American Cancer Society®

Cancer Facts & Figures
for Hispanic/Latino People 2021-2023

Contents

This publication attempts to summarize current scientific information about cancer. Except when specified, it does not represent the official policy of the American Cancer Society.

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Basic Cancer Facts

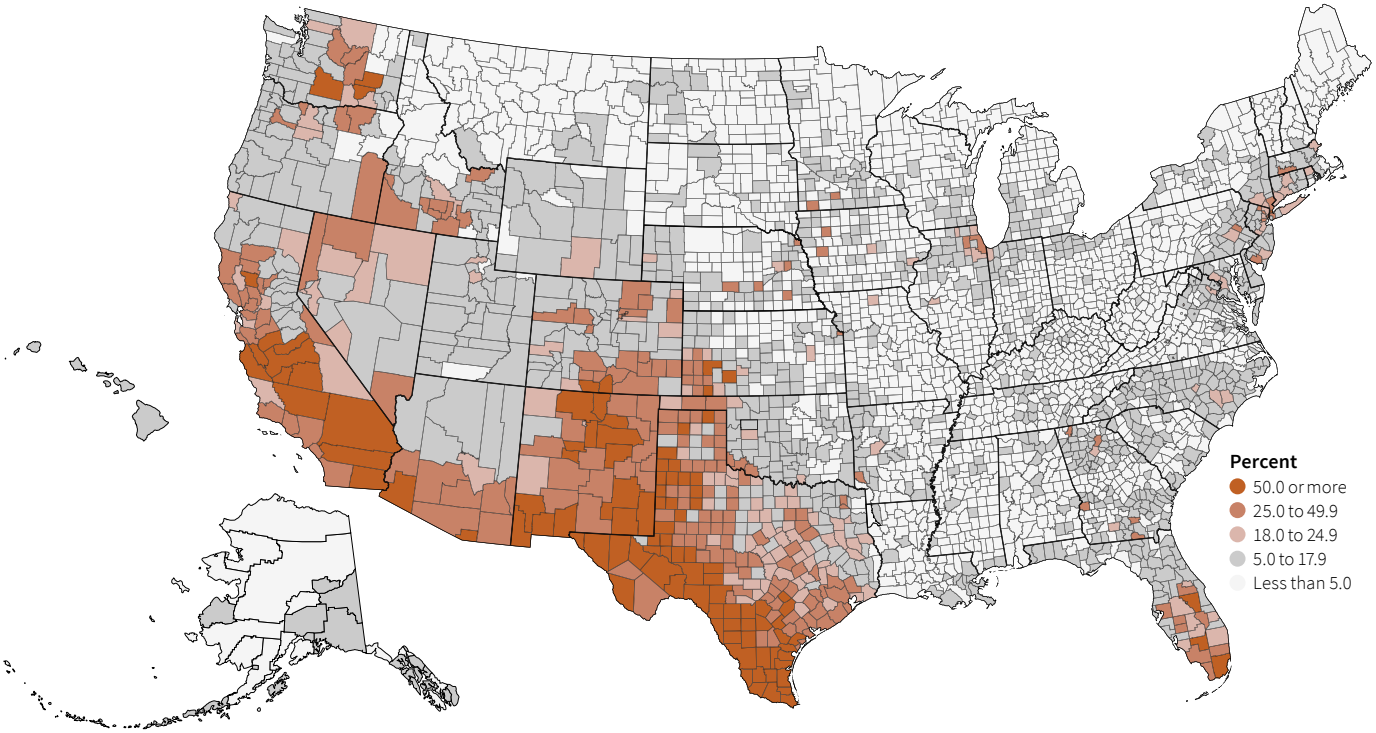
Introduction

Hispanic individuals make up the largest and youngest community of color in the US. With a population size of 60.6 million in the continental US and Hawaii, they accounted for 18% of the total population in 2019.[1] In addition, 99% of the more than 3 million Americans who reside in Puerto Rico identify as Hispanic.[2] The Hispanic population, which is primarily concentrated in the Southwest and Florida (Figure 1), continues to be one of the most rapidly growing populations in the US despite recent slowdowns in both immigration and births.[1] Approximately one-third of Hispanic people in the US were foreign-born (i.e., born outside the US and its territories, including Puerto Rico) in 2019,[1] down from 40% in 2007.[3]

Over the years, many pan-ethnic terms have evolved to describe people who trace their roots to Latin America and Spain. The terms "Hispanic" and "Latino/a/x" are used herein to refer to a person of Hispanic origin interchangeably without preference or prejudice. This global community is incredibly diverse, and is made up of people from all races, religions, languages, and cultural identities. The majority of Hispanic individuals identify as Mexican (61.9%), followed by Puerto Rican (9.7%), Cuban (4.0%), Salvadoran (3.9%), and Dominican (3.5%),[3] although the distribution varies substantially by state. For example, Mexican individuals comprise more than 80% of the Hispanic population in both Texas and California, but only 15% in Florida, where more than half of Hispanic people identify as Cuban or Puerto Rican.

This report summarizes statistics on cancer occurrence, risk factors, and screening for Hispanic individuals in the continental US and Hawaii, as well as incidence and mortality for the US territory of Puerto Rico. It is intended to provide information to community leaders, public health and health care workers, and others interested in cancer prevention, early detection, and treatment for

Figure 1. Hispanic Population Distribution as a Percent of Total County Population



Source: US Census Bureau, Population Estimates, July 1, 2019. Released 2020.

Table 1. Sociodemographic Characteristics & Health Care Access (%) in Hispanic versus Non-Hispanic (NH) White People, US, 2015-2019

	Hispanic							NH White
Socioeconomic Characteristics, 2015-2019	**All**	**Mexican**	**Puerto Rican**	**Cuban**	**Central American**	**South American**	**Dominican**	**All**
Foreign-born	33	31	2	56	58	62	54	4
Speak English "not well" or "not at all"*, ages >5 years	24	23	13	33	34	21	30	11
Less than high school diploma, ages >25 years	31	36	20	19	42	13	29	7
Income below federal poverty level	20	20	22	16	23	20	12	10

	Hispanic						NH White
Health Care Access Characteristics, 2017-2018	**All**	**Mexican**	**Puerto Rican**	**Cuban**	**Central/South American**	**Dominican**	**All**
No health care coverage							
By age:							
<18 years (not age-adjusted)	8	8	**	**	10	**	4
18-64 years	26	30	11	23	28	13	9
65+ years	3	**	0	**	**	**	<1
By nativity (18 years and older):							
US-born	12	13	8	14	**	**	7
Foreign-born	32	37	**	22	28	10	9
No usual source of medical care (18 to 64 years)							
Overall	25	25	19	29	28	14	15
Men	30	30	21	30	34	22	19
Women	19	19	17	28	22	9	11

*Among respondents >5 years who indicated that a language other than English was spoken at home. Respondents were asked to rank English-speaking ability as "not at all," "not well," "well," or "very well." **Estimate not presented due to instability. NOTES: Health care access estimates for adults are age adjusted to the 2000 US standard population.

Source: Socioeconomic Characteristics – US Census Bureau, American Community Survey, Public Use Microdata File, 2015-2019. Available at: https://data.census.gov/mdat/#/. Accessed March 26, 2021. Health Care Access Characteristics – National Health Interview Surveys, 2017 and 2018.

Hispanic individuals. It is important to note that final population-based data for the COVID-19 pandemic are not yet available and thus not reflected herein. In addition, most cancer data in the US are reported for Hispanic people in aggregate, masking important differences between groups according to nativity (i.e. foreign- versus US-born), degree of acculturation, and country of origin.

What Is Cancer?

Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. If the spread cannot be controlled, it can result in death. Cancer is caused by external factors, such as tobacco, infectious organisms, and an unhealthy diet, and internal factors, such as inherited genetic mutations, hormones, and immune conditions. These factors may act together or in sequence to cause cancer. Ten or more years often pass between risk factor exposure and detectable cancer.

Can Cancer Be Prevented?

An estimated 42% of all cancer cases (excluding non-melanoma skin cancer) and 45% of cancer deaths in the US could potentially be prevented by adopting healthier behaviors, such as not smoking maintaining a healthy weight, staying active throughout life, following a healthy eating pattern, and avoiding or limiting alcohol consumption.[4] This includes many of the cancers caused by infectious organisms, which are avoidable either by preventing the infection through vaccination or behavioral changes, or by treating the infection. For more information on cancer risk factors, see page 17. Additionally, screening can help prevent colorectal and cervical cancers through the detection and removal of precancerous growths, and can also detect cancers of the breast, colorectum, cervix, and lung (among people who smoke/d) at an early stage, when treatment is usually less intensive and more successful. For more information on cancer screening, see page 24.

Factors That Influence Cancer Occurrence and Outcomes among Hispanic People

Socioeconomic Status and Structural Racism

Socioeconomic status, as often measured by income and education, is the most critical factor affecting health, longevity, and quality of life. It influences the prevalence of underlying cancer risk factors and access to health insurance, preventive care, early detection, and treatment. In the US, compared to non-Hispanic Whites, Hispanic individuals have lower levels of educational attainment and are more likely to live in poverty. In 2019, 16% of Hispanic individuals lived in poverty compared to 7% of non-Hispanic Whites.[5] However, major differences within the Hispanic community according to country of origin persist (Table 1).

Generally lower socioeconomic status among persons of color in the US stems from long-term structural racism, or racism that is reinforced by discriminatory laws, economic policies, and societal and cultural norms.[6] Structural racism has led to persistent disadvantages in housing, employment, income, and, consequently, health and health care access. In addition, many Hispanic individuals face colorism, or discrimination against persons with darker complexions, which is perpetuated by society at large and internalized within the population.[7] Further research is needed to describe the contribution of colorism and structural racism to cancer disparities among Hispanic men and women.

Access to Care

Many Hispanic individuals face financial, structural (e.g., lack of transportation), and personal barriers (e.g., cultural and linguistic factors, provider bias) to health care.[8,9] Despite substantial reductions in the percentage of uninsured, working-age individuals following the

Table 2. Lifetime Probability (%) of Developing or Dying from Invasive Cancer among Hispanic and Non-Hispanic (NH) White People by Sex, US, 2016-2018

		Developing		Dying	
		Hispanic	NH White	Hispanic	NH White
All cancer types*	Male	36.9 (1 in 3)	41.0 (1 in 2)	18.8 (1 in 5)	20.8 (1 in 5)
	Female	36.2 (1 in 3)	39.9 (1 in 3)	15.4 (1 in 7)	18.2 (1 in 5)
Breast	Female	10.7 (1 in 9)	13.6 (1 in 7)	2.0 (1 in 49)	2.5 (1 in 39)
Colon & rectum	Male	4.4 (1 in 22)	4.2 (1 in 24)	1.9 (1 in 52)	1.7 (1 in 58)
	Female	3.8 (1 in 26)	3.9 (1 in 25)	1.5 (1 in 66)	1.6 (1 in 63)
Kidney & renal pelvis	Male	2.3 (1 in 43)	2.3 (1 in 44)	0.7 (1 in 154)	0.6 (1 in 172)
	Female	1.5 (1 in 68)	1.3 (1 in 79)	0.4 (1 in 267)	0.3 (1 in 306)
Liver & intrahepatic bile duct	Male	2.4 (1 in 42)	1.2 (1 in 85)	1.7 (1 in 59)	0.9 (1 in 111)
	Female	1.2 (1 in 81)	0.5 (1 in 200)	1.0 (1 in 99)	0.5 (1 in 209)
Lung & bronchus	Male	4.4 (1 in 23)	6.7 (1 in 15)	3.1 (1 in 32)	5.2 (1 in 19)
	Female	3.6 (1 in 28)	6.7 (1 in 15)	2.0 (1 in 49)	4.6 (1 in 22)
Prostate	Male	11.1 (1 in 9)	12.0 (1 in 8)	2.8 (1 in 36)	2.3 (1 in 44)
Stomach	Male	1.6 (1 in 64)	0.8 (1 in 122)	0.8 (1 in 124)	0.3 (1 in 311)
	Female	1.1 (1 in 89)	0.5 (1 in 210)	0.6 (1 in 163)	0.2 (1 in 487)
Thyroid	Male	0.6 (1 in 174)	0.8 (1 in 132)	0.1 (1 in 1,109)	0.1 (1 in 1,718)
	Female	1.9 (1 in 51)	1.9 (1 in 52)	0.1 (1 in 785)	0.1 (1 in 1,562)
Uterine cervix	Female	0.9 (1 in 115)	0.6 (1 in 180)	0.3 (1 in 350)	0.2 (1 in 516)
Uterine corpus	Female	2.9 (1 in 34)	3.2 (1 in 31)	0.6 (1 in 165)	0.6 (1 in 167)

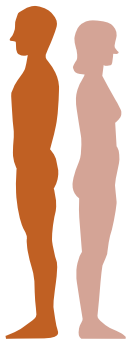
*All sites excludes basal cell and squamous cell skin cancers and in situ cancers except urinary bladder. NOTE: Percentages and "1 in" numbers may not be equivalent due to rounding. The probabilities presented here are based on the SEER registry areas and may not be representative of the entire US Hispanic population.

Source: Devcan: Probability of Developing or Dying of Cancer Software, Version 6.7.9.

Figure 2. Leading Sites of New Cancer Cases and Deaths among Hispanic People – 2021 Estimates

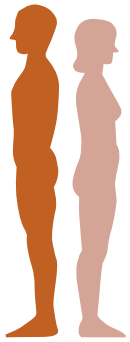
Estimated New Cases*

Males			Females		
Prostate	17,600	22%	Breast	28,100	29%
Colon & rectum	9,000	11%	Uterine corpus	7,900	8%
Lung & bronchus	6,000	7%	Colon & rectum	7,500	8%
Kidney & renal pelvis	5,900	7%	Thyroid	6,300	7%
Liver & intrahepatic bile duct	4,800	6%	Lung & bronchus	5,800	6%
Non-Hodgkin lymphoma	4,700	6%	Non-Hodgkin lymphoma	4,200	4%
Leukemia	3,700	5%	Kidney & renal pelvis	3,800	4%
Urinary bladder	3,300	4%	Leukemia	2,900	3%
Pancreas	2,800	3%	Pancreas	2,900	3%
Oral cavity & pharynx	2,500	3%	Uterine cervix	2,700	3%
All sites	80,200	100%	All sites	96,400	100%



Estimated Deaths

Males			Females		
Lung & bronchus	3,200	13%	Breast	3,100	14%
Colon & rectum	2,700	11%	Lung & bronchus	2,300	10%
Liver & intrahepatic bile duct	2,600	11%	Colon & rectum	2,000	9%
Prostate	2,400	10%	Pancreas	1,900	8%
Pancreas	1,900	8%	Liver & intrahepatic bile duct	1,500	7%
Stomach	1,200	5%	Ovary	1,200	5%
Leukemia	1,000	4%	Uterine corpus	1,200	5%
Non-Hodgkin lymphoma	1,000	4%	Stomach	1,000	4%
Kidney & renal pelvis	800	3%	Leukemia	800	4%
Brain & other nervous system	800	3%	Non-Hodgkin lymphoma	800	4%
All sites	23,800	100%	All sites	22,700	100%



*Estimates exclude basal and squamous cell skin cancers and in situ carcinoma except urinary bladder. Estimates do not reflect the impact of the COVID-19 pandemic on cancer cases or deaths (see Sources of Statistics, page 31, for more information).

passage of the Affordable Care Act (ACA),[10] Hispanic men and women continue to be the least likely to have health insurance of any major racial or ethnic group. Among those 18 to 64 years of age, 26% of Hispanic individuals were uninsured during 2017-2018 compared to 9% of non-Hispanic Whites (Table 1). Within the Hispanic population, uninsured rates are highest among Mexican individuals (30%) and those who are foreign-born (37%). Overall, Hispanic individuals also continue to be less likely to have a usual source of care than non-Hispanic Whites (25% versus 15%, respectively), especially men.

Several challenges remain for increasing health insurance coverage, including expanding Medicaid in states with large Hispanic populations (e.g., Texas) and extending coverage to undocumented immigrants, the majority of whom identify as Hispanic. Visit healthcare.gov/ for more information about health insurance options made available through provisions in the ACA (Spanish version: cuidadodesalud.gov/es/).

It is important to note that the COVID-19 pandemic disproportionately affected the Hispanic community and other communities of color in terms of virus case burden, mortality, employment, health insurance, and access to health care. The implications for the cancer burden among Hispanic individuals as a result of the far-reaching effects of the pandemic and its impact on access to care are not fully known. However, preliminary data have suggested that life expectancy in Hispanic people declined 3 years in 2020, largely as a result of the pandemic, compared to a 1-year decline among non-Hispanic White people.[11]

Cultural Values and Beliefs

Cultural factors, including language, values, and traditions, may also influence behaviors, beliefs about illness, and approaches to medical care. Many experts suggest that improving cultural competency among health care providers could help reduce health disparities.[12] Cultural competency is a set of attitudes, skills, behaviors, and policies that enable organizations and individuals to work effectively in cross-cultural situations.[13]

Acculturation

Acculturation is the adoption among immigrants of attitudes, values, customs, beliefs, and behaviors of the host country. Acculturation is associated with both positive and negative influences on health that vary by sex and Hispanic group.[14,15] Compared to their country of origin, immigrants to the US and subsequent generations may adopt unhealthy behaviors that increase cancer risk, such as smoking, drinking alcohol excessively, and eating a lower-quality diet. For example, the average body mass index among Mexican individuals is highest among those who are US-born, intermediate among foreign-born long-term residents, and lowest among foreign-born persons who have lived in the US 15 years or less.[16] Although higher-quality health care and public health infrastructure may be available in the US, many immigrants face barriers such as less paid time off and access to employer-provided health insurance and transportation, ultimately reducing health care access.

The increased cancer risk among US-born Hispanic individuals due to acculturation is striking. For example, one study found that overall cancer death rates among US-born Hispanic men in Texas were about 60% higher than those among their foreign-born counterparts (201 per 100,000 versus 125, respectively, during 2008-2012).[17] Even first-generation Hispanic individuals often have higher cancer rates than those in their country of origin for the most common cancers.[18,19]

Cancer Occurrence among Hispanic People

What Is the Risk of Developing or Dying of Cancer?

The risk of being diagnosed with cancer increases with age because most cancers require many years to develop. Hispanic people are less likely to be diagnosed with cancer than non-Hispanic White people overall, although risk varies by cancer type. About 1 in 3 Hispanic men and women will be diagnosed with cancer in their lifetime and 1 in 5 men and 1 in 7 women will die from the disease (Table 2).[20]

How Many New Cancer Cases and Deaths Are Expected in 2021?

New cases: In 2021, there are projected to be 80,200 new cancer cases diagnosed in Hispanic men and 96,400 cases in Hispanic women, excluding basal cell and squamous cell skin cancers, which are not required to be reported to cancer registries (Figure 2). Similar to the US population overall, prostate and breast cancers are the most common cancers in Hispanic men and women, respectively.

Deaths: Cancer is the leading cause of death in the US Hispanic population, whereas heart disease is the leading cause of death in non-Hispanic Whites (Table 3), reflecting the younger age structure of the Hispanic population. About 23,800 Hispanic men and 22,700 Hispanic women are expected to die from cancer in 2021, with the leading cause of cancer death being lung cancer in men and breast cancer in women (Figure 2).

How Have Cancer Rates Changed over Time?

Trends in cancer incidence: Trends in cancer rates among Hispanic people in the US are difficult to interpret because cancer risk in recent immigrants differs

Table 3. Leading Causes of Death among Hispanic versus Non-Hispanic White People, US, 2019

	Hispanic				Non-Hispanic White			
	Rank	Number of deaths	Percent of total deaths	Death rate*	Rank	Number of deaths	Percent of total deaths	Death rate*
Cancer	1	43,079	20	106.2	2	462,064	21	150.9
Heart diseases	2	41,794	20	111.8	1	513,673	23	165.6
Accidents (unintentional injuries)	3	18,874	9	35.1	4	125,755	6	54.6
Cerebrovascular diseases	4	11,959	6	32.9	5	111,060	5	35.6
Diabetes	5	10,166	5	25.8	7	57,325	3	19.0
Alzheimer's disease	6	8,221	4	25.4	6	100,532	5	31.5
Chronic liver disease & cirrhosis	7	6,877	3	14.6	11	31,976	1	11.8
Chronic lower respiratory diseases	8	5,700	3	16.2	3	136,454	6	43.5
Nephritis, nephrotic syndrome, & nephrosis	9	4,488	2	11.8	10	35,153	2	11.4
Intentional self-harm (suicide)	10	4,331	2	7.2	9	37,672	2	17.5
All causes		212,397	100	526.0		2,189,567		736.0

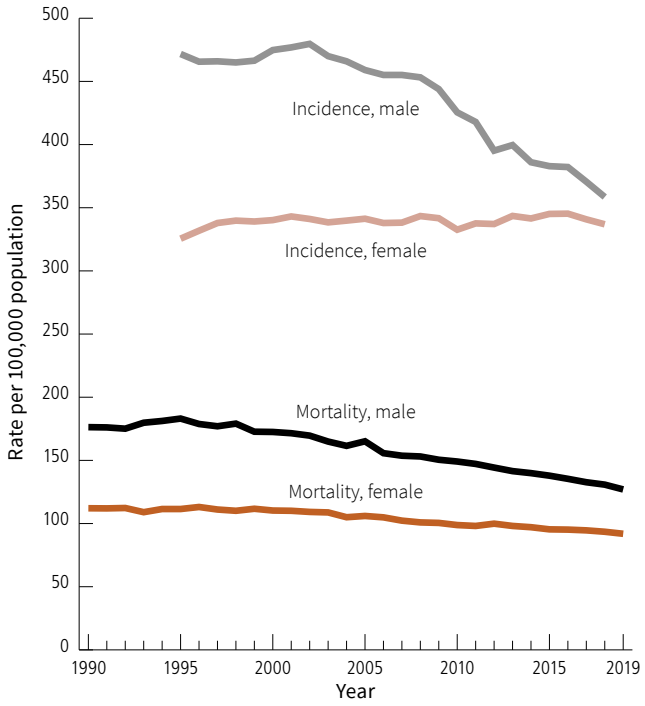
*Rates are per 100,000 and age adjusted to the 2000 US standard population. NOTE: Death rates are not directly comparable to those published in prior years due to updated population denominator data.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2021.

substantially from established residents and patterns in immigration frequently shift. During the most recent 10 data years (2009-2018), incidence rates among Hispanic men decreased by about 2% per year while those among Hispanic women were stable. This generally consistent pattern over time has resulted in incidence rates among Hispanic men slowly approaching those of Hispanic women, although rates in 2018 remained about 5% higher in men (Figure 3). Incidence rates in the general population are also slowly converging in men and women, but remain about 14% higher in men.[21] Trends for selected cancers are shown in Figure 4 and discussed beginning on page 9.

Trends in cancer mortality: The cancer death rate in the US began declining in 1991 overall, but not until the late 1990s among Hispanic individuals (Figure 3). Death rates for all cancers combined decreased from 2010 to 2019 among Hispanic men and women by an average of 1.6% and 0.9% per year, respectively, similar to non-Hispanic White men (1.8%) and women (1.5%).

Figure 3. Trends in Incidence and Death Rates for All Cancers Combined among Hispanic People, 1990-2019



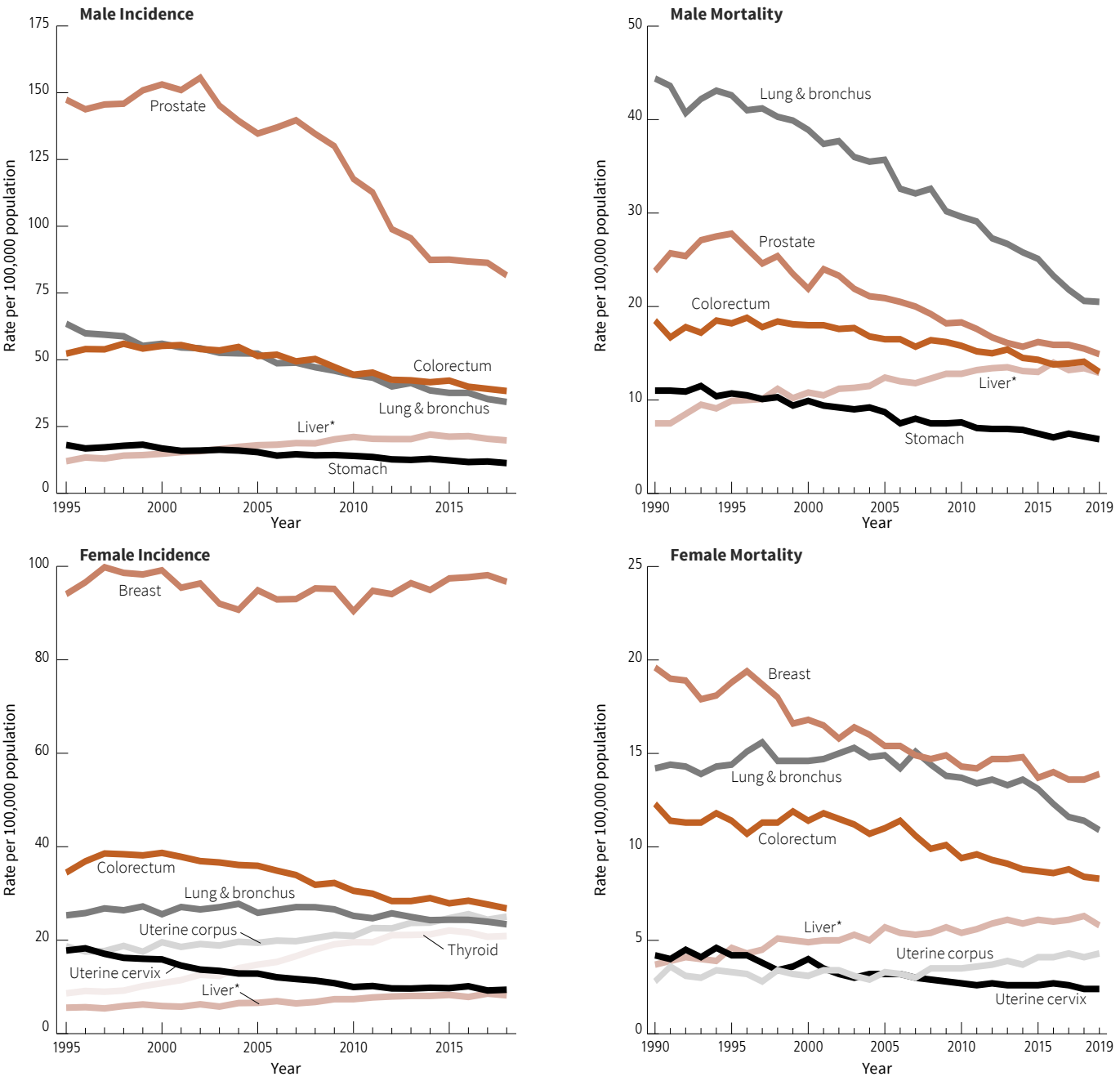
Rates are age adjusted to the 2000 US standard population. Incidence rates are based on cases diagnosed in 28 states that met North American Association of Central Cancer Registries' (NAACCR's) high-quality data standards for all years. Deaths in Louisiana, New Hampshire, and Oklahoma were excluded from death rates because these states did not collect complete information on Hispanic origin for some years.

Sources: Incidence – NAACCR, 2021. Mortality – National Center for Health Statistics, Centers for Disease Control and Prevention, 2021.

How Do Cancer Rates among Hispanic People Differ?

Incidence and death rates: Compared to non-Hispanic White individuals, Hispanic men and women in the continental US and Hawaii have lower rates of the four

Figure 4. Trends in Incidence and Death Rates among Hispanic People for Selected Cancers, 1990-2019



Rates are age adjusted to the 2000 US standard population. Incidence rates are based on cases diagnosed in 28 states that met North American Association of Central Cancer Registries' (NAACCR's) high-quality data standards for all years. Deaths in Louisiana, Oklahoma, and New Hampshire were excluded from death rates because these states did not collect complete information on Hispanic origin for some years. *Includes intrahepatic bile duct. NOTE: Figures are shown on different scales to emphasize trends.

Sources: Incidence – NAACCR, 2021. Mortality – National Center for Health Statistics, Centers for Disease Control and Prevention, 2021.

most common cancers (female breast, colorectal, lung, and prostate) but higher rates of infection-related cancers (stomach, liver, cervical) and gallbladder cancer (Table 4), generally reflecting cancer risk in Latin America with the exception of liver cancer.[22] However, there is a large variation within this aggregated group by country of origin[23] and nativity, with risk among long-term residents and descendants of Hispanic immigrants approaching or surpassing that of non-Hispanic Whites for some cancer types due to acculturation (see section

Table 4. Cancer Incidence and Death Rates in Hispanic versus Non-Hispanic (NH) White People, US, 2014-2019

Incidence, 2014-2018	Male			Female		
Cancer	**Hispanic Rate**	**NH White Rate**	**Rate Ratio**	**Hispanic Rate**	**NH White Rate**	**Rate Ratio**
Acute lymphocytic leukemia	2.8	1.8	1.57	2.2	1.4	1.55
Breast (female)				96.3	132.5	0.73
Colon & rectum*	39.2	41.5	0.95	27.6	31.3	0.88
Gallbladder	1.2	0.7	1.88	2.5	1.1	2.29
Kidney & renal pelvis	22.3	23.5	0.95	12.7	11.8	1.07
Liver & intrahepatic bile duct	20.3	10.9	1.86	8.1	3.9	2.06
Lung & bronchus	36.1	69.0	0.52	24.2	56.0	0.43
Non-Hodgkin lymphoma	20.1	24.2	0.83	15.6	16.5	0.94
Oral cavity & pharynx	10.5	20.0	0.52	4.3	7.0	0.61
Ovary				10.0	11.1	0.90
Pancreas	12.5	15.1	0.83	10.8	11.2	0.96
Prostate	85.3	99.9	0.85			
Stomach	12.0	7.4	1.62	7.7	3.5	2.22
Thyroid	5.8	8.1	0.72	21.2	22.0	0.97
Urinary bladder	18.6	38.0	0.49	4.9	9.4	0.52
Uterine cervix				9.6	7.2	1.32
Uterine corpus				24.5	27.8	0.88
All sites	**370.2**	**501.3**	**0.74**	**339.2**	**442.8**	**0.77**

Mortality, 2015-2019	Male			Female		
Cancer	**Hispanic Rate**	**NH White Rate**	**Rate Ratio**	**Hispanic Rate**	**NH White Rate**	**Rate Ratio**
Acute lymphocytic leukemia	0.8	0.5	1.57	0.6	0.3	1.86
Breast (female)				13.7	19.9	0.69
Colon & rectum	13.7	15.8	0.87	8.5	11.3	0.75
Gallbladder	0.5	0.4	1.46	1.1	0.6	1.91
Kidney & renal pelvis	4.9	5.4	0.90	2.2	2.3	0.95
Liver & intrahepatic bile duct	13.2	8.5	1.57	6.0	3.6	1.67
Lung & bronchus	22.1	47.0	0.47	11.8	34.2	0.35
Non-Hodgkin lymphoma	5.7	7.2	0.79	3.6	4.2	0.85
Oral cavity & pharynx	2.4	4.1	0.59	0.8	1.5	0.56
Ovary				5.0	6.9	0.73
Pancreas	9.6	13.0	0.74	7.9	9.6	0.82
Prostate	15.6	17.8	0.88			
Stomach	6.1	3.0	2.04	3.9	1.5	2.58
Thyroid	0.6	0.5	1.13	0.7	0.4	1.58
Urinary bladder	3.9	8.1	0.49	1.3	2.2	0.58
Uterine cervix				2.5	2.0	1.24
Uterine corpus				4.2	4.6	0.92
All sites	**132.2**	**186.2**	**0.71**	**93.9**	**135.4**	**0.69**

All rate ratios presented were statistically significant ($p < 0.05$). Rates are per 100,000 and age adjusted to the 2000 US standard population. Rate ratios are the unrounded rates in Hispanic individuals divided by the unrounded rates in NH Whites. *Colorectal cancer incidence rates exclude cancers of the appendix.

Source: Incidence – North American Association of Central Cancer Registries, 2021. Mortality – National Center for Health Statistics, Centers for Disease Control and Prevention, 2021. Data exclude Puerto Rico.

on Acculturation, page 5).[19, 21, 24] Consequently, the cancer pattern in Puerto Rico is more similar to that for non-Hispanic Whites than all other Hispanic people in the US with the notable exception of lung cancer, for which the rate in Puerto Rico residents is one-third that of non-Hispanic Whites and two-thirds that of all other Hispanic individuals in the US (Table 5). In contrast, prostate and colorectal cancer mortality rates among men in Puerto Rico are about 40% and 20% higher, respectively, than those in non-Hispanic White men.

Stage distribution and survival: Cancer stage describes the extent or spread of disease at the time of diagnosis. Hispanic men and women are generally less likely to be diagnosed at an early stage, when treatment is usually less intensive and more successful, with the largest gaps for melanoma and breast cancer (Figure 5).

Five-year relative survival is the percentage of people who have survived their cancer 5 years after diagnosis, adjusted for normal life expectancy, and is used to describe cancer survival in this report (see Sources of Statistics, page 31). Five-year relative survival in Hispanic patients is similar or slightly lower than that in non-Hispanic Whites for most cancers. One exception is melanoma, for which 5-year survival is 91% in non-Hispanic White men versus 78% in Hispanic men and 95% versus 88%, respectively, among women (Figure 6). This disparity likely reflects later-stage diagnosis (Figure 5) and perhaps a higher proportion of thicker tumors among Hispanic patients.[25] Importantly, broader survival disparities among Hispanic individuals may be masked because follow-up of patient vital status is more challenging and less accurate for people who are foreign-born and may return to their home country with illness.[26] Survival comparisons are also influenced by the younger age structure among Hispanic individuals because unlike incidence and mortality, survival statistics as reported by the National Cancer Institute's Surveillance, Epidemiology, and End Results program are not adjusted for age.

Table 5. Cancer Incidence and Death Rates for Selected Cancers, Puerto Rico, 2014-2018

	Incidence	Mortality
All sites		
Male	410.0	140.3
Female	334.3	89.2
Breast (female)	95.2	17.6
Colon & rectum		
Male	48.8	19.1
Female	33.6	11.5
Liver & intrahepatic bile duct		
Male	13.3	9.1
Female	4.4	3.4
Lung & bronchus		
Male	22.6	16.9
Female	11.5	7.8
Prostate	144.3	23.8
Stomach		
Male	9.4	5.4
Female	5.9	3.0
Thyroid		
Male	11.9	0.4
Female	44.5	0.4
Uterine cervix	12.9	2.2

Rates are per 100,000 and are age adjusted to the 2000 US standard population. Rates for Puerto Rico exclude cases diagnosed in the latter half of 2017 due to the impact of Hurricane Maria. Incidence rates for colon and rectal cancer exclude appendix.

Source: Incidence – North American Association of Central Cancer Registries, 2021. Mortality – National Center for Health Statistics, Centers for Disease Control and Prevention, 2021.

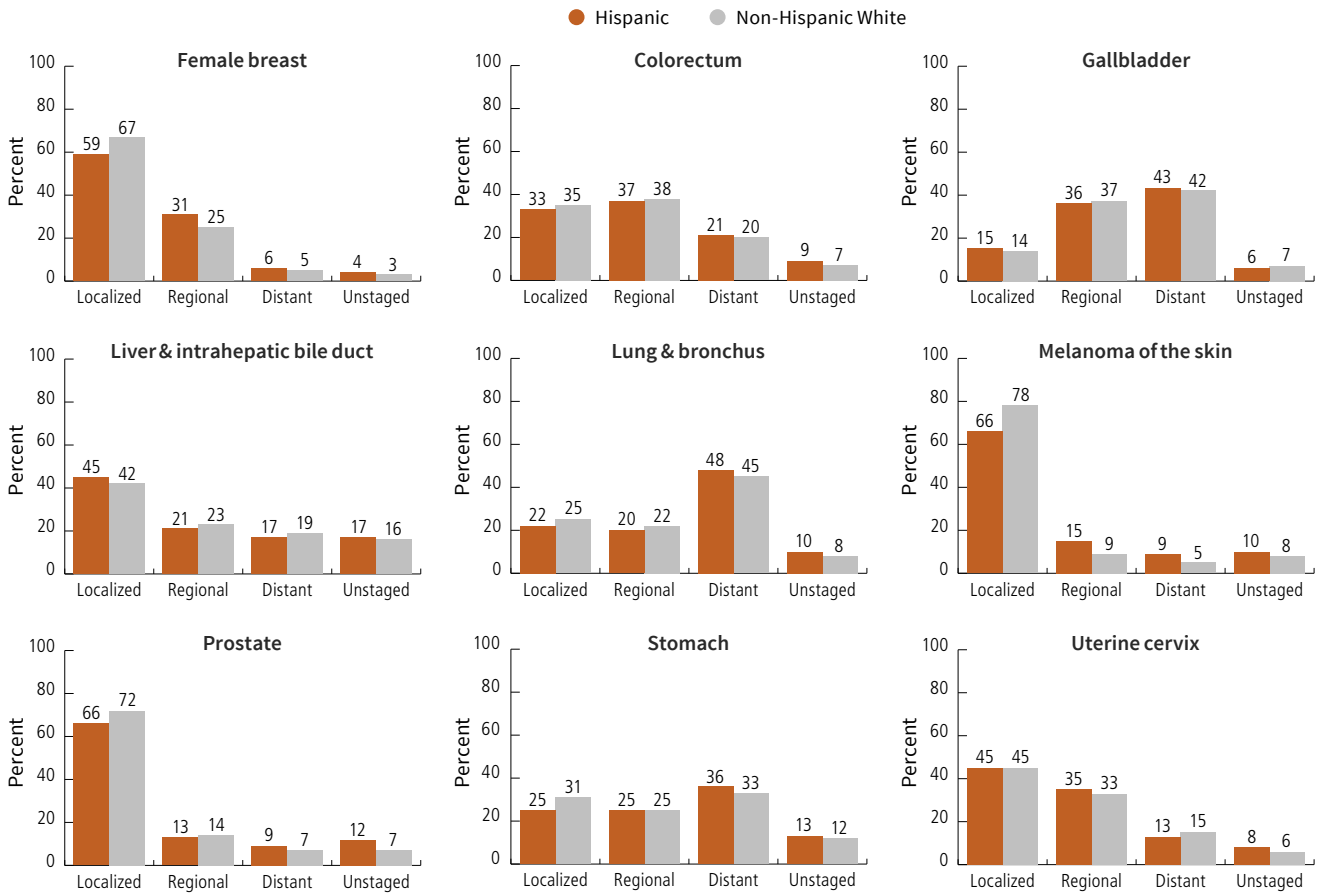
Selected Cancers

Female Breast

New cases and deaths: An estimated 28,100 breast cancer cases and 3,100 deaths are expected to occur among Hispanic women in 2021 (Figure 2). Breast cancer incidence and mortality rates in Hispanic women are about 30% lower compared to rates in non-Hispanic White women overall (Table 4) and even lower among those who are foreign-born.[27] This partly reflects differences in reproductive factors associated with breast cancer risk (see Risk factors, page 10) and probably lower mammography screening prevalence in Hispanic women and thus less detection of asymptomatic lesions.[28]

Incidence trends: The breast cancer incidence rate increased by about 0.5% per year in Hispanic women from 2009 to 2018, similar to trends in non-Hispanic White women.

Figure 5. Stage Distribution for Selected Cancers in Hispanic and Non-Hispanic White People, 2014-2018



Percentages may not total 100 due to rounding. Local: an invasive malignant cancer confined entirely to the organ of origin. Regional: a malignant cancer that 1) has extended beyond the limits of the organ of origin directly into surrounding organs or tissues; 2) involves regional lymph nodes; or 3) has both regional extension and involvement of regional lymph nodes. Distant: a malignant cancer that has spread to parts of the body remote from the primary tumor either by direct extension or by discontinuous metastasis to distant organs, tissues, or via the lymphatic system to distant lymph nodes.

Source: North American Association of Central Cancer Registries, 2021.

Mortality trends: Breast cancer mortality has declined in Hispanic women since the early 1990s; from 2010 to 2019, the rate declined by 0.8% annually in Hispanic women overall, similar to declines in non-Hispanic White women (1.3% annually).

Risk factors: Potentially modifiable factors that increase breast cancer risk include alcohol consumption, postmenopausal hormone use, physical inactivity, and weight gain after the age of 18 and/or being overweight/obese (postmenopausal breast cancer).[29] (See page 17 for the prevalence of selected cancer risk factors among Hispanic individuals.) Some research indicates that the relationship between excess body weight and breast cancer risk is generally similar between Hispanic and non-Hispanic White women after accounting for differences in menopausal hormone therapy use and tumor subtype, although further studies are needed.[30]

Reproductive factors associated with reduced breast cancer risk include younger age at first birth, higher parity (number of childbirths), and breastfeeding, all of which are more common in Hispanic versus non-Hispanic White women.[31] In particular, breastfeeding initiation is higher in Hispanic than non-Hispanic White women,[32] especially among immigrants.[33]

Early detection: Screening mammography can detect breast cancer at an early stage when treatment is usually less intensive and more successful. For information on mammography use in Hispanic women, see page 24.

Stage distribution and survival: Five-year breast cancer survival in Hispanic women is slightly lower than that in non-Hispanic White women, 88% versus 92% (Figure 6), partly reflecting the higher proportion of Hispanic women diagnosed with later-staged disease. During 2014-2018, 59% of breast cancers among Hispanic women were diagnosed at a localized stage, compared to 67% among non-Hispanic White women (Figure 5). Breast cancer is less likely to be diagnosed at a localized stage in Hispanic women than in non-Hispanic White women even after accounting for differences in age, socioeconomic status, and detection method.[34, 35] Lower rates of mammography screening and delayed follow-up of abnormal results or self-discovered breast abnormalities among Hispanic women likely contribute to this difference.[36, 37]

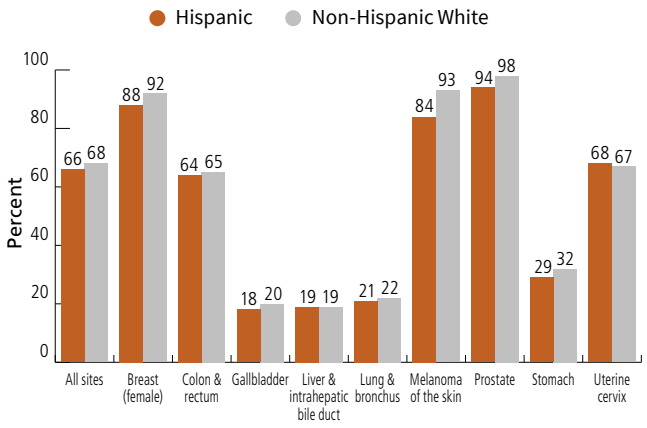
In addition to being more likely to be diagnosed at a later stage, Hispanic women are more likely than non-Hispanic White women to be diagnosed with tumors that are larger and hormone receptor negative, both of which are more difficult to treat,[38, 39] and are less likely to receive appropriate and timely breast cancer treatment.[40] It is uncertain how breast cancer survival in Hispanic women compares to that in non-Hispanic White women after accounting for these factors,[39, 41, 42] especially given larger difficulties in follow-up of Hispanic patient vital status (see Data Limitations, page 30). Five-year survival for local-, regional-, and distant-stage disease is 97%, 85%, and 31%, respectively.

Visit cancer.org for additional information about breast cancer in the latest edition of *Breast Cancer Facts & Figures*.

Colon and Rectum

New cases and deaths: In 2021, an estimated 16,500 Hispanic men and women will be diagnosed with cancer of the colon or rectum (colorectum, CRC) and about 4,700 Hispanic individuals will die from the disease. Hispanic individuals have lower CRC incidence and mortality rates than non-Hispanic Whites, with a larger gap for women than for men (Table 4). However, in some states, such as Texas and California, US-born Hispanic men have CRC mortality rates that approach or surpass those of non-Hispanic White men because of acculturation (see page 5).[19, 43]

Figure 6. Five-year Relative Survival Rates (%) in Hispanic and Non-Hispanic White People, 2011-2017



Rates are based on cases diagnosed in the SEER 18 areas (excluding the Alaska Native Registry) from 2011 to 2017, followed through 2018. NOTE: Survival rates should be interpreted with caution. Please see section on Statistical Notes, page 31, for more information.

Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, 2021.

Incidence trends: CRC declines among Hispanic individuals began later and were initially slower than non-Hispanic Whites because of more gradual uptake of colonoscopy screening. However, from 2009 to 2018, colorectal cancer (CRC) incidence rates decreased by about 2% annually among Hispanic individuals, similar to declines among non-Hispanic Whites. Rates in recent years may be leveling off, possibly in part due to a plateau in screening uptake.[43]

Mortality trends: From 2010 to 2019, CRC death rates decreased by 1.7% per year among Hispanic men and women, very similar to 1.9% annual declines among non-Hispanic Whites.

Risk factors: Modifiable factors that increase CRC risk include obesity (especially abdominal), high consumption of red or processed meat, physical inactivity (colon only), cigarette smoking, excess alcohol consumption, low calcium intake, and very low intake of fruits and vegetables.[44] Personal medical history and hereditary factors that increase risk include type 2 diabetes, chronic inflammatory bowel disease of significant duration (e.g., ulcerative colitis or Crohn's disease), certain inherited syndromes (e.g., Lynch

syndrome, familial adenomatous polyposis [FAP]), and a personal or family history of adenomas or CRC.[45-48]

Prevention and early detection: Screening can detect CRC at an earlier stage, when treatment is usually less intensive and more successful. In addition, the detection and removal of adenomatous polyps through routine screening contributes to the prevention of CRC.[49] For information on CRC screening in Hispanic individuals, see page 25.

Stage distribution and survival: Although overall 5-year survival for colorectal cancer is similar in Hispanic and non-Hispanic White individuals (64% versus 65%, respectively), Hispanic men and women are slightly less likely to be diagnosed with localized disease compared to non-Hispanic Whites, 33% versus 35%, respectively (Figure 5). Five-year survival among Hispanic patients diagnosed at a localized stage is 90%, declining to 71% and 15% for those diagnosed at regional and distant stages, respectively, very similar to non-Hispanic White patients.

Visit cancer.org for additional information about colorectal cancer in the latest edition of *Colorectal Cancer Facts & Figures*.

Lung and Bronchus

New cases and deaths: In 2021, about 6,000 Hispanic men and 5,800 Hispanic women are expected to be diagnosed with cancer of the lung and bronchus (lung) and 3,200 Hispanic men and 2,300 Hispanic women are expected to die from the disease. Lung cancer incidence and mortality rates among Hispanic men and women are about half those of non-Hispanic Whites (Table 4) because of historic (and continued) lower cigarette smoking prevalence and because those who do smoke smoke fewer cigarettes.[50] However, rates within Hispanic subgroups vary substantially, particularly among men.[51] For example, lung cancer mortality rates in Cuban men are only 25% lower than those in non-Hispanic White men.[23]

Incidence trends: From 2009 to 2018, lung cancer incidence rates declined by about 3% annually in Hispanic men and by 1% annually in Hispanic women, very similar to patterns in non-Hispanic Whites. The slower decline among women reflects later and more gradual uptake of smoking compared to men.

Mortality trends: Similar to trends in non-Hispanic Whites, annual declines in lung cancer death rates among Hispanic individuals have accelerated rapidly in recent years, likely due to advances in treatment. During 2015-2019, lung cancer death rates declined by 4.6% per year among Hispanic women and 5.1% per year among Hispanic men.

Risk factors: Cigarette smoking is the major risk factor for lung cancer, accounting for about 80% of lung cancer deaths in the US overall.[4] Most lung cancers could be prevented by increasing cessation among adult smokers and decreasing smoking initiation among adolescents. Smoking prevalence is substantially lower in Hispanic individuals than in non-Hispanic Whites overall, but continues to vary widely by nationality and nativity status (see section on Tobacco, page 17).

Early detection: Screening with low-dose spiral computed tomography has been shown to reduce mortality among those at high risk for lung cancer.[52] For information about lung cancer screening, see page 25.

Stage distribution and survival: Hispanic patients are slightly less likely to be diagnosed with localized disease compared to non-Hispanic Whites (22% versus 25%, respectively), although overall 5-year relative survival for all stages combined is similar (Hispanic: 21%; non-Hispanic White: 22%) (Figure 5). Five-year relative survival is 62% for localized disease among Hispanic patients, dropping to 33% and 7% for regional- and distant-stage disease.

Prostate

New cases and deaths: In 2021, about 17,600 new prostate cancer cases are expected to be diagnosed among Hispanic men, and an estimated 2,400 Hispanic men will die from the disease. Prostate cancer incidence and mortality rates are 12% lower in Hispanic men compared to non-Hispanic White men (Table 4). Incidence differences may reflect lower prevalence of screening in Hispanic men

with the prostate-specific antigen (PSA) test, which detects asymptomatic, sometimes indolent disease.

Incidence trends: Although prostate cancer incidence generally declined after peaking in the early 1990s, rates have stabilized in recent years among non-Hispanic White and Hispanic men during 2014-2018. Incidence trends are driven by changes in guideline recommendations for screening with the PSA test. For more information on prostate cancer screening, see page 25.

Mortality trends: From 2010 to 2019, the prostate cancer death rate decreased by 1.8% per year among Hispanic men and by 1.3% per year among non-Hispanic White men, although the pace of the decline has slowed in non-Hispanic Whites and stabilized in Hispanic men in recent years.

Risk factors: The only well-established risk factors for prostate cancer are increasing age, African ancestry, certain inherited genetic conditions (e.g., Lynch syndrome), and a family history of the disease. However, increasing evidence suggests that obesity and smoking may be associated with an increased risk of aggressive disease.[53]

Early detection: Currently, no organization recommends routine PSA testing for early prostate cancer detection among men at average risk. The American Cancer Society recommends that men who might benefit from testing have an opportunity to make a shared decision with their health care provider about whether to undergo screening. For more information on prostate cancer screening, see page 25.

Stage distribution and survival: Overall 5-year relative prostate cancer survival is slightly lower in Hispanic men than non-Hispanic White men, 94% versus 98%, respectively. Again, this difference at least partly reflects less PSA testing in Hispanic men because it inflates prostate cancer survival rates through both earlier and indolent disease detection. About 66% of prostate cancer cases in Hispanic men versus 72% of those in in non-Hispanic White men are diagnosed at a localized stage (Figure 5). Five-year survival in Hispanic men by stage is >99% for localized, 99% for regional, and 32% for distant stage.

Gallbladder

New cases and deaths: Gallbladder cancer is one of the few cancers that occurs more often in women than in men worldwide.[54] An estimated 800 Hispanic men and 1,100 Hispanic women will be diagnosed with gallbladder cancer in 2021, and 600 Hispanic individuals are expected to die from the disease. Gallbladder cancer incidence rates in both Hispanic men and women are double those in non-Hispanic White individuals (Table 4). Reasons for the high rates in Hispanic individuals are not well-understood, but may include inherited and/or other factors associated with gallbladder disease development.[55-57]

Incidence trends: From 2009-2018, gallbladder cancer incidence rates decreased more rapidly in Hispanic individuals (about 1.5% per year on average) than in non-Hispanic Whites (about 1% per year).

Mortality trends: From 2010 to 2019, death rates declined by about 2.5% annually in Hispanic individuals compared to 1.9% annually in non-Hispanic White individuals.

Risk factors: Potentially modifiable factors that increase the risk of gallbladder cancer include excess body weight, which is more prevalent among Hispanic than non-Hispanic White individuals, and the use of hormone replacement therapy, which is less common among Hispanic women.[55, 58, 59] A history of gallstones also increases risk.[60]

Stage distribution and survival: Five-year relative survival among Hispanic men and women for all stages combined is about 18%, slightly lower than that in non-Hispanic White patients (20%). Gallbladder cancer has nonspecific symptoms that typically result in a late stage at diagnosis, for which survival is generally poor.[57] Five-year survival for Hispanic patients diagnosed with localized disease is 62% but declines to 26% and 2% for those diagnosed with regional- and distant-stage disease, respectively.

Liver and Intrahepatic Bile Duct

New cases and deaths: In 2021, approximately 7,100 Hispanic individuals will be diagnosed with liver and intrahepatic bile duct (liver) cancer, with more than two-thirds of cases occurring in men. About 4,100 liver cancer deaths are expected to occur among Hispanic men and women in 2021. Similar to other racial/ethnic minority groups, Hispanic people overall have liver cancer incidence and death rates that are nearly double those in both non-Hispanic White men and women (Table 4). However, rates among Hispanic individuals differ substantially by nativity, sex, and country of origin, and may be strongly linked to acculturation and associated risk factors, particularly among men. US-born Hispanic men have higher liver cancer incidence and mortality than their foreign-born counterparts, whereas rates among Hispanic women are similar, regardless of nativity.[61-63]

Incidence trends: The long-term rise in liver cancer incidence due to the hepatitis C virus epidemic among baby boomers (those born between 1945 and 1965) appears to be tapering off in men. From 2014 to 2018, rates were stable in both Hispanic men and non-Hispanic White men and women but increased by 2% in Hispanic women.

Mortality trends: Liver cancer death rates have stabilized in recent years among Hispanic men and non-Hispanic White men and women, but continued to increase among Hispanic women by 1.1% annually during 2015-2019.

Risk factors: Most liver cancer cases in the US are due to excess body weight, heavy alcohol use, smoking, and metabolic disorders because of the high prevalence of these risk factors.[4, 64] Hispanic men and women have a higher prevelance of type 2 diabetes and excess body weight compared to non-Hispanic Whites (see page 21 and page 19, respectively)[18, 65] and thus are likely to have a disproportionate burden of metabolic-associated liver cancer in the future.[66]

Chronic infection with hepatitis B virus (HBV) or hepatitis C virus (HCV) is the strongest risk factor for liver cancer. Despite the relatively low prevalence in the US overall, HCV-infection accounts for the majority of liver cancer cases among Hispanic individuals in Florida.[66] Exposure to aflatoxin (a poison produced by a fungus that can grow in foods stored in moist, warm conditions) further increases liver cancer risk among individuals with chronic HBV/HCV infection and is also an important independent risk factor in some countries such as Mexico.[67] Primary prevention of liver cancer is available through vaccination against HBV infection and treatment for HBV and HCV (see page 22).

Stage distribution and survival: Five-year liver cancer survival among Hispanic and non-Hispanic White patients is similar (19%) (Figure 6). Even among the 45% of Hispanic patients diagnosed at a localized stage, 5-year survival is only 31%, which is why prevention is so important.

Stomach

New cases and deaths: In 2021, approximately 4,400 Hispanic people will be diagnosed with stomach cancer and an estimated 2,200 will die from the disease. Compared to non-Hispanic Whites, stomach cancer incidence rates in Hispanic individuals are 60% higher in men and more than double in women. Hispanic men and women also appear to have higher risk of stomach cancer before 50 years of age.[68]

Incidence trends: From 2009-2018, incidence rates decreased by about 1% to 2% per year in Hispanic men and women and non-Hispanic White men but were stable among non-Hispanic White women. However, incidence rates may be increasing in Hispanic and non-Hispanic White young adults, the causes for which are unclear but may be related to dietary changes and subsequent alterations in the gut microbiome.[69, 70]

Mortality trends: Stomach cancer death rates decreased from 2010 to 2019 by 2% per year in Hispanic men and women, compared to declines of 3% per year in non-Hispanic White men and women.

Risk factors: Chronic infection with *Helicobacter pylori (H. pylori)* is the strongest known risk factor for stomach cancer.[71-73] (For more information about *H. pylori*, see page 22) Other important risk factors include smoking and excess consumption of alcohol, foods preserved with salt,

and/or processed meat.[74] Some studies have shown that fruits and non-starchy vegetables, particularly allium vegetables (e.g., garlic, onions, leeks), protect against stomach cancer.[75]

Stage distribution and survival: Five-year stomach cancer survival in Hispanic men and women is 26% and 33%, respectively, slightly lower than that in non-Hispanic Whites (29% and 39%). Most cases among Hispanic patients are diagnosed at a distant stage (Figure 5), for which 5-year survival is 4%.

Uterine Cervix

New cases and deaths: In 2021, 2,700 Hispanic women in the US will be diagnosed with cancer of the uterine cervix, more commonly referred to as cervical cancer, and 600 are expected to die from the disease. Cervical cancer incidence and mortality among Hispanic women are about 30%-40% higher than those among non-Hispanic White women (Table 4). This, in part, reflects risk among women in Mexico and Central and South America, which is more than threefold higher than that among US women overall, largely due to less access to screening and higher prevalence of HPV infection.[22, 54]

Incidence trends: Incidence rates in Hispanic and non-Hispanic White women have declined for decades but appear to have stabilized in recent years.

Mortality trends: Death rates decreased by 2.2% per year in Hispanic women and were stable in non-Hispanic White women from 2010 to 2019. However, rates also appear to be stabilizing in Hispanic women under 50 years of age.

Risk factors: Cervical cancer is caused by persistent infection with certain types of HPV. Smoking increases the risk of both persistent HPV infection and cervical cancer.[76]

Prevention and early detection: Primary prevention is available through vaccination, which protects against the most common types of cancer-causing HPV. (For more

Table 6. Hispanic versus Non-Hispanic (NH) White Childhood and Adolescent Cancer Incidence Rates and Rate Ratios, US, 2014-2018

	Ages 0-14 years			Ages 15-19 years		
	Hispanic	NH White	Rate Ratio	Hispanic	NH White	Rate Ratio
Leukemia	64.5	51.5	1.25	47.9	32.9	1.46
Lymphoid leukemia	50.8	39.5	1.29	29.9	16.2	1.85
Acute myeloid leukemia	8.2	7.2	1.14	10.2	9.3	1.10
Brain & other central nervous system*	41.7	55.6	0.75	54.0	64.1	0.84
Astrocytomas	14.2	22.4	0.63	8.3	16.3	0.51
Lymphomas	22.1	23.3	0.95	41.2	59.9	0.69
Hodgkin lymphoma	5.5	5.9	0.93	22.5	37.6	0.60
Non-Hodgkin lymphoma (except Burkitt lymphoma)	7.1	7.8	0.91	14.5	16.5	0.88
Burkitt lymphoma	1.7	3.2	0.53	1.5	2.8	0.55
Soft-tissue sarcomas	10.6	11.3	0.94	15.4	15.5	1.00
Neuroblastoma	7.4	14.0	0.53	0.9	1.2	0.78
Bone tumors	7.6	8.2	0.93	13.3	15.4	0.86
Osteosarcoma	4.6	3.9	1.17	7.7	7.6	1.02
Renal tumors	7.0	9.4	0.75	1.5	2.1	0.74
Germ cell tumors	6.4	5.3	1.21	39.9	26.4	1.51
Malignant gonadal germ cell tumor	3.1	2.0	1.58	32.9	20.5	1.61
Retinoblastoma	4.3	4.0	1.07	†	†	–
Hepatic tumors	3.5	2.9	1.19	1.5	1.3	1.10
All sites*	**185.4**	**198.6**	**0.93**	**272.0**	**298.4**	**0.91**

Rates are per 1,000,000 and age adjusted to the 2000 US standard population. Rate ratios are the unrounded rates in Hispanic people divided by the unrounded rates in NH Whites. *Includes benign and borderline brain. †Data suppressed due to fewer than 25 cases. NOTE: Cancer types are listed in descending order by childhood cancer (ages 0-14 years) incidence rate.

Source: North American Association of Central Cancer Registries, 2021.

information about HPV vaccination, see page 23). Cervical cancer can also be prevented, through the removal of precancerous lesions detected, and detected early via screening. (For more information about cervical cancer screening, see page 24.)

Stage distribution and survival: Hispanic women are about as likely to be diagnosed with localized disease as non-Hispanic White women (45% in both groups) and overall 5-year survival is similar (68% versus 67%, respectively; Figure 6). Five-year survival for localized disease in Hispanic women is 92% but declines to 60% and 22% for regional- and distant-stage disease, respectively.

Cancer in Children and Adolescents

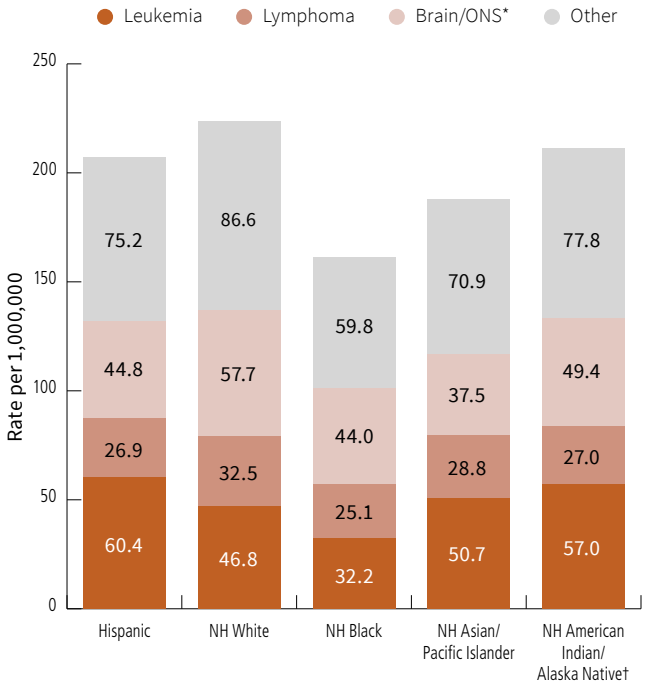
The types of cancer that most commonly occur in children (ages 0-14 years) and adolescents (ages 15-19 years) are different from those in adults. While risk factors are not well understood, some known causes include genetic abnormalities that can be passed from parent to child, radiation exposure, typically due to cancer treatment, and certain viral infections. For reasons that are unclear, childhood cancer (herein also referred to as pediatric cancer) is generally more common in economically developed than developing countries.[77]

New cases and deaths: An estimated 2,900 Hispanic children (ages 0-14 years) will be diagnosed with cancer and 300 to 400 Hispanic children will die from the disease in 2021 (estimates are not available for adolescents due to sparse data).

Similar to non-Hispanic White children, leukemia is the most common cancer in Hispanic children, followed by cancers of the brain/central nervous system and lymphoma (Table 6). Among Hispanic adolescents, cancers of the brain/nervous system are the most common, followed by leukemia, lymphoma, and germ cell tumors.

Despite lower incidence rates for all cancers combined and most cancer types, Hispanic children and adolescents have much higher rates of leukemia, especially lymphoid leukemia during adolescence (Table 6). Hispanic children and adolescents have the highest rates of acute lymphocytic leukemia of any

Figure 7. Comparison of Common Childhood and Adolescent Cancer Incidence Rates by Race/Ethnicity, Ages 0-19 Years, 2014-2018



NH: Non-Hispanic. ONS: other nervous system. Rates are age adjusted to the 2000 US standard population. *Includes benign and borderline brain tumors. †Data based on Indian Health Service Contract Health Service Delivery Area counties. Rates should be interpreted with caution due to small case numbers.

Source: NAACCR, 2021.

racial and ethnic groups in the US, nearly double those of non-Hispanic Black children, who have the lowest rates (Figure 7). Though genetic abnormalities appear to be responsible for some proportion of leukemia in Hispanic children, few risk factors other than radiation exposure are well established.[27, 78] Incidence rates among Hispanic and non-Hispanic White children are similar for Hodgkin lymphoma and non-Hodgkin lymphoma (NHL) and lower in Hispanic adolescents, although variations in risk have been reported among Hispanic groups by country of origin and nativity status.[79, 80]

Incidence trends: From 2009 to 2018, incidence rates increased, on average, by 0.7% and 1.3% per year among Hispanic children and adolescents, respectively, similar to trends in non-Hisapnic Whites.

Mortality trends: Death rates for all cancers combined declined from 2010 to 2019 by 1% per year among

Hispanic children and 2% per year among Hispanic adolescents, similar to non-Hispanic Whites.

Survival: Over the past 30 years, there have been substantial improvements in 5-year survival for most childhood cancers, largely attributable to advances in treatment and the high proportion of patients participating in clinical trials. However, survival among Hispanic children generally remains lower than among non-Hispanic Whites for all cancers combined and for many cancers. Five-year survival for all cancers combined for patients diagnosed during 2011-2017 was 84% among both Hispanic children and adolescents, compared to 87% and 88% among non-Hispanic Whites. The largest survival disparities are for brain/other nervous system tumors among children (Hispanic: 67%; non-Hispanic White: 78%) and leukemia among adolescents (71% versus 82%).

Cancer Risk Factors

Abstaining from tobacco use, maintaining a healthy body weight, having a physically active lifestyle, and consuming a healthy diet can greatly reduce a person's lifetime risk of developing or dying from cancer.[4] In addition, certain cancers caused by infectious agents disproportionately affect Hispanic individuals but could be prevented through behavioral changes, vaccination, or treatment of the infection. This section provides information about major cancer risk factors and their prevalence among the Hispanic population based on population-based national survey data. It is important to note that data by nativity or country of origin are limited for some risk factors. For information about cancer risk factors beyond what is included in this chapter, visit cancer.org/research/cancer-facts-statistics.html for the latest edition of *Cancer Prevention & Early Detection Facts & Figures*.

Tobacco

Tobacco use remains the most preventable cause of death, accounting for about 30% of all US cancer deaths when all races/ethnicities are combined.[4, 81] Cigarette smoking increases the risk of 12 cancers (oral cavity and pharynx, larynx, lung, esophagus, pancreas, uterine cervix, kidney, bladder, stomach, colorectum, liver, and acute myeloid leukemia).[76] Evidence suggests that smoking may also increase the risk of fatal prostate cancer, as well as a rare type of ovarian cancer.[76, 82, 83]

- Cigarette smoking prevalence is, and has historically been, lower among Hispanic adults than non-Hispanic White adults, especially among women.[84] In 2019, current cigarette smoking prevalence was more similar among men (Hispanic: 12%; non-Hispanic White: 16%) than women (Hispanic: 6%; non-Hispanic White: 16%) (Table 7).
- In 2017-2018, smoking prevalence varied by Hispanic group, ranging from 6% in Central/South Americans to 17% among Puerto Ricans.
- By nativity, US-born Hispanic women are more than twice as likely to currently smoke compared to foreign-born Hispanic women (10% vs. 3%, respectively), whereas rates in men are more similar (13% versus 11%).
- Smoking prevalence among Hispanic high school students peaked in the mid-1990s and decreased rapidly until 2003, but since has declined at a slower pace. In 2020, cigarette smoking prevalence in Hispanic high school students was the same as that in non-Hispanic White students (5%) (Table 8).
- Hispanic middle school students had higher levels of any tobacco product (9%) use and any combustible tobacco product use (5%) than non-Hispanic White students (6% and 2%, respectively).
- E-cigarette use in 2020 among high school students was slightly lower among Hispanics (19%) than among non-Hispanic Whites (23%) (Table 8), but among middle school students was higher among Hispanic (8%) than among non-Hispanic White (4%).[85]

Table 7. Current Cigarette Smoking, Electronic Cigarette Use, and Alcohol Consumption (%), Adults 18 Years and Older, US, 2017-2019

	Hispanic			Non-Hispanic White		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Cigarette smoking* (NHIS 2019)	**12**	**6**	**9**	**16**	**16**	**16**
Origin† (NHIS 2017-18)						
Puerto Rican	17	16	17	–	–	–
Mexican	14	6	10	–	–	–
Cuban	7	12	9	–	–	–
Dominican	**	**	**	–	–	–
Central/South American	9	4	6	–	–	–
Education (25 years and older)						
≤12 yrs, no diploma	**	**	14	36	27	34
GED	**	**	22	37	41	38
HS diploma	15	5	10	26	25	25
Some college	9	6	7	18	19	19
College degree	8	5	7	6	6	6
Poverty Status‡						
Poor	15	10	12	33	36	35
Near poor	13	5	8	30	29	30
Non poor	10	5	8	13	11	12
Health Insurance Status (18 to 64 years)						
Uninsured	14	6	10	32	35	33
Insured	11	7	9	16	16	16
Immigration status§						
US-born	13	10	11	16	16	16
Foreign-born	11	3	7	17	8	13
E-cigarette use¶ (NHIS 2019)	**3**	**2**	**2**	**7**	**5**	**6**
Alcohol consumption# (NHIS 2018)	**66**	**50**	**58**	**75**	**72**	**73**
Light	33	29	31	33	37	35
Moderate	18	4	11	26	12	19
Binge	31	14	23	36	27	32
Origin† (NHIS 2017-2018)						
Puerto Rican	23	21	22	–	–	–
Mexican	34	14	24	–	–	–
Cuban	24	**	16	–	–	–
Dominican	**	**	17	–	–	–
Central/South American	26	11	18	–	–	–

GED: General Educational Development high school equivalency; HS: high school. *Ever smoked 100 cigarettes in lifetime and smoking every day or some days at time of survey. †Estimates based on 2017 and 2018 National Health Interview Survey data combined. ‡Poor: <99% of poverty threshold. Near poor: 100% to ≤199% of poverty threshold. Non Poor: ≥200% of poverty threshold. §US-born includes those born in a US territory. ¶Using e-cigarettes every day or some days at time of survey. #Current consumption: 12+ drinks in lifetime and ≥1 drink in past year. Light: 12+ drinks in lifetime and ≤3 drinks/week in past year. Moderate: 12+ drinks in lifetime and (male) 3-14 drinks/week in past year or (female) 3-7 drinks/week in past year. Heavy: 12+ drinks in lifetime and (male) >14 drinks/week in past year or (female) >7 drinks/week in past year. Binge: current drinker and (male) ≥5 or (female) ≥4 drinks on at least one day in the past year. **Estimate not provided due to instability. NOTE: Estimates are age adjusted to the 2000 US standard population. Estimates in this report may differ from earlier reports due to revised weights issued for the National Health Interview Survey.

Source: National Health Interview Surveys, 2017, 2018, and 2019.

Smoking Cessation

Quitting smoking reduces the risk of all cancers caused by smoking.[86] People who successfully quit smoking can add as much as a decade of life expectancy and reduce their risk of lung cancer by half after quitting for 10-15 years compared to people who continue to smoke.[86] Quitting at any age is beneficial to health, but the benefit is greatest when done at a younger age. Smoking

Table 8. Tobacco Use and Alcohol Consumption (%), High School Students, US, 2019-2020

	Hispanic			Non-Hispanic White		
	Male	Female	Total	Male	Female	Total
Current tobacco use (2020)*						
Cigarette smoking	3	6	5	5	6	5
E-cigarette	16	21	19	24	23	23
Alcohol consumption (2019)						
Current alcohol use†	22	33	28	33	36	34
Binge drinking‡	10	15	12	17	18	17
Drank before age 13 years§	20	16	18	15	11	13

*Smoked cigarettes or used e-cigarettes on one or more of the 30 days preceding the survey. †Had one or more drinks of alcohol on one or more of the 30 days preceding the survey. ‡Had five or more drinks of alcohol in a row within a couple of hours on one or more of the 30 days preceding the survey. §Other than a few sips.

Sources: Tobacco use: Gentzke AS, et al. *MMWR Morb Mortal Wkly Rep* 2020; 69:1881-1888. Alcohol use: Jones CM, et al. *MMWR Morbid Mortal Wkly Rep.* 2020; 69(1);38-46.

cessation programs for Hispanic individuals are more effective if they are culturally tailored (incorporating cultural beliefs and values, enhancing language services) to both the patient and provider.[87] For information about the American Cancer Society's tobacco cessation initiatives and resources, visit cancer.org/healthy/stay-away-from-tobacco/guide-quitting-smoking.html or contact the American Cancer Society at 1-800-227-2345.

- Among people who reported ever smoking, about the same proportion of Hispanic (62%) and non-Hispanic White (64%) persons had quit smoking in 2019.
- Among current smokers, Hispanic persons were as likely to report a past-year quit attempt and success in a recent quit attempt (59% and 7%, respectively) compared to non-Hispanic White persons (53% and 8%, respectively).[88]
- In 2018-2019, receipt of a medical doctor's advice to quit smoking and use of evidence-based cessation aids among current smokers was lower in Hispanic persons (62% and 25%, respectively) than non-Hispanic White (73% and 36%) and Black (72% and 30%) persons, which may be partly related to less access to care.[88, 87]

Excess Body Weight, Alcohol, Diet, and Physical Activity

Aside from avoiding tobacco use, maintaining a healthy weight, staying active throughout life, following a healthy eating pattern, and avoiding or limiting alcohol consumption are among the most effective strategies for reducing cancer risk.[89] An estimated 18% of cancer cases and 16% of cancer deaths are attributable to the combined effects of excess body weight, alcohol consumption, physical inactivity, and consuming an unhealthy diet.[4]

Excess body weight

There is convincing evidence that excess body weight is associated with an increased risk for developing 13 cancers: uterine corpus, esophagus (adenocarcinoma), liver, stomach (gastric cardia), kidney (renal cell), brain (meningioma), multiple myeloma, pancreas, colorectum, gallbladder, ovary, female breast (postmenopausal), and thyroid.[90] Excess weight may also increase the risk of non-Hodgkin lymphoma (diffuse large B-cell lymphoma), male breast cancer, and fatal prostate cancer. Accumulating evidence suggests that excess body weight is also associated with decreased survival for several cancers.[91]

Historical trends in the prevalence of measured (versus self-reported) overweight (defined as body mass index [BMI] 25.0-29.9 kg/m^2) and obesity (BMI ≥30.0 kg/m^2) are only available for Hispanic persons of Mexican descent (Figure 8), although contemporary data are available for all Hispanic individuals (Figure 9).

The American Cancer Society's Nutrion and Physical Activity Guidelines[89]

Recommendations for individuals

1. Achieve and maintain a healthy weight throughout life.

- Keep body weight within the healthy range and avoid weight gain in adult life.

2. Be physically active.

- Adults should engage in 150-300 minutes of moderate-intensity physical activity per week, or 75-150 minutes of vigorous-intensity physical activity, or an equivalent combination; achieving or exceeding the upper limit of 300 minutes is optimal.
- Children and adolescents should engage in at least 1 hour of moderate- or vigorous-intensity activity each day.
- Limit sedentary behavior, such as sitting, lying down, and other forms of screen-based entertainment.

3. Follow a healthy eating pattern at all ages.

A healthy eating pattern includes:

- Foods that are high in nutrients in amounts that help achieve and maintain a healthy body weight;
- A variety of vegetables – dark green, red, and orange, fiber-rich legumes (beans and peas); and others;
- Whole grains.

A healthy eating pattern limits or does not include:

- Red and processed meats;
- Sugar-sweetened beverages; or
- Highly processed foods and refined-grain products.

4. It is best not to drink alcohol.

- People who do choose to drink alcohol should limit their consumption to no more than 1 drink per day for women and 2 drinks per day for men.

Recommendation for Community Action

Public, private, and community organizations should work collaboratively at national, state, and local levels to develop, advocate for, and implement policy and environmental changes that increase access to affordable, nutritious foods; provide safe, enjoyable, and accessible opportunities for physical activity; and limit alcohol for individuals.

*Weight recommendations are often determined by body mass index (BMI), which is a function of weight to height squared. BMI categories for adults: healthy weight=18.5 to 24.9 kg/m^2, overweight=25.0 to 29.9 kg/m^2, obese=30.0 kg/m^2 or higher. BMI categories for children are based on percentile rankings and growth charts.

- Among adults, obesity prevalence has historically been highest by far among Mexican women compared to non-Hispanic Whites and Mexican men, although steep increases among the latter since the early 2000s have resulted in similar contemporary rates in Mexican men and women (Figure 8).[92]
- In 2017-2018, the prevalence of excess body weight (overweight or obese) was higher in Hispanic (men: 88%; women: 79%) than non-Hispanic White adults (men: 75%; women: 66%), largely because Hispanic individuals were 9%-11% more likely (in absolute terms) to be overweight (Figure 9).
- The prevalence of obesity has tripled among Mexican and non-Hispanic White adolescents since the late 1970s, although since 1999-2002 increases have been restricted to Mexican Americans (Figure 8).[92]
- In 2017-2018, obesity prevalence in Hispanic adolescents ages 12-19 years was 11% higher than that of non-Hispanic whites in boys (30% versus 19%), and 9% higher in girls (25% versus 16%) (Figure 9).

Alcohol

The American Cancer Society recommends that it is best to avoid alcohol. People who drink alcohol should limit their intake to no more than two drinks per day for men and one drink per day for women.[89] Alcohol consumption is an established risk factor for cancers of the mouth, pharynx, larynx, esophagus, liver, colorectum, and female breast.[75] Heavy drinking (3 to 4 drinks per day) may also increase the risk of stomach and pancreatic cancer.[93] Cancer risk increases with alcohol volume, and even a few drinks per week may be associated with a slightly increased risk of female

breast cancer.[94] Combined with tobacco use, alcohol consumption increases the risk of cancers of the mouth, larynx, and esophagus far beyond the independent effect of drinking or smoking alone.[95, 96] Alcohol consumption is of special concern among Hispanic individuals because of their high rates of liver cancer.[6]

- In 2018, Hispanic adults were less likely to drink alcohol than non-Hispanic Whites (59% versus 73%) and to binge-drink (23% versus 32%), although differences for men were smaller (Table 7).
- In 2019, the prevalence of current alcohol consumption among high school students was also lower in Hispanic than non-Hispanic White students (28% versus 34%), although, in contrast to adults, the difference was larger and the prevalence lower for males (Hispanic: 22%; non-Hispanic White: 33%) than females (Hispanic: 33%; non-Hispanic White: 36%) (Table 8).
- The prevalence of drinking before age 13 was higher among Hispanic youth (Hispanic: 18%; non-Hispanic White: 13%) (Table 8).

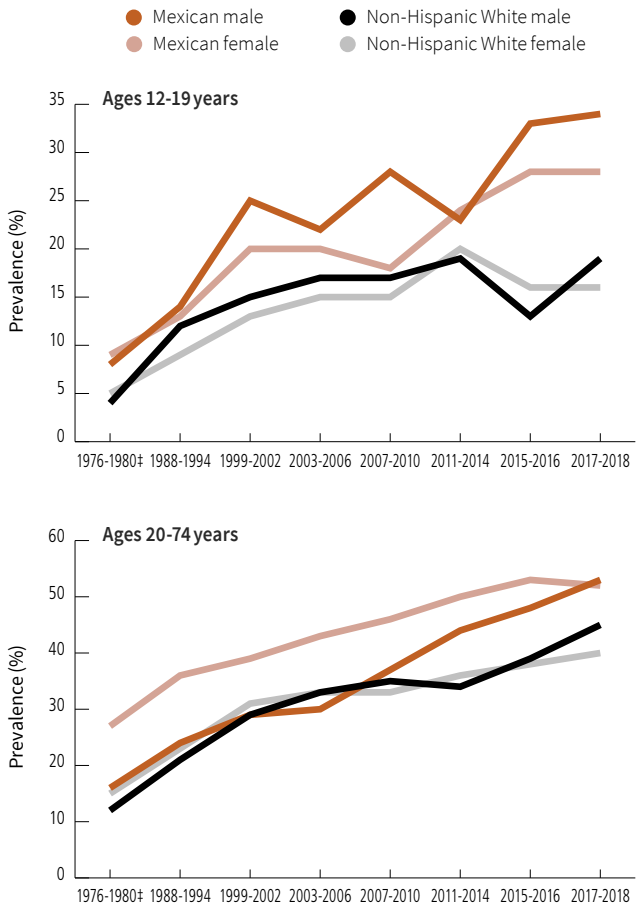
Diet

Diet patterns high in processed and red meat, starchy foods, refined carbohydrates, and sugary drinks are associated with a higher risk of developing cancer (primarily colorectal).[95, 97] Conversely, dietary patterns emphasizing a variety of fruits and vegetables, whole grains, legumes, and fish or poultry and fewer red and processed meats are associated with reduced risk. In general, compared to White adults, Hispanic adults consume a higher proportion of sugar-sweetened beverages (14% of total beverages consumed versus 9%, respectively, during 2015-2018)[98] and a lower amount of whole grains (11% of total grains consumed versus 17% during 2013-2016).[99]

Physical Activity

Physical activity can decrease the risk of breast, colon (but not rectal), bladder, esophageal (adenocarcinoma), endometrial, kidney, stomach (cardia) and possibly lung cancer.[95, 100-102] In addition, there is mounting evidence that greater time spent in sedentary behavior may increase colon and endometrial cancer risk.[103] Lower levels of leisure-time physical activity may contribute to the higher prevalence of obesity in Hispanic adults;[104] in 2018, 34% of Hispanic adults reported no leisure-time physical activity, compared to 22% of non-Hispanic whites.[88]

Figure 8. Obesity* (%) Trends in Mexican and Non-Hispanic White People by Age, US, 1976-2018



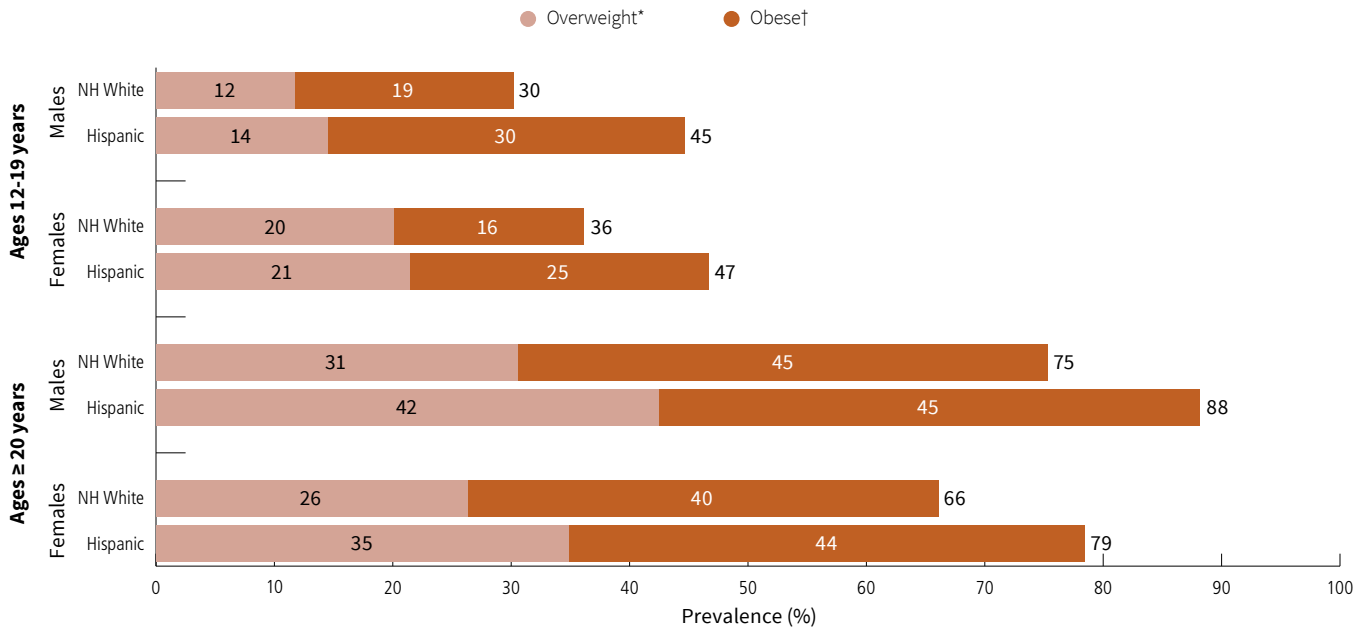
*In ages 20-74 years, body mass index (BMI) of 30.0 kg/m2 or greater. In ages 12-19 years, BMI at or above the 95th percentile from the 2000 CDC growth charts. ‡Data for Mexicans are for 1982-84. NOTE: Adult estimates are age adjusted to the 2000 US standard population; data for ages 12-19 years are unadjusted. The 1988-1994 estimate for Mexican females ages 12-19 years has a relative standard errors between 20% and 30%.

Sources: Health, United States, 2013; Health, United States, 2016; National Health and Nutrition Examination Survey Data, 2017-2018.

Type 2 Diabetes

Type 2 diabetes, a chronic condition in which the body loses its ability to respond to the hormone insulin, shares several modifiable risk factors with cancer,

Figure 9. Excess Body Weight (%) in Hispanic and Non-Hispanic (NH) White People by Age, US, 2017-2018



*In ages ≥20 years, 25.0 kg/m² ≤ BMI < 30.0 kg/m². In ages 12-19 years, BMI at or above 85th percentile but below 95th percentile of CDC growth chart. †In ages ≥20 years, BMI ≥30.0 kg/m2. In ages 12-19 years, BMI at or above 95th percentile of CDC growth chart. NOTE: Sum of estimates for overweight and obese may not equal total excess body weight value presented due to rounding. Estimates for ages ≥20 years are age adjusted to 2000 US standard population.

Sources: National Health and Nutrition Examination Survey Data, 2017-2018. Obesity in ages ≥20 years: Hales CM, et al. National Center for Health Statistics. 2017.

including excess body weight, poor diet, and lack of physical activity. However, a growing body of literature suggests that type 2 diabetes increases risk for several cancer types independent of these factors, including those of the liver, endometrium, pancreas, colorectum, kidney, bladder, breast, and perhaps ovary.[105-107]

Hispanic individuals have more than a 50% lifetime risk of developing type 2 diabetes, versus 40% in the general population. Despite this disproportionate impact, few large studies have assessed the association between type 2 diabetes and cancer risk among Hispanic populations,[108, 109] and further research on this topic is needed. An estimated 15% of Hispanic adults report being diagnosed with type 2 diabetes, with higher prevalence among some groups , compared to 12% of non-Hispanic White adults.[110] Hispanic individuals are also 50% more likely to die from the disease.[111]

Infectious Agents

Helicobacter pylori (H. pylori)

H. pylori is a bacterium that grows in the stomach. Although it rarely causes symptoms, chronic infection can cause inflammation and damage to the stomach lining that may eventually lead to stomach cancer (see page 14 for more information about stomach cancer).[112, 113] *H. pylori* infection in the US was about three times higher among Mexican Americans than among non-Hispanic Whites in one population-based study (64% versus 21%, respectively).[114] Higher prevalence among Hispanic Americans largely reflects background rates in countries of origin among foreign-born individuals.[115, 116]

Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV)

Infection with HBV or HCV becomes chronic when the immune system is unable to clear the virus. Chronic infection with these viruses can cause cirrhosis and liver cancer[117, 118] and is increasingly recognized as a risk factor for non-Hodgkin lymphoma.[119]

HBV: Most (95%) newly infected adults will clear the virus within six months of infection, whereas the majority of infected infants will become chronically infected.[118] Vaccination against HBV has been available since 1982 and is the primary prevention strategy. Those who should be vaccinated include infants, all youth under 19 years of age who have not been vaccinated, and unvaccinated adults who are at high risk for infection (e.g., health care workers, travelers to regions with HBV).[120]

- In 2019, 87% of Hispanic adolescents had received at least three HBV vaccine doses, similar to non-Hispanic Whites (94%).[121] However, vaccination coverage among foreign-born adolescents specifically is substantially lower.[122]
- During 2015-2018, the prevalence of past or current HBV infection was higher among Hispanic adults (3.8%) compared to non-Hispanic White adults (2.1%), and highest among those born outside of the US.[123]

HCV: Most people with HCV will become chronically infected and are unaware of their infection until symptoms of liver disease develop. In contrast to HBV infection, there is no vaccine to protect against HCV. Primary prevention strategies include both educating uninfected individuals who are at high risk for infection about exposure prevention and counseling infected individuals about how to avoid transmission to others. In 2020, the US Preventive Services Task Force updated their guidelines recommending one-time screening among all men and women ages 18 to 79 years.[124] Those who test positive for HCV are advised to begin antiviral treatment in order to reduce health effects related to HCV infection, including liver cancer.

In 2019, the rate of newly reported chronic infections of HCV was 14.1 cases per 100,000 Hispanic persons in comparison to 34.0 cases per 100,000 non-Hispanic White persons.[125]

Human Papillomavirus (HPV)

HPV is the most common sexually transmitted infection in the US, with approximately 43 million HPV infections in 2018.[126] Although most HPV infections are cleared by the body and do not cause cancer, virtually all cervical cancers are caused by persistent HPV infection. HPV infection also causes 90% of anal cancers, about 70% of certain types of oropharyngeal cancers, and 60%-70% of vaginal, vulvar, and penile cancers.[127] Cervical cancer is the most common HPV-related cancer in women, and oropharyngeal cancer is the most common in men.[128] There are more than 100 types of HPV, only about 14 of which cause cancer.[129] Types 16 and 18 account for about 70% of all cervical cancer cases worldwide and almost all other HPV-related cancers.

American Cancer Society Recommendations for HPV Vaccine Use

- HPV vaccination works best when given to boys and girls between ages 9 and 12 years.
- Teenagers and young adults ages 13 through 26 years who have not been vaccinated or who have not received all of their shots should get the vaccine as soon as possible. Vaccination of young adults will not prevent as many cancers as vaccination of children and teens.
- The American Cancer Society does not recommend HPV vaccination for persons older than 26 years.

Vaccination protects against nine HPV types and has the potential to avert nearly 90% of cancers caused by HPV.[130] The American Cancer Society's 2020 HPV vaccination guidelines recommend routine vaccination of both girls and boys between 9 and 12 years of age (see sidebar).[131] However, all women, including those who have been vaccinated, should receive regular cervical cancer screening because the vaccines do not protect against all types of HPV that can cause cervical cancer (see page 24).

- In 2013-2016, the prevalence of high-risk oral HPV infection was similar among Hispanic (3%) and non-Hispanic White (4%) persons ages 18-69 years. In ages 18-59 years, high-risk genital HPV prevalence was also similar among Hispanic (26%) and non-Hispanic White (27%) persons.
- In 2019, a higher proportion of Hispanic adolescents ages 13-17 years had initiated HPV vaccination than non-Hispanic Whites, for both girls (79% versus 71%, respectively) and boys (75% versus 66%,

respectively);[121] Hispanic youths were also more likely to have completed the vaccination series, 63% versus 54% in girls and 53% versus 49% in boys.

Human Immunodeficiency Virus (HIV)

The weakened immune system of people with HIV/AIDS indirectly increases their risk of several cancers, including Kaposi sarcoma, non-Hodgkin lymphoma, and cervical cancer.[132] People infected with HIV are at an increased risk for other cancer-causing infectious agents (e.g., Kaposi sarcoma herpesvirus, HCV, HBV, and HPV), in part due to shared routes of transmission.[133] HIV-infected individuals also have higher rates of lung cancer, which is thought to be related to higher smoking rates in this population, as well as immunosuppression.[132, 134] In 2018, the rate of newly diagnosed HIV was over 3 times higher in Hispanic individuals than in Whites, with the majority of cases occurring in men.[135]

Cancer Screening

Regular screening can detect some cancers at an early stage and improve the likelihood of successful treatment. Screening also can contribute to the prevention of cervical and colorectal cancers by detecting precancerous growths that can be removed. The American Cancer Society guidelines for the early detection of cancer are available at cancer.org/healthy/find-cancer-early/cancer-screening-guidelines/American-cancer-society-guidelines-for-the-early-detection-of-cancer.html. For information on cancer screening beyond what is included in this chapter, please visit cancer.org/research/cancer-facts-statistics.html to review the latest edition of *Cancer Prevention & Early Detection Facts & Figures*.

Breast Cancer Screening

Mammography is a low-dose x-ray procedure that can detect breast cancer early when treatment may be more effective. The 2015 American Cancer Society guidelines recommend that women with an average risk begin screening at 45 years of age, with an option to begin screening at age 40; see page 37 for detailed screening recommendations.

- In 2018, the prevalence of up-to-date mammography screening among women 45 years of age or older was 60% in Hispanic women compared to 64% in non-Hispanic White women (Table 9).
- Mammography use varies substantially across groups by country of origin, ranging from 59% in Mexican women to 68% in Central/South American women. Differences in length of time in the US and access to health insurance across different groups by country of origin may partly explain these differences.[136]

Cervical Cancer Screening

Regular use of Papanicolaou (Pap) and HPV tests followed by appropriate and timely treatment can help prevent both cervical cancer occurrence and death.[137] In 2020, the American Cancer Society recommended that women ages 25 to 65 should have a primary HPV test every 5 years; if primary HPV testing is not available, acceptable alternatives are an HPV test with a Pap test every 5 years or a Pap test alone every 3 years (see page 37).

- In 2018, 83% of Hispanic women ages 25-65 years were up to date with cervical cancer screening compared to 86% of non-Hispanic Whites (Table 9).
- Across Hispanic groups, screening prevalence ranges from 80% in Puerto Rican women to 91% in Dominican women.
- US-born Hispanic women are more likely than Hispanic immigrants (particularly those who recently emigrated) to have reported cervical cancer screening.[138, 139]

Table 9. Cancer Screening Test Use (%), Adults, US, 2018

	Hispanic		Hispanic Origin					NH White	
	All	Uninsured (≤64 years)	Mexican	Puerto Rican	Cuban	Central/ South American	Dominican	All	Uninsured (≤64 years)
Cervical cancer screening (women 25-65 years)*									
Pap test within the past three years	81	66	79	76	81	88	88	83	58
Up-to-date†	83	69	81	80	89	88	91	86	64
Breast cancer screening (women 45+ years)									
Up-to-date	60	35	59	60	60	68	§	64	28
Colorectal cancer screening‡									
Overall									
Ages 45+ years	49	19	45	62	50	54	48	58	25
Ages 50+ years	59	27	55	76	58	61	§	68	30
Males									
Ages 45+ years	50	17	46	61	53	49	§	59	23
Ages 50+ years	60	24	55	76	§	59	§	69	30
Females									
Ages 45+ years	49	22	45	64	47	58	§	57	27
Ages 50+ years	58	31	54	74	§	63	§	66	30

NH: Non-Hispanic. *Among women with intact uteri. †Pap test in the past 3 years among women 25-65 years of age OR Pap test and HPV test within the past 5 years among women 30-64 years of age. ‡Fecal occult blood test (FOBT) in past year, sigmoidoscopy in past five years, or colonoscopy in past 10 years. Utilization of computed tomography colonography (CTC) in the past 5 years was <2% and incorporating CTC into the overall screening estimates did not alter results and is not included in the above estimates. §Estimate not provided due to instability. NOTE: Estimates are age adjusted to the 2000 US standard population and do not distinguish between examinations for screening and diagnosis.

Source: National Health Interview Survey, 2018.

Colorectal Cancer Screening

Colorectal cancer (CRC) screening can prevent cancer through the detection and removal of precancerous growths and can detect cancer at an early stage, when treatment is usually less intensive and more successful. The American Cancer Society recommends that colorectal cancer screening begin at age 45 for persons at average risk (see screening recommendations on page 37).

- In 2018, CRC screening prevalence among adults 45 years of age and older were lower in Hispanic adults (49%) than among non-Hispanic Whites (58%) (Table 9). These differences are largely driven by lower use of colonoscopy in Hispanic adults, as use of stool tests is higher among Hispanic than non-Hispanic White adults.
- Screening uptake also varies widely by Hispanic origin, ranging from 55% among adults of Mexican descent to 76% among Puerto Rican adults (data limited to ages 50 years and older).

Prostate Cancer Screening

The American Cancer Society recommends that asymptomatic men 50 years and older, with at least a 10-year life expectancy have an opportunity to make an informed decision with their health care provider about whether to be screened for prostate cancer using PSA testing. Studies have shown that informed and shared decision measures are inconsistently utilized in clinical practice.[140] In 2018, 30% of Hispanic men received a PSA test in the past year compared to 37% of non-Hispanic White men.

Lung Cancer Screening

A large randomized clinical trial among former and current heavy smokers showed a 20% reduction in lung cancer deaths among those screened for lung cancer with low-dose spiral computed tomography (LDCT) compared with chest x-ray.[52] In 2013, the American Cancer Society began recommending annual lung cancer screening with LDCT screening, with shared

The National Colorectal Cancer Roundtable

The National Colorectal Cancer Roundtable (NCCRT), established in 1997 by the American Cancer Society and the CDC, is a coalition of more than 150 member organizations and individual experts dedicated to reducing CRC incidence and mortality in the US through coordinated leadership, strategic planning, and advocacy.

The NCCRT's 80% in Every Community initiative aims to substantially reduce CRC as a major public health problem by increasing colorectal screening rates to 80% or higher in communities across the nation. Over 1,800 organizations – including health plans, medical professional societies, hospitals, health systems, survivor groups, government agencies, and cancer coalitions – pledged to make this goal a priority. The initiative focuses on addressing persistent screening rate disparities so that every community can benefit from lifesaving CRC screening. The NCCRT has produced the *Hispanics/Latinos and Colorectal Cancer Companion Guide*, which includes recommendations for reaching unscreened Hispanics/Latinos and Spanish language-tested messages. The guide is available at http://nccrt.org/resource/hispanicslatinos-colorectal-cancer-companion-guide/

The National Lung Cancer Roundtable

In 2017, the American Cancer Society launched the National Lung Cancer Roundtable (NLCRT), a national coalition of 143 public, private, and voluntary organizations, and invited individuals dedicated to reducing lung cancer incidence, morbidity, and mortality in the United States. Through coordinated leadership, strategic planning, advocacy, and action, the Roundtable serves as a catalyst to stimulate greater levels of collaborative engagement among its 143 member organizations to work on key lung cancer issues.

decision making, for healthy adults ages 55-74 years who have at least a 30 pack-year smoking history and who currently smoke or have quit within the past 15 years (see screening recommendations on page 37).[141] In 2021, the US Preventive Services Task Force (USPSTF) expanded their lung cancer screening eligibility criteria by lowering the recommended age to begin screening to 50 years and pack-year threshold to 20.[142] These changes increased the proportion of Hispanic adults eligible for lung cancer screening, but not at the same level as non-Hispanic White adults.[143] The American Cancer Society will be begin updating their guidelines in 2021.

Implementation of lung cancer screening remains a challenge. Although population-based data for the Hispanic community have not been published, the prevalence of lung cancer screening in 2018 was only 5%-6% among all eligible adults in the US and lower in states with a greater Hispanic population.[144]

Strategies to Improve Cancer Screening

Barriers to cancer screening are not mutually exclusive and occur and interact at multiple levels, including policy, health system, provider, community, and individual levels. Hispanic persons face systematic and structural barriers to health care and cancer screening. For example, Hispanic adults are less likely to have insurance and are less likely to receive a physician recommendation for screening, which is a necessary step and a key predictor of cancer screening utilization.[145] Other barriers include lack of paid sick leave and other employment-related constraints, which may be more prominent in the Hispanic community.[146] Culturally appropriate interventions, including patient navigation, engagement with community health workers, and tailored small media, are effective strategies for improving screening rates among Hispanic adults.[147, 148]

The CDC has established two national programs to improve cancer screening access and uptake that target low-income and medically underserved communities:

- The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) provides access to breast and cervical cancer screening and diagnostic services among women who are uninsured or underinsured. In 2019 alone, more than 140,000 and 280,000 women received cervical and breast cancer screening services, respectively, nearly half of whom identified as Hispanic (https://www.cdc.gov/cancer/nbccedp/about.htm).

- The goal of the CDC's Colorectal Cancer Control Program (CRCCP) is to implement evidence-based strategies to improve CRC screening and follow-up. To date the CRCCP has 35 state, university (managing state programs), and tribal grantees that partner with health systems to increase CRC screening.

In Puerto Rico, the Comprehensive Control Plan: 2014-2020 is a strategic plan to reduce the cancer burden in the territory using evidence-based strategies for cancer control, including increasing the prevalence of up-to-date cervical cancer screening among women ages 21-65 years to 80%, with a specific emphasis on increasing screening among uninsured women.[149]

The American Cancer Society

The American Cancer Society is on a mission to free the world from cancer. For more than 100 years, we have helped lead an evolution in the way the world prevents, detects, treats, and thinks about cancer As the nation's preeminent cancer-fighting organization, we fund and conduct research, share expert information, support people with cancer, spread the word about prevention, and advocate for public policy change through our advocacy affiliate, American Cancer Society Cancer Action Network℠ (ACS CAN). We are committed to ensuring that ALL people have a fair and just opportunity to prevent, find, treat, and survive cancer – regardless of income, race and ethnicity, sexual orientation, gender identity, disability status, or where they live.

Patient and Caregiver Services

The American Cancer Society provides people with cancer and their caregivers with the facts they need to fuel their fight against cancer. We are a highly trusted source of accurate, evidence-based cancer information and provide information, tools, and resources for those who are at risk for cancer, are facing a cancer diagnosis, have a history of cancer, are caring for someone with cancer, or just want to learn about cancer. Our online resources also help people find ways to live longer, healthier lives, reduce their cancer risk, and understand the importance of cancer screenings.

Cancer Information

Our trained, caring staff provide information and support when and where people need it. Our National Cancer Information Center (NCIC) provides answers and support 24/7 via our live helpline at 1-800-227-2345. Live chat and video chat sessions are also available. We also help people living in the US who speak languages other than English find the assistance they need at cancer.org/easyreading or cancer.org/cancer-information-in-other-languages.

Programs and Services

Survivorship: Having cancer impacts the entire person, and each person's experience with cancer is unique. American Cancer Society survivorship work aims to help people adjusting to, living with, and moving beyond cancer from diagnosis through long-term survivorship to the end of life. Efforts focus on helping survivors manage their ongoing physical, psychosocial, functional, and socioeconomic problems and engage in healthy behaviors to optimize their wellness. Our posttreatment survivorship care guidelines are designed to promote survivor health and quality of life by facilitating the delivery of high-quality, comprehensive, coordinated clinical follow-up care. Our survivorship research efforts focus on understanding the impact of cancer on survivors' lives and on developing and testing interventions to help survivors actively engage in their health care and improve their health and well-being through and beyond treatment. Through the National Cancer Survivorship Resource Center, a collaboration between the American Cancer Society and the George Washington University Cancer Institute funded by the Centers for Disease Control and Prevention, we created the Cancer Survivorship E-Learning Series for Primary Care Providers. This free e-learning program continues to teach clinicians how to care for survivors of adult-onset cancers.

Support for caregivers: Cancer not only affects the individual diagnosed, but also impacts an entire family unit and network of close friends who often must provide care for their loved one throughout diagnosis and treatment. One of the informational tools we offer is our *Caregiver Resource Guide* (https://www.cancer.org/content/dam/cancer-org/cancer-control/en/booklets-flyers/american-cancer-society-caregiver-resource-guide.pdf), which helps caregivers learn to care for themselves as they provide care for a loved one; better understand what their loved one is going through; develop skills for coping and caring; and take steps to help protect their own health and well-being. Another helpful resource is our Caregiver Support Video Series (cancer.org/caregivervideos), which provides educational support to caregivers as they assist with everyday needs of loved ones, as well as self-care techniques to improve their quality of life. Both resources are available in English and Spanish.

Transportation to treatment: The American Cancer Society Road To Recovery® program removes barriers to cancer treatment by providing free transportation for people facing cancer through trained volunteer drivers.

Lodging during treatment: Our Hope Lodge® communities provide a home away from home for people with cancer and their caregivers in a supportive, caring environment so they can focus on getting better.

Breast cancer support: The American Cancer Society Reach To Recovery® program connects people facing breast cancer with one-on-one support – from diagnosis through survivorship – from trained volunteers who are breast cancer survivors. These volunteers help people facing breast cancer cope with diagnosis, treatment, side effects, and more.

Hair-loss and mastectomy products: Our *"tlc" Tender Loving Care*® program helps women with appearance-related side effects of cancer treatment by offering them a variety of affordable wigs, hats, and scarves, as well as a full range of mastectomy products. These items can be purchased from the privacy of home by calling 1-800-850-9445 or visiting the *"tlc"*™ website at tlcdirect.org.

Finding hope and inspiration: The American Cancer Society Cancer Survivors Network® virtual communities provide people facing cancer and survivors the opportunity to learn more and connect with others who can be a source of support and comfort. Our safe online community offers survivors and caregivers a place to share their stories, ask questions, and get support from each other.

Patient Support in Puerto Rico

The Puerto Rico Patient Service Center provides people with cancer and providers in Puerto Rico with information on a range of issues, including health insurance and financial assistance for treatment. Because of COVID-19, the Center specialists and navigators are operating virtually as of summer 2021. They hope to begin providing in-person services to help guide those facing cancer through the health care system later in 2021.

Research

The American Cancer Society is the primary private nonprofit funder for scientists studying cancer in the United States. Over the past 20 years, the Extramural Discovery Science department has funded more than 550 cancer health equity and health disparities grants totaling over $300 million, such as grants to address disparities in breast density care for Latinas and to improve quality of life for Latino children with cancer. Our intramural research program, which includes our Surveillance and Health Equity Science and Population Science teams, prioritizes cancer disparity and health equity research by investigating disparities in access to care and cancer risk factors, trends, occurrence, and outcomes for marginalized and medically underserved populations. Visit https://www.cancer.org/research.html to explore our research programs further.

Advocacy

The American Cancer Society and the American Cancer Society Cancer Action Network℠ (ACS CAN), our nonprofit, nonpartisan advocacy affiliate, are committed to ensuring that everyone has a fair and just opportunity to prevent, find, treat, and survive

cancer. No one should be disadvantaged in their fight against cancer because of how much money they make, the color of their skin, their sexual orientation, their gender identity, their disability status, or where they live. ACS CAN advocates for public policies to reduce disparities and improve health outcomes at all levels of government. Listed below are some of the efforts that ACS CAN has been involved with over the past few years:

ACS CAN and the American Cancer Society are working to improve access to health care for people with cancer, cancer survivors, and those who will be diagnosed with the disease in the future, which will help save lives. This includes ACS CAN's work to protect provisions under the health care law known as the Affordable Care Act, which has improved access to care for people facing cancer and their families by:

- Ending discrimination against people with cancer and other life-threatening diseases
- Expanding access to care for people with cancer or at risk for cancer
- Refocusing the health care system on disease prevention

Each year, ACS CAN works hard to ensure that the agencies overseeing cancer research and prevention programs receive the funding needed to continue the battle against cancer. The organization continues to lead the fight to maintain and increase the investment the US has made in biomedical and cancer research and cancer programs at the National Institutes of Health (NIH), the National Cancer Institute (NCI), and the Centers for Disease Control and Prevention (CDC). This investment includes increased funding for cancer research at the National Institute on Minority Health and Health Disparities, which the American Cancer Society was instrumental in helping to establish.

Protecting state and federal funding for the CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP) continues to be a high priority for ACS CAN. Ensuring adequate funding for the NBCCEDP will preserve a critical safety net for those who continue to lack access to lifesaving screening, as well as diagnostic and treatment services for breast and cervical cancers.

Colorectal cancer screening by colonoscopy can remove precancerous polyps during the procedure, thereby making it a unique preventive service. ACS CAN successfully advocated for passage of the Removing Barriers to Colorectal Cancer Screening Act, which will ensure that Medicare beneficiaries have access to colorectal cancer screening without any surprise out-of-pocket costs. This major bipartisan victory will help improve affordability of lifesaving cancer detection services. ACS CAN is also advocating for smoking cessation treatment that is comprehensive, barrier-free, and widely promoted for Medicaid enrollees.

Additionally, ACS CAN supports policies that ensure people of different racial and ethnic backgrounds who have cancer are enrolled in clinical trials. Representation in clinical trials is important because the studies help ensure that medicines and treatments are safe and effective for people of all racial and ethnic backgrounds.

Additional Resources

Intercultural Cancer Council (ICC)

The Intercultural Cancer Council promotes policies, programs, partnerships, and research to eliminate the unequal burden of cancer among racial and ethnic minorities and medically underserved populations in the United States and its territories. Visit iccnetwork.org for more information.

National Hispanic Council on Aging (NHCOA)

The National Hispanic Council on Aging is the leading national organization working to improve the lives of older Hispanic adults, their families, and caregivers. The organization has been a strong voice dedicated to promoting, educating, and advocating for research, policy, and practice in the

areas of economic security, health, and housing for more than 50 years. Visit nhcoa.org for more.

National Hispanic Medical Association (NHMA)

The National Hispanic Medical Association is a nonprofit association representing 50,000 licensed Hispanic physicians in the United States. The mission of the organization is to empower Hispanic physicians to lead efforts that improve the health of Hispanic individuals and other underserved populations in collaboration with Hispanic state medical societies, residents, medical students, and other public and private sector partners. Visit nhmamd.org for more information.

National Alliance for Hispanic Health

The National Alliance for Hispanic Health is the premier science-based and community-driven organization that focuses on the best health for all. Community-based members provide services to more than 15 million Hispanic people throughout the United States every year and national organization members provide services to more than 100 million people annually. Visit hispanichealth.org for more information.

Data Limitations

Comparison of cancer incidence, death, and survival rates between racial and ethnic groups, particularly those involving groups other than White or Black Americans, should be interpreted with caution for several reasons. First, because of how cancer data are collected, we cannot present most cancer statistics according to country of origin and nativity status, masking important differences within the aggregated Hispanic population. In addition, ethnicity and race are not always classified uniformly in medical records, death certificates, and the US decennial census, so incidence and mortality rates for populations other than Whites and Blacks are likely to be underestimated.

Incidence trends, lifetime probabilities of developing cancer, and survival rates presented in this report are from the Surveillance, Epidemiology, and End Results (SEER) program cancer registry areas, which do not include some states where a large proportion of the US Hispanic population resides (e.g., Florida and Texas). Further, according to population-based data, Hispanic patients in the SEER registry areas have similar, or sometimes higher, cancer survival rates than non-Hispanic Whites for some cancer sites, despite having lower socioeconomic indicators. This counterintuitive scenario, sometimes referred to as the "Hispanic paradox," may reflect incomplete or biased data instead of a true survival advantage.[26, 150, 151] As a result of the greater difficulties in the accurate recording of cancer deaths for immigrant populations, one study found that survival rates for Hispanic patients may be artificially inflated and should be interpreted with caution.[26]

Finally, accurately identifying Hispanic/Latino individuals for cancer surveillance is an ongoing challenge. In an effort to address this issue, the North American Association of Central Cancer Registries (NAACCR) convened an expert panel in 2001 to develop the NAACCR Hispanic Identification Algorithm (NHIA), first released for use by cancer registries in 2003 and updated in 2005, which uses a combination of patient variables found within cancer registry records, including last name and birthplace, to indirectly determine Hispanic origin. However, work in this area is ongoing.

Sources of Statistics

Estimated new cancer cases: The estimated number of new cancer cases diagnosed among Hispanic people in the US in 2021 was projected using a two-step process. First, the total number of cases was estimated for the 10 most recent years of national data (2009 to 2018) by applying age-specific incidence rates for Hispanic people from 49 states and the District of Columbia that met the North American Association of Central Cancer Registries' (NAACCR) high-quality data standards for all 10 years to Hispanic population estimates.[152] Then, the number of new cases was projected three years ahead based on the 10-year average annual percent change obtained from joinpoint regression analysis.

Incidence rates: Incidence rates (calculated as the number of people newly diagnosed with cancer during a given time period divided by the population at risk) were reported per 100,000 people and were age adjusted to the 2000 US standard population. Long-term incidence trends (1995 to 2018) were based on data from 28 states that met the NAACCR data quality standards for all years (covering 88% of the Hispanic population in the continental US and Hawaii) and were the source for the 10- and 5-year average annual percent change in cancer incidence rates (2009-2018 and 2014-2018). NAACCR incidence data were also the source for the 5-year average annual age-adjusted incidence rates for 2014-2018, as well as stage at diagnosis for new cases diagnosed 2014-2018.[152, 153]

Estimated cancer deaths: The estimated number of US cancer deaths among Hispanic people living in the continental US or Hawaii in 2021 was calculated by fitting the number of cancer deaths from 2005 through 2019 to a statistical model that forecasts the number of deaths expected to occur in 2021. Data on the number of deaths are obtained from the National Center for Health Statistics (NCHS) of the CDC.[154]

Death rates: Similar to the incidence rates, death rates herein are presented as cancer deaths per 100,000 people and are age adjusted to the 2000 US standard population. Death rates in this publication are based on counts of cancer deaths compiled by the NCHS and population data from the US Census Bureau.[154] Five-year average annual cancer death rates for Puerto Rico (2014-2018) were previously published elsewhere.[155] It is important to note that Hispanic cancer incidence and mortality rates are not directly comparable because of differences in population coverage and data years and because the amount by which surveillance data underestimate these two statistics for racial/ethnic minority groups is different.[156]

Important note about estimated cancer cases and deaths for the current year: Estimates do not include Hispanic people living in US territories due to data limitations. While the projections provide a reasonably accurate estimate of the cancer burden in 2021, they cannot be used to track changes in cancer occurrence because they may vary from previous years for reasons other than changes in cancer occurrence. Therefore, age-adjusted incidence and mortality rates are the preferred statistics to track cancer trends in the US. These estimates also do not reflect the substantial impact of the COVID-19 pandemic on the Hispanic community because final 2020 incidence and mortality data are not yet available.

Survival: This report presents cause-specific survival rates from patients diagnosed in 17 registries of the SEER program to describe cancer survival.[157] All five-year survival statistics presented in the tables and text of this publication are for diagnosis years 2011 to 2017, with all patients followed through 2018.

Risk factor and screening prevalence: The methods for the collection of population-based national survey data collected by the Centers for Disease Control and Prevention used to examine the prevalence of selected cancer risk factors and screening prevalence herein are described in further detail via the links below:

- National Health and Nutrition Examination Survey (NHANES): cdc.gov/nchs/nhanes.htm
- National Health Interview Survey (NHIS): cdc.gov/nchs/nhis.htm
- National Youth Tobacco Survey (NYTS): cdc.gov/TOBACCO/data_statistics/surveys/NYTS/
- Youth Risk Behavior Surveillance System (YRBSS): cdc.gov/HealthyYouth/yrbs/index.htm

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American Cancer Society Recommendations for the Early Detection of Cancer in Average-risk Asymptomatic People*

Cancer Site	Population	Test or Procedure	Recommendation
Breast	Women, ages 40-54	Mammography	Women should have the opportunity to begin annual screening between the ages of 40 and 44. Women should undergo regular screening mammography starting at age 45. Women ages 45 to 54 should be screened annually.
	Women, ages 55+		Transition to biennial screening, or have the opportunity to continue annual screening. Continue screening as long as overall health is good and life expectancy is 10+ years.
Cervix	Women, ages 25-65	HPV DNA test, **OR** Pap test & HPV DNA test	**Preferred:** Primary HPV test alone every 5 years with an FDA-approved test for primary HPV screening. **Acceptable:** Co-testing (HPV test and Pap test) every 5 years or Pap test alone every 3 years.
	Women, ages >65		Discontinue screening if results from regular screening in the past 10 years were negative, with the most recent test within the past 5 years.
	Women who have been vaccinated against HPV		Follow age-specific screening recommendations (same as unvaccinated individuals).
	Women who have had a total hysterectomy		Individuals without a cervix and without a history of cervical cancer or a history of CIN2 or a more severe diagnosis in the past 25 years should not be screened.
Colorectal†	Men and women, ages 45+	Guaiac-based fecal occult blood test (gFOBT) with at least 50% sensitivity or fecal immunochemical test (FIT) with at least 50% sensitivity, **OR**	Annual testing of spontaneously passed stool specimens. Single stool testing during a clinician office visit is not recommended, nor are "throw in the toilet bowl" tests. In comparison with guaiac-based tests for the detection of occult blood, immunochemical tests are more patient-friendly and are likely to be equal or better in sensitivity and specificity. There is no justification for repeating FOBT in response to an initial positive finding.
		Multi-target stool DNA test, **OR**	Every 3 years
		Flexible sigmoidoscopy (FSIG), **OR**	Every 5 years alone, or consideration can be given to combining FSIG performed every 5 years with a highly sensitive gFOBT or FIT performed annually
		Colonoscopy, **OR**	Every 10 years
		CT Colonography	Every 5 years
Endometrial	Women at menopause		Women should be informed about risks and symptoms of endometrial cancer and encouraged to report unexpected bleeding to a physician.
Lung	Current or former smokers ages 55-74 in good health with 30+ pack-year history	Low-dose helical CT (LDCT)	Clinicians with access to high-volume, high-quality lung cancer screening and treatment centers should initiate a discussion about annual lung cancer screening with apparently healthy patients ages 55-74 who have at least a 30 pack-year smoking history, and who currently smoke or have quit within the past 15 years. A process of informed and shared decision making with a clinician related to the potential benefits, limitations, and harms associated with screening for lung cancer with LDCT should occur before any decision is made to initiate lung cancer screening. Smoking cessation counseling remains a high priority for clinical attention in discussions with current smokers, who should be informed of their continuing risk of lung cancer. Screening should not be viewed as an alternative to smoking cessation.
Prostate	Men, ages 50+	Prostate-specific antigen test with or without digital rectal examination	Men who have at least a 10-year life expectancy should have an opportunity to make an informed decision with their health care provider about whether to be screened for prostate cancer, after receiving information about the potential benefits, risks, and uncertainties associated with prostate cancer screening. Prostate cancer screening should not occur without an informed decision-making process. African American men should have this conversation with their provider beginning at age 45.

CT-Computed tomography. *All individuals should become familiar with the potential benefits, limitations, and harms associated with cancer screening.
†All positive tests (other than colonoscopy) should be followed up with colonoscopy.

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