Cancer Facts & Figures for Hispanics/Latinos 2006-2008

American Cancer Society®

Contents

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Cancer Statistics

Introduction

About 42 million Americans, or 14% of the total US population, identify themselves as Hispanic or Latino* according to US Census Bureau 2004 population estimates. Approximately 60% of these individuals are born in the US, while the other 40% are foreign born (not US citizens at birth). Almost 60% of Hispanics are of Mexican origin, followed by Puerto Rican (9.7%), Central American (5.1%), South American (4.0%), Cuban (3.5%), Dominican (2.3%), Spanish (0.3%), and other descent. Communities of Hispanic subpopulations tend to be concentrated in certain regions (Figure 1) – 50% of Mexicans live in the West, 60% of Puerto Ricans live in the Northeast, and almost 80% of Cubans live in the South.

This report presents statistics on cancer incidence, mortality, survival, and risk factors for Hispanics. It is intended to provide information to community leaders, public health and healthcare workers, and others interested in cancer prevention, early detection, and treatment for Hispanics in the US.

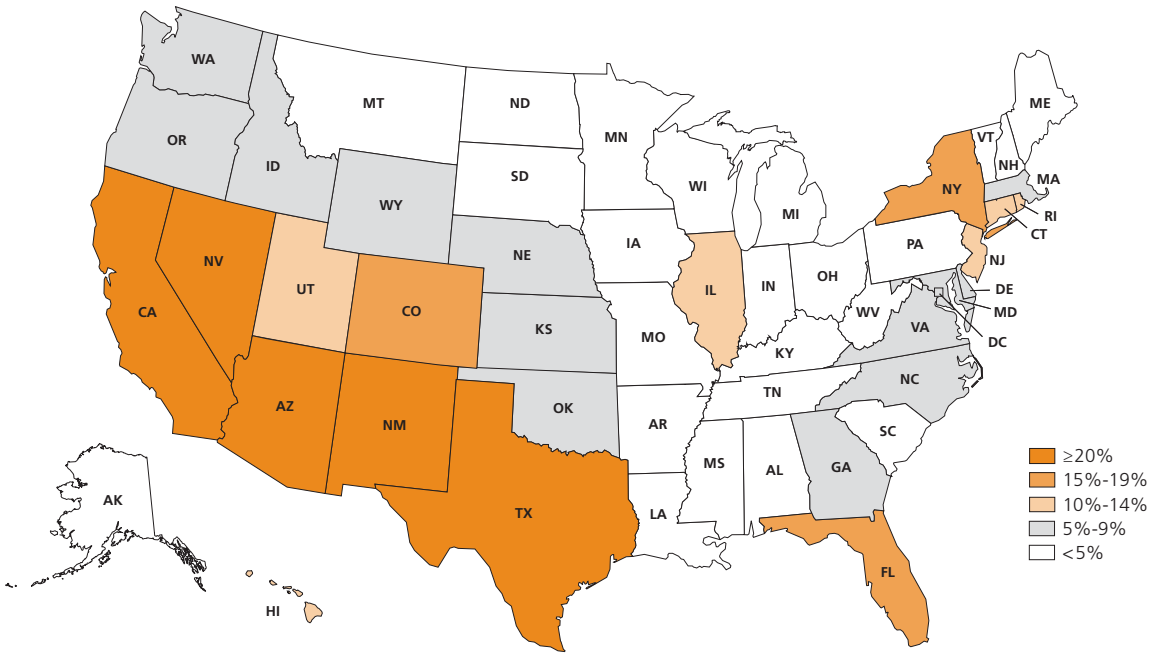
What is Cancer?

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. It is caused by both external factors (tobacco, infectious organisms, poor nutrition, chemicals, and radiation) and internal factors (inherited mutations, hormones, immune conditions, and mutations that occur from metabolism). Ten or more years often pass between exposure to external factors and detectable cancer.

Can Cancer Be Prevented?

Most of the cancers caused by external factors, such as tobacco and infectious organisms, are preventable.

Figure 1. Hispanic/Latino Population Estimates, US, 2004



Source: Population Division, US Census Bureau.

*The terms "Hispanic" and "Latino" are used interchangeably to refer to the same ethnic group. Therefore, in this document, health-related information using the term "Hispanics" includes and applies to "Latinos." Statistics for subpopulations are provided whenever possible. Data for Puerto Ricans describes individuals living within the continental US.

Cancers of the colon and rectum can be prevented by avoiding risk factors such as obesity and physical inactivity, and by early detection and removal of precancerous lesions. Cancer of the cervix can be prevented by vaccination against human papilloma virus, as well as early detection and removal of cervical abnormalities. Screening can detect cancers of the breast, colon and rectum, cervix, prostate, oral cavity, and skin at an early stage when treatment is more likely to be successful. Cancer is treated with surgery, radiation, chemotherapy, hormones, and immunotherapy.

Who Gets Cancer?

Anyone can get cancer. Since most cancers in adults require many years to develop, the probability of being diagnosed with cancer increases with age (Table 1). The median age at diagnosis of cancer in Hispanics is 62 years. Overall, slightly less than 1 in 2 Hispanic men and 1 in 3 Hispanic women will be diagnosed with cancer in their lifetime. The lifetime probability of dying from cancer is 1 in 5 in men and a little more than 1 in 6 in women. Cancer is the second leading cause of death, accounting for 20% of all deaths in Hispanics in the US (Figure 2).

How Many New Cancer Cases and Deaths Are Expected in 2006?

New cases: About 39,940 new cancer cases in men and 42,140 cases in women are expected to be diagnosed among Hispanics in 2006 (Figure 3). Prostate cancer is expected to be the most commonly diagnosed cancer in men and breast cancer the most common in women. Cancers of the colon and rectum and lung will be the second- and third-most commonly diagnosed cancers in both Hispanic men and women. The four most common cancers (breast, prostate, colon and rectum, and lung) account for about 50% of all cases in both men and women.

Deaths: About 12,320 Hispanic men and 11,000 Hispanic women are expected to die from cancer in 2006 (Figure 3). Among men, lung cancer is expected to account for about 21% of the total, followed by colon and rectum (11%) and prostate (9%) cancer. Among women, breast cancer is the leading cause of cancer death (16% of the total), followed by lung (14%) and colon and rectum (9%). In contrast, the leading cause of cancer death in non-Hispanic women is lung cancer.

Table 1. Probability of Developing Invasive Cancer Among Hispanics Over Selected Age Intervals, by Sex, US, 2001 to 2003*

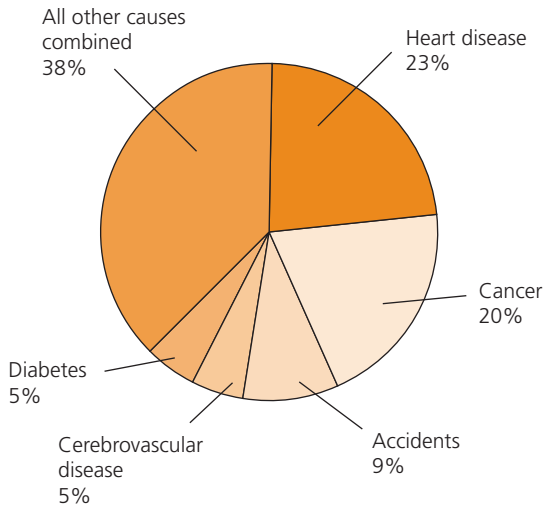
		Birth to 39 (%)	40 to 59 (%)	60 to 69 (%)	70 and older (%)	Birth to death (%)
All sites†	Male	1.11 (1 in 90)	5.91 (1in 17)	12.69 (1 in 8)	36.84 (1 in 3)	40.95 (1 in 2)
	Female	1.63 (1 in 61)	7.07 (1 in 14)	7.87 (1 in 13)	24.03 (1 in 4)	33.30 (1 in 3)
Breast	Female	.37 (1 in 268)	2.91 (1 in 34)	2.38 (1 in 42)	4.78 (1 in 21)	9.23 (1 in 11)
Colon & rectum	Male	.06 (1 in 1,699)	.72 (1 in 139)	1.38 (1 in 73)	4.17 (1 in 24)	5.03 (1 in 20)
	Female	.06 (1 in 1,597)	.55 (1 in 181)	.89 (1 in 112)	3.63 (1 in 28)	4.48 (1 in 22)
Liver & intrahepatic bile duct	Male	.01 (1 in 6,882)	.37 (1 in 272)	.45 (1 in 222)	.94 (1 in 107)	1.46 (1 in 69)
	Female	.01 (1 in 9,928)	.08 (1 in 1,321)	.17 (1 in 577)	.61 (1 in 165)	.76 (1 in 132)
Lung & bronchus	Male	.02 (1 in 5,782)	.45 (1 in 220)	1.30 (1 in 77)	4.85 (1 in 21)	5.21 (1 in 19)
	Female	.02 (1 in 5,384)	.34 (1 in 292)	.77 (1 in 130)	2.71 (1 in 37)	3.36 (1 in 30)
Melanoma	Male	.02 (1 in 4,706)	.08 (1 in 1,331)	.10 (1 in 996)	.36 (1 in 277)	.45 (1 in 221)
	Female	.06 (1 in 1,755)	.12 (1 in 844)	.09 (1 in 1,076)	.27 (1 in 373)	.49 (1 in 205)
Prostate	Male	<.01 (1 in 20,041)	1.70 (1 in 59)	5.73 (1 in 17)	14.01 (1 in 7)	16.29 (1 in 6)
Stomach	Male	.03 (1 in 3,669)	.24 (1 in 413)	.41 (1 in 242)	1.57 (1 in 64)	1.80 (1 in 56)
	Female	.03 (1 in 3,970)	.18 (1 in 567)	.23 (1 in 433)	1.12 (1 in 89)	1.36 (1 in 73)
Uterine cervix	Female	.19 (1 in 539)	.50 (1 in 200)	.27 (1 in 371)	.35 (1 in 283)	1.22 (1 in 82)

*For those free of cancer at beginning of age interval. Based on cancer cases diagnosed during 2001 to 2003. †All sites excludes basal and squamous cell skin cancers and in situ cancers except urinary bladder.

Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.1.0 Statistical Research and Applications Branch, National Cancer Institute, 2006. http://srab.cancer.gov/devcan

American Cancer Society, Surveillance Research, 2006

Figure 2. Leading Causes of Death in Hispanics, All Ages, 2003



Source: US Mortality Public Use Data Tape, 2003, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006. Data from New Hampshire and North Dakota were excluded due to incomplete data.

American Cancer Society, Surveillance Research, 2006

How Have Cancer Rates Changed Over Time?

Trends in cancer incidence rates: Cancer incidence rates for Hispanics have been available since 1992. In examining 10-year trends (1994-2003), incidence rates for all cancers combined among Hispanic men decreased by an average of 1.1% each year (Figure 4), a larger decrease than among non-Hispanic white men (0.5% per year).[1] Over the same time interval, incidence rates for all cancers combined among both Hispanic and non-Hispanic white women changed very little.[1]

Trends in cancer death rates: Death rates for all cancers combined decreased during the interval 1994-2003 by an average of 1.5% per year among Hispanic men and by 0.5% per year among Hispanic women.[1] The average annual decrease in non-Hispanic whites over the same time interval was 1.4% in men and 0.7% in women.[1]

Figure 3. Leading Sites of New Cancer Cases and Deaths Among Hispanics, 2006 Estimates

Cases*		Deaths	
Male	**Female**	**Male**	**Female**
Prostate 11,830 (30%)	Breast 14,300 (34%)	Lung & bronchus 2,560 (21%)	Breast 1,740 (16%)
Colon & rectum 4,580 (11%)	Colon & rectum 3,790 (9%)	Colon & rectum 1,350 (11%)	Lung & bronchus 1,510 (14%)
Lung & bronchus 3,370 (8%)	Lung & bronchus 2,380 (6%)	Prostate 1,140 (9%)	Colon & rectum 1,010 (9%)
Non-Hodgkin lymphoma 2,000 (5%)	Uterine corpus 2,280 (5%)	Liver & intrahepatic bile duct 990 (8%)	Pancreas 710 (6%)
Kidney & renal pelvis 1,990 (5%)	Thyroid 2,150 (5%)	Pancreas 700 (6%)	Ovary 660 (6%)
Urinary bladder 1,610 (4%)	Uterine cervix 2,000 (5%)	Stomach 670 (5%)	Liver & intrahepatic bile duct 550 (5%)
Liver & intrahepatic bile duct 1,560 (4%)	Non-Hodgkin lymphoma 1,710 (4%)	Leukemia 650 (5%)	Stomach 500 (5%)
Leukemia 1,540 (4%)	Ovary 1,560 (4%)	Non-Hodgkin lymphoma 560 (5%)	Non-Hodgkin lymphoma 500 (5%)
Stomach 1,430 (4%)	Kidney & renal pelvis 1,140 (3%)	Kidney & renal pelvis 430 (3%)	Leukemia 490 (4%)
Oral cavity & pharynx 870 (2%)	Stomach 1,120 (3%)	Brain & other nervous system 370 (3%)	Uterine cervix 350 (3%)
All sites 39,940 (100%)	All sites 42,140 (100%)	All sites 12,320 (100%)	All sites 11,000 (100%)

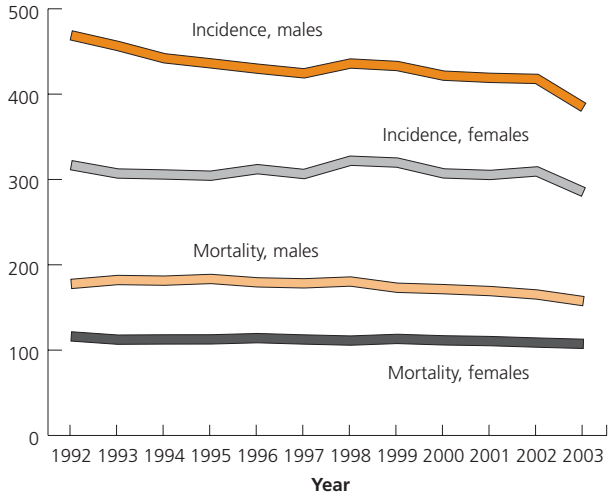
*Excludes basal and squamous cell skin cancers and in situ carcinoma except urinary bladder.
Note: Percentage totals may not add up to 100 due to rounding.

What Are the Major Differences in Cancer Burden Between Hispanics and Non-Hispanic Whites?

Incidence and death rates: Table 2 shows differences in cancer incidence and death rates between Hispanics and non-Hispanic whites in the US. For all cancers combined, and for the most common cancers (prostate, female breast, colon and rectum, and lung), incidence and death rates among Hispanics are lower than among non-Hispanic whites. Cancers for which rates are higher in Hispanics include stomach, liver, cervix, acute lymphocytic leukemia, and gallbladder. For most of these cancers, changes in incidence and mortality trends are shown in Figure 5. It is important to note that cancer statistics reported for Hispanics may mask wide variations in the cancer burden for specific populations according to country of origin.

The cancer burden among Hispanics living in the US is generally similar to that seen in the countries of origin for which data are available. Compared to rates in the US, incidence of breast, colon and rectum, lung, and prostate cancers are lower in Puerto Rico, Cuba, and Central and South America, whereas incidence rates of cervical, liver, and stomach cancers are higher.[2] There is

Figure 4. Trends in Incidence and Death Rates for All Cancers Combined Among Hispanics* by Sex, 1992-2003



*Hispanics are not mutually exclusive from whites, African Americans, Asian/Pacific Islanders, and American Indians/Alaska Natives.

Source: Incidence – Surveillance, Epidemiology, and End Results (SEER) Program, SEER 13 areas, excluding Hawaii, Seattle, and the Alaska Native Registry, National Cancer Institute, 2006. Data for Hispanics are based on the NAACCR Hispanic Indentification Algorithm (NHIA). Mortality – National Center for Health Statistics, Centers for Disease Control and Prevention, 2006. Data were excluded from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, and Vermont due to incomplete data.

Table 2. Cancer Incidence and Mortality Rates* and Ratios Comparing Hispanics to Non-Hispanic Whites, 2000-2003

Incidence

	Male			Female		
	Non-Hispanic			Non-Hispanic		
	Hispanic	White	Ratio†	Hispanic	White	Ratio†
All sites	419.1	574.0	0.7	310.9	438.8	0.7
Prostate	141.1	167.9	0.8	–	–	–
Female breast	–	–	–	89.1	140.6	0.6
Colon & rectum	47.3	62.7	0.8	32.7	45.7	0.7
Lung & bronchus	44.7	81.9	0.5	24.0	56.8	0.4
Stomach	15.9	9.5	1.7	9.6	4.1	2.3
Uterine cervix	–	–	–	14.2	7.3	1.9
Liver & intrahepatic bile duct	14.1	6.9	2.0	5.6	2.5	2.2
Acute lymphocytic leukemia	2.3	1.7	1.4	2.0	1.3	1.5
Gallbladder	1.5	0.7	2.0	3.4	1.1	3.0

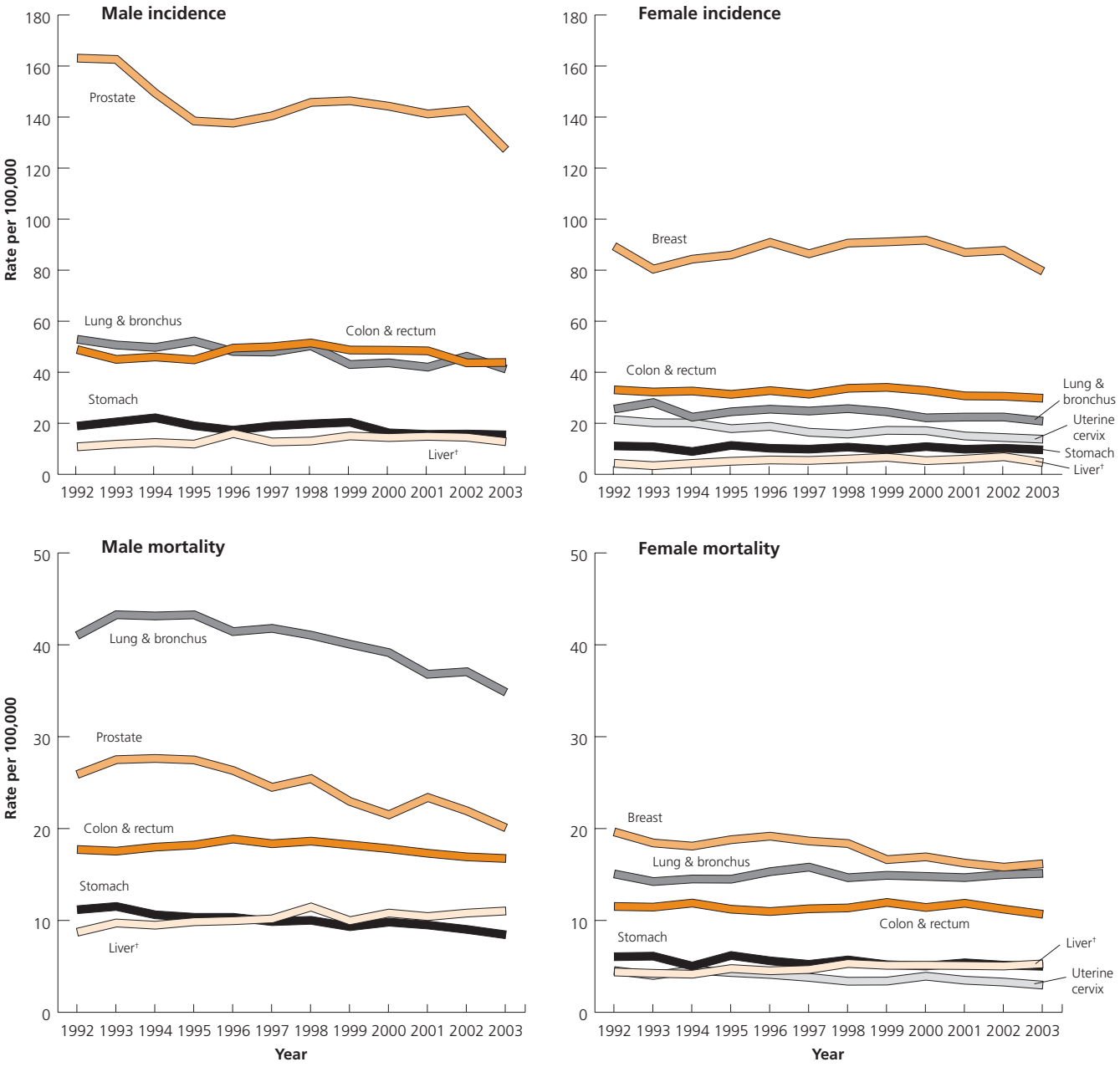
Mortality

	Male			Female		
	Non-Hispanic			Non-Hispanic		
	Hispanic	White	Ratio‡	Hispanic	White	Ratio‡
All sites	165.1	241.7	0.7	108.1	166.3	0.7
Prostate	21.8	26.2	0.8	–	–	–
Female breast	–	–	–	16.2	25.8	0.6
Colon & rectum	17.3	23.8	0.7	11.3	16.5	0.7
Lung & bronchus	36.6	76.2	0.5	14.7	44.3	0.3
Stomach	9.1	5.0	1.8	5.1	2.4	2.1
Uterine cervix	–	–	–	3.4	2.3	1.5
Liver & intrahepatic bile duct	10.7	6.1	1.8	5.0	2.6	1.9
Acute lymphocytic leukemia	0.8	0.6	1.3	0.6	0.4	1.6
Gallbladder	0.8	0.5	1.8	1.4	0.7	1.9

*Rates are per 100,000 and age-adjusted to the 2000 US standard population. †Incidence ratios are calculated as Hispanic incidence rate divided by non-Hispanic white incidence rate. ‡Mortality ratios are calculated as Hispanic death rate divided by non-Hispanic white death rate. Note: Hispanics are not mutually exclusive from whites, African Americans, Asian/Pacific Islanders, and American Indians/Alaska Natives.

Source: Incidence – Surveillance, Epidemiology, and End Results (SEER) Program, 17 SEER registries, 2000 to 2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006. Incidence data for Hispanics and non-Hispanic whites are based on the NAACCR Hispanic Identification Algorithm (NHIA) and exclude cases from Hawaii, Seattle, Alaska Native Registry, and Kentucky. Mortality – National Center for Health Statistics, Centers for Disease Control and Prevention, 2006. Data were excluded from Minnesota, New Hampshire, and North Dakota.

Figure 5. Cancer Incidence and Mortality Rates in Hispanics* by Site, 1992-2003



*Hispanics are not mutually exclusive from whites, African Americans, Asian/Pacific Islanders, and American Indians/Alaska Natives. †Liver includes intrahepatic bile duct.

Source: Incidence – Surveillance, Epidemiology, and End Results (SEER) Program, SEER 13 areas, excluding Hawaii, Seattle, and the Alaska Native Registry, National Cancer Institute, 2006. Data for Hispanics are based on the NAACCR Hispanic Indentification Algorithm (NHIA). Mortality – National Center for Health Statistics, Centers for Disease Control and Prevention, 2006. Data were excluded from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, and Vermont due to incomplete data.

some evidence that descendents of Hispanic migrants have cancer rates which approach that of non-Hispanic whites due to acculturation.[3-5] The term "acculturation" refers to the process by which immigrants adopt the attitudes, values, customs, beliefs, and behaviors of their new culture. Among Hispanic immigrants to the US these changes may include increases in smoking, obesity, and alcohol intake and decreases in dietary quality and physical activity.[6]

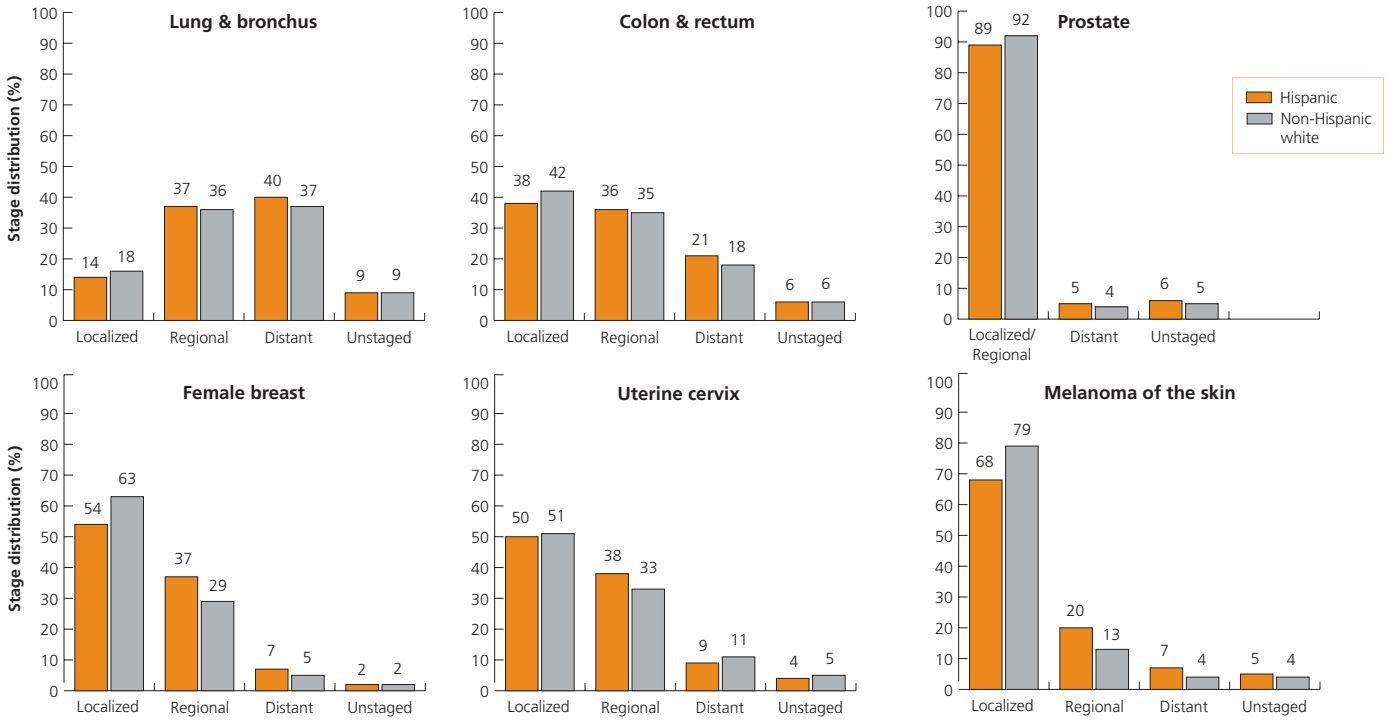
Stage distribution and survival: According to the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) summary staging system, stage

of disease describes the extent or spread of the cancer at the time of diagnosis. Local stage describes a malignant cancer that is confined to the organ of origin. A cancer that is diagnosed at a regional stage has spread from its original site into surrounding organs, tissues, or nearby lymph nodes. Distant-stage cancer has spread to distant organs. In general, the further a cancer has spread, the less likely that treatment will be effective. Although Hispanics have lower incidence and death rates than non-Hispanic whites for the most common cancers, they are more likely to be diagnosed with a more advanced stage of disease (Figure 6).

Survival rates indicate the percentage of patients who are alive after a given time period following a cancer diagnosis. The most commonly used survival measure for the general population is relative survival, which is the ratio of observed survival in a group of cancer patients divided by the expected survival in a comparable group of cancer-free individuals. Because expected survival data are not available for Hispanics, an alternative measure, cause-specific survival, is used. Cause-specific survival is the probability of surviving a specific disease within a certain time period (usually 5 years) after diagnosis. To compare cancer survival in Hispanics with non-Hispanic whites, an adjusted relative risk is calculated to take into account possible differences in age and stage at diagnosis.

Hispanic men and women have lower survival rates for most cancers, even after accounting for differences in age and stage distribution (Table 3).[7] For example, we can see that a Hispanic man diagnosed with stomach cancer is 26% more likely to die of stomach cancer during the 5 years after diagnosis compared to a non-Hispanic white man of the same age with the same stage of disease. These differences may reflect less access to timely, high-quality treatment.

Figure 6. Stage Distribution for Selected Cancers in Hispanics* and Non-Hispanic Whites, 2000-2003



*Hispanics are not mutually exclusive from whites, African Americans, Asian/Pacific Islanders, and American Indians/Alaska Natives.
Note: Percentages may not total 100 due to rounding.

Source: Surveillance, Epidemiology, and End Results (SEER) Program, 17 SEER registries, 2000 to 2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006. Incidence data for Hispanics and non-Hispanic whites are based on the NAACCR Hispanic Identification Algorithm (NHIA). Cases from Hawaii, Seattle, Alaska Native Registry, and Kentucky are excluded.

Selected Cancers

Female Breast

New cases: Breast cancer is the most commonly diagnosed cancer among Hispanic women; an estimated 14,300 Hispanic women are expected to be diagnosed in 2006. Some of the factors that increase risk of breast cancer (age, family history, later age at first full-term pregnancy, early menarche, and late menopause) are not modifiable.[8] Other factors such as post-menopausal obesity, use of postmenopausal hormones, alcohol consumption, and physical inactivity are potentially modifiable.[8] The breast cancer incidence rate in Hispanic women is about 40% lower than that of non-Hispanic white women (Table 2). This may partly result from protective reproductive patterns (lower age at first birth and larger number of children) and less use of hormone replacement therapy.[9-11] It may also reflect underdiagnosis due to lower utilization of mammography.[10] The incidence of breast cancer in post-menopausal women could be reduced by maintaining a healthy body weight.[12] During 1994 to 2003, breast cancer incidence rates changed very little in Latino women.[1]

Deaths: An estimated 1,740 deaths from breast cancer are expected to occur among Hispanic women in 2006. Breast cancer is the leading cause of cancer death among Hispanic women. The average annual decrease of 2.2% in the breast cancer death rate from 1994-2003 among Hispanic women was similar to the decrease seen in non-Hispanic white women (2.4% per year).[1]

Stage distribution and survival: Breast cancer is less likely to be diagnosed at the earliest stage in Hispanic women compared to non-Hispanic white women (Figure 6). For example, during the period 2000-2003, 54% of breast cancers among Hispanic women were diagnosed at the local stage, compared to 63% of cases among non-Hispanic white women. Hispanic women are also more likely to be diagnosed with larger breast tumors than non-Hispanic white women.[13] Differences in mammography utilization and delayed follow-up of abnormal screening results may contribute to this difference. Hispanic women are about 20% more likely to die of breast cancer than non-Hispanic white women diagnosed at similar age and stage (Table 3).[7]

Table 3. Five-Year Cancer Specific Survival and Stage and Age-Adjusted Relative Risk of Cancer Death by Cancer Type, 1992-2000

	Cause-specific survival (%)		Adjusted relative risk (95% CI) of cancer deaths*	
	Hispanic White	Non-Hispanic White	Hispanic White	Non-Hispanic White
Male				
All sites	65.1	67.6	1.16 (1.14-1.18)	1.0
Prostate	90.0	92.0	1.12 (1.05-1.19)	1.0
Lung & bronchus	14.4	16.0	1.08 (1.04-1.12)	1.0
Colon & rectum	60.9	64.0	1.05 (0.99-1.11)	1.0
Stomach	28.0	34.9	1.26 (1.18-1.36)	1.0
Liver & intrahepatic bile duct	15.1	12.7	1.09 (1.01-1.18)	1.0
Melanoma of the skin	77.1	86.5	1.08 (0.88-1.34)	1.0
Female				
All sites	66.8	67.0	1.20 (1.18-1.22)	1.0
Breast	83.0	87.5	1.22 (1.16-1.28)	1.0
Colon & rectum	61.3	63.4	1.05 (0.99-1.11)	1.0
Lung & bronchus	18.1	20.2	1.04 (1.00-1.09)	1.0
Uterine cervix	81.1	77.2	0.77(0.69-0.85)	1.0
Stomach	29.0	31.0	1.12 (1.03-1.22)	1.0
Liver & intrahepatic bile duct	18.5	15.9	1.07 (0.96-1.20)	1.0
Melanoma of the skin	86.8	92.2	1.23 (0.97-1.55)	1.0

*Up to five years of follow-up. Using stratified Cox models, the relative risks for all cancer combined are adjusted for age at diagnosis, and those for individual cancer sites are adjusted for age and tumor stage.

Source: Jemal A, et al. Annual report to the nation on the status of cancer, 1975-2001, with a special feature regarding survival. *Cancer*. 2004;101:3-27.

Colon & Rectum

New cases: An estimated 4,580 Hispanic men and 3,790 Hispanic women are expected to be diagnosed with cancer of the colon or rectum in 2006. Colorectal cancer is the second most commonly diagnosed cancer in both Hispanic men and women. Colorectal cancer incidence rates among Hispanic men and women are 20% to 30% lower than those among non-Hispanic whites (Table 2). However, the rates among Hispanics in the US are higher than in Spanish-speaking countries in South and Central America.[14] Colorectal cancer is rare in developing countries but is common in affluent countries, where diets tend to be higher in fat, refined carbohydrates, and animal protein and levels of physical activity are low.

Factors that increase risk for colorectal cancer include personal and family history of polyps or colorectal cancer, inflammatory bowel disease, inherited syndromes, obesity, alcohol use, and consumption of red meat.[15,16] Factors that protect against colorectal cancer include occupational or recreational physical activity, a diet high in vegetables and fruits, use of anti-inflammatory drugs, hormone replacement therapy (women), and detection and removal of polyps through screening before they develop into cancer.[15]

Colorectal cancer incidence rates in Hispanic men and women did not change significantly from 1994 through 2003.[1]

Deaths: About 1,350 Hispanic men and 1,010 Hispanic women are expected to die from colorectal cancer in 2006. Colorectal cancer is the second leading cause of cancer death among Hispanic men and the third leading cause of cancer death among Hispanic women. The death rates due to colorectal cancer between 1994 and 2003 have decreased in Hispanic men but remained unchanged in Hispanic women.[1]

Stage distribution and survival: Colorectal cancer can be treated successfully if caught early. The 5-year relative survival rate for colorectal cancers diagnosed at a localized stage is 90%; survival drops to 68% and 10% for those diagnosed at a regional and distant stage, respectively. Only 4 out of 10 patients have localized disease at diagnosis. Latinos are more likely to be diagnosed with advanced stage colorectal cancer than non-Hispanic whites (Figure 6) and have a lower probability of survival after diagnosis after accounting for differences in age and stage.[7] Factors that may contribute to survival disparities include lower use of colorectal cancer screening tests and less access to timely and high-quality treatment.[17]

Lung and Bronchus

New cases: About 3,370 Hispanic men and 2,380 Hispanic women are expected to be diagnosed with lung cancer in 2006. Lung cancer is the third most commonly diagnosed cancer in both Hispanic men and women. Cigarette smoking is the major risk factor for lung cancer, accounting for about 88% and 71% of lung cancer in men and women, respectively.[18] Because of traditionally lower rates of cigarette smoking among Hispanics, lung cancer rates are approximately 50% lower than those in non-Hispanic whites (Table 2). During 1994 to 2003, lung cancer incidence rates decreased on average by 2.2% per year in Hispanic men and by 1.5% per year in Hispanic women.[1] The decrease in Hispanic women, not yet evident in non-Hispanic women, may reflect a new arrival of young immigrants who are more likely to be nonsmokers.

Deaths: About 2,560 lung cancer deaths in men and 1,510 deaths in women are expected to occur among Hispanics in 2006. Lung cancer is the leading cause of cancer death among Hispanic men and the second among Hispanic women. Lung cancer death rates within Hispanic subpopulations vary according to differences in smoking patterns. In the US, lung cancer death rates are higher among Cuban men than among Puerto Rican and Mexican men.[63]

From 1994 to 2003, death rates from lung cancer declined by 2.2% per year among Hispanic men but remain unchanged in Hispanic women.[1] Over the same time interval, lung cancer death rates among non-Hispanic whites decreased in men, but increased slightly in women. The decline in death rates among men reflects a reduction in the prevalence of smoking over the past 30 years. Lung cancer death rates have yet to decrease among women because the smoking patterns of US women lag about 20 years behind those of men.

Most cases of lung cancer could be prevented by decreasing initiation of smoking among adolescents and by increasing cessation among adult smokers. Within 10 years of cessation, the risk of lung cancer in former smokers is 30% to 50% lower than that of continuing smokers.

Stage distribution and survival: Most patients with lung cancer are diagnosed at an advanced stage; only 14% of Hispanic lung cancer patients and 18% of non-Hispanic white lung cancer patients are diagnosed with localized disease (Figure 6). The 5-year relative survival rate for all lung cancer patients diagnosed at localized stage is 49%. Survival decreases to 16% for patients diagnosed with regional stage and to 2% for those with distant stage tumors. Newer tests, such as low-dose spiral computed tomography (CT) scans and molecular markers in sputum, are capable of detecting lung cancer at earlier, more operable stages when survival is better. The risks and benefits of these screening tests are under study.

Prostate

New cases: An estimated 11,830 Hispanic men are expected to be diagnosed with prostate cancer in 2006, making it the most commonly diagnosed cancer among Hispanic men. During 2000-2003, prostate cancer rates among Hispanics were approximately 20% lower than the rates among non-Hispanic whites. Prostate cancer incidence rates changed very little in both Hispanic men and non-Hispanic white men from 1994 through 2003.[1]

Deaths: An estimated 1,140 deaths from prostate cancer are expected among Hispanic men in 2006, making prostate cancer the third leading cause of cancer death. The average annual prostate cancer death rate during 2000-2003 was 21.8 per 100,000. During 1994 to 2003, the death rate dropped by 3.2% per year on average in Hispanic men and by 4.1% per year in non-Hispanic white men.[1] The decrease may reflect early detection and improved treatment.

Stage distribution and survival: About 90% of prostate cancers are discovered at a localized or regional stage (Figure 6). The 5-year relative survival rate for patients diagnosed at these stages approaches 100%.[1] The survival rate for those diagnosed at distant stage is about 33%. Hispanic men are more likely to die from prostate cancer than whites after being diagnosed with the disease, after accounting for differences in age and stage.[7] This may reflect a lower likelihood of timely, high-quality treatment after diagnosis in Hispanic men. Inadequate monitoring during "watchful waiting" in older Hispanic patients may also contribute to this survival disparity.[19]

Cancer Sites with Higher Rates in Hispanics

Cancers of the stomach, liver, and uterine cervix, all of which are related to infectious agents, are more common in developing countries, especially in Central and South American countries and parts of Asia. In the US, the incidence and mortality rates of stomach, uterine cervix, and liver and biliary tract cancers are higher among Hispanics than non-Hispanic whites, especially among first-generation immigrants to the US.[4,20]

Stomach

Stomach cancer is more common throughout much of Central and South America than in the US. (Figure 7). For example, incidence rates per 100,000 in Chile compared to the US are more than six-fold higher in men (46.1 vs. 7.2) and five-fold higher in women (17.7 vs. 3.3). In the US, the rates of stomach cancer incidence are at least 70% higher in Hispanics than in non-Hispanic whites (Table 2). In 2006, approximately 2,550 Hispanics will be diagnosed with stomach cancer, and an estimated 1,170 Hispanics will die from the disease. Diets rich in smoked foods, salted meat or fish, and pickled vegetables, and low in fresh vegetables have been associated with an increased risk of stomach cancer.[21] *H. pylori* infection, another risk factor for stomach cancer, is more common among individuals of lower socioeconomic status, particularly within crowded living conditions.[22]

Liver and Intrahepatic Bile Duct

Liver cancer is strongly associated with chronic infections from hepatitis B virus (HBV) or hepatitis C virus (HCV).[23] HBV is preventable through vaccination but there is not yet a vaccine for HCV. In the US, vaccination against HBV is recommended for all newborns, for all children under age 18 who have not been vaccinated, and for adult members of high risk groups (intravenous drug users, persons with multiple sexual partners, and health care workers). Alcohol intake and consumption of aflatoxin-contaminated grains are also risk factors.[24] Hispanics experience a two-fold higher incidence and death rate from liver cancer compared to non-Hispanic whites. From 1994 to 2003, death rates from liver cancer have increased by 1.5% per year in Hispanic men and more than 2% per year in Hispanic women. In 2006, approximately 2,280 Hispanics will be diagnosed with liver cancer, and about 1,540 will die from the disease.

Uterine Cervix

Women in Mexico, Central America, and South America experience approximately triple the cervical cancer incidence and mortality rates of women in the US.[2] Hispanic women residing in the US have about twice the cervical cancer incidence rate of non-Hispanic whites.[1] Mexican American and Puerto Rican women have twice the risk of developing cervical cancer as Cuban American women.[25]

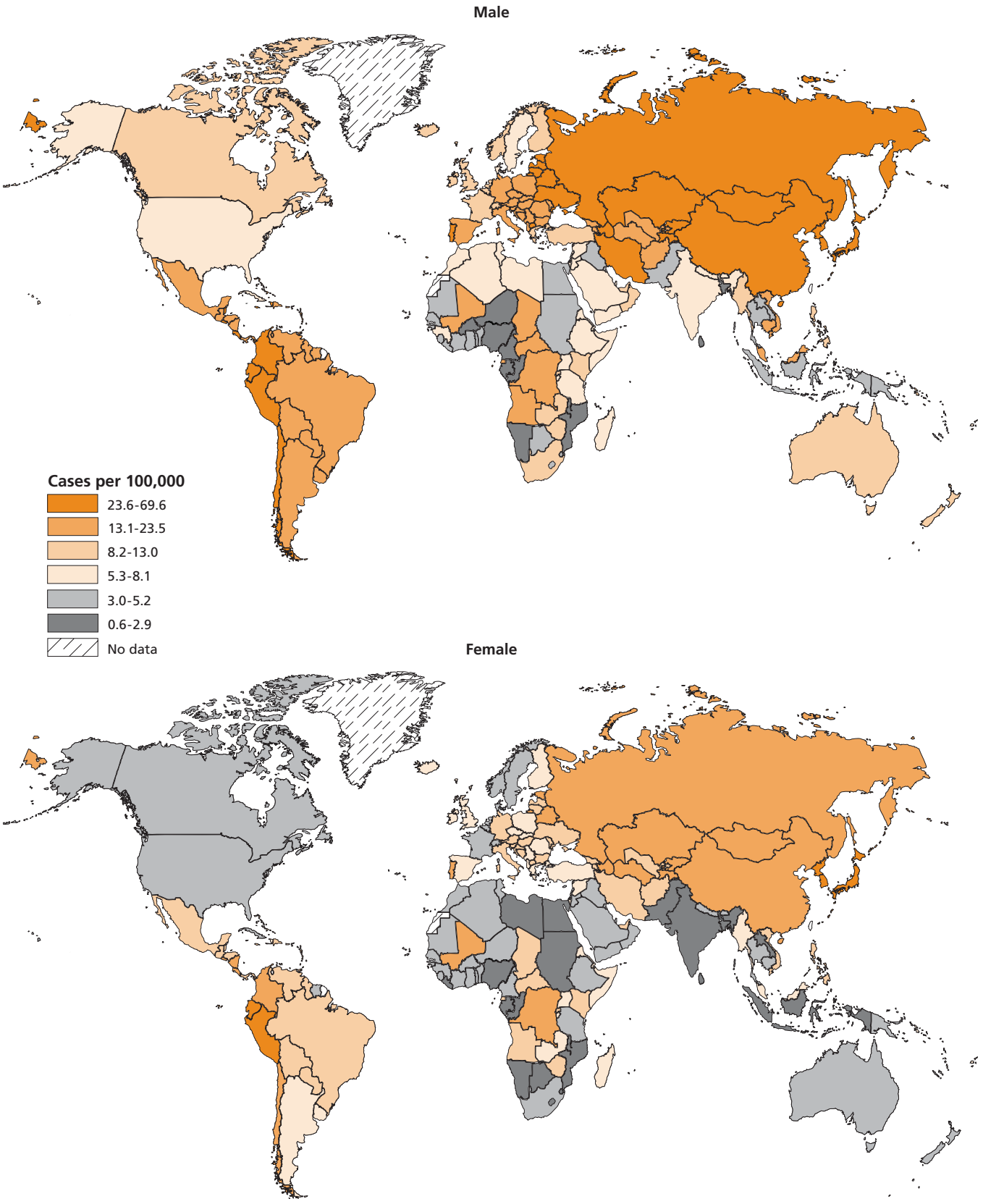
Certain strains of human papilloma virus (HPV) are associated with increased risk of cervical cancer. Among Mexican women in the US, those born in Mexico have a higher prevalence of HPV infection.[26] A vaccine against HPV infections that prevents about 70% of cervical cancer cases was approved by the US Food and Drug Administration for marketing in June of 2006.[27] As of the publication of this document, population immunization programs have not yet been initiated.

The death rate from cervical cancer is 50% higher among Hispanic women than among non-Hispanic white women (Table 2). Low rates of screening and poor adherence to recommended diagnostic follow-up after an abnormal Pap test are thought to contribute to the increased mortality among Hispanic women.[28] It has been estimated that as many as 80% of deaths from cervical cancer could be prevented by regular Pap screening coupled with adequate patient follow-up for treatment.[29] In 2006, about 2,000 Hispanic women in the US will be diagnosed with cervical cancer and 350 will die from it.

Gallbladder

Worldwide, the highest incidence and mortality rates of gallbladder cancer are found in Hispanic and Indian populations in Chile and Bolivia, North American Indians, and Mexican Americans.[30] Among those populations with elevated rates, women are diagnosed more often than men. An important risk factor for gallbladder cancer is chronic gallstones, which can result from hereditary factors affecting cholesterol secretion in the bile and may be more common among Hispanics. Obesity, hormonal factors, and diet may also be associated with increased risk of gallbladder cancer.[31] In the US, Hispanic men and women experience more than twice the incidence rates of non-Hispanic white men and women (Table 2).

Figure 7. Age-Standardized Incidence Rates for Stomach Cancer, 2002



Source: Ferlay, et al., GLOBOCAN 2002.[2]

Cancer in Children and Adolescents

Cancer is a relatively rare disease in children (0-14 years) and adolescents (15-19 years). The types of cancer that commonly occur in children are different from those that commonly occur in adults. Unlike adult cancer, for which tobacco use, overweight and obesity, and physical inactivity are known preventable causes, cancer in childhood and adolescence is not well understood. Some causes of childhood cancers include genetic changes that can be passed down from parent to child, radiation exposure, and infections with certain viruses. For reason that are not clearly understood, some childhood cancers are more common in developed countries while others are more common in developing countries.

New cases: It is estimated that about 1,850 Hispanic children in the US will be diagnosed with cancer in 2006, accounting for about 2.3% of the total cancer cases in Hispanics. In contrast, childhood cancer accounts for less than 1% of new cancer cases in the total US population. The difference arises in part because the Hispanic population is younger – children account for 34% of the US Hispanic population compared to 25% of the total US population.

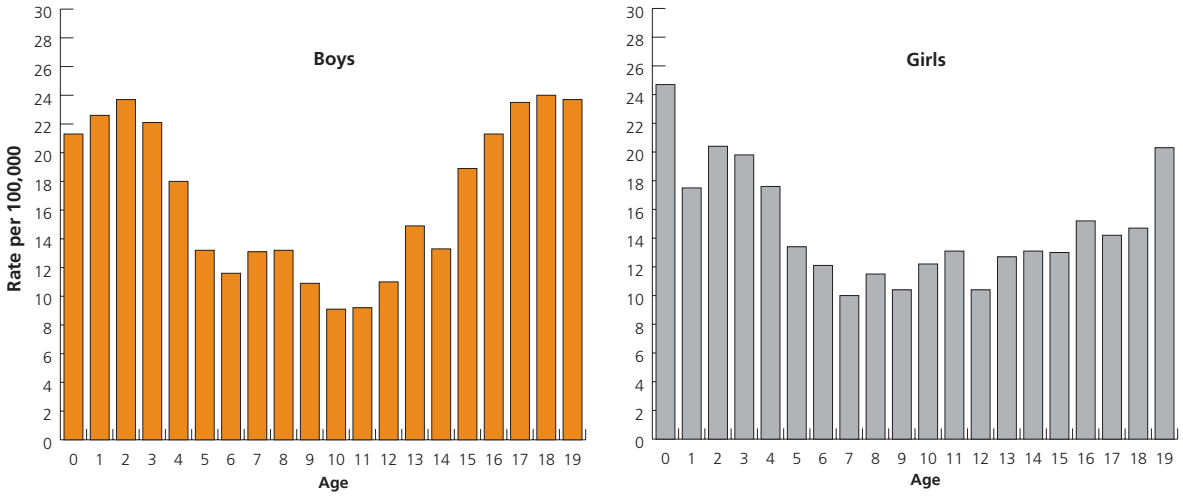
Figure 8 shows the age-specific incidence patterns for all cancers combined in Hispanic children and adolescents. Incidence rates are highest in ages 3 years and under, decrease from ages 4 through 9 years, and increase from 10 to 19 years of age. The pattern is generally similar in girls and boys, although the rates for boys tend to be higher than for girls, particularly during adolescence.

Leukemia is the most common cancer in Hispanic children, followed by cancer of the brain/central nervous system and lymphoma (Table 4). Childhood cancers with higher rates in Hispanic than non-Hispanic whites include leukemia, bone tumors (osteosarcomas), and germ cell tumors. However, for all cancers combined, incidence rates are lower in Hispanic than non-Hispanic whites in both children and adolescents.

Deaths: Although childhood cancer is rare, it is the second-leading cause of death among Hispanic children and the fourth among adolescents. It is estimated that about 350 Hispanic children will die from cancer in 2006.

Trends in incidence and death rates: During 1992 to 2003, incidence and death rates for all cancers combined changed very little among Hispanic girls and boys.

Figure 8. Average Annual Age-Specific Rates for All Cancers Combined Among Hispanic* Youth Under Age 20, 2000-2003



*Hispanics are not mutually exclusive from whites, African Americans, Asian/Pacific Islanders, and American Indians/Alaska Natives.

Source: Surveillance, Epidemiology, and End Results (SEER) Program, SEER 13 areas, excluding Hawaii, Seattle, and the Alaska Native Registry, National Cancer Institute, 2006.

Early detection: Childhood cancers are difficult to recognize. Parents should make sure their children have regular medical checkups and be alert to any unusual signs or symptoms that persist. Such warnings include an unusual mass or swelling; unexplained paleness and loss of energy; sudden tendency to bruise; a persistent, localized pain or limping; prolonged, unexplained fever or illness; frequent headaches, often with vomiting; sudden eye or vision changes; and excessive, rapid weight loss.

Survival: Over the past 30 years, there have been significant improvements in 5-year relative survival rates for many childhood cancers, including non-Hodgkin lymphoma, acute lymphocytic leukemia, acute myeloid leukemia, and Wilms' tumor. The 5-year relative survival rate for all cancers combined among children of all races and ethnicities improved from 58% for cases diagnosed in 1975 to 1977 to 79% for those diagnosed in 1996 to 2002.[1] This improvement in survival rates is due to significant advances in treatment, resulting in cure or long-term remission for a substantial proportion of children with cancer. However, Hispanic children have a lower 5-year observed survival than white children for many common childhood cancers, possibly as a result of poorer access to treatment.[1] Treatment for childhood cancer depends on the type and stage of disease. It involves a team that includes pediatric oncologists, nurses, social workers, psychologists, and others who assist children and their families.

Selected Cancers

Leukemia: Leukemia is a condition in which too many underdeveloped white blood cells are found in the blood and bone marrow. It is the most common cancer in children and young adults, representing about one-third of all childhood cancers. There are two major types of leukemia – lymphoid leukemia and acute myeloid leukemia. Lymphoid leukemia accounts for

Table 4. Childhood Cancer Incidence Rates* and Ratios† by Hispanic Origin, Both Sexes Combined, 2000-2003

	Age 0-14 years			Age 15-19 years		
	Hispanic	Non-Hispanic White	Ratio	Hispanic	Non-Hispanic White	Ratio
All sites	14.8	16.1	0.9	19.1	24.1	0.8
Leukemia	5.8	4.8	1.2	4.0	2.9	1.4
Lymphoid leukemia	4.8	3.8	1.3	2.6	1.6	1.6
Acute myeloid leukemia	0.8	0.8	1.0	1.1	0.9	1.2
Brain & other nervous system	2.7	3.7	0.7	1.6	2.4	0.7
Lymphoma	1.5	1.6	0.9	3.9	5.8	0.7
Non-Hodgkin lymphoma (except Burkitt lymphoma)	0.6	0.6	1.0	1.2	1.7	0.7
Hodgkin lymphoma	0.6	0.6	1.0	2.3	3.7	0.6
Burkitt lymphoma	0.2	0.3	0.7	‡	0.3	–
Soft-tissue sarcomas	1.1	1.1	1.0	1.5	1.7	0.9
Bone tumors	0.7	0.6	1.1	1.4	1.7	0.8
Osteosarcoma	0.5	0.3	1.4	0.8	0.9	1.0
Germ cell tumors	0.6	0.5	1.2	3.6	2.9	1.2
Malignant gonadal	0.3	0.2	1.6	2.8	2.4	1.2
Intracranial & intraspinal	0.2	0.2	1.1	‡	0.3	–
Neuroblastoma	0.6	1.3	0.5	‡	‡	–
Renal tumors	0.6	0.9	0.7	‡	‡	–
Retinoblastoma	0.4	0.4	1.0	‡	‡	–
Hepatic tumors	0.2	0.3	0.9	‡	‡	–

*Rates are per 100,000 and age-adjusted to the 2000 US standard population. †Ratios are calculated as Hispanic incidence rate divided by non-Hispanic white incidence rate. ‡Data supressed due to fewer than 25 cases during 2000-2003.

Note: Hispanics are not mutually exclusive from whites, African Americans, Asian/Pacific Islanders, and American Indians/Alaska Natives.

Source: Surveillance, Epidemiology, and End Results (SEER) Program, 17 SEER registries, 2000 to 2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006. Incidence data for Hispanics and non-Hispanic whites are based on the NAACCR Hispanic Identification Algorithm (NHIA) and exclude cases from Hawaii, Seattle, Alaska Native Registry, and Kentucky.

approximately 75% to 80% of pediatric leukemia. Its incidence peaks in children 2 to 3 years of age, with a 5-year survival probability of about 85%.[1]

The incidence of lymphoid leukemia in both children and adolescents is higher among Hispanics than non-Hispanic whites. In contrast, rates for acute myeloid leukemia are not significantly different between the two ethnic groups, though the rate is slightly higher in Hispanic adolescents than in non-Hispanic white adolescents.

Little is known about the causes of childhood leukemia with the exception of radiation exposure and some specific genetic syndromes.

Brain and other central nervous systems (CNS) cancers: Brain and other central nervous systems (CNS) cancers account for 20% of all childhood malignancies in the US. Hispanic children and adolescents have much lower rates for CNS tumors compared with their non-Hispanic counterparts. Most of this difference is explained by the incidence rate for astrocytoma in non-Hispanic white children, which is nearly twice that of

Hispanics.[32] The difference may also in part reflect differences in access and utilization of state-of-the-art diagnostic techniques.

Lymphoma: The risk of developing lymphoma increases with age. Among children, the incidence rate is similar in Hispanics and non-Hispanic whites. In contrast, among adolescents, the incidence rate in Hispanics is about 30% lower than in non-Hispanic whites. Among Hispanic subpopulations, one study reported that lymphoma incidence rates among children younger than 15 years of age are 50% higher in Florida (primarily Cuban and Central American origin) than in California (primarily of Mexican origin).[33]

Socioeconomic Factors That Influence Cancer

Cancer occurrence and survival is influenced by economic, social, and cultural factors. Socioeconomic status, as measured by income and education, is the most critical factor affecting health and longevity. It influences the prevalence of underlying risk factors for cancer, access to health insurance, preventive care, early detection, and treatment. Cultural factors, including language, beliefs, values and traditions, may also influence underlying risk factors, health behaviors, beliefs about illness, and approaches to medical care.

Socioeconomic Characteristics

In the US, Hispanics have lower levels of educational attainment than non-Hispanic whites and are more likely to live in poverty. In 2000, 47.6% percent of Hispanics had less than a high school education, compared with 15% of non-Hispanic whites. (Table 5)[34] About 22.6% of Hispanics in the US lived in poverty, compared with 8.1 % of non-Hispanic whites. Hispanics are much more likely than whites to work in agriculture, construction, domestic and food services, and other low-wage occupations.[35] Employees in these types of jobs are less likely to have employer-based health insurance benefits; if health coverage is available, it may not be widely affordable.[36,37]

Another challenge is that almost 25% of Hispanics age 5 years and older do not speak English fluently (Table 5).

Access to Health Care

Many Hispanics face financial, structural, and personal barriers to receiving health care. Financial barriers include inadequate health insurance and low personal

income. Structural barriers include poor geographic access to providers and lack of transportation to and from providers. Personal barriers to care include cultural and linguistic factors.[37,40]

Substantially more Hispanics lack health insurance compared to non-Hispanic whites (Table 5). The proportion of Hispanic men under age 64 who report no regular source of medical care is about twice that of non-Hispanic white men. Among Hispanic women, 17.3% report they have no usual source of medical care, compared to 7.9% of non-Hispanic whites and 9.1% of non-Hispanic African Americans (Table 5).[41-42]

Cultural Values

Cultural competency is an important element in providing high quality health care and preventive services. Traditional values within the Hispanic culture emphasize the importance of family (*la familia*), respect (*respecto*), personal familiarity (*personalismo*), and trust (*confianza*).[42]

***La Familia*:** The Hispanic family network, which may include close friends in addition to immediate and extended family members, plays a major role in decisions regarding health care. Interdependence and cooperation are emphasized over autonomy and family members often accompany a patient to medical visits.[42] Providers can demonstrate sensitivity to the collective nature of these interactions by extending appointment times and facilitating family involvement.

***Respecto*:** In the Hispanic culture, mutual respect and trust are necessary elements in a successful relationship between patient and provider. Respect implies a mutual and reciprocal deference. Asking direct questions about sensitive topics such as alcoholism may be perceived as disrespectful. Hispanic patients may show respect by avoiding eye contact with health care providers, but expect the provider to look directly at them even when talking through an interpreter.[42] Cultural respect promotes trust, which increases the likelihood of patient confidence and compliance.[43]

***Personalismo*:** Hispanic culture values personal over institutional relationships. Hispanic patients often prefer health care providers who are warm, friendly and personal, and who take an interest in the patient's life.[42,43]

***Confianza*:** Over time, by respecting the patient's culture and showing interest, a provider can establish a relationship of trust. *Confianza* may be difficult to achieve in the current health care system, because long-term provider-patient relationships are relatively uncommon and clinicians are limited in the amount of time they can spend with each patient.

Cultural competency can be improved through the education of health care providers. In addition, patient navigators (*promotoras*) can be helpful in assisting Hispanic patients obtain health care and other services, facilitating communication between providers and patients, and promoting prevention and early detection programs within Hispanic communities.

Table 5. Socioeconomic and Health Care Access Characteristics in Hispanics and Non-Hispanic Whites

	Hispanic				Non-Hispanic
	All	Mexican	Puerto Rican	Cuban	White
Socioeconomic characteristics*					
Percent of persons foriegn-born	40.2	41.5	1.4	68.5	3.5
Persons with income below poverty level	22.6	23.5	25.8	14.6	8.1
Persons (age ≥25 years) with less than a high school degree	47.6	54.2	36.7	37.1	15.0
Persons with limited or no ability to speak English	23.7	26.2	11.1	30.3	0.8
Health care characteristics					
Persons with no health care coverage†					
Age <65 years old	35.1	38.3	–	–	12.0
Age ≥65 years old	5.3	6.7	–	–	0.6
Persons (ages 18-64) with no regular source of medical care‡					
Men	30.0	32.7	–	–	14.9
Women	17.3	18.8	–	–	7.9

***Source:** US Census Bureau, 2000 Census of Population and Housing Summary File 4.

†**Source:** Schiller JS, Adams PF, Nelson ZC. Summary health statistics for the US population: National Health Interview Survey, 2003. Vital Health Stat 10. 2005 Apr;(224):1-104.

‡**Source:** National Health Interview Survey (NHIS), 2003, Sample adult file (Samadult Data), National Center for Health Statistics, Centers for Disease Control and Prevention. Available at http://www.cdc.gov/nchs/nhis.htm

Risk Factors for Cancer

Smoking and obesity are two of the most important behavioral risk factors for cancer. They also increase the risk of developing and dying from other conditions, including diabetes, stroke, and cardiovascular diseases.[44,45] Alcohol consumption is another important risk factor for some cancers and for liver disease. Experts believe that if current knowledge about cancer prevention was successfully applied, at least half of all cancer deaths could be prevented.[45,46] This section provides information on behavioral risk factors in Hispanics.

Tobacco Use – Adults

Tobacco use is a major cause of cancer in the US and is responsible for about 30% of all cancer deaths. Most lung cancers, as well as a large fraction of cancers of the lip, oral cavity, pharynx, larynx, esophagus, pancreas, cervix, urinary bladder, and kidney, are caused by cigarette smoking.[47]

The percentage of Hispanic adults who smoke is lower (15.0%) than the percentage of non-Hispanic white adults (22%) who smoke. Smoking rates in Hispanic women are about half those in non-Hispanic white women, while smoking rates in Hispanic men are about three-quarters of those in non-Hispanic white men (Table 6). Rates of smoking among Hispanic adults who were born in the US (19.1%) are much higher than those born elsewhere (11%).[48,49] Among the major Hispanic subgroups, Cuban men and women had the highest percent of current smokers (29.8% and 30.0%), followed by Puerto Rican (26.1% and 14.1%) and Mexican (22% and 8.9%) men and women, respectively.[50]

As is true for all smokers, Hispanic smokers can reduce their risk of lung cancer and other smoking-related diseases by stopping smoking. Advice by a health care provider is important in encouraging smokers to quit, and several medical treatments can help. These include medications (nicotine replacement products alone or in combination with anti-depressant medication), counseling, and behavioral therapies.[45,51]

Lower rates of health insurance coverage and lack of access to medical care make it less likely that Hispanic smokers will be advised by a health care provider to quit or have access to tobacco cessation treatments. One study found that Hispanics were less likely to be advised to quit by a health care provider than non-Hispanic whites.[52] Another study found that Hispanic smokers were about a third as likely to use nicotine replacement therapy or anti-depression medication when trying to quit compared to non-Hispanic whites.[53]

Despite the barriers to smoking cessation among Hispanics, approximately 44% of Hispanic adults are former smokers and trends in the percentage of former smokers among Hispanics and non-Hispanics from 1980 to 2003 are similar.[54] Several studies have found that Latino smokers are more likely to say they intend to quit and have made more quit attempts than non-Hispanic whites.[53,55] One study found that Hispanics are motivated to quit by criticism from family members, concern about the children's health, and a desire to set a good example for their children, while non-Hispanic white smokers are more often concerned about their own health and desire to achieve the difficult goal of quitting smoking.[56,57]

Smoking cessation programs for Hispanics may be most effective if they include outreach by lay health advisors (*promotoras*) and emphasize quitting for the sake of the family's health.[58,59]

Tobacco Use – Youth

In general, Hispanic youth are less likely to smoke cigarettes than non-Hispanic white youth (Table 7). Between 1991 and 2003, the percentage of Hispanic high school students who smoked peaked at 32.9% for females in 1995 and at 35.5% for males in 1997, but then dropped to 17.7% and 19.1% in 2003 for females and males, respectively (Figure 9). Similar trends in youth smoking were observed during this time period in other population groups. Unlike markedly lower smoking rates in Hispanic women, smoking rates among adolescents are almost as high in females as in males. There is little data available on cigarette use among the various subgroups of Hispanic adolescents. According to one recent report, prevalence of smoking did not differ among subgroups of Hispanic adolescents with the exception of Cuban boys, who had somewhat higher rates.[60]

Table 6. Cigarette Use and Alcohol Consumption in Adults by Ethnicity and Sex, US, 2004

	Hispanic			Non-Hispanic White		
	% Male	% Female	% Total	% Male	% Female	% Total
Cigarette use by select charcteristics:						
Education*						
0-12 years (no diploma)	21.7	8.8	15.4	43.9	40.9	42.5
GED† diploma	–	17.5	15.1	45.6	43.1	44.1
High school diploma	15.0	12.7	13.8	29.9	26.2	28.0
Some college	14.6	12.4	13.4	24.6	23.9	24.2
Associate degree	13.0	12.7	13.0	23.9	19.3	21.4
Bachelor's degree or higher	12.5	7.4	10.2	10.5	10.1	10.2
Poverty level‡						
Poor	24.9	12.6	17.8	35.9	40.5	38.4
Near poor	18.7	10.1	14.3	40.1	31.5	35.4
Nonpoor	20.0	10.3	15.9	22.3	19.2	20.8
Unknown	23.2	9.5	16.0	22.1	20.0	21.0
Health insurance coverage						
Yes	15.3	11.7	13.4	21.1	19.1	20.0
No	20.8	10.0	16.0	43.6	35.6	40.2
Immigration						
Born in US	21.1	17.2	19.1	24.6	21.6	23.1
In US 1-9 yrs	17.0	5.4	11.7	22.8	9.8	15.2
In US >10 yrs	15.7	6.1	10.8	17.0	12.3	16.0
Overall smoking	18.9	10.9	15.0	24.1	20.4	22.0
Alcohol consumption						
No alcoholic drinks in the past month	37.0	63.0	50.5	33.3	45.7	39.7
Drank 5 or more drinks in one occasion	25.9	6.1	15.7	25.1	10.0	17.5
Drank on average 2 or more drinks per day	7.0	1.5	5.0	7.1	2.0	5.2
Drank on average 1 or more drinks per day	18.0	2.5	10.2	19.0	5.8	12.6

– Sample size too small for reliable estimate. *Prevalence estimates among adults aged 25 years and older, all other prevalence estimates are for adults 18 years and older. †General Education Development. ‡Poor persons are defined as below the poverty threshold. Near poor persons have incomes between 100% and less than 200% of the poverty threshold. Nonpoor persons have incomes of 200% or greater than the poverty threshold.

Source: Smoking prevalence – National Health Interview Survey 2004 Data Tape. National Center for Health Statistics, Centers for Disease Control and Prevention; Estimates age-adjusted to the 2000 US Standard Population. Alcohol consumption – Behavioral Risk Factor Surveillance System, Public Use Data Tape 2003, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention; Estimates age-adjusted to the 2000 US Standard Population.

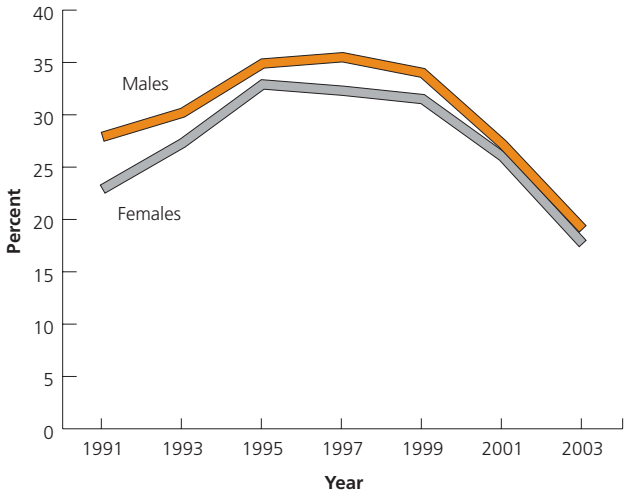
Table 7. Prevalence of Tobacco Use and Alcohol Consumption in High School Students, Hispanics and Non-Hispanic Whites, US, 2003

	Hispanic			Non-Hispanic White		
Behaviors	% Male	% Female	% Total	% Male	% Female	% Total
Tobacco use						
Any tobacco use*	24.9	19.8	22.4	33.2	28.9	31.1
Cigarette use†	19.1	17.7	18.4	23.3	26.6	24.9
Alcohol						
Current alcohol use‡	42.7	48.8	45.6	45.9	48.4	47.1
Episodic heavy drinking§	27.9	29.8	28.9	32.1	31.5	31.8

*Smoked cigarettes or cigars or used chewing tobacco, snuff, or dip on one or more days during the past month. †Smoked cigarette on one or more of the preceding month. ‡Drank one or more drinks of alcohol on ≥ 1 of the 30 days preceding the survey. §Drank ≥ 5 drinks of alcohol in a row on one or more of the 30 days preceding the survey.

Source: Youth Risk Factor Surveillance System, 2003. National Center for Chronic Disease Prevention and Health Promotion. Centers for Disease Control and Prevention. *MMWR Morb Mortal Wkly Rep* 2004: 53(SS-2).

Figure 9. Trends in the Percentage of Current Cigarette Smoking, Hispanic High School Students, 1991-2003



Smoked cigarettes on one or more of the 30 days preceding the survey.

Source: Youth Risk Surveillance System, 1991, 1993, 1995, 1997, 1999, 2001, 2003. National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention.

Tobacco Control

Although smoking rates are currently lower among Hispanics than among other groups in the US, several factors may result in higher Hispanic smoking rates in the future in the absence of vigorous tobacco control efforts. Smoking rates are increasing in several Latin American countries, especially among women, as the tobacco companies have targeted these markets. Thus, future immigrants from Latin America to the US are more likely to be smokers unless these countries adopt effective tobacco control programs. In addition, as more and more second- and third-generation Hispanic adults smoke, more children and adolescents will be exposed to cigarette smoke in the home, which not only harms their health but also predisposes them to smoking. Tobacco companies in the US are targeting advertising and promotion to Hispanic women and youth in hopes of expanding their domestic market.[61-63]

A variety of public health interventions are proven to be effective in reducing tobacco consumption, including clean air laws, high cigarette taxes, cigarette advertisement bans, and counter advertisements.[45,47,64]

Alcohol Intake – Adults

Excessive alcohol consumption is an important cause of cirrhosis of the liver and liver cancer. Alcohol consumption also increases the risk of cancers of the oral cavity and pharynx, esophagus, larynx, large bowel, and female breast.[65-67] The American Cancer Society's dietary guidelines for cancer prevention and risk reduction state that individuals should limit their alcohol consumption to no more than 2 drinks per day for men and no more than 1 drink per day for women. Alcohol consumption among Hispanics is of special concern because they have higher rates for liver cancer than non-Hispanic whites.

According to data from the Behavioral Risk Factor Survey in 2003, Hispanics tend to consume less alcohol than non-Hispanic whites. Approximately 63% of Hispanics women and 37% of Hispanic men do not consume alcohol, compared to 45.7% of non-Hispanic white women and 33% of non-Hispanic white men (Table 6). Among current alcohol drinkers, there was little difference in heavy alcohol consumption (more than 2 drinks per day on average) between Hispanic and non-Hispanic men (7% in both) or in consuming 5 or more drinks on a single occasion (25% in both Hispanic and non-Hispanic men). Among women, Hispanics were about half as likely as non-Hispanic whites to consume more than one drink per day on average (2.5% and 5.8%, respectively) (Table 6). Lower alcohol consumption among Hispanic women may be explained by social customs and attitudes within the Hispanic culture.[68,69] It is important that health promotion and cancer prevention efforts among Hispanic adults encourage the maintenance of low alcohol consumption patterns among women and encourage more moderate consumption in men.

Alcohol Intake – Youth

In 2003, Hispanic high school students reported slightly lower alcohol consumption than non-Hispanic whites. However, rates of consumption among Hispanic students were still quite high. A total of 48.8% of Hispanic girls and 42.7% of Hispanic boys reported consuming alcohol on at least one of the preceding 30 days; 29.8% of Hispanic girls and 27.9% of Hispanic boys reported consuming 5 or more drinks on a single occasion. Higher female alcohol consumption in Hispanic adolescents is in sharp contrast to much lower rates of alcohol consumption in Hispanic women compared to men. Prevention strategies to reduce alcohol use among Hispanic youth emphasize the importance of family interventions and communicating to parents the important role they can play in shaping their child's development and behavior.[70-72]

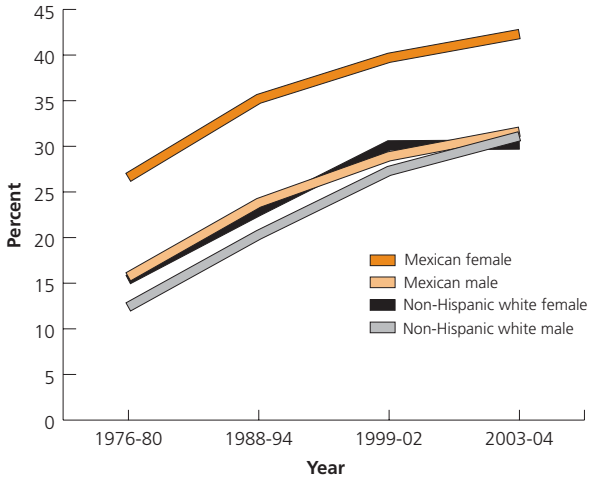
Overweight and Obesity – Adults

Obesity is associated with an increased risk of several chronic diseases, including cancers of the breast, prostate, colon, and uterus.[73] Obesity also increases the risk of diabetes, high blood pressure, heart disease, and premature death (guidelines for the definition of overweight and obesity are given in Table 8). An adult with a body mass index (BMI) of 30 or greater is considered obese. Overweight among adults is defined as a BMI of 25 or greater.

In the early 1990s, 20.6% of US adults were obese; by 2003-2004, this figure had risen to 32.2%.[74] The sudden increase in obesity in the US is linked with changes in the social environment, including the availability and promotion of high-calorie and low-nutrient foods and reduced opportunities to engage in physical activity at work, while commuting, in school, or during leisure time.[75,76] These changes have led to increased caloric consumption and decreased energy expenditure in the population.[75,77]

Rates of obesity have increased among Hispanics as well and remain higher in Hispanics than non-Hispanic whites[74] (Figure 10). The National Health and Nutrition Examination Survey (NHANES) is the most accurate source of information on obesity trends in the US because height and weight are measured rather than reported by participants. The NHANES reports data for Hispanics of Mexican descent but not other Hispanic subgroups. When first measured in 1976-1980, 26.6% of Mexican American women and 15.7% of Mexican American men were obese. In 2003-2004, 42.3% of Mexican women and 31.6% of Mexican men were obese.[10,74] In 2003-2004, the NHANES survey found that almost 80% of Mexican American men and women were overweight, in contrast to about 58% of non-Hispanic

Figure 10. Trends in Obesity (BMI ≥30) by Gender for Mexican Americans and Non-Hispanic White Adults, Ages 20 and Older, US



Source: Health, United States, 2005.[10] Ogden CL. et al, Prevalence of Overweight and Obesity in the United States, 1999-2004. *JAMA* (2006), 295(13):1549-1555.

Table 8. Definitions of Overweight and Obesity, by Height and Body Weight

Defining Body Mass Index

Different measures are used to determine whether a person is considered normal weight, overweight, or obese, taking height into account. A common scale is the body mass index (BMI), or ratio of weight (in kilograms) to height (in meters, squared). For adults aged 20 years and older, overweight is defined as a BMI of 25.0-29.9 kg/m^2; obesity is defined as a BMI of 30.0 kg/m^2 or greater. Although BMI may overestimate body fat in athletes and others who have a muscular build, or underestimate body fat in older persons who have lost muscle mass, it is in general a reliable indicator of total body fat.

This table relates BMI to pounds and inches rather than kilograms and meters. For example, a 5'4" woman is considered overweight if she weighs between 145 and 173 pounds. She is obese if she weighs 174 pounds or more. A 5'10" man is considered overweight if he weighs between 174 and 206 pounds and obese if he weighs 207 pounds or more.

Height (feet, inches)	Body weight (pounds) Overweight*	Obese†
6'4"	205	246
6'3"	200	240
6'2"	194	233
6'1"	189	227
6'0"	184	221
5'11"	179	215
5'10"	174	207
5'9"	169	203
5'8"	164	197
5'7"	159	191
5'6"	155	186
5'5"	150	180
5'4"	145	174
5'3"	141	169
5'2"	136	164
5'1"	132	158
5'0"	128	153
4'11"	124	148
4'10"	119	143

*Overweight defined as body mass index of 25-29.9 kg/m^2.
†Obesity defined as body mass index of 30 kg/m^2 or greater.

white women and 71% of non-Hispanic white men.[74] The National Health Interview Survey (NHIS) collects information on weight and height and provides obesity data for some Hispanic subgroups. In 2003, this survey found that Puerto Ricans and Mexicans are more likely to be obese than Cubans and Central or South Americans.[50]

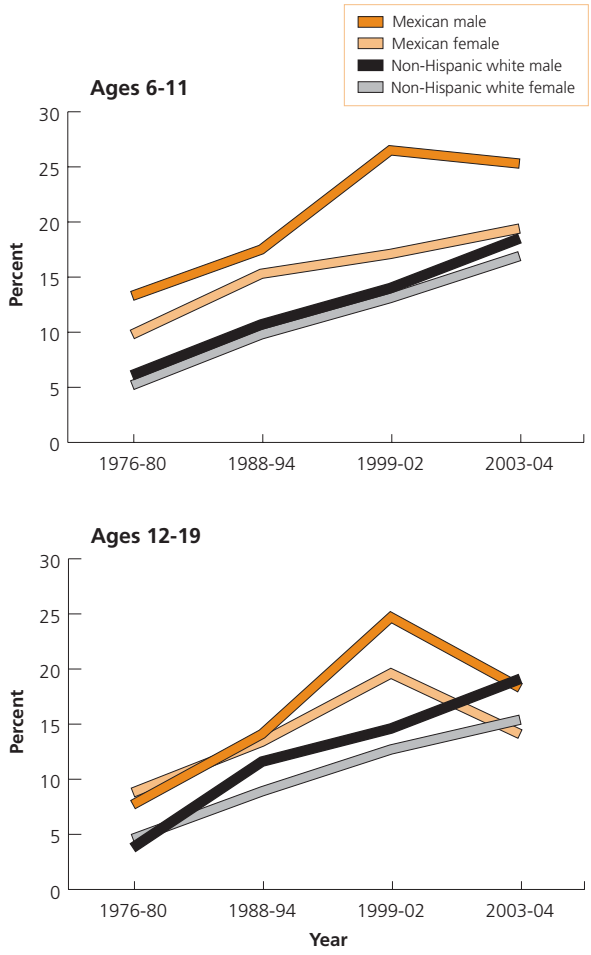
Lifestyle practices such as maintaining a healthy weight and increasing physical activity are the most important approaches to reducing risk of many chronic diseases, including cancer. Because of the link between nutrition, physical activity, and cancer, the American Cancer Society published guidelines on nutrition and physical activity for cancer prevention in 2001. The guidelines recommend eating a variety of healthful foods with an emphasis on plant sources, adopting a physically active lifestyle, maintaining a healthful weight throughout life, and limiting consumption of alcoholic beverages.[78] In 2005, the US Department of Agriculture (USDA) updated the recommendations on nutrition and physical activity for Americans consistent with those of the American Cancer Society. The USDA guidelines have been made available in Spanish. (For additional information, see *Nuevas Guias Alimentarias Ayudarán a los Estadounidenses Tomar Mejores Decisiones Alimenticias y Vivir Más Sanos* at http://www.hhs.gov/news/press/2005pres/20050112a.html.)

Overweight and Obesity – Youth

Overweight children often become overweight adults, with an increased risk for a wide variety of poor health outcomes.[79] Some of the health consequences of overweight and obesity can occur early in life, such as high blood pressure, high cholesterol, and diabetes.[80] The prevalence of overweight in children of all racial and ethnic groups has increased sharply in the US since 1980.[81,82]

For children and adolescents, the BMI that is considered healthy varies by age. Overweight is defined as a BMI at or above the 95th percentile from sex and age-specific growth charts.[81] Data from NHANES show that between the late 1970s through 2004, the percentage of US children age 6 to 11 who are overweight more than tripled, while the percentage of overweight adolescents age 12 to 19 almost doubled.[74,81] NHANES also found that from 1976 to 2002, the percentage of overweight children and adolescents was higher among Mexican Americans compared to non-Hispanic whites. However, in the last several years, the percent of overweight Mexican boys age 6 to 11 has been stable (Figure 11). During the same time period, the percentage of overweight Mexican American adolescents has decreased and is approximately equal to the percentage of non-Hispanic white males and females who are overweight (Figure 10b). These changes may have resulted from heightened attention to weight control among Hispanic children and adolescents due to increases in incidence of Type 2 diabetes.[83-85] (For more information, see *Overview of Diabetes in Children and Adolescents* – Fact Sheet from the National Diabetes Educational Program, available at http://www.ndep.nih.gov/diabetes/youth/youth_FS.htm.)

Figure 11. Trends in Overweight (BMI ≥95th Percentile) by Gender for Mexican American and Non-Hispanic White Children



Source: Health, United States, 2005.[10] Ogden CL. et al, Prevalence of Overweight and Obesity in the United States, 1999-2004. *JAMA* (2006), 295(13):1549-1555.

Cancer Screening Tests

Regular screening can greatly improve the chances of cure for some types of cancer by detecting it at an early stage when treatments can be most effective.[45,86-88] Screening can actually prevent some cancers by detecting and removing growths or changes in tissues that are likely to progress to cancer.[89,87] The American Cancer Society's recommendations for screening are given on page 22.

Colorectal Screening

The American Cancer Society recommends that screening for colorectal cancer begin at age 50 in persons with no symptoms of colorectal cancer and no unusual risk factors. The Society recommendations suggest that screening can be done by any of five different methods.[87] Hispanics aged 50 and older are less likely to have had a recent screening test for colorectal cancer than non-Hispanic whites – 29.9% vs 44.3%, respectively (Table 9). There are differences in the recent use of colorectal cancer tests by country of origin among Hispanics. Mexicans, for instance, are less likely than other Hispanic subgroups to have had recent colorectal cancer screening. Moreover, uninsured Hispanics and non-Hispanic whites are less likely to have had recent colorectal cancer screening tests than their insured counterparts (Table 9).

Breast Cancer Screening

Mammography is a low-dose X-ray procedure that can detect breast cancer at a stage when treatment may be more effective. The American Cancer Society recommends annual mammograms for women aged 40 and older who are at average risk for breast cancer, as well as regular clinical breast examinations.[86] Since 1987, the use of breast cancer screening has been increasing across all racial and ethnic groups, and the gap in the prevalence of recent mammography use between Hispanic and non-Hispanic white women has narrowed to about 5%.[10,90] In 2003, 66.1% of Hispanic women aged 40 and older had a mammogram within the past two years, compared to 70.8% of non-Hispanic whites (Table 9). Among Hispanic subgroups, Central and South

Table 9. Cancer Screening Test Use (%) by Ethnicity, US, 2003

	Hispanic		Hispanic sub-groups				Non-Hispanic Whites	
Screening tests	**All**	**Uninsured**	**Mexican**	**Puerto Rican**	**Cuban**	**Central or South American**	**All**	**Uninsured**
Colorectal cancer*								
Men	28.9	9.2	23.2	41.6	29.9	38.7	47.1	34.6
Women	30.8	15.3	29.3	31.8	32.7	30.3	42.0	16.5
Cervical cancer								
Women aged 18 and older								
Pap test within past 3 years	74.7	64.4	73.4	76.1	76.5	76.3	80.2	59.3
Breast cancer								
Women aged 40 and older								
Mammogram within past 2 years	66.1	54.9	63.5	65.3	75.6	77.0	70.8	34.3
Mammogram within past year†	52.6	38.5	49.0	56.9	55.2	61.5	56.0	24.7
Prostate cancer‡								
Prostate specific antigen test								
(PSA) last year	52.7	19.1	46.3	67.6	76.5	40.5	58.0	50.3

*Adults aged 50 and older – had either a home-test fecal occult blood test in the past year or a lower endoscopy exam (flexible sigmoidoscopy or colonoscopy) in the past five years. †American Cancer Society recommends annual mammograms for women 40 and older. See Cancer screening guidelines. ‡Among men aged 50 and older without a diagnosis of prostate cancer.

Source: National Health Interview Survey 2003; estimates are age-adjusted to the 2000 Standard Population.

Screening Guidelines

For the Early Detection of Cancer in Asymptomatic People

Site	Recommendation
Breast	• Yearly mammograms are recommended starting at age 40. The age at which screening should be stopped should be individualized by considering the potential risks and benefits of screening in the context of overall health status and longevity. • Clinical breast exam should be part of a periodic health exam about every 3 years for women in their 20s and 30s, and every year for women 40 and older. • Women should know how their breasts normally feel and report any breast change promptly to their health care providers. Breast self-exam is an option for women starting in their 20s. • Women at increased risk (i.e., family history, genetic tendency, past breast cancer) should talk with their doctors about the benefits and limitations of starting mammography screening earlier, having additional tests (i.e., breast ultrasound and MRI), or having more frequent exams.
Colon & rectum	Beginning at age 50, men and women should begin screening with 1 of the examination schedules below: • A fecal occult blood test (FOBT) or fecal immunochemical test (FIT) every year • A flexible sigmoidoscopy (FSIG) every 5 years • Annual FOBT or FIT and flexible sigmoidoscopy every 5 years* • A double-contrast barium enema every 5 years • A colonoscopy every 10 years **Combined testing is preferred over either annual FOBT or FIT, or FSIG every 5 years, alone. People who are at moderate or high risk for colorectal cancer should talk with a doctor about a different testing schedule.*
Prostate	The PSA test and the digital rectal examination should be offered annually, beginning at age 50, to men who have a life expectancy of at least 10 years. Men at high risk (African American men and men with a strong family history of 1 or more first-degree relatives diagnosed with prostate cancer at an early age) should begin testing at age 45. For both men at average risk and high risk, information should be provided about what is known and what is uncertain about the benefits and limitations of early detection and treatment of prostate cancer so that they can make an informed decision about testing.
Uterus	**Cervix:** Screening should begin approximately 3 years after a woman begins having vaginal intercourse, but no later than 21 years of age. Screening should be done every year with regular Pap tests or every 2 years using liquid-based tests. At or after age 30, women who have had 3 normal test results in a row may get screened every 2 to 3 years. Alternatively, cervical cancer screening with HPV DNA testing and conventional or liquid-based cytology could be performed every 3 years. However, doctors may suggest a woman get screened more often if she has certain risk factors, such as HIV infection or a weak immune system. Women 70 years and older who have had 3 or more consecutive normal Pap tests in the last 10 years may choose to stop cervical cancer screening. Screening after total hysterectomy (with removal of the cervix) is not necessary unless the surgery was done as a treatment for cervical cancer. **Endometrium:** The American Cancer Society recommends that at the time of menopause all women should be informed about the risks and symptoms of endometrial cancer, and strongly encouraged to report any unexpected bleeding or spotting to their physicians. Annual screening for endometrial cancer with endometrial biopsy beginning at age 35 should be offered to women with or at risk for hereditary nonpolyposis colon cancer (HNPCC).
Cancer-related checkup	For individuals undergoing periodic health examinations, a cancer-related checkup should include health counseling, and, depending on a person's age and gender, might include examinations for cancers of the thyroid, oral cavity, skin, lymph nodes, testes, and ovaries, as well as for some nonmalignant diseases.

American Cancer Society guidelines for early cancer detection are assessed annually in order to identify whether there is new scientific evidence sufficient to warrant a reevaluation of current recommendations. If evidence is sufficiently compelling to consider a change or clarification in a current guideline or the development of a new guideline, a formal procedure is initiated. Guidelines are formally evaluated every 5 years regardless of whether new evidence suggests a change in the existing recommendations. There are 9 steps in this procedure, and these "guidelines for guideline development" were formally established to provide a specific methodology for science and expert judgment to form the underpinnings of specific statements and recommendations from the Society. These procedures constitute a deliberate process to ensure that all Society recommendations have the same methodological and evidence-based process at their core. This process also employs a system for rating strength and consistency of evidence that is similar to that employed by the Agency for Health Care Research and Quality (AHCRQ) and the US Preventive Services Task Force (USPSTF).

American and Cuban women show a higher prevalence of breast cancer screening (77.0% and 73.7%, respectively) than Mexican women (63.5%), who are the least likely to have had a recent mammogram. Despite increases in the prevalence of screening, breast cancer is detected at an advanced stage more often in Hispanics than in non-Hispanic whites. This difference has been largely attributed to lower frequency of and longer intervals between mammograms, and lack of timely follow-up of suspicious mammograms.[91-93]

Cervical Cancer Screening

Regular use of Pap tests followed by appropriate and timely treatment reduces deaths from cervical cancer.[88] The American Cancer Society recommendations for the early detection of cervical cancer state that screening should begin approximately 3 years after a woman begins to have vaginal intercourse but no later than 21 years of age, and continue at regular intervals thereafter.

While Hispanic women have been historically less likely to participate in cervical cancer screening compared to non-Hispanic white women, participation rates have improved in recent decades.[10,90] The prevalence of recent Pap testing among Hispanic women ages 18 and older increased from 64% in 1987 to 74.7% in 2003 (Table 9). Moreover, although participation in cervical cancer screening is relatively similar across Hispanic subgroups, Mexican women are the least likely to have had a recent Pap test. Additionally, uninsured women are less likely to have had a recent Pap test compared to women who have health care coverage (Table 9).

Prostate Cancer Screening

Evidence about the value of testing for early prostate cancer detection is insufficient to recommend for or against screening with the digital rectal examination (DRE) or the prostate-specific antigen (PSA) test for men at average risk.[87] Clinical trials of the benefits of prostate cancer screening (the US National Cancer Institute's Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial and the European Randomized Study of Screening for Prostate Cancer) are under way. The American Cancer Society recommendation for the early detection of prostate cancer is to promote informed choice to men aged 50 and older who have a life expectancy of at least 10 years.[87] In 2003, 52.7% of Hispanic men aged 50 and older had a PSA test within the past year compared with 58.0% of non-Hispanic whites. Mexican men and men who lack health insurance had the lowest prevalence of PSA testing (Table 9).

Strategies to Improve Cancer Screening

Health care barriers – such as a lack of health insurance or a usual source of care – that are experienced by many Hispanic men and women in the US are reflected in lower rates of preventive services, such as cancer screening.[94,95,96] Studies have shown that the presence of social support may improve participation in screening examinations.[97,98] Local outreach programs and culturally targeted interventions by lay Hispanic health advisors along with physician encouragement to promote the benefits of early cancer detection are also effective strategies for improving cancer screening participation within Hispanic communities.[99]

Advocacy, Research, and Programs to Reduce Cancer Disparities

The American Cancer Society continues to work toward the 2015 goal of eliminating disparities in cancer morbidity and mortality through advocacy, research, education, and service. This section provides highlights and information on some of these efforts.

Advocacy

Working independently and collaboratively with lawmakers at the local, state, and federal level, the Society is able to help create, change, and influence public policies that can have a significant impact on reducing the cancer disparities that exist in this country.

The Society continues to lead the fight to maintain and increase the investment the US has made in biomedical and cancer research following the doubling of the budget for the National Institutes of Health (NIH). This investment includes increased funding for cancer research at the National Cancer Institute and the National Center on Minority Health and Health Disparities, which the Society was instrumental in helping to establish.

Increasing funding for the CDC's National Breast and Cervical Cancer Early Detection Program is a high priority for the Society. This successful program provides community-based breast and cervical cancer screening, diagnosis, and treatment to low-income, uninsured women (http://www.cdc.gov/cancer/nbccedp). In addition, the Society is fighting to protect funding for other cancer programs within the CDC's National Center for Chronic Disease Prevention and Health Promotion, including education and screening targeted toward cancers disproportionately affecting minority communities (prostate, breast, colorectal, cervical, and ovarian cancers).

The Society is also working with Congress to secure funding for the "Patient Navigator" bill that was signed into law by President George W. Bush in 2005. This landmark legislation would provide grants to fund patient navigators who are skilled in providing culturally relevant information, tailored outreach and education, and interventions that will improve access to care, health outcomes, and quality of life in medically underserved communities.

The Society has been able to expand its advocacy work exponentially with the creation of its sister advocacy organization, the American Cancer Society Cancer Action Network℠ (ACS CAN). ACS CAN is a nonprofit, nonpartisan, advocacy organization that uses issue campaigns and voter education aimed at lawmakers and candidates to support laws and policies that will help people fight cancer. To learn more about ACS CAN, visit www.acscan.org.

What Research Is Being Done on Hispanics and Cancer?

Since 1999, the American Cancer Society has funded more than 62 studies totaling $51.5 million devoted to the poor and medically underserved. Almost a quarter of this research focuses on the Hispanic/Latino population, encompassing the cancer continuum from prevention to survivorship. Examples of currently funded research include the following:

Early detection and prevention. Cancer screening rates are low among Hispanics. A study targeting Hispanic women in Arizona is comparing two culturally tailored methods of community health advisor (*promotora*) programs to improve breast, cervical, and colorectal cancer screening participation among underserved Hispanic/Latina women. The program will reach women through clinics, community-based organizations, and physician offices in Phoenix and Tucson, Arizona (urban and surrounding rural areas).[100]

Survivorship. In this study of health-related behaviors after breast cancer diagnosis, researchers will gather information on diet, body weight, fatigue, and depression in Hispanic and non-Hispanic women in the southwestern US who have been diagnosed with breast cancer. They will also evaluate factors such as health care provider relationships, beliefs, and culture that might influence these behaviors.[101]

What Resources Are Available for Hispanics?

The American Cancer Society provides accurate, up-to-date information in Spanish and English 24 hours a day, seven days a week, via 1-800-ACS-2345 and through its Web site, www.cancer.org.

The Society also develops numerous Spanish-language materials, such as a colorectal cancer information resource kit, to educate Spanish-speaking populations about cancer. Information is also available in Bengali, Chinese, French, Haitian Creole, Hindi, Korean, and Russian. For more information, visit the Easy Reading Project Web site at www.cancer.org/easyreading.

"Everyday Choices For A Healthier Life" is a joint initiative of the American Cancer Society, the American Diabetes Association, and the American Heart Association to encourage the prevention and early detection of cancer, diabetes, heart disease, and stroke. The Everyday Choices Web site (http://www.everydaychoices.org) and brochure are both available in Spanish.

The National Comprehensive Cancer Network, through a partnership with the American Cancer Society, provides Spanish-language treatment guidelines for all of the major cancers in a reliable, specific, easy-to-understand format. These patient-friendly resources help cancer patients and their families make timely, well-informed decisions about their treatment. More information can be found at http://www.nccn.org.

Programs and Services

Many American Cancer Society programs and services have been developed or tailored to be culturally appropriate and language-specific for Hispanic audiences. Examples include the following:

Luzca Bien...Sientase Mejor (Look Good...Feel Better®)

This program is for Hispanic women undergoing cancer treatment. The program teaches female patients beauty techniques to help restore their appearance and self-image during chemotherapy and radiation treatments.

Cancer Survivors Network℠ (CSN)

CSN is an online community created by and for cancer survivors and cancer caregivers. All persons personally affected by cancer are welcome. The site includes prerecorded stories in Spanish by Hispanic cancer survivors sharing their personal journey with cancer.

Patient Navigator Program

The Patient Navigator Program involves the placement of trained ACS staff in health care facilities with oncology treatment services that treat a high proportion of medically underserved patients. The goal of the ACS Patient Navigator Program is to provide cancer patients and families with personalized and reliable cancer information, ACS resource referral, and timely follow-up.

Quitline®

The Quitline program is a science-based telephone counseling service that provides tobacco cessation assistance and materials in Spanish and English. The Quitline program also offers a TTY line and self-help materials, such as audiotapes, for low-literate individuals.

What Other Organizations Are Focused on Cancer and Other Health Issues among Hispanics?

Institute for Hispanic Health

The National Council of La Raza's (NCLR) Institute for Hispanic Health is dedicated to reducing the incidence, burden, and impact of health problems in Hispanic Americans. The Institute works in close partnership with NCLR affiliates, government partners, private funders, and other Hispanic-serving organizations to deliver quality health interventions and to provide technical assistance and science-based approaches that are culturally competent and linguistically appropriate. These interventions focus on the improvement of access to and utilization of health promotion and disease prevention programs. More information can be found at http://www.nclr.org/content/programs/detail/1452/.

National Latino Council on Alcohol and Tobacco Prevention (LCAT)

The National Latino Council on Alcohol and Tobacco Prevention (LCAT), created in 1989 by a group of Latino public health professionals and community advocates, is dedicated to reducing the harm caused by alcohol and tobacco in the Latino community. LCAT serves as a national resource center for those actively working in Hispanic/Latino tobacco prevention and control. More information can be found at http://www.nlcatp.org/.

Prevención

Prevención is a nonprofit organization that develops, produces, and disseminates Spanish-language educational materials on health promotion and disease prevention via Spanish-language radio, television, and the Internet. In partnership with government and private organizations, *Prevención* conducts health information campaigns targeted toward "hard-to-reach" Spanish-speaking segments of the population. More information can be found at http://www.prevencion.org/.

Redes En Acción

The National Latino Cancer Research Network is a National Cancer Institute-funded initiative to combat cancer among Latinos. The program focuses on developing national and regional networks of partners engaging in cancer research, training, and awareness activities surrounding key Latino cancer issues. Under the NCI's new Community Networks Program initiatives, *Redes* is expanding its infrastructure to reduce cancer disparities by promoting cancer education, research, and training within the US and Puerto Rico. More information can be found at http://redesenaccion.org/

Sources of Statistics

New cancer cases: The estimated numbers of new US cancer cases among Hispanics in 2006 were calculated by fitting the estimated numbers of cancer cases that occurred each year in the US from 1992 through 2003 to a statistical forecasting model. The estimated numbers of US cases from 1992 through 2003 were calculated using cancer incidence from the 13 regions of the US included in the SEER program of the National Cancer Institute, and population data collected by the US Census Bureau.

Incidence rates: Incidence rates are defined as the number of newly diagnosed cancer cases that occur each year in a population of specified size. They are usually expressed as the total number of cases per 100,000 population per year. Incidence data for this report were collected by the SEER program along with the population data collected by the US Census Bureau. All incidence rates in this publication are age-adjusted to the 2000 US standard population. Incidence rates for the US by race/ethnicity were originally published in *SEER Cancer Statistics Review 1975-2003*.

Cancer deaths: The estimated numbers of US cancer deaths among Hispanics in 2006 were calculated by fitting the number of cancer deaths from 1992 through 2003 to a statistical forecasting model. Data on the number of deaths are obtained from the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention.

Death rates: Similar to the incidence rates, death rates represent the corresponding number of deaths per 100,000 population per year. Death rates were reported by the SEER program using data on cancer deaths from the National Center for Health Statistics along with population data from the US Census Bureau. All death rates in this publication are age-adjusted to the 2000 US standard population.

Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a survey of the CDC, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), and the US states and territories. It is designed to provide state prevalence estimates on behavioral risk factors such as cigarette smoking, physical activity, and cancer screening. The survey sample is large enough to allow estimation at the state level. Data are gathered through monthly computer-assisted telephone interviews with adults aged 18 years

and older. Prevalence estimates from BRFSS are subject to several limitations. For example, the prevalence estimates are only applicable to adults living in households with a residential telephone line. For more information, visit the BRFSS Web site at http://www.cdc.gov/brfss.

National Health and Nutrition Examination Survey (NHANES). The NHANES is a survey of the CDC, National Center for Health Statistics (NCHS). The survey is designed to provide national prevalence estimates on the health and nutritional status of adults and children. Data are gathered through in-person interviews and direct physical exams in mobile examination centers. For more information, visit the NHANES Web site at http://www.cdc.gov/nchs/nhanes.htm.

National Health Interview Survey (NHIS). The NHIS is a survey of the CDC, National Center for Health Statistics (NCHS). The survey is designed to provide national prevalence estimates on personal, socio-economic, demographic, and health characteristics, such as cigarette smoking and physical activity. Data are gathered through a computer-assisted personal interview of adults aged 18 and older. The NHIS is an annual survey and has been conducted by NCHS since 1957. For more information, visit the NHIS Web site at http://www.cdc.gov/nchs/nhis.htm.

Youth Risk Behavior Surveillance System (YRBSS). The YRBSS is a survey of the CDC, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). The survey is designed to provide national, state, and local prevalence estimates on health risk behaviors such as tobacco use, unhealthy dietary behaviors, and physical inactivity among youth and young adults who attend public and private high schools. Data are gathered through a self-administered questionnaire completed during a required subject or class period. The YRBSS is a biennial survey that began in 1991. The state and local surveys are of variable data quality, and caution should be used in comparing data among them. For more information, visit the YRBSS Web site at http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

Factors That Influence Cancer Rates

Data Completeness and Geographic Coverage

Comparison of cancer rates between racial and ethnic groups, particularly those involving groups other than whites or blacks, should be interpreted with caution because ethnicity and race are not always classified uniformly in medical records, death certificates, and the US decennial census. Therefore, rates for populations other than whites and blacks are likely to be underestimated. Second, the incidence data compiled in this report are from the 13 SEER cancer registry areas that cover about 15% of the US population, and they may not accurately reflect the cancer experience of Hispanics throughout the US. Third, comparisons made between Hispanics and non-Hispanic whites consider only ethnicity and do not describe potential racial differences. Last, the cancer experience within the Hispanic population varies greatly according to country of origin. For example, smoking-related cancers are more likely to be higher in Cuban Americans than Mexican Americans because of differences in smoking prevalence between these two groups.

Age Adjustment to the Year 2000 Standard

Epidemiologists use a statistical method called "age adjustment" to compare groups of people with different age compositions. For example, without adjusting for age, it would be inaccurate to compare the cancer rates of the state of Florida, which has a large elderly

population, to that of Alaska, which has a younger population. This is especially true when examining cancer rates, since cancer is generally a disease of older people. Without adjusting for age, it would appear that the cancer rates in Florida are much higher than Alaska. However, once the ages are adjusted, the rates appear to be similar.

Starting with *Cancer Facts & Figures for Hispanics/ Latinos 2003-2005*, we used the most recent US census (2000) as the baseline for our age adjustment. Prior to 2003, our statistics were based on the 1970 census. This change follows federal agencies that publish statistics. The change will also require a recalculation of age-adjusted rates for previous years to allow valid comparison between current and past years.

The impact of this change on the rate of a particular cancer will vary depending on the ages at which that particular cancer generally occurs. For all cancers combined, the average annual age-adjusted incidence rate for 2000-2003 will increase approximately 20% when adjusted to the Year 2000 Standard compared to the Year 1970 Standard. For example, the incidence of colon cancer, which occurs mostly in older age groups, will increase by up to 25% using the Year 2000 Standard. This change is the result of increased representation of older ages in the Year 2000 Standard compared to the Year 1970 Standard.

The purpose of shifting to the Year 2000 Standard is to more accurately reflect contemporary incidence and mortality rates, given the aging of the US population. On average, Americans are living longer because of the decline in infectious and cardiovascular diseases. Our longer life span is allowing us to reach the age when cancer and other chronic diseases become more common. Using the Year 2000 Standard in age adjustment instead of 1970 Standard allows age-adjusted rates to be closer to the actual, unadjusted rate in the population.

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