Differences in Incidence Rates and Early Detection of Cancer among Non-Hispanic and Hispanic Whites in the United States

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Objective: Our study compared cancer incidence rates and stage distribution between non-Hispanic Whites and Hispanic Whites in the United States between 1992 and 2009.

Design: A retrospective cohort study was conducted for the years 1992 through 2009.

Setting: Data represent 13 registries in the Surveillance, Epidemiology, and End Results Program, which reflect 14% of the total US population.

Results: The incidence rates for most cancer sites were significantly higher in non-Hispanic Whites than in Hispanic Whites. Exceptions included cancers of the stomach and liver and, for females only, kidney and renal pelvis and cervix uteri. Overall, cancer incidence in non-Hispanic Whites was 40% greater in males and 34% greater in females as compared with Hispanic Whites. Cancer sites with higher incidence rates among non-Hispanic Whites than Hispanic Whites in 2009 compared with 1992 were melanoma, thyroid cancer, oral cavity and pharynx cancer, lymphoma, urinary bladder cancer, and all cancers combined for males and melanoma, thyroid cancer, cervical cancer, and lung and bronchus cancer for females. However, difference in rates narrowed between the ethnicities for colon and rectal cancer and corpus and uterus cancer. Non-Hispanic Whites tended to have a higher percentage of early staged cancer, with little evidence that disparity between the ethnic groups was narrowing in terms of early detection. However, two exceptions involved liver cancer and thyroid cancer in females. The disparity appeared to widen for lung cancer in males.

Conclusion: Cancer incidence rates are generally lower in Hispanic Whites than non-Hispanic Whites. The difference in rates between groups has widened over the study period for many cancer sites, with a few exceptions. Poorer screening practices among Hispanic Whites have tended to persist. (*Ethn Dis.* 2013;23[3]:349–355)

Key Words: Cancer Incidence, Detection, Disparity, Ethnicity, Screening

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Introduction

In 2008, the age-adjusted cancer incidence rates in the United States per 100,000 were 334.0 in males and 274.4 in females; corresponding rates in Mexico were 132.9 and 126.2, respectively.[1] with cancer rates in Central America of 136.2 and 134.4, respectively.[2]

The higher rates of cancer in the United States are likely due to a complex combination of differences in smoking, alcohol drinking, fruit and vegetable intake, obesity, and physical activity. Cancer is not generally determined by heredity, but rather caused by cultural, behavioral, or environmental factors.[3] Smoking, alcohol drinking, and low fruit-and vegetable-intake are the primary contributors to cancer in low- and middle-income countries.[4] In high-income countries, smoking, alcohol use, and being overweight or obese are the most important causes of cancer.[4] Physical activity has the benefit of lowering the risk of selected cancers (breast, colon, endometrium, prostate, and perhaps the pancreas) by helping to maintain a healthy body weight, by regulating sex hormones, insulin, prostaglandins, and by beneficially influencing the immune system.[5]

In the United States, non-Hispanic Whites continue to have higher cancer incidence rates than Hispanics for most cancer sites, although the rate ratios are closer to unity than in the country comparison. For example, in 2009 the ratio of age-adjusted cancer incidence rates per 100,000 of non-Hispanics Whites to Hispanics was 1.4 (537.1/385.9) for males and 1.4 (439.8/324.1) for females.[6] The lower cancer incidence rates among Hispanics compared with non-Hispanic Whites residing in the United States may be due to their retention of certain behaviors that put them at lower risk. Another proposed explanation is that many Hispanic immigrants experience multiple and compounding barriers that may result in under diagnosis (eg, hold low-wage jobs with few or no benefits, have no health insurance, have low English proficiency, and are affected by restrictive policies.[7]

The purpose of our study was to compare cancer incidence rates and the stage distribution between Hispanic and non-Hispanic Whites in the United States during 1992 through 2009. We are specifically interested in identifying whether efforts in recent decades to minimize ethnic disparities in cancer prevention and early detection have made a difference.

Methods

This study was based on Surveillance, Epidemiology, and End Results (SEER) Program data for the years 1992 through 2009.[6] The SEER Program was initiated in 1973, when it began gathering and publishing population-based data from seven tumor registries on cancer incidence and survival.[8,9] The tumor registries routinely obtained cancer data in their catchment areas from the records of all cancer patients identified by hospitals, clinics, nursing homes, private pathology laboratories, radiotherapy units, death certificates, and other health service units that provide diagnostic or treatment services.

We are specifically interested in identifying whether efforts in recent decades to minimize ethnic disparities in cancer prevention and early detection have made a difference.

In 1975, two additional tumor registries joined the SEER Program. In 1992, four more tumor registries were added to the SEER Program, making 13 in total: San Francisco/Oakland, Connecticut, metro Detroit, Hawaii, Iowa, New Mexico, Seattle/Puget Sound, Utah, metro Atlanta, San Jose/Monterey, Los Angeles, Alaska Natives, and rural Georgia. The 13 SEER registries represent approximately 14% of the total US population,[6] 12% of the total White population and 22% of the total Hispanic population.[10] Rates for Hispanics were only available from 1992 and later.

Cancers were coded according to the International Classification of Disease for Oncology Second Edition (ICD-O-2).[11] Hispanic and non-Hispanic ethnicity may represent Whites, Blacks, or other racial groups. In our study, cancer rates were calculated for non-Hispanic Whites and Hispanic Whites using the SEER Statistics System (SEER*Stat).[6] Restricting Hispanics to just Whites slightly lowered the number of cases during 1992 through 2009 (ie, 3%–5% for males and 2%–4% for females). Incidence data for Hispanics was based on NAACCR Hispanic Identification Algorithm (NHIA).[12] When producing statistics using incidence data for Hispanic ethnicity, the SEER registry excludes the Alaska Natives Registry.

Rates were age-adjusted using the 2000 US Standard Population (19 age groups – Census P25-1130), and expressed per 100,000 person-years. For each cancer site, the numerator included the first or subsequent diagnosis at the same site, and the denominator the mid-year population based on census data. Ninety-five percent confidence intervals were derived for both rates and rate ratios. The % change in the proportion of locally diagnosed cancer over the entire time period of this study was derived by calculating the average of the 1992 and 1993 proportions and the average of the 2008 and 2009 proportions, subtracting the former from the latter, dividing the difference by the former, and then multiplying by 100 to convert the value to a percent.

RESULTS

Selected site- and sex-specific cancer incidence rates are presented for non-Hispanic Whites and Hispanic Whites in the United States (Table 1). Rate ratios are also shown in the Table. Among males, incidence rates are significantly greater for non-Hispanic Whites compared with Hispanic Whites for all cancer sites except kidney and renal pelvis (rate ratio = 1.05, P=.1557), stomach (.53, P<.0001), and liver and intrahepatic bile duct (.47, P<.0001). Among females, incidence rates are significantly greater for non-Hispanic Whites compared with Hispanic Whites for all cancer sites except kidney and renal pelvis (.90, P=.0062), cervix uteri (.57, P<.0001), liver and intrahepatic bile duct (.43, P<.0001), and stomach (.41, P<.0001), where the rates are each significantly lower in non-Hispanic Whites. For all cancers combined, the incidence rate in non-Hispanic Whites compared with Hispanic Whites is 40% greater in males and 34% greater in females. For those cancer sites reported for both males and females, males have larger rate ratios than females in all cancers except those involving the lung and bronchus, and colon and rectum.

The rate ratios involving non-Hispanic Whites and Hispanic Whites were derived for each cancer site according to sex and calendar year (1992–2009). The site- and sex-specific estimated annual % changes in the ratios over time are presented in Table 2. A significant positive annual % indicates a widening gap in the risk of cancer between non-Hispanic Whites and Hispanic Whites; a significant negative annual percent change indicates a narrowing gap in the risk of cancer between the two groups; a non-significant annual percent change indicates no change in the risk of cancer between the two groups. Among males, the ratio of non-Hispanic Whites to Hispanic Whites increased for melanoma, thyroid cancer, oral cavity and pharynx cancer, lymphoma, urinary bladder cancer, and for all cancers combined. For females, the ratio of non-Hispanic Whites to Hispanic Whites increased for melanoma, thyroid cancer, cervical cancer, and lung and bronchus cancer. On the other hand, the ratio of non-Hispanic to Hispanic White males decreased for colon and rectal cancer, and among females also for breast cancer, and corpus and uterine cancer.

The % of site-specific cancer diagnosed with local stage or distant stage disease in the United States, 2007–2009, is presented for non-Hispanic Whites and Hispanic Whites according to sex in Table 3. Hispanics tend to have a lower percentage of cancer diagnosed at the local stage and a higher percentage diagnosed at the distant stage. For example, the % of male patients diagnosed with locally staged thyroid cancer is 35% higher among non-Hispanic Whites compared with Hispanic Whites, whereas the percent with distant staged disease is 41% lower. The only cancer sites where the % of locally staged disease is lower for non-Hispanic Whites are pancreatic cancer and ovarian cancer. For these cancers, the percent of distant staged disease is also higher for non-Hispanic Whites.

The % ratio of locally staged cancer for non-Hispanic Whites compared with Hispanic Whites was derived for each cancer site according to sex and

Table 1. Site- and sex-specific cancer incidence rates for non-Hispanic and Hispanic Whites in the United States, 2007–2009, Surveillance, Epidemiology, and End Results (SEER) data

	Non-Hispanic White		Hispanic White			
Cancer	Rate per 100,000	95% CI	Rate per 100,000	95% CI	Rate ratio	95% CI
Male						
Melanoma	37.6	36.9–38.2	4.7	4.2–5.3	7.92	7.04–8.95
Urinary bladder	42.2	41.6–42.9	18.0	16.8–19.2	2.35	2.20–2.52
Lung and bronchus	70.0	69.1–70.8	38.9	37.2–40.7	1.80	1.72–1.89
Oral cavity and pharynx	17.1	16.7–17.6	9.9	9.1–10.8	1.73	1.59–1.88
Brain and other nervous system	9.2	8.9–9.5	5.4	4.9–6.0	1.69	1.52–1.88
Thyroid	7.3	7.0–7.6	4.3	3.9–4.8	1.68	1.50–1.90
Leukemia	18.1	17.7–18.6	11.5	10.7–12.4	1.57	1.46–1.70
All	553.0	550–555	396.0	391–401	1.40	1.38–1.42
Lymphoma	30.5	29.9–31.1	22.9	21.7–24.1	1.33	1.26–1.41
Prostate	153.6	152.4–154.9	117	114.2–119.9	1.31	1.28–1.35
Pancreas	14.0	13.6–14.4	11.9	11.0–12.9	1.18	1.08–1.28
Colon and rectum	49.9	49.1–50.6	45.0	43.3–46.8	1.10	1.06–1.16
Kidney and renal pelvis	20.8	20.3–21.3	19.9	18.8–21.0	1.05	.98–1.11
Stomach	8.5	8.2–8.8	16.0	14.9–17.1	.53	.49–.57
Liver and intrahepatic bile duct	8.9	8.6–9.2	18.7	17.7–19.9	.47	.44–.51
Female						
Melanoma	24.7	24.2–25.2	4.5	4.0–4.9	5.53	4.99–6.14
Lung and bronchus	54.4	53.7–55.1	25.0	23.8–26.2	2.18	2.07–2.29
Urinary bladder	10.0	9.7–10.3	5.1	4.6–5.7	1.94	1.74–2.16
Oral cavity and pharynx	6.5	6.3–6.8	4.3	3.8–4.7	1.53	1.37–1.72
Breast	136.4	135.3–137.5	94	92.0–96.2	1.45	1.42–1.49
Brain and other nervous system	6.3	6.0–6.6	4.6	4.1–5.1	1.37	1.23–1.53
All	439.0	437–442	328.0	324–332	1.34	1.32–1.36
Corpus and uterus NOS	27.1	26.6–27.6	20.3	19.4–21.3	1.33	1.27–1.40
Leukemia	10.5	10.2–10.8	8.4	7.8–9.1	1.24	1.15–1.34
Ovary	13.7	13.4–14.1	11.3	10.6–12.0	1.21	1.13–1.30
Colon and rectum	38.5	37.9–39.1	32.4	31.2–33.8	1.19	1.14–1.24
Thyroid	20.9	20.5–21.4	17.6	16.8–18.4	1.19	1.13–1.26
Lymphoma	20.7	20.3–21.2	17.8	16.9–18.8	1.16	1.10–1.23
Pancreas	10.6	9.1–10.5	9.8	9.1–10.5	1.09	1.01–1.18
Kidney and renal pelvis	10.2	9.9–10.5	11.3	10.6–12.1	.90	.84–.97
Cervix uteri	6.4	6.1–6.7	11.3	10.6–12.0	.57	.53–.61
Liver and intrahepatic bile duct	3.0	2.9–3.2	7.0	6.4–7.6	.43	.39–.48
Stomach	3.6	3.4–3.8	8.9	8.2–9.5	.41	.37–.45

calendar year (1992–2009). The site- and sex-specific estimated annual % changes in the % ratios over time are presented in Table 4. There are only a few trends in % ratios that significantly changed over the study period. For males, a significant increasing ratio occurred for lung cancer in the percent of non-Hispanic Whites and Hispanic Whites diagnosed with locally staged disease. The percent of localized lung cancer increased from 16.1% in 1992–1993 to 19.4 in 2008–2009 (ie, 20.5%) for non-Hispanic Whites. Corresponding values for Hispanic Whites were 15.0% and 14.6% (−2.3%), respectively. For the remaining cancer sites, a non-significant annual % change indicated no change over time in the % ratio of cancer diagnosed with locally staged disease between the two groups. For females, a significant widening gap occurred for liver and intrahepatic bile duct cancer in the percent of non-Hispanic Whites and Hispanic Whites diagnosed with locally staged disease. The % of localized liver cancer increased from 23.0% in 1992–1993 to 43.5 in 2008–2009 (ie, 89.1%) for non-Hispanic Whites. Corresponding values for Hispanic Whites were 30.3% and 42.4% (ie, 39.9%), respectively. However, a significant narrowing gap occurred for thyroid cancer in the % ratio of cancer diagnosed with local stage disease between the two groups. The percent of thyroid cancer increased from 58.5% in 1992–1993 to 67.3% in 2008–2009 (ie, 15.0%) for non-Hispanic Whites. Corresponding values for Hispanic Whites were 42.0% and 56.1% (ie, 33.6%), respectively. There were no significant changes over time in the ratios for the remaining cancer sites among females.

DISCUSSION

Our study found that cancer incidence rates for most sites were significantly higher in non-Hispanic Whites than in Hispanic Whites. Exceptions involved cancers of the stomach and

Table 2. Estimated annual percent change of the ratio of non-Hispanic to Hispanic Whites age-adjusted cancer incidence rates from 1992 through 2009, Surveillance, Epidemiology, and End Results (SEER) data

Cancer	Male		Female	
	Estimated Annual % Change	T Statistic *P*	Estimated Annual % Change	T Statistic *P*
Melanoma	1.61	.0080	2.55	.0003
Thyroid	1.69	.0200	1.93	<.0001
Cervix uteri	—	—	1.89	.0001
Oral cavity and pharynx	1.21	.0092	−.09	.8593
Breast	—	—	−.42	.0147
Lymphoma	.67	.0174	−.14	.6117
Liver and intrahepatic bile duct	.63	.1200	−.71	.2380
Lung and bronchus	.43	.0786	.57	.0348
Urinary bladder	.41	.0153	.44	.3697
Pancreas	.38	.4008	.68	.1011
All	.33	.0070	.06	.5448
Prostate	.17	.5970	—	—
Leukemia	.07	.8514	.03	.9446
Stomach	.05	.8765	−.48	.2518
Brain and other nervous system	−.09	.8803	.70	.1147
Kidney and renal pelvis	−.28	.4883	−.86	.0599
Colon and rectum	−1.48	<.0001	−1.14	<.0001
Corpus and uterus NOS	—	—	−1.25	.0001
Ovary	—	—	−.40	.2992

liver and intrahepatic bile duct for males and females, and kidney and renal pelvis and cervix for females. Overall, cancer incidence in non-Hispanic Whites was 40% greater in males and 34% greater in females as compared with Hispanic Whites.

Tobacco smoking is a known risk factor for selected cancers (eg, lung and bronchus, oral cavity and pharynx, urinary bladder, pancreas, kidney and renal pelvis cancer).[13,14] Although smoking prevalence in Hispanics may increase with greater acculturation to the United States, smoking prevalence among Hispanics remains lower than that of non-Hispanic Whites (13% vs 22%).[15,16] The lower prevalence of cigarette smoking is one possible explanation for the lower cancer incidence among Hispanics for the lung and bronchus, oral cavity and pharynx, urinary bladder, and pancreas. Cancer prevalence of the kidney and renal pelvis was similar for males between the two ethnic groups, but slightly higher for Hispanic Whites than non-Hispanic White females. Although smoking is a risk factor for kidney and renal pelvis cancer, it is plausible that genetic susceptibility and its interaction with environmental exposures are influencing the risk of onset for these cancers.

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On the basis of what we currently know about diet and cancer, the National Cancer Institute suggests following established dietary guidelines by eating a healthy, balanced diet that is low in fat and rich in high-fiber grains, fruits, and vegetables.[17] Diet in the United States varies according to ethnicity and acculturation, but on average, Hispanics consume an additional serving of fruits and vegetables each day when compared to non-Hispanic Whites.[18] This dietary pattern may help explain some of the lower cancer incidence in Hispanics living in the United States, particularly for colon cancer. However, as we saw for cancers of the colon and rectum, their incidence rates have become more similar between the two ethnicities over the study period.

Physical activity is an important component of a healthy lifestyle but has only been shown to reduce the risk of colon cancer. For all other cancer sites, results are inconsistent.[19] Studies have found that Hispanic adolescents and adults are less physically active than non-Hispanic Whites in the United States.[20,21]

Obesity and smoking are known risk factors for stomach cancer, along with Epstein-Barr virus infection, Helicobacter pylori, and others. Hispanic Whites had greater prevalence of stomach cancer than did non-Hispanic Whites. Studies have shown that Hispanics compared with non-Hispanic Whites in the United States are more likely to be overweight and obese,[22–24] and have higher prevalence of Helicobacter pylori and Epistein-Barr virus.[16,25]

Excessive alcohol consumption, obesity, and chronic hepatitis B and C virus are among the main risk factors for liver cancer. Hispanic migrants are less likely to be frequent alcohol drinkers, but have higher prevalence of obesity and chronic

Table 3. Percent of site- and sex-specific cancer staged as local or distant for non-Hispanic and Hispanic Whites in the United States, 2007–2009, Surveillance, Epidemiology, and End Results (SEER) data[a]

	Male						Female					
	Local Stage			Distant Stage			Local Stage			Distant Stage		
Cancer	Non-Hispanic White %	Hispanic White %	Ratio	Non-Hispanic White %	Hispanic White %	Ratio	Non-Hispanic White %	Hispanic White %	Ratio	Non-Hispanic White %	Hispanic White %	Ratio
Thyroid	53.4	39.5	1.35	8.2	14	.59	67.1	56.8	1.18	2.9	5.1	.56
Lung and bronchus	19.2	14.4	1.33	52.6	58.4	.9	23.2	19.5	1.19	49.3	51	.97
Melanoma	84.3	66.7	1.26	4	10.4	.38	88.7	77.8	1.14	2	4.4	.46
Stomach	28.6	23.9	1.20	36.9	37.1	.99	30.6	27	1.13	36.1	34.8	1.04
Oral cavity and pharynx	29.1	26.3	1.11	14	17.2	.81	45.3	37.2	1.22	9.4	11.6	.81
Colon and rectum	43.6	41.0	1.06	18.7	19.1	.98	42.3	40.6	1.04	19	18.8	1.01
Prostate[b]	91.9	86.5	1.06	4.1	5.4	.76	—	—	—	—	—	—
Liver and intrahepatic bile duct	40.9	39.0	1.05	18.2	18.2	1	43.3	39.4	1.1	16.7	18.3	.91
Breast	—	—	—	—	—	—	64.7	59	1.1	5.6	6.6	.85
Cervix uteri	—	—	—	—	—	—	53.1	47.8	1.11	10.9	10.6	1.03
Corpus and uterus NOS	—	—	—	—	—	—	70.1	64	1.09	8.9	11.8	.75
Urinary bladder	75.7	73.3	1.03	3.8	3.9	.97	73	68.6	1.06	5	5.9	.85
Kidney and renal pelvis	62.2	62.3	1	15.8	15.6	1.01	67.6	64	1.06	13.7	15.8	.87
Pancreas	8.6	10.9	.78	51.4	48.7	1.06	8.5	9.3	.92	50.0	48.5	1.03
Ovary	—	—	—	—	—	—	19.6	22.1	.88	65.9	62.8	1.05

[a] Historic staging was not available for brain and other nervous system, lymphoma, or leukemia.
[b] Local/regional stage combined for prostate cancer.

infection hepatitis B virus,[16] which may explain the higher prevalence of liver cancer among Hispanics. Diabetes is also a risk factor for liver cancer. According to the National Health Interview Survey, the age-adjusted percentages of persons ≥18 years with diabetes in 2010 was 13.2 for Hispanics and 7.6 for non-Hispanic Whites.[26]

Human papillomaviruses (HPVs) are a group of over 150 related viruses, with more than 40 of such viruses easily spread by vaginal, anal, and oral sex.[27] Most cervical cancer is associated with high-risk

Table 4. Site- and sex-specific estimated annual percent change of the ratio of non-Hispanic to Hispanic Whites percentage of locally staged cancer from 1992 through 2009, Surveillance, Epidemiology, and End Results (SEER) data

	Male		Female	
Cancer	Estimated Annual % Change	T Statistic *P*	Estimated Annual % Change	T Statistic *P*
Melanoma	−.51	.3422	.05	.8474
Corpus and uterus NOS	—	—	−.10	.5912
Breast	—	—	−.09	.3536
Thyroid	.05	.9257	−.90	.0128
Cervix uteri	—	—	−.05	.8965
Oral cavity and pharynx	−.36	.6375	.74	.3879
Liver and intrahepatic bile duct	−.45	.3679	1.49	.0181
Lung and bronchus	1.30	.0037	.31	.6127
Urinary bladder	−.29	.9749	.01	.1910
Pancreas	.06	.9717	.98	.5069
Prostate[a]	−.06	.6052	—	—
Stomach	.18	.7270	1.16	.1033
Kidney and renal pelvis	−.65	.1882	.06	.8644
Colon and rectum	.05	.8601	−.33	.1803
Ovary	—	—	−.50	.5434

[a] Applies to 1995–2009.

HPVs. The higher rates of cervical cancer among Hispanic females have been observed previously.[28] Cancer registries do not collect information about HPVs in cancer tissue among diagnosed cases, but a higher prevalence of the viruses is suggested among Hispanic women.[27]

Higher incidence rates among non-Hispanic Whites involving skin melanoma, and cancer involving urinary bladder, lung and bronchus, brain and other nervous system, leukemia, and thyroid are more pronounced in males than females. As already discussed, acculturation by Hispanics in the United States is correlated with some cancer risk factors, and the link between acculturation and risky health behaviors is modified by sex. Studies have demonstrated that Hispanic females with high levels of acculturation are more likely to consume higher levels of alcohol than Hispanic men.[29] In addition, smoking is more common among less-acculturated Hispanic males and highly-acculturated Hispanic females.[30] The fact that Hispanic females are more likely to acculturate than males could help explain why the disparity in cancer rates is greater for males than it is for females.[31,32]

For almost all of the cancer sites considered, Hispanics tend to have a similar or higher percentage of cases diagnosed with localized disease and a smaller percentage of cases diagnosed with distant disease which implies better screening and access to care for non-Hispanic Whites. Though many screening programs have targeted Hispanics, Hispanics remain significantly less likely than non-Hispanic Whites to receive colonoscopies,[33] mammograms,[34] and prostate specific antigen tests.[35] Yet earlier detection was observed among non-Hispanic Whites for pancreatic cancer and ovarian cancer. Though early detection for these cancers is comparatively very low, the general need for improved screening is indicated. Why early detection is better among Hispanics requires further investigation.

For both males and females, there was no significant change in the ratio of locally staged cancer between non-Hispanic Whites and Hispanic Whites over the study period, except for a few exceptions. Among males, early detection for lung cancer improved for non-Hispanic Whites but did not improve for Hispanic Whites. The National Lung Screening Trial recently found that annual computed tomography screening can decrease the risk of lung cancer mortality in high risk smokers. Yet in a study involving beliefs and attitudes about lung cancer screening among smokers, Hispanics were less likely to report intention to be screened if they had to pay for the test.[36] For females, early detection of liver cancer and thyroid cancer improved for both non-Hispanic Whites and Hispanic Whites. Although the percent of locally staged cancer continued to be better for non-Hispanics Whites in 2008–2009 for these two cancer sites, the disparity narrowed. Thus, only for these two cancer sites in females did the disparity in early stage detection improve over the study period.

The 13 cancer registries upon which this study is based represent 12% of the total White population and 22% of the total Hispanic population in the United States.[10] Although SEER registries follow strict quality control measures and Hispanics are well represented, 71% are from registries in a single state (11% San Francisco/Oakland, 9% San Jose/Monterey, and 51% Los Angeles), with 14% from New Mexico, 5% from Connecticut, 2% or less from each of the remaining SEER registries. Assuming cancer incidence rates differ in geographically distinct Hispanic populations in the United States, Hispanics in the current study may not be representative of all Hispanics in the country.

CONCLUSION

In the United States, Hispanic Whites tend to have lower cancer incidence rates than non-Hispanic Whites, and the difference in rates increased for many cancer sites (ie, melanoma, thyroid cancer, oral cavity and pharynx cancer, lymphoma, urinary bladder cancer, and all cancers combined for males and melanoma, thyroid cancer, cervical cancer, and lung and bronchus cancer for females) from 1992 through 2009. On the other hand, difference in rates narrowed for a few cancers (ie, colon and rectal cancer and corpus and uterus cancer). Further research is needed to better understand the generally lower cancer incidence rates in non-Hispanic Whites and why the difference in rates is increasing for most cancers, but decreasing for others. There is no evidence that disparity between non-Hispanic Whites and Hispanic Whites in early detection for cancer is narrowing, with the exception of liver cancer and thyroid cancer in females. For lung cancer in males, the disparity appears to be widening.

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