disparities in Maryland.

OBJECTIVE 1

Reduce racial/ethnic minority vs. white cancer disparities in Maryland to reach the following:

- By 2015, reduce the black or African American vs. white all-cancer mortality disparity by achieving the all-cancer mortality rates listed below.

ALL-CANCER MORTALITY TARGETS (2011-2015)

BLACK OR AFRICAN AMERICAN	164 per 100,000 (2002-2006 baseline: 221 per 100,000)
WHITE	161 per 100,000 (2002-2006 baseline: 189 per 100,000)

Source: CDC WONDER, NCHS Compressed Mortality files.

- By 2015, reduce the Asian/Pacific Islander vs. white liver cancer and stomach cancer mortality disparities by achieving the liver cancer and stomach cancer mortality rates listed below.

LIVER CANCER MORTALITY TARGETS (2011-2015)

ASIAN/PACIFIC ISLANDER	Less than 4.2 per 100,000 (2002-2006 baseline: 7.9 per 100,000)
WHITE	Less than 4.2 per 100,000 (2002-2006 baseline: 4.2 per 100,000)

STOMACH CANCER MORTALITY TARGETS (2011-2015)

ASIAN/PACIFIC ISLANDER	6.4 per 100,000 (2002-2006 baseline: 7.8 per 100,000)
WHITE	2.4 per 100,000 (2002-2006 baseline: 3.1 per 100,000)

Source: CDC WONDER, NCHS Compressed Mortality files.

Note: Current Maryland data systems are unable to define cancer disparities and/or develop targets for Maryland's Hispanic/Latino and American Indian/Alaska Native populations.

STRATEGIES

- 1 INCREASE COMMUNITY ENGAGEMENT** to provide further outreach and education to minority populations on cancer risk, community cancer screening services, and tools to overcome barriers to cancer screening and follow-up. (This may include promotion of obesity prevention, healthy diets, physical activity, and reduction of exposures to environmental carcinogens, such as second-hand smoke.)
- 2 ENHANCE MARYLAND'S SAFETY-NET INSURANCE PLANS** and safety-net healthcare systems to supply cancer screening and follow-up services to a greater proportion of minority populations who are eligible for and/or enrolled in these plans and systems.
- 3 INCREASE DIVERSITY IN THE HEALTHCARE WORKFORCE** and build healthcare provider cultural and linguistic competency and understanding of health disparities to improve cancer prevention practices and experiences among minority population patients.
- 4 INCREASE PROVISION OF CANCER SCREENING SERVICES** targeted to minority populations with an emphasis on timely follow-up for abnormal screening results to improve rates of cancer detection and timely treatment.
- 5 INCREASE RIGOROUS PUBLIC HEALTH RESEARCH** at the state and local levels to develop, test, and implement effective interventions for reducing cancer disparities. At the local level, utilize a community-based participatory research model to engage community stakeholders, including healthcare providers with minority population patients.

OBJECTIVE 2

By 2015, conduct an assessment and create and implement a plan to improve data systems to better identify and track cancer disparities defined by race, ethnicity, language, disabilities, sexual orientation, and other factors.

STRATEGIES

- 1 PARTNER WITH MARYLAND BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEMS (BRFSS)** to ensure accuracy and completeness of individual data and inclusion of all segments of Maryland's population.
- 2 PARTNER WITH THE MARYLAND CANCER REGISTRY** to ensure accuracy and completeness of individual data and inclusion of all segments of Maryland's population.
- 3 PARTNER WITH THE VITAL STATISTICS ADMINISTRATION** to ensure accuracy and completeness of individual data and inclusion of all segments of Maryland's population.

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