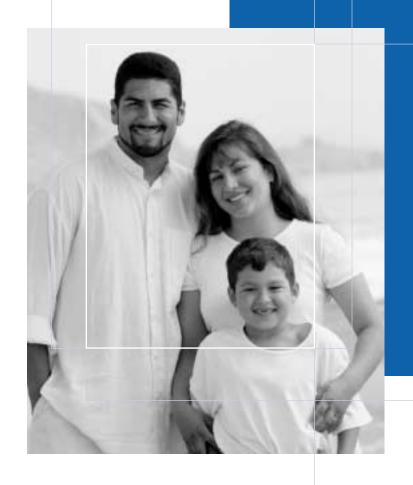
# Cancer Facts & Figures for Hispanics

2000-2001





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### **Acknowledgments**

The production of this report would not have been possible without the efforts of:

Cheryll Cardinez, MSPH, Vilma Cokkinides, PhD, Robert Greenlee, PhD, MPH, April Harris, Mary Beth Hill-Harmon, MSPH, Taylor Murray, Susan Summers, Michael Thun, MD, MS, and Phyllis Wingo, PhD, MS.

Cancer Facts and Figures for Hispanics is a periodic publication of the American Cancer Society, Atlanta, Georgia.

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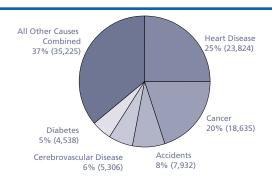
### **Cancer Statistics for Hispanics**

In 1999, approximately 32 million Hispanics comprised almost 12% of the total United States population. The US Hispanic, or Latino, population is descended from the following countries or regions: Mexico (65%), Puerto Rico (10%), Cuba (4%), Central or South America (14%) or other Spanish cultures (7%).<sup>1,2</sup> Within the United States, Hispanics residing in the Midwest and Southwest are mainly of Mexican origin, those in the Southeast, primarily Florida, mainly of Cuban origin, and those in the Northeast are mainly of Puerto Rican origin.<sup>3,4</sup> Cancer occurrence varies across these groups because of regional, behavioral and/or genetic differences.4

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. Among Hispanic adults, cancer is the second leading cause of death, next to heart disease (Figure 1).5 This report provides current statistics on cancer occurrence, risk factors for cancer, and trends in screening for cancer among Hispanics. 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 on medical records, death certificates, and the census. Also, cancer surveillance data for some racial and ethnic groups are limited to recent years only. Furthermore, minority groups in areas with cancer surveillance systems may not accurately reflect the experience of minority groups through-

### Figure 1

Leading Causes of Death Among Hispanics, All Ages, US, 1997



Source: National Vital Statistics Reports 1999, National Centers for Health Statistics, Centers for Disease Control and Prevention.<sup>5</sup>

American Cancer Society, Surveillance Research, 2001

out the United States. Comparisons made between Hispanics and non-Hispanics consider only ethnicity and do not describe potential racial differences. 6

Since 1991, a decrease has been seen in the incidence and mortality rates of all cancer sites combined in the United States, thereby reversing the trend of increasing rates noted since 1973. Aspects of the cancer burden, however, continue to be disproportionately shared. Hispanics experience lower incidence and death rates for all cancers combined, but a higher burden of cancers of the stomach, liver, and cervix than non-Hispanic whites (Table 1).8 Gaps in access to and use of cancer

Table 1

Incidence and Mortality Rates in Hispanics and White non-Hispanics, US, 1990-1997

	Incidence Rates*		Mortality Rates*		
	Hispanic	White non-Hispanic		Hispanic	White non-Hispanic
All sites combined	272.9	414.1	All sites combined	104.0	168.4
Female breast	68.9	118.7	Female breast	15.1	25.6
Colon and Rectum	28.8	44.8	Colon and Rectum	10.3	17.4
Lung	27.1	58.4	Lung	19.8	50.3
Prostate	101.6	149.2	Prostate	16.2	23.4
Cervix	15.3	7.1	Cervix	3.4	2.3
Stomach	10.3	5.9	Stomach	5.8	3.6
Liver	5.7	2.8	Liver	4.8	2.9

<sup>\*</sup> Rates of new cases or deaths per 100,000 people in 1990-1997.

Source: Surveillance, Epidemiology and End Results Cancer Incidence CD-ROM 1990-1997, Division of Cancer Control and Population Sciences, National Cancer Institute, 1999.8

screening programs exist among Hispanics. Death rates from cancers of the breast, cervix, and prostate, all of which can be detected early by screening, decreased less among Hispanics than among non-Hispanics.<sup>8</sup>

#### **New Cases**

In general, the number of new cancer cases and incidence rates among people of Hispanic origin is lower than among non-Hispanics.<sup>9</sup> About 54,100 new cancer cases are expected to be diagnosed among Hispanics in 2001. The most commonly diagnosed cancers among Hispanic men and women will be breast, prostate, lung, and colon and rectum (Figure 2).

For all cancer sites during 1990-1997, the age-adjusted incidence rate per 100,000 population in Hispanics was 323.2 for men and 240.9 for women, compared to 489.8 in non-Hispanic white males and 363.1 in non-Hispanic white females. Over this 7-year period, cancer incidence

#### **Deaths**

About 21,100 Hispanics are expected to die from cancer in 2001 (Figure 2). However, the death rate from all cancers combined is lower among Hispanics than among non-Hispanics. For all cancer sites during 1990-1997, the age-adjusted death rate per 100,000 population in Hispanics was 130.6 for men and 85.6 for women, as opposed to 209.0 in non-Hispanic white males and 140.9 in non-Hispanic white females. The cancer death rates among Hispanics declined, on average, -0.9% each year, a somewhat larger decrease than that seen among white non-Hispanics (-0.5%, on average, each year).8

rates decreased an average of -1.6% each year, a larger

proportionate decrease than among white non-

Hispanics (-0.9%, on average, per year).8

Figure 2

Leading Sites of New Cancer Cases\* and Deaths Among Hispanics, 2001 Estimates†

Cancer Cases I	by Site and Sex	Cancer Deaths b	y Site and Sex
Males	Females	Males	Females
Prostate	Breast	Lung & bronchus	Breast
6,700 (26%)	8,600 (30%)	2,300 (21%)	1,800 (18%)
Colon & rectum	Colon & rectum	Prostate	Lung & bronchus
3,300 (13%)	2,600 (9%)	1,200 (11%)	1,300 (13%)
Lung & bronchus	Lung & bronchus	Colon & rectum	Colon & rectum
2,600 (10%)	1,900 (7%)	1,200 (11%)	900 (9%)
Non-Hodgkin's lymphoma	Uterine corpus	Liver	Pancreas
1,600 (6%)	1,700 (6%)	800 (7%)	600 (6%)
Stomach	Uterine cervix	Non-Hodgkin's lymphoma	Non-Hodgkin's lymphoma
1,000 (4%)	1,600 (6%)	800 (7%)	500 (5%)
Liver	Non-Hodgkin's lymphoma	Stomach	Ovary 500 (5%)
1,000 (4%)	1,300 (5%)	600 (5%)	
Urinary bladder	Ovary	Pancreas	Stomach
900 (4%)	1,200 (4%)	600 (5%)	500 (5%)
Kidney & renal pelvis	Thyroid	Esophagus	Uterine cervix
900 (4%)	1,200 (4%)	400 (4%)	400 (4%)
Pancreas	Kidney & renal pelvis	Kidney & renal pelvis	Liver
700 (3%)	800 (3%)	300 (3%)	400 (4%)
Testis	Stomach	Brain & other nervous system	Multiple myeloma
600 (2%)	700 (2%)	300 (3%)	300 (3%)
Total	Total	Total	Total
25,700 (100%)	28,400 (100%)	11,200 (100%)	9,900 (100%)

<sup>\*</sup> Excludes basal and squamous cell skin cancer and in situ carcinomas except urinary bladder.

Estimates of new cases are projected based on incidence rates from the National Cancer Institute, Surveillance, Epidemiology, and End Results Program, 1992-1997.

<sup>†</sup> Estimates are rounded to the nearest 100.

### **Selected Cancers**

#### **Female Breast**

New Cases: Breast cancer is the most commonly diagnosed cancer among Hispanic women; an estimated 8,600 Hispanic women are expected to be diagnosed in 2001. The rate of new breast cancer cases diagnosed among Hispanic women during 1990-1997 decreased, declining an average of -1.0% each year; among white non-Hispanic women, an average annual increase of 0.5% each year was detected during 1990-1997.8 Although breast cancer is diagnosed approximately 30% less often among women of Hispanic origin,4 it is more frequently diagnosed at a later stage than when found in non-Hispanic women, 10,11 even when access to health care is adequate.12 Lower utilization of screening tests such as mammography among Hispanic women is thought to contribute to later diagnosis, when disease is more advanced.

Deaths: An estimated 1,800 deaths from breast cancer are expected to occur among Hispanic women during 2001. Breast cancer is the leading cause of cancer death among Hispanic women.<sup>13</sup> The average annual decrease of -1.5% in the rate of breast cancer deaths during 1990-1997 among Hispanic women is smaller than the decrease (-2.2%) in white non-Hispanic women.<sup>8</sup>

#### **Colon & Rectum**

New Cases: An estimated 5,900 Hispanic men and women are expected to be diagnosed with cancers of the colon and rectum in 2001. Colorectal cancer is the second most commonly diagnosed cancer among Hispanic men and women.<sup>13</sup> Between 1988-1991, Hispanic men had approximately one-half the incidence rate of colon and rectal cancer compared with non-Hispanic men. Hispanic women had rates between 20% and 40% lower than the rates of non-Hispanic white women.4 During 1990-1997 colorectal cancer rates decreased on average -1.1% each year among Hispanic men and -2.2% each year among Hispanic women. Within the Hispanic population, Puerto Ricans experienced the lowest incidence rates of colorectal cancer from 1988 to 1991, whether they lived in Puerto Rico, or were of Puerto Rican descent, which is true of many New York City Hispanics.4

**Deaths:** An estimated 2,100 deaths from colorectal cancer are expected to occur among Hispanics during 2001. Colorectal cancer is the third leading cause of cancer death among both Hispanic men and women.<sup>13</sup> The death rates due to colorectal cancer in Hispanic

men and women have declined on average -1.2% each year during 1990-1997, compared with a -1.8% annual decline in white non-Hispanics. $^8$ 

#### **Lung & Bronchus**

New Cases: An estimated 4,500 Hispanics are expected to be diagnosed with lung cancer during 2001. Cancer of the lung is the third most common cancer among Hispanic men and women.<sup>13</sup> Because of traditionally less cigarette smoking among Hispanics, lung cancer rates were approximately 40% lower than the rates in non-Hispanics between 1988 and 1991; rates among residents of Puerto Rico, specifically, were about 70% lower.<sup>4</sup> There was a significant decrease in the rates of new cases among Hispanic men and women of -3.5% per year, on average, during 1990-1997.<sup>8</sup>

Deaths: An estimated 3,600 deaths from lung cancer are expected to occur among Hispanics in 2001. Lung cancer is the leading cause of cancer death among Hispanic men; it ranks second among Hispanic women. From 1990 to 1997, death rates from lung cancer have declined among Hispanic men, on average, -2.1% per year, whereas the death rates for Hispanic women have increased on average 0.1% per year. The decline in death rates among men probably results from decreases in the prevalence of smoking over the past 30 years. Declines are not yet apparent in women because the smoking patterns of women lag behind those of men.

#### **Prostate**

New Cases: An estimated 6,700 Hispanic men are expected to be diagnosed with prostate cancer in 2001, making it the most commonly diagnosed cancer among Hispanic men. During 1988-1991, prostate cancer rates among Hispanics were approximately 20% lower than the rates among non-Hispanics.<sup>4</sup> During 1990 - 1997, an average annual decrease of -0.7% was seen.<sup>8</sup> The slight decrease is believed to be a result of the combination of two, shorter trends: an increase in incidence until 1992 due to earlier diagnosis through increased use of prostate-specific antigen (PSA) blood test screenings, and subsequent decrease in incidence until 1997.

Deaths: An estimated 1,200 deaths from prostate cancer are expected to occur among Hispanic men in 2001, making prostate cancer the second leading cause of cancer death. The annual death rate during 1990 - 1997 was 16.2 men per 100,000. The death rate decreased

-1.2% per year, on average in Hispanic men, compared with an average annual decrease of -2.2% in white non-Hispanics. $^8$ 

#### Other cancer sites

The incidence rates of stomach, liver, gallbladder, and cervical cancer are higher among Hispanics than non-Hispanics, and are especially high among first generation migrants to the US.<sup>4,14-16</sup> Hispanic women have twice the incidence of cervical cancer compared with non-Hispanics;<sup>13</sup> however, Hispanic women in the Southwest and Midwest have similar incidence rates to

non-Hispanics.<sup>4</sup> Inadequate use of Pap screening contributes to later diagnosis and poorer survival in patients with cervical cancer.<sup>4,8</sup> The incidence rates of stomach cancer are at least 1.5 times higher among Hispanics, with the exception of those living in the Southeast, whose incidence rates are similar to non-Hispanics.<sup>4</sup> Hispanics experience a 60% higher death rate from both stomach cancer and liver cancer compared with non-Hispanics. The death rate from cervical cancer is 40% higher among Hispanic women than non-Hispanic women (Table 1).<sup>8</sup>

### **Behavioral Risk Factor Statistics**

#### **Tobacco Use**

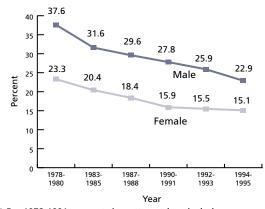
Tobacco use is the most preventable cause of premature death in the United States and is responsible for about 30% of all cancer deaths. <sup>17</sup> Most lung cancers, as well as a large fraction of cancers of the lip and oral cavity, larynx, esophagus, pancreas, cervix, urinary bladder, and kidney can be attributed to cigarette smoking. <sup>18</sup>

Adult Tobacco Use: In 1998, approximately 47 million adults, or 24.1% of all adults, were current cigarette smokers; among Hispanics adults, 19.1% were identified as current cigarette smokers.18 The percentage of Hispanic smokers has decreased somewhat since 1978 (Figure 3).<sup>20</sup> However, according to a report from the Surgeon General in 1998, members of racial ethnic groups are less likely than whites to take part in cessation programs, or to receive advice on quitting from health care providers.20 For smoking cessation programs to succeed among Hispanics, they should be language appropriate, considerate of cultural values, and mindful of potential pressures facing Hispanics.20, 21 Because the majority of Hispanics who smoke tend to be light smokers, less intense cessation programs, such as large-scale community programs, may be more successful.<sup>19</sup> In San Francisco in 1986, 33.8% of Hispanic men and 17.3% of Hispanic women were smokers.21 After implementation of Programa Latino Para Dejar de Fumar (PLFD), a culturally sensitive smoking cessation program, the percentages of Hispanic men and women in San Francisco who were current smokers in 1993 dropped to 25.1% and 12.6%, respectively.22

Youth Tobacco Use: It is estimated that among the current adult cigarette smokers, over 80% began the habit before they reached age 18.<sup>23</sup> According to Youth Risk Behavior Surveillance System (YRBSS) data, the proportion of male and female Hispanic students who admitted to being current smokers jumped from 25.3% in 1991 to 32.7% in 1999 (Figure 4).<sup>24</sup> Also in 1999, the proportion of students who had tried cigarette smoking,

### Figure 3

Trends in the Percentage of Current Cigarette Smokers\*, Hispanic Adults 18+, by Sex, US, 1978-1995



\* For 1978-1991, current cigarette smokers include persons who reported smoking at least 100 cigarettes in their lives and who reported at the time of the survey that they currently smoked. For 1992-1995, current cigarette smokers include persons who reported smoking at least 100 cigarettes in their lives and who reported at the time of the survey that they currently smoked every day or on some days.

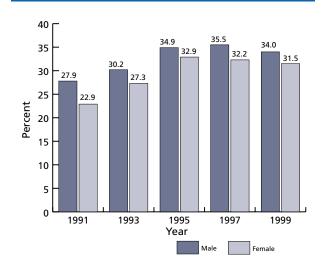
Source: National Health Interview Survey, 1978-1995, National Center for Health Statistics, Centers for Disease Control and

at least for one or two puffs, was similar between Hispanics (72.9%) and white non-Hispanics (70.9%).<sup>25</sup> However, in 1999, only 10.4% of the Hispanic youths smoked cigarettes frequently, while 20.2% of the white non-Hispanic youths reported frequent smoking.<sup>25</sup> Factors influencing the differing smoking habits may include basic cultural differences as well as differentials in the affordability and accessibility of cigarettes.<sup>21,26</sup>

Hispanics who have less than a high school education are more likely to smoke than their more educated peers.<sup>20</sup> Adolescent Hispanic females were less likely to smoke if they had the advantage of a strong and supportive family network.<sup>27</sup>

#### Figure 4

Trends in the Percentage of Current Cigarette Smokers\*, Hispanic High School Students, US, 1991-1999



<sup>\*</sup> Smoked cigarettes on 1 or more of the 30 days preceding the

Source: Youth Risk Behavior Surveillance System, 1991, 1993, 1995, 1997, 1999, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention.<sup>24</sup>

American Cancer Society, Surveillance Research, 2001

### Overweight, Obesity, and Physical Activity

Overweight and Obesity: An estimated 107 million adults in the United States are overweight or obese.<sup>28</sup> Obesity is associated with an increased risk of several chronic diseases, including cancers of the endometrium, breast, prostate, and colon.<sup>29</sup> The recently adopted federal guidelines for the definitions of overweight and obese are shown in Table 2.<sup>30</sup>

Between 1976 and 1994, the percentage of obese and overweight adults in the United States increased sharply.<sup>31</sup> The proportion of overweight Hispanic women increased from 27% in 1985 to 33% in 1993.<sup>32</sup> Among Hispanics from Mexico, there was a marked increase in the percentage of overweight and obese adults (Figure 5).<sup>33</sup>

#### Table 2

Definitions of Overweight and Obesity, by Height and Body Weight

E	Body weight (pound:	5)	
Height (feet, inches)	Overweight*	Obese <sup>†</sup>	
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	

<sup>\*</sup> Overweight defined as Body Mass Index (BMI) of 25-29.9 kg/m<sup>2</sup>.

<sup>†</sup> Obesity = BMI  $\geq$  30 kg/m<sup>2</sup>.<sup>30</sup>

Physical Activity: Studies have shown that participation in regular physical activity helps to control body weight and may decrease the risk of colon cancer.<sup>34</sup> However, data from the 1998 Behavioral Risk Factor Surveillance System (BRFSS) show that almost one-third of Hispanic adults reported having a sedentary lifestyle (Table 3). Among Hispanic high school students, 71.6% of the males and 49.5% of the females participated in vigorous physical activity on 3 or more days a week in 1999 (Table 4).<sup>25</sup>

#### Table 3

Participation in Physical Activity, Adults, by Sex, US\*, 1998

	Hispanic	White non-Hispanic	Black non-Hispanic
No leisure-tim	e physical activit	ty	
Males	32.9	24.7	26.7
Females	40.9	27.3	41.6
Total	31.1	25.9	34.5
Regular, sustai	ined physical act	ivity †	
Males	19.0	22.2	19.4
Females	15.7	21.1	13.4
Total	20.5	21.6	17.6
Regular, vigor	ous physical acti	vity <sup>‡</sup>	
Males	11.4	12.8	12.6
Females	11.9	13.9	9.7
Total	13.0	13.4	11.3

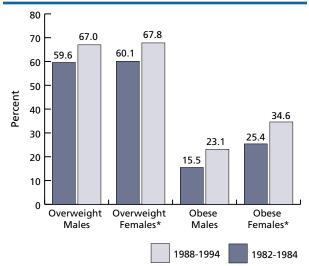
<sup>\*</sup> Based on median value of participating states with 50 or more respondents in a racial or ethnic category.

Source: Behavioral Risk Factor Surveillance System, CD-ROM 1998, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000.

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#### Figure 5

Trends in the Percentage of Overweight and Obese Mexican Adults, 20+, US, 1991-1999



<sup>\*</sup> Excludes pregnant women

Source: National Center for Health Statistics, Centers for Diaease Control and Prevention, Division of Health Examination Statistics.<sup>33</sup>

American Cancer Society, Surveillance Research, 2001

#### Table 4

Participation in Physical Activity Among Hispanic High School Students, by Sex, US, 1999

	Hispanic	White non-Hispanic	Black non-Hispanic			
Participation in	n vigorous phys	ical activity *				
Males	71.6	74.6	64.6			
Females	49.5	59.7	47.2			
Total	60.5	67.4	55.6			
Participation in	Participation in moderate physical activity †					
Males	26.1	31.7	24.3			
Females	16.7	25.8	17.8			
Total	21.4	28.8	20.9			
Participation in	n strengthening	exercises ‡				
Males	66.4	64.8	57.9			
Females	38.8	45.9	33.1			
Total	52.5	55.7	45.1			

<sup>\*</sup> Activities that caused sweating and hard breathing for at least 20 minutes on ≥3 of the 7 days preceding the survey.

Source: Youth Risk Behavior Surveillance System, 1999, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. <sup>25</sup>

<sup>†</sup> At least 5 times a week, ≥30 minutes per session, regardless of intensity.

<sup>‡</sup> At least 3 times a week, ≥20 minutes per session, 50% or more of capacity.

<sup>†</sup> Activities that did not cause sweating or hard breathing for at least 30 minutes on ≥5 of the 7 days preceding the survey.

 $<sup>\</sup>ddagger$  Such as push-ups, sit-ups, or weight lifting on  $\ge$ 3 of the 7 days preceding the survey.

### **Use of Screening Tests**

Screening tests can detect cancer early, at a stage when the disease can still be treated successfully. Early detection tests can actually prevent some cancers from occurring, through the identification and removal of pre-cancerous lesions. Screening can greatly improve the chances of cure, extend life, reduce the extent of treatment needed, and improve quality of life for cancer patients.

Hispanic women are the least likely of the racial and ethnic groups to use preventive services such as Pap test, mammography, and clinical breast exam (Table 5).<sup>35-38</sup> Underuse of these tests may contribute to poorer survival for cervical cancer and breast cancer among Hispanic women. Implementation of social support programs which specifically target minority populations may result in greater participation in screening examinations.<sup>38</sup> Furthermore, improvements in the health care system are needed, as approximately one-third of all Hispanics have no health insurance,<sup>39</sup> greatly limiting access to cancer screening and medical care.

Breast and Cervical Cancer Screening: In 1999, the prevalence of mammography use in the past year among Hispanic women aged 40 and older was 54.4%, which was lower than the proportions among white non-Hispanic (59.5%) and black non-Hispanic (59.4%) women. In 1999, the proportion of women who had had a Pap test in the past three years was 82.6% among Hispanics, compared with 85.6% among whites and 88.9% among blacks. A recent study of Hispanic women in New York City suggests that limited participation in screening programs among Hispanic women is due in part to lack of knowledge about cancer and its causes. <sup>16</sup> Embarrassment about receiving a mammogram or Pap test, in addition to the fear of a potential cancer diagnosis, exist as barriers to screening examinations for many Hispanic women. <sup>40,41</sup>

Colorectal Screening: The estimated percentage of Hispanics being screened for colorectal cancer was low in 1999. Only 13.7% were estimated to have a fecal occult blood test (FOBT) in the past year, compared with 20.0% among whites and 20.8% among blacks; 28.1% of Hispanics were estimated to have had a sigmoidoscopy in the past 5 years, compared with 32.8% among whites and 31.7% among blacks.

#### Table 5

Reported Use of Screening Examinations,\* US, 1999

	Hispanic	White non-Hispanic	Black non-Hispanic
Breast Cancer			
Mammogram**	54.4	59.5	59.4
Clinical Breast Exam***	59.9	68.1	67.9
Mammogram & CBE <sup>†</sup>	46.9	54.3	51.0
Cervical Cancer			
Pap Test <sup>††</sup>	82.6	85.6	88.9
Colon & Rectum Cancer			
Fecal occult blood test <sup>†††</sup>	13.7	20.0	20.8
Sigmoidoscopy/colonoscopy <sup>‡</sup>	28.1	32.8	31.7

<sup>\*</sup> Based on median value of participating states with 50 or more respondents in a racial or ethnic category

Source: Behavioral Risk Factor Surveillance System, CD-Rom 1999, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000.

<sup>\*\*</sup> A mammogram within the past year for women 40 and older.

<sup>\*\*\*</sup> A clinical breast exam within the past year for women 40 and older.

<sup>†</sup> Both a mammogram and a clinical breast exam within the past year for women 40 and older.

<sup>††</sup> A Pap test within the past three years for women 18 and older.

<sup>†††</sup> A fecal occult blood test using a home kit within the past year for adults 50 and older.

<sup>‡</sup> A flexible sigmoidoscopy or colonoscopy within the past five years for adults 50 and older.

### **Sources of Statistics**

New Cancer (Incidence) Cases: The estimated numbers of new US cancer cases among Hispanics in 2001 were calculated by fitting the estimated numbers of cancer cases that occurred each year in the US from 1992 through 1997 to a statistical forecasting model. The estimated numbers of US cases from 1992 through 1997 were calculated using cancer incidence from the regions of the US included in the Surveillance, Epidemiology, and End Results (SEER) program of the National Cancer Institute and population data collected by the US Bureau of the Census.

Incidence Rates: Incidence rates are defined as the number of people per 100,000 population who develop disease during a given period of time. Incidence data for the report were collected by the SEER program along with the population data collected by the US Bureau of the Census. All incidence rates in this publication are age-adjusted to the 1970 US standard population.

Cancer Deaths: The estimated number of US cancer deaths among Hispanics in 2001 was calculated by fitting the number of cancer deaths from 1984 through 1997 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: Death rates are defined as the number of people per 100,000 dying of a disease during a given period of time. 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 Bureau of the Census. All death rates in this publication are age-adjusted to the 1970 US standard population.

**Behavioral Risk Factor Surveillance System** 

(BRFSS): The BRFSS is an annual survey of the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion and has been conducted since 1984. The survey is designed to provide state prevalence estimates on behavioral risk factors, such as cigarette smoking. Data are gathered through monthly, computer-assisted telephone interviews on adults aged 18 years or older living in households in a state or U.S. territory.

National Health Interview Survey (NHIS): The NHIS is an annual survey of the Centers of Disease Control and Prevention, National Center for Health Statistics and has been conducted since 1957. The survey is designed to provide national prevalence estimates on personal, socioeconomic, demographic, and health characteristics of US adults. Data are gathered through a computer-assisted personal interview on adults aged 18 years or older living in US households.

Youth Risk Behavior Surveillance System (YRBSS):

The YRBSS is a biennial survey of the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion and has been conducted since 1991. The survey is designed to provide national, state, and local prevalence estimates on health risk behaviors among youth and young adults who attend public and private high schools. Data are gathered through a self-administered questionnaire, which was completed during a required subject or class period.

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