



Accredited CME Course

Cancer Screening Disparities: *Physicians as Agents of Change*

presented by Israel de Alba, MD, MPH, University of California, Irvine

EDUCATIONAL NEEDS: The California Medical Association, the California Medical Association Foundation and the Network of Ethnic Physician Organizations expert panel on Cancer Screening Disparities designed this course in response to research data from the Center for Health Policy Research, UCLA suggesting that low rates of cancer screening has a strong influence on cancer treatment outcomes among racial/ethnic groups in California.

EDUCATIONAL OBJECTIVES:

Outline current health disparities by type of cancer by ethnic group.

Discuss the cancer screening health disparities by ethnic group.

Describe the barriers to cancer screening among ethnic groups within the US.

Identify the impact of physician recommendation on increasing cancer screening and illustrate the tools physicians can use to increase cancer-screening rates.

CONTINUING MEDICAL EDUCATION: This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the California Medical Association and both the California Medical Association Foundation and the Network of Ethnic Physician Organizations. The California Medical Association is accredited by the ACCME to provide continuing medical education for physicians. The California Medical Association designates this continuing medical education activity for **2 Category 1 credit hours** which may be applied toward the CMA Certification in Continuing Medical Education and the AMA Physician's Recognition Award.

Provider approved by the California Board of Registered Nursing, Provider #00370, for **2 contact hours**.

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Contents

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Module 1. Cancer racial/ethnic disparities in the U.S.

Module 2. Racial/ethnic cancer screening gap

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Module 4. Impact of physician's recommendation on cancer screening

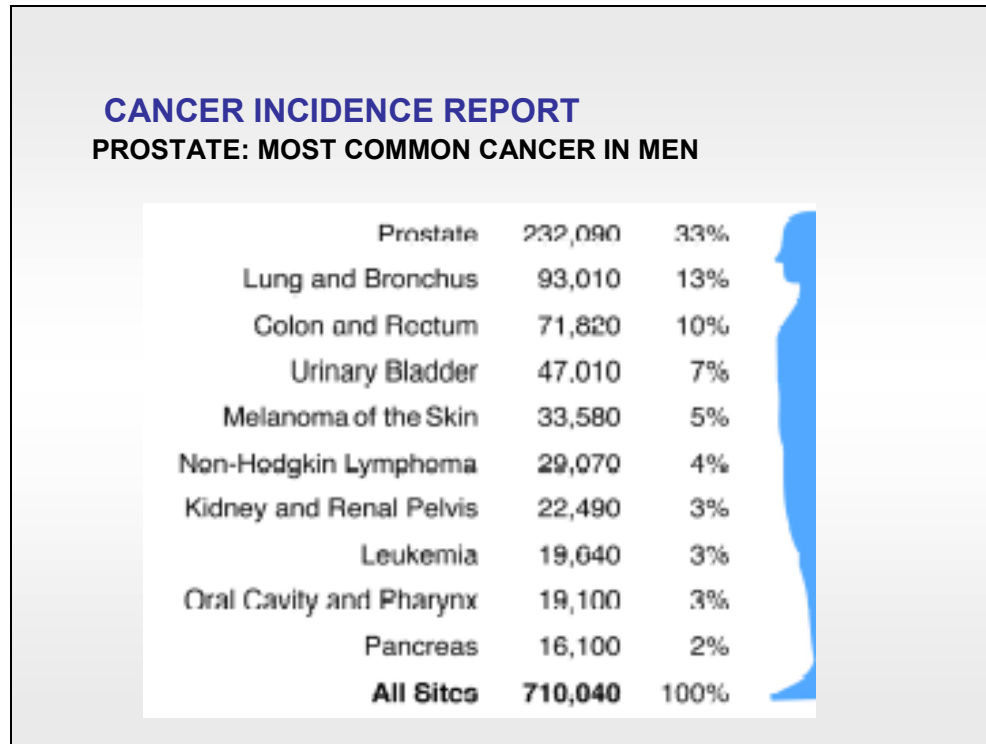
Module 1

Cancer racial/ethnic disparities

- The impact of cancer
- Cancer in African Americans
- Cancer in Hispanics
- Cancer in Asian-Pacific Islanders

The impact of cancer

- Highlights
 - Cancer has surpassed heart disease as the top killer of Americans under age 85
 - There are 1.3 million new cancer cases each year in the United States
 - There has been a recent decline in cancer mortality for some common cancer; reflecting improved screening rates
 - The benefits of cancer screening are not reaching all Americans; multiple racial/ethnic disparities in cancer screening rates and survival have been document



The Impact Of Cancer: Incidence

Men

Among men, prostate, lung, and colorectal cancers account for more than half of all newly diagnosed cancers (56 percent). Prostate cancer alone accounts for one in three cases (33 percent).

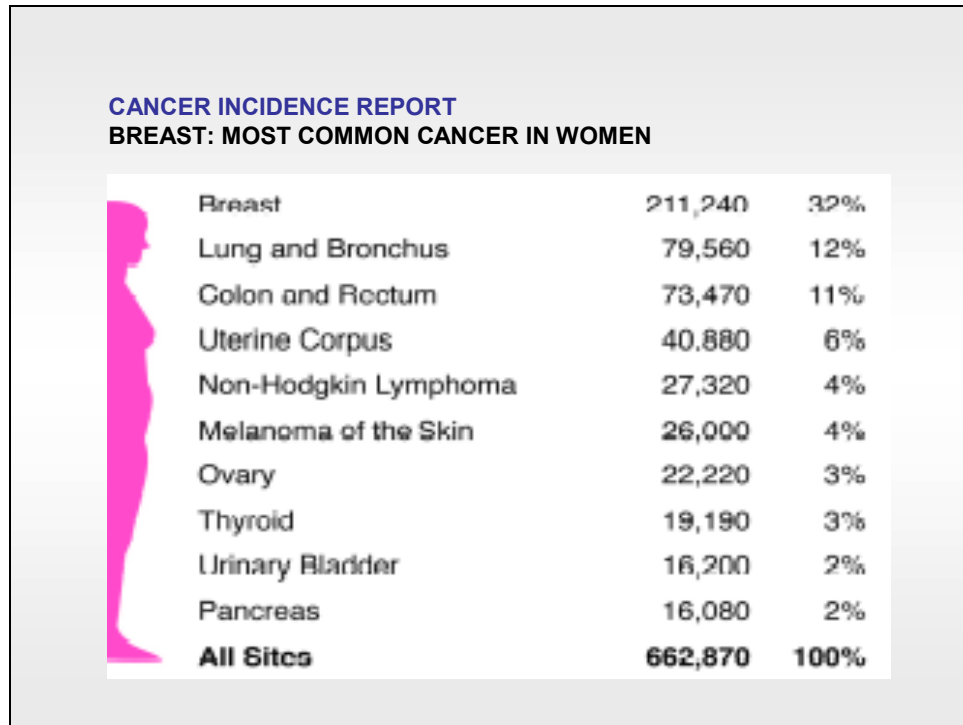
Leading cancer types in American men and estimated number of new cases for 2005:

Prostate: 232,000 cases, 33% of all new cancer cases in the U.S.

Lung and bronchus: 93,000 new cases, 13% of all new cases

Colorectal: 72,000 new cases, 10% of all new cases

*Ahmedin Jemal, Taylor Murray, Elizabeth Ward, Alicia Samuels, Ram C. Tiwari, Asma Ghafoor, Eric J. Feuer, and Michael J. Thun. **Cancer Statistics, 2005.** CA Cancer J Clin 2005 55: 10-30
© American Cancer Society, Inc., 2005*



The Impact Of Cancer: Incidence

Women

Among women, breast, lung and colorectal cancers account for more than half of all newly diagnosed cancers (55 percent). Breast cancer alone accounts for one in three cases (32 percent).

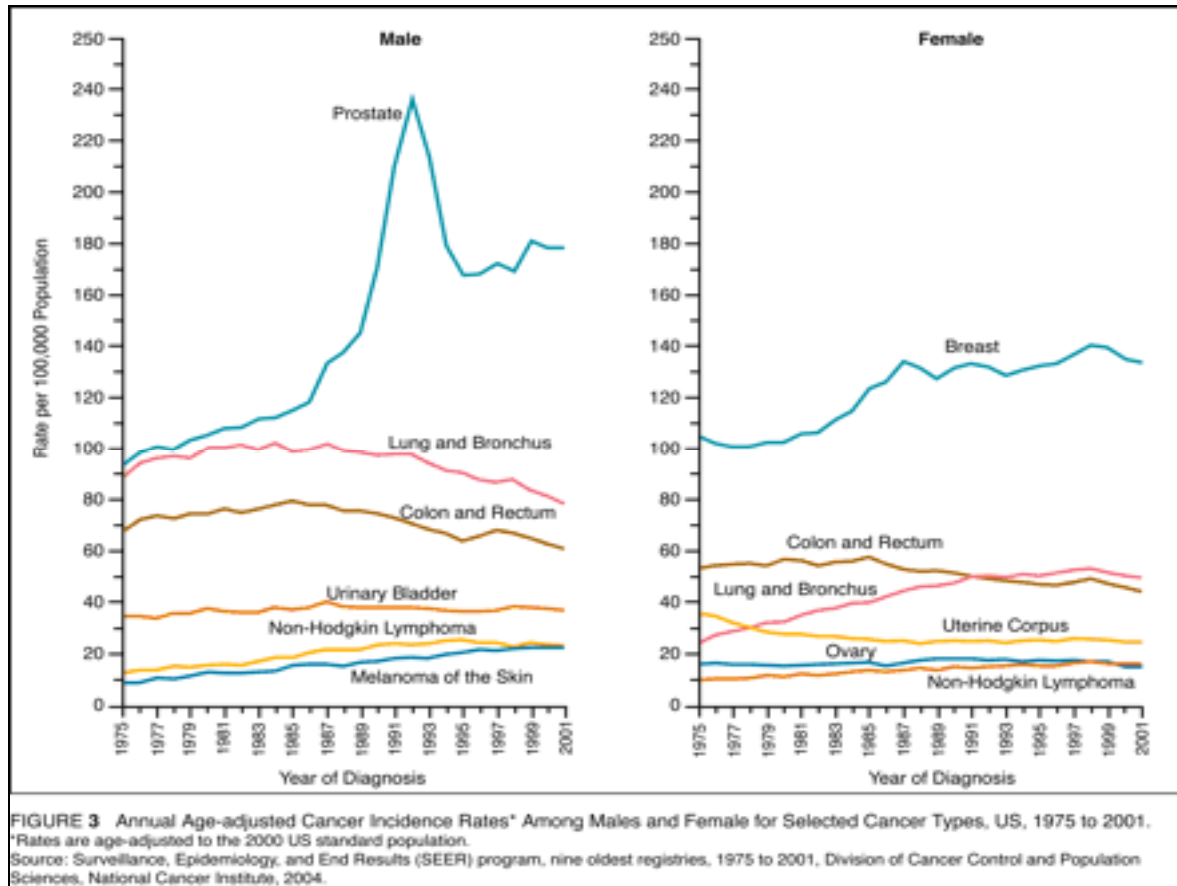
Leading cancer types in American women and estimated number of new cases for 2005:

Breast: 211,000 cases, 32% of all new cancer cases in the U.S.

Lung and bronchus: 79,580 new cases, 12% of all new cases

Colorectal: 73,470 new cases, 11% of all new cases

Slide 7



**The impact of Cancer: Incidence
Making progress in the fight against cancer**

Graphs depicting trends in age-adjusted cancer incidence rates for six selected cancer for men and women, 1975-2001

Colorectal cancer incidence rates dropped between 1998 and 2001 in both men and women

Prostate and female breast cancer rates have continued to increase, although at a slower rate than in years past

The increase may be due to screening using PSA testing (prostate cancer) and mammography (breast cancer)

The increase in female breast cancer may also reflect increased use of hormone replacement therapy and/or increased prevalence of obesity

Source:

Ahmedin Jemal, Taylor Murray, Elizabeth Ward, Alicia Samuels, Ram C. Tiwari, Asma Ghafoor, Eric J. Feuer, and Michael J. Thun. **Cancer Statistics, 2005.** CA Cancer J Clin 2005 55: 10-30 © American Cancer Society, Inc., 2005

LATEST NEWS

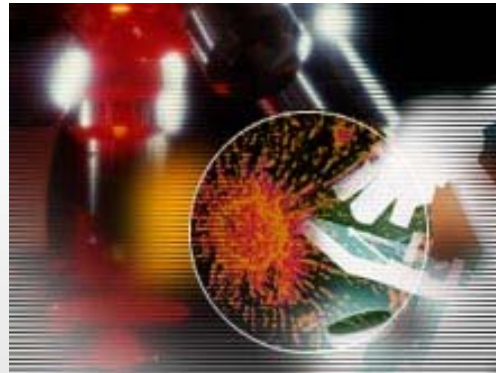
HEALTH

Cancer now kills more than heart disease

Deaths from both fall, but heart disease at faster rate

Wednesday, January 19, 2005 Posted: 3:51 PM EST (2051 GMT)

For the first time, cancer has surpassed heart disease as the top killer of Americans under 85, health officials said Wednesday.



The impact of Cancer: mortality

Cancer as a major public health problem in the U.S.

Cancer has surpassed heart disease as the leading cause of death in Americans under the age of 85

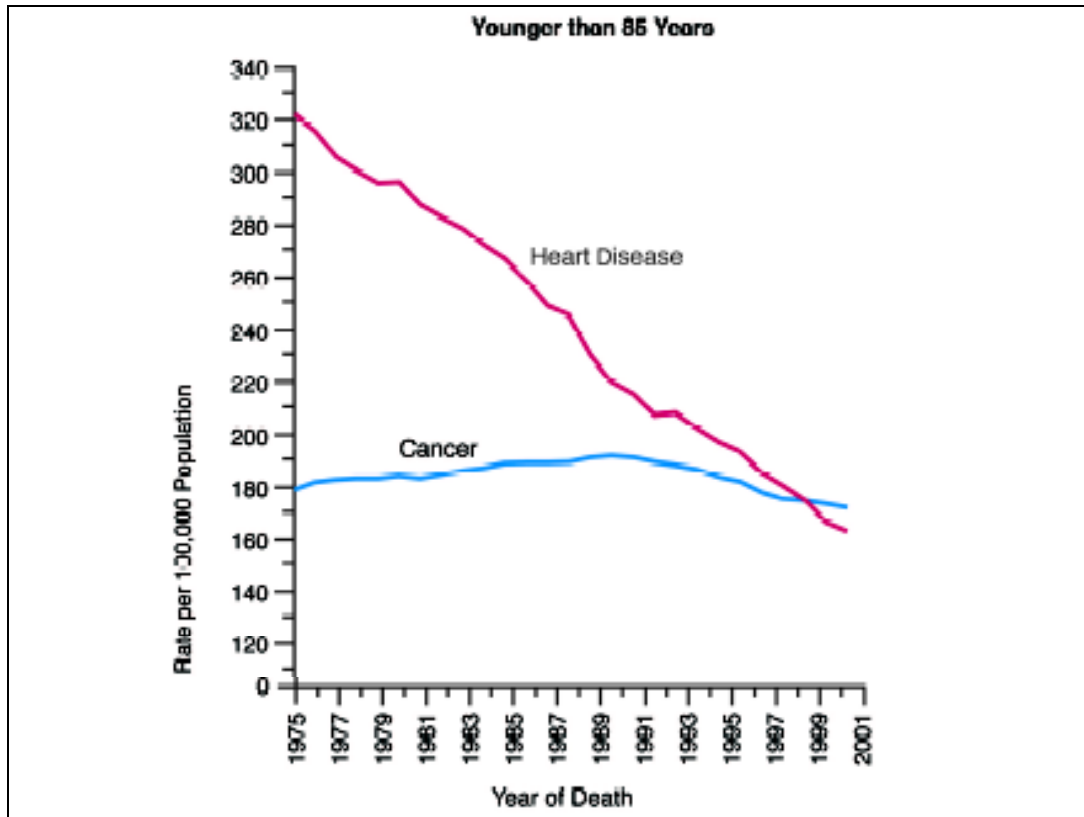
In 2002, for instance, 476,009 Americans under 85 died of cancer compared to 450,637 who died of heart disease.

One in every four deaths in the United States is due to cancer.

*Ahmedin Jemal, Taylor Murray, Elizabeth Ward, Alicia Samuels, Ram C. Tiwari, Asma Ghafoor, Eric J. Feuer, and Michael J. Thun. **Cancer Statistics, 2005.***

CA Cancer J Clin 2005 55: 10-30

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The impact of Cancer: mortality

Cancer and Heart Disease Mortality rates, 1975-2001

The good news is that deaths from both, cancer and heart disease, are falling but improvement has been more dramatic for heart disease.

While cancer-related mortality rates have declined over the last decade, they have not declined as quickly as deaths related to heart disease.

In Americans older than 85, heart disease continues to be the leading cause of death.

*Ahmedin Jemal, Taylor Murray, Elizabeth Ward, Alicia Samuels, Ram C. Tiwari, Asma Ghafoor, Eric J. Feuer, and Michael J. Thun. **Cancer Statistics, 2005.***

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LATEST NEWS

HEALTH

1,500 Americans die of cancer each day

Wednesday, January 19, 2005 Posted: 3:51 PM EST (2051 GMT)

The American Cancer Society's annual estimate of new cancer cases and deaths projects there will be 1.3 million new cancer cases in the United States in 2005 and 570,280 cancer deaths, or about 1,500 per day.



The Impact Of Cancer: Mortality

The four most common cancers among men and women in the United States (lung, colon, breast, and prostate) together account for half of all cancer deaths.

In men, the cancers responsible for more deaths are:

lung (90,000 deaths annually)
prostate (30,000 deaths annually)
colon (28,000 deaths per year).

In women, these are:

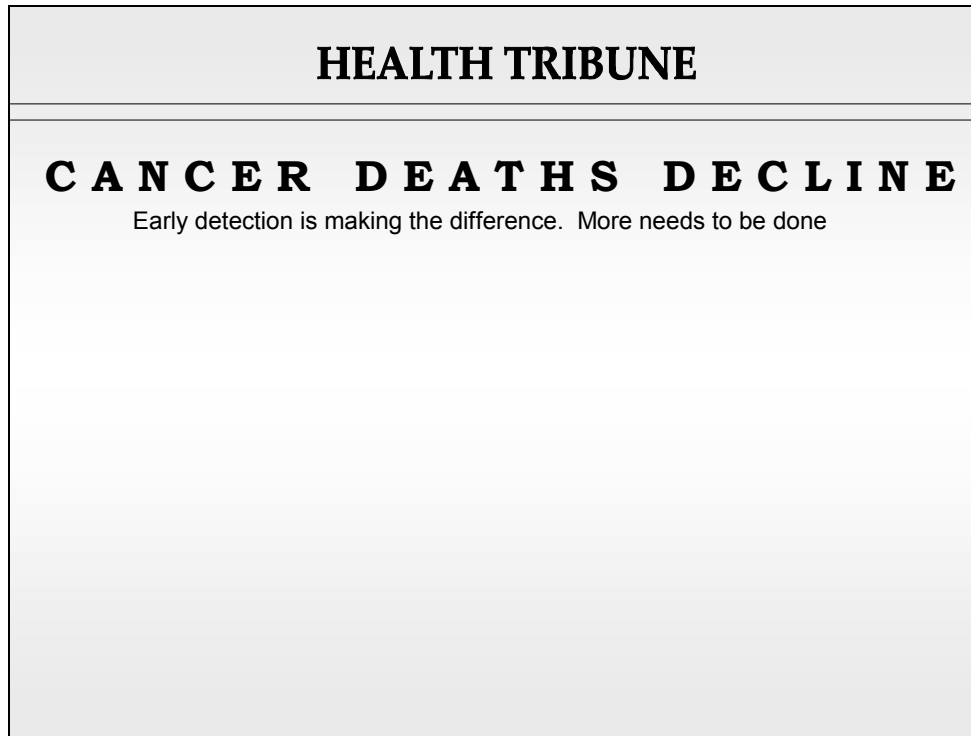
lung cancer (73,000 deaths annually)
breast (40,000 deaths annually)
colon cancer (26,000 deaths per year)

However, mortality rates for these cancer sites continue to decrease, with the exception of female lung cancer, which has leveled off for the first time after several decades of increase.

*Ahmedin Jemal, Taylor Murray, Elizabeth Ward, Alicia Samuels, Ram C. Tiwari, Asma Ghafoor, Eric J. Feuer, and Michael J. Thun. **Cancer Statistics, 2005.***

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The Impact Of Cancer: Mortality

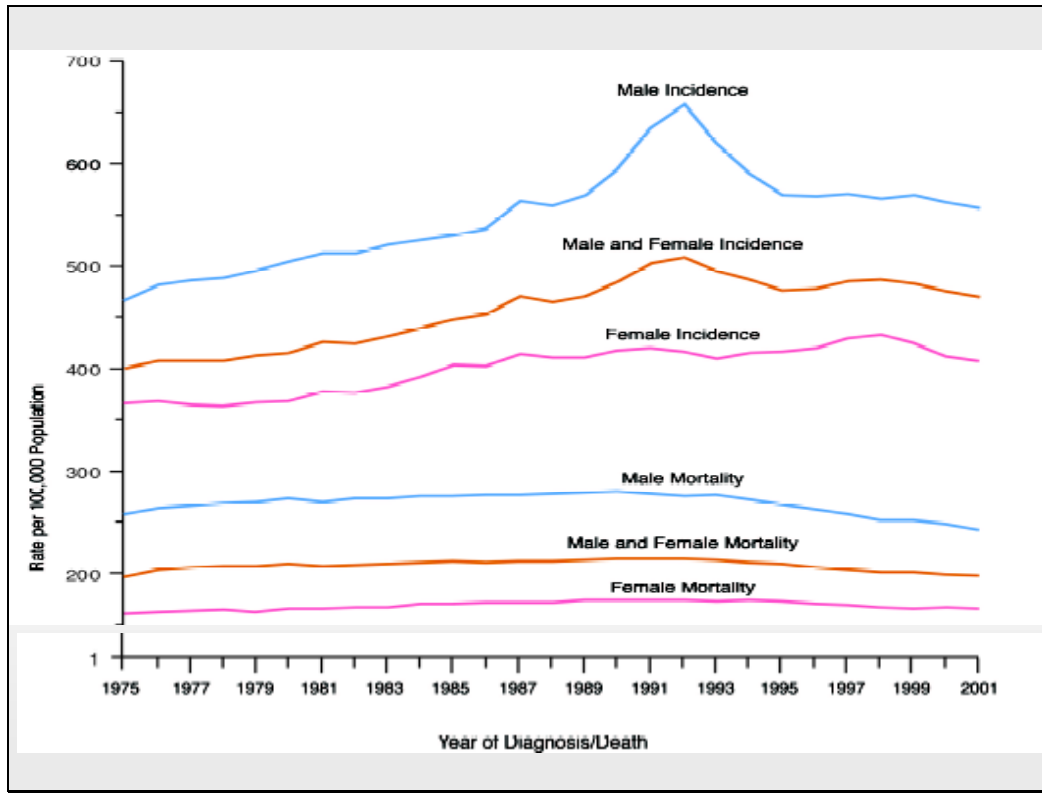
Making progress in the fight against cancer

Cancer deaths, particularly those for breast, prostate, lung and colon cancers, declined during the 1990s, early detection may be saving more lives.

From 1995 to 1998 deaths from
breast cancer fell 3.4 %
prostate cancer fell 4.5 %
colorectal cancer fell 1.3 %
lung cancer 0.8 %

However, the number of new breast cancer cases rose 1.2 percent per year, from 1992 to 1998. Mammography and early detection have helped to raise incidence rates.

*Ahmedin Jemal, Taylor Murray, Elizabeth Ward, Alicia Samuels, Ram C. Tiwari, Asma Ghafoor, Eric J. Feuer, and Michael J. Thun. **Cancer Statistics, 2005.** CA Cancer J Clin 2005 55: 10-30*
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The Impact Of Cancer: Mortality

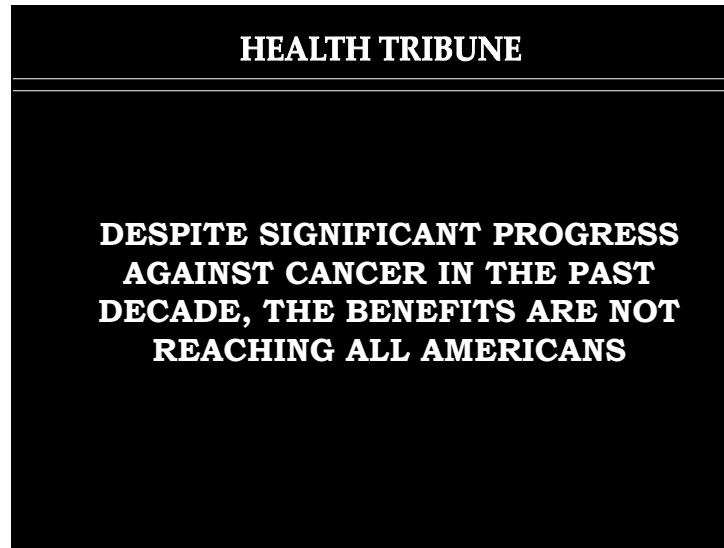
Annual age-adjusted cancer incidence and mortality rates for all cancers by sex, 1975-2001.

The cancer incidence rates stabilized in men from 1995 through 2001 but continued to increase by 0.3% per year from 1987 through 2001 in women. The death rate from all cancers combined has decreased by 1.5% per year since 1993 among men and by 0.8% per year since 1992 among women. The mortality rate has also continued to decrease from the three most common cancer sites in men (lung and bronchus, colon and rectum, and prostate) and from breast and colorectal cancers in women. Lung cancer mortality among women has leveled off after increasing for many decades

*Ahmedin Jemal, Taylor Murray, Elizabeth Ward, Alicia Samuels, Ram C. Tiwari, Asma Ghafoor, Eric J. Feuer, and Michael J. Thun. **Cancer Statistics, 2005.***

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The Impact Of Cancer: Cancer Racial/Ethnic Disparities

Multiple racial/ethnic disparities in cancer have been documented.

These involve every aspect of cancer care including screening, incidence, early diagnosis, timely treatment, quality of care, mortality and survival.

Cancer in African Americans

- Highlights
 - The African American population in the U.S. bears a disproportionate burden of cancer
 - African Americans have the highest mortality rate of any racial/ethnic group for all cancers combined and for most major cancers

Cancer in African Americans

- African Americans are about 34 percent more likely to die of cancer than are whites and more than two times more likely to die of cancer than are Asian or Pacific Islanders, American Indians, and Hispanics.

Cancer in African Americans

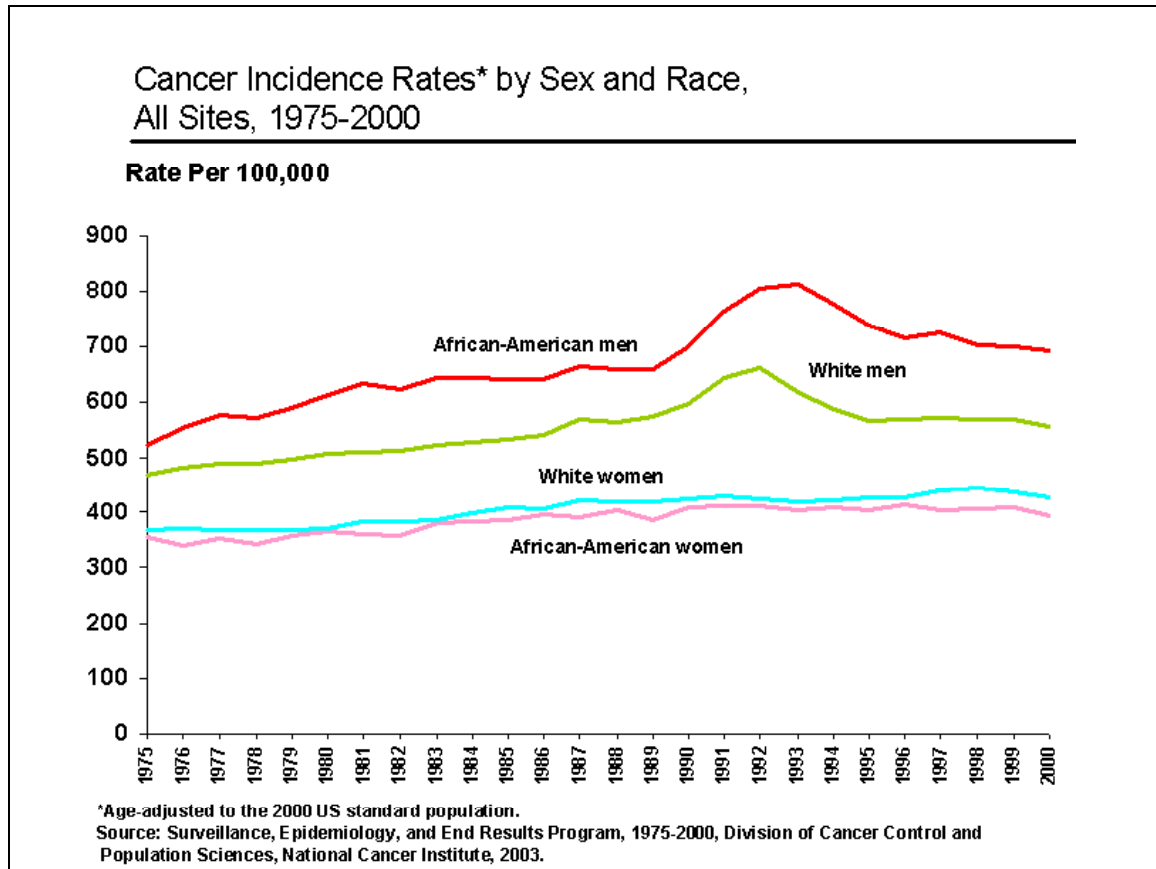
The African American population in the U.S. bears a disproportionate burden of cancer:

African Americans have the highest mortality rate of any racial/ethnic group for all cancers combined and for most major cancers

African Americans are about 34 percent more likely to die of cancer than are whites and more than two times more likely to die of cancer than are Asian or Pacific Islanders, American Indians, and Hispanics.

Furthermore, they are diagnosed at more advanced stages for most cancers as compared to White

Landis, S.H.; Murray, T.; Bolden, S.; et al. Cancer statistics, 2000. *CA: A Cancer Journal for Clinicians* 50(1):2398-2424, 2000.

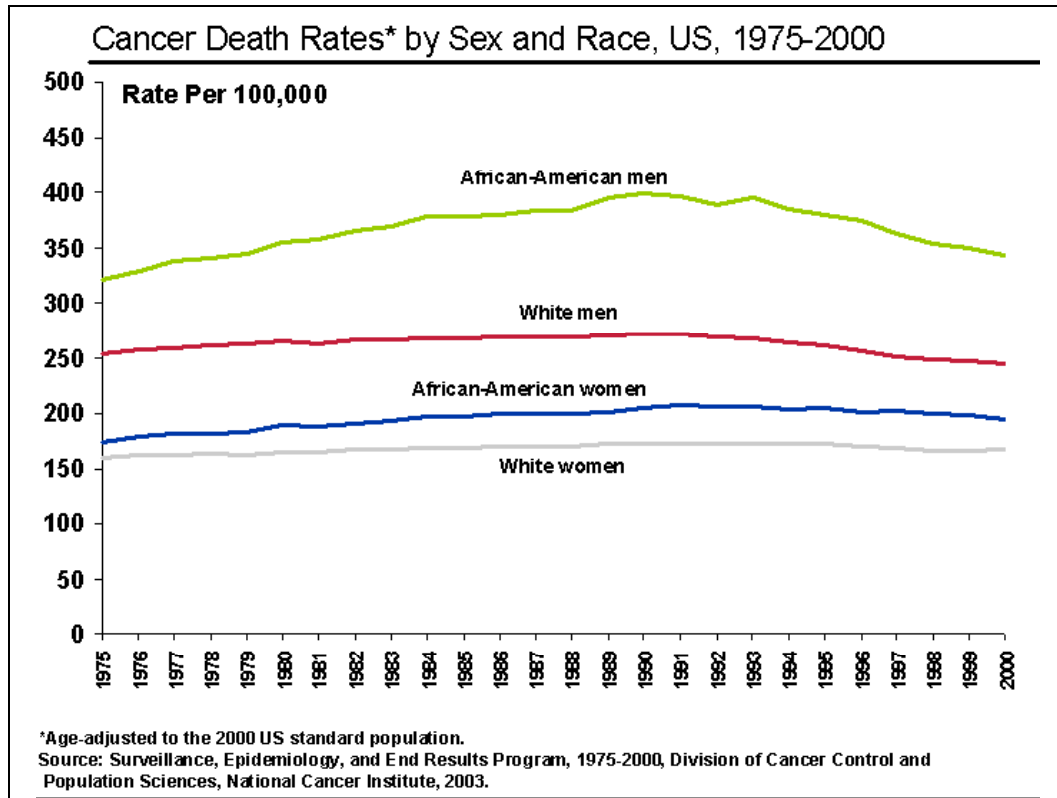


Cancer in African Americans

Cancer incidence rates are consistently higher in African-American men than in white men. They have a 20% higher incidence rate and a 40% higher death rate from all cancers combined than white men.

In contrast, cancer incidence rates are generally higher in white women than African-American women, although the difference is not as great.

American Cancer Society
Cancer Statistics 2004



Cancer in African Americans

Overall, cancer death rates are higher in African-American men than white men and in African-American women than white women.

However, the cancer death rate is declining faster in African-American men than white men.

American Cancer Society. Cancer Statistics 2004

Cancer in African Americans

. Use of Cancer Screening Examinations, US, 2000 and 2001

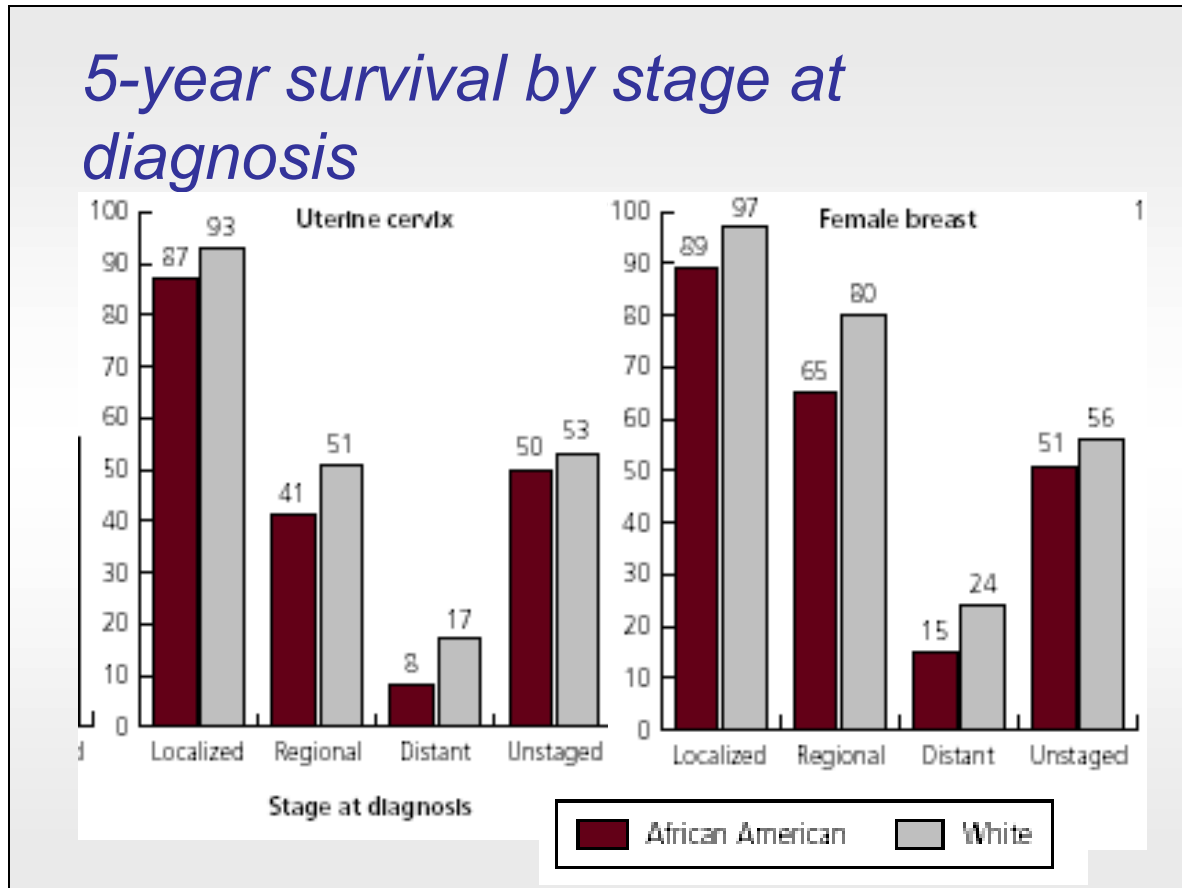
		African American non-Hispanic	White non-Hispanic
Breast cancer, 2000	Mammogram*	66.7	62.9
	Clinical breast exam (CBE)†	69.9	68.8
	Mammogram & CBE‡	54.8	56.0
Cervical cancer, 2000	Pap test§	88.8	87.2
Colon & rectum cancer, 2001	Fecal occult blood test (FOBT) ††	21.6	24.1
	Flexible sigmoidoscopy or colonoscopy¶	35.3	39.2
Prostate cancer, 2001	Prostate-specific antigen (PSA) test#	57.6	58.2
	Digital rectal exam (DRE)**	49.5	57.4

Cancer in African Americans: use of screening examinations

African American women are more likely to report receiving a Mammogram in the past two years or a Pap smear in the past three years as compared to White women.

However, in spite of a higher incidence rate, African American men are less likely to report receiving prostate cancer screening with PSA test or digital rectal exam as compared to White men.

American Cancer Society. Cancer Statistics 2004.



Cancer in African Americans

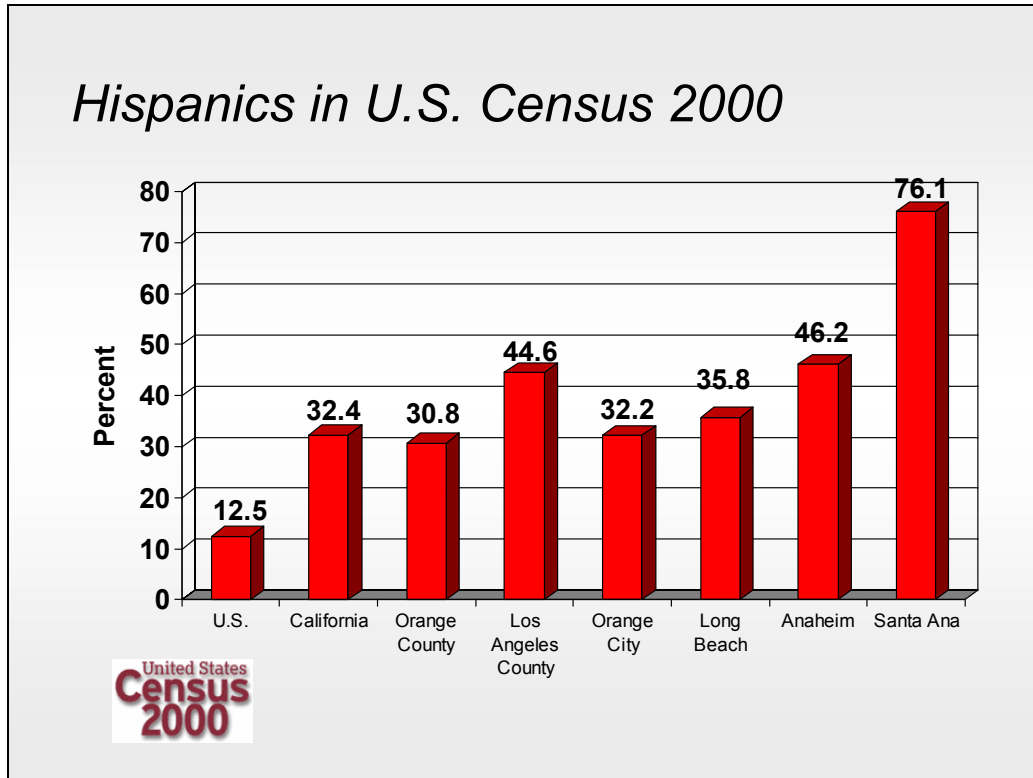
In spite of higher use of Pap smears and Mammograms, African American women are less likely survive at 5 years after being diagnosed with cancer regardless of initial stage at diagnosis

For instance, 93% of white women diagnosed with localized cervical cancer and 97% with localized breast cancer are alive five years later; as compared with 87% and 89% of African American women diagnosed in the same stage.

American Cancer Society. Cancer Statistics 2004

Cancer in Hispanics

- Highlights
 - Hispanics have become the largest minority in the country
 - Hispanic women have the highest incidence of cervical cancer of any racial/ethnic group
 - Hispanic women are less likely to be screened for cervix, breast and colorectal cancers as compared to White women.



Cancer in Hispanics: demographic relevance

Hispanics are the largest minority in the country, surpassing African Americans

Over 35 million Hispanics, 12.5% of the population, live in the U.S.

Most Hispanics are of Mexican origin (66%)

In California, Hispanics constitute 1/3 of the state population

Source: United States Census Bureau

Cancer in Hispanics

- The most common cancers diagnosed in Hispanic men are prostate, colorectal and lung.
- The most common cancers among Hispanic women are breast, colorectal and lung cancer.
- Hispanic women have the highest incidence rate of cervical cancer of any racial/ethnic group
- Hispanic women have the second highest mortality rates from cervical cancer, after African Americans

Cancer in Hispanics

In addition, the incidence and mortality rates of stomach, liver and gallbladder cancer among Hispanics are higher than among non-Hispanics

Hispanics have lower incidence and mortality rates of prostate, colorectal and breast cancer as compared to non-Hispanics. However, Hispanics are less likely to receive screening for these cancers as compared to Whites.

Cancer in Hispanics

- Although the incidence of breast cancer among Hispanics is lower than among White women, Hispanics are diagnosed at more advance stages
- Lower utilization of mammograms may be the factor that contributes the most to late diagnosis
- The average annual drop of 1.8% in the rate of breast cancer deaths during the 1990's among Hispanic women was smaller that the decrease in White women (2.6% per year)

Cancer in Hispanics

Breast cancer is the leading cause of cancer deaths among Hispanics, this is in contrast to non-Hispanics, where the leading cause is lung cancer.

This is due in part to the lower incidence of smoking among Hispanic women.

Cancer in Hispanics

- The death rate due to colorectal cancer in Hispanics decreased an average on 0.7% each year, as compared to 1.8% annual decline in non-Hispanics.
- Hispanics are less likely to be screened for colorectal cancer as compared to White non-Hispanics. In 2001, only 15% of Hispanics had a fecal occult blood test and 31% had a flexible sigmoidoscopy or colonoscopy as compared to 24% and 39% of Whites non-Hispanics

Cancer in Hispanics

The death rate due to colorectal cancer in Hispanics decreased an average on 0.7% each year, as compared to 1.8% annual decline in non-Hispanics.

Hispanics are less likely to be screened for colorectal cancer as compared to White non-Hispanics. In 2001, only 15% of Hispanics had a fecal occult blood test and 31% had a flexible sigmoidoscopy or colonoscopy as compared to 24% and 39% of Whites non-Hispanics

Cancer in Asian Americans & Pacific Islanders

- Highlights
 - Cancer has been the number one killer of Asian-American women since 1995
 - Asians have the highest incidence rate of liver cancer
 - Vietnamese women have the lowest use rates of Pap smears of any racial/ethnic group

Cancer in Asian Americans & Pacific Islanders

- Invasive cervical cancer is the number one cancer to occur in Southeast Asian women. Vietnamese women have the highest incidence rate of any social group.
- Rates of newly diagnosed invasive cervical cancer in Southeast Asian women are five times higher than the rate among White American women.

Cancer in Asian Americans & Pacific Islanders (AAPI's)

Cancer incidence rates vary among sub-groups of AAPIs. By aggregating AAPIs, important differences among ethnic groups can be overlooked.

For example, Japanese-, Chinese-, Korean-, and Filipino-American males have lower rates of lung cancer than U.S. white males, but Native Hawaiian males have higher rates

Miller B, Kolonel L, Bernstein L, et al. Racial/ethnic patterns of cancer in the United States 1988-1992. Bethesda, MD: National Cancer Institute, NIH Publication No.964104; 1996.

Cancer in Asian Americans & Pacific Islanders

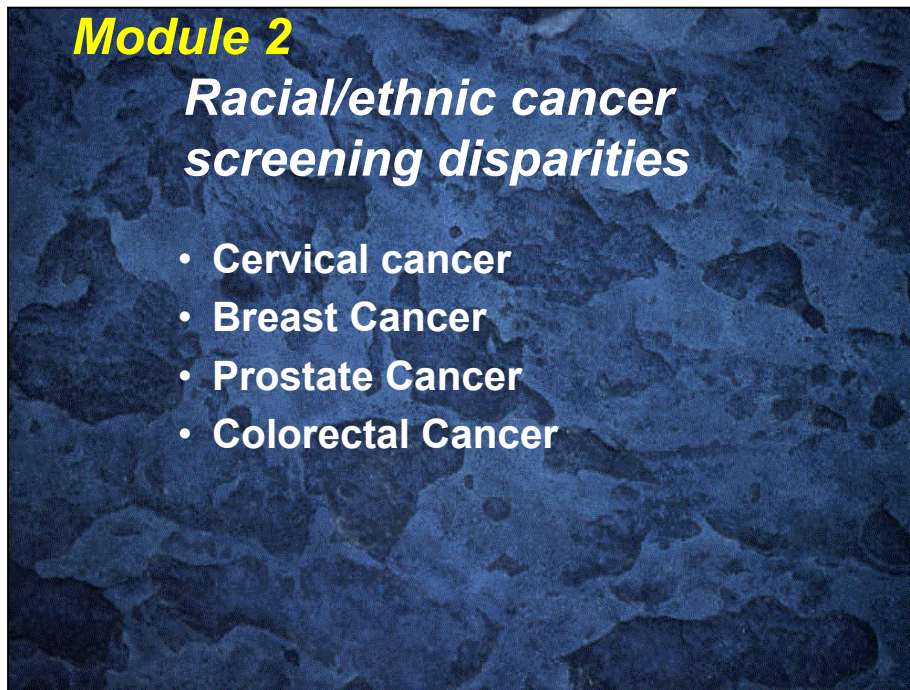
- Southeast Asian men have the highest liver cancer rates of all racial and ethnic groups.
- The rates of newly diagnosed liver cancer in Southeast Asian populations are up to 11 times higher than the rate among White Americans.
- Higher smoking rates are seen among Southeast Asian populations than among other Asian groups.

Cancer in Asian Americans & Pacific Islanders

Southeast Asian men have the highest liver cancer rates of all racial and ethnic groups.

The rates of newly diagnosed liver cancer in Southeast Asian populations are up to 11 times higher than the rate among White Americans.

Higher smoking rates are seen among Southeast Asian populations than among other Asian groups.



Cervical Cancer: Racial Ethnic Disparities In Cervical Cancer Screening

African American women are the most likely to report a Pap smear in the past three years. Yet, this is not reflected in late diagnosis or mortality rates.

Hispanic have lower use of Pap smears as compared to African American and White women, this contributes to the high cervical cancer incidence rate in this group.

Asian/Pacific Islander are the least likely to report cervical cancer screening in the past three years even after adjusting for access to health care and sociodemographic factors.



Cervical Cancer

Cervical cancer

Facts

- 12,000 new cases every year in the U.S. and 5,000 deaths
- Incidence of invasive cervical cancer has decreased significantly but it disproportionately affects minorities
- Pap testing and treatment of precursor lesions have proven to lower mortality from cervical cancer



Cervical Cancer: Facts

- Cervical cancer is not as frequent or deadly as other cancers; however, its incidence and mortality rates are unacceptably high:
 - There is a screening test that is reliable, easy to perform, provided free of charge and widely available
 - The Pap smear test has proven to decrease mortality
 - Because it is slow growing and spreads locally, the 5-year survival rate for early stage cancers is practically 100%
 - It is related to human papilloma virus infection and a vaccine will soon be available
 - It disproportionately affects minority women

AGE-ADJUSTED **INCIDENCE** in the U.S. 2002

Cervical Cancer

- Hispanic 16.2
- Black 11.8
- Asian/Pacific Islander 9.5
- White Non-Hispanic 7.3
- American Indian/Alaska Native 6.0

- *Vietnamese* 16.9

Per 100,000 persons

Source: Surveillance, Epidemiology and End Results Program

Cervical Cancer disproportionately affects minority women

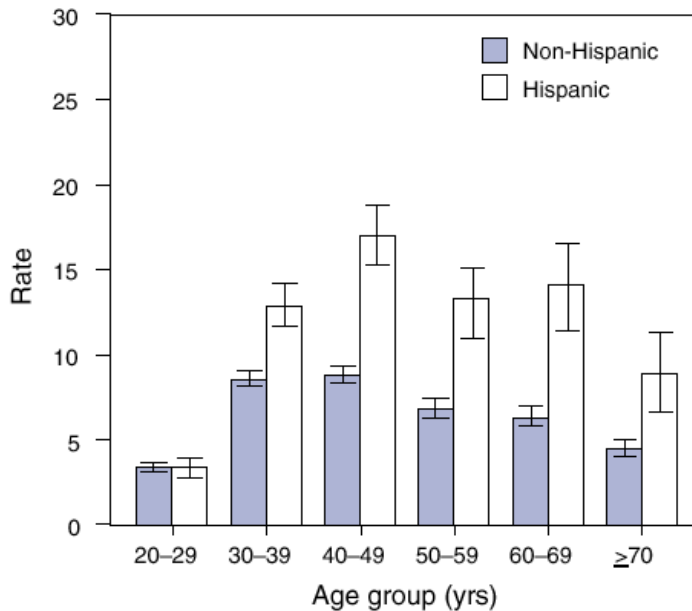
- Hispanic women have the highest incidence of cervical cancer with 16 cases per 100,000 women
- African American women have the second highest incidence rate; followed by Asian/Pacific Islanders and White women.
- American Indians/Alaskan Natives have the lower age-adjusted incidence of cervical cancer
- Vietnamese have the highest incidence of any group by national origin with an incidence of almost 17 cases per year per 100,000 women.

Invasive Cervical Cancer Among Hispanic and Non-Hispanic Women --- United States, 1992--1999



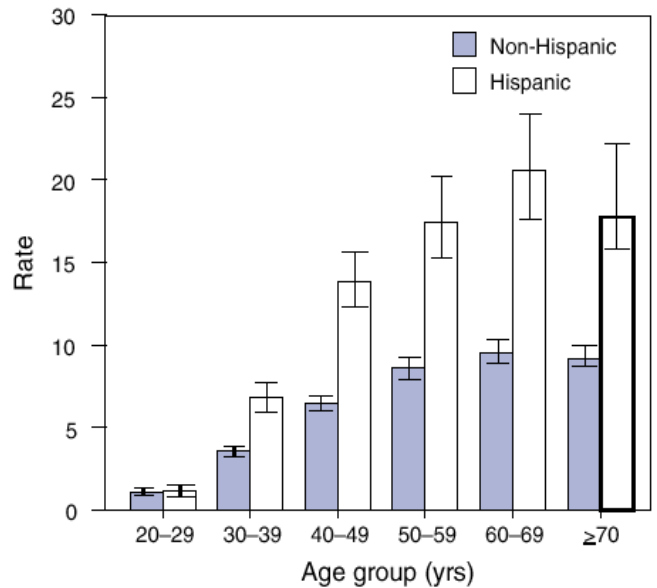
November 29, 2002 / 51(47);1067-1070

FIGURE 1. Incidence* and 95% confidence intervals of localized† invasive cervical cancer among Hispanic and non-Hispanic women, by age group — Surveillance, Epidemiology, and End Results Program, United States, 1992–1999



* Per 100,000 women.
† Localized-stage cancer is confined to the cervix.

FIGURE 2. Incidence* and 95% confidence intervals of advanced† invasive cervical cancer among Hispanic and non-Hispanic women, by age group — Surveillance, Epidemiology, and End Results Program, United States, 1992–1999



* Per 100,000 women.
† Advanced-stage cancer (includes regional and distant) requires direct extension to corpus uteri or any site beyond the cervix, lymph node involvement, or metastasis.

Cervical Cancer

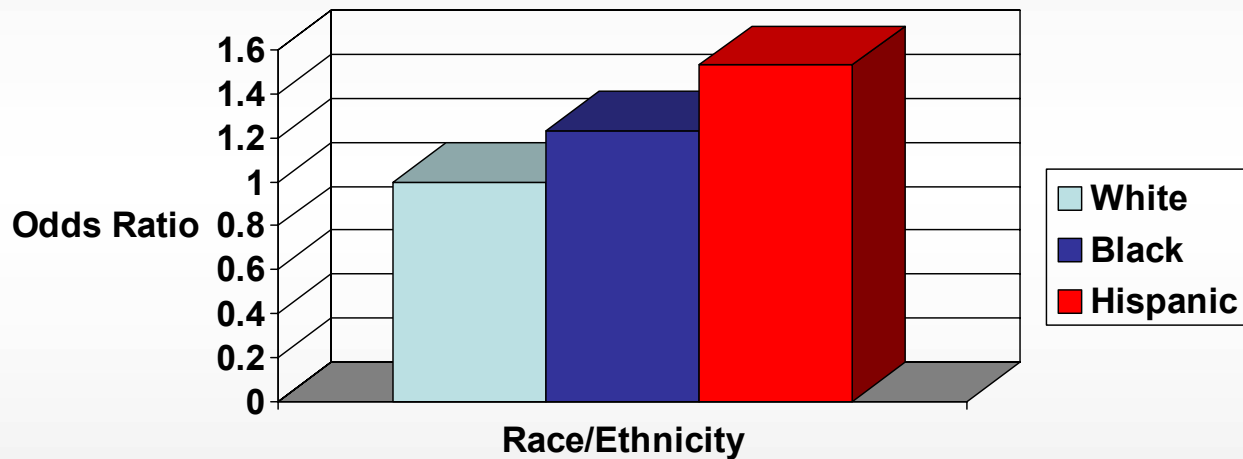
Graphs comparing incidence of localized (left) and advanced (right) invasive cervical carcinoma between Hispanics and non-Hispanics in the U.S., 2002.

Cervical Cancer:

- Hispanic women have the highest incidence of localized and advanced invasive cervical cancer of any racial/ethnic group.
- The incidence rate among Hispanics is almost double that of non-Hispanics at any age, except in the 20-29 years age group
- Hispanic women are diagnosed at more advanced stages of cervical cancer; that is, cervical cancer that with direct extension to corpus uteri or any site beyond the cervix, lymph node involvement or metastasis.
- The high incidence rates and late stage at diagnosis reflect the low use of Pap smear

Late diagnosis of cervical cancer

Odds ratios from Logistic Regression Predicting Late Stage Diagnosis



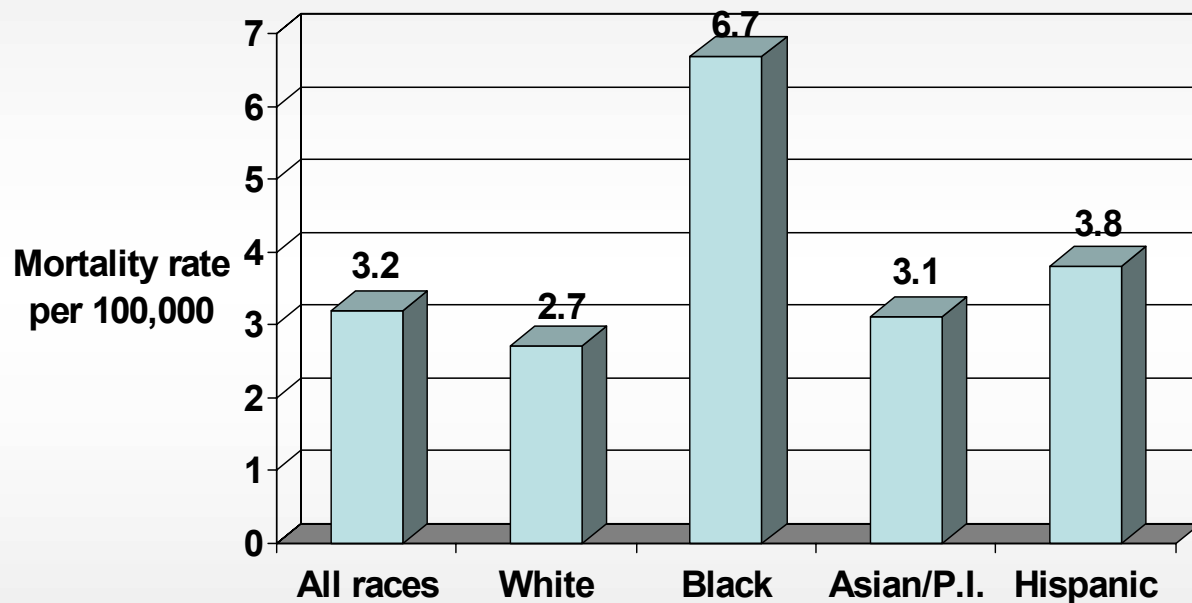
Mitchell JB, et al Med Care, Volume 35(12).December 1997.1220-1224
Adjusted for income level, age at diagnosis and metropolitan area

N= 32, 305. Data from NCI SEER

Cervical Cancer: Odds ratios for late diagnosis by race ethnicity

•As compared to White women, African American women are 23% more likely (odds ratio = 1.23) and Hispanic women are 53% more likely (odds ratio = 1.53) to be diagnosed with advance stage of cervical carcinoma.

Age-adjusted death rate for cervical cancer in the U.S.



Source: National Cancer Institute. Surveillance, Epidemiology, and End Results (SEER) Program's population-based registries

Cervical Cancer Mortality

- Although Hispanic women have the highest incidence and late diagnosis rates, African American women have the highest age-adjusted mortality. This may reflect a more aggressive tumor behavior or decreased access to care or to quality of care.

- White women have the lowest mortality from cervical cancer

Cervical Cancer Screening in the U.S.

- Women reported having a recent Pap smear by Race/Ethnicity adjusted for sociodemographics and access according to NHIS 2000
 - African American 84.1%
 - White 83.4%
 - Hispanics 77.8%
 - Asians 70.8%

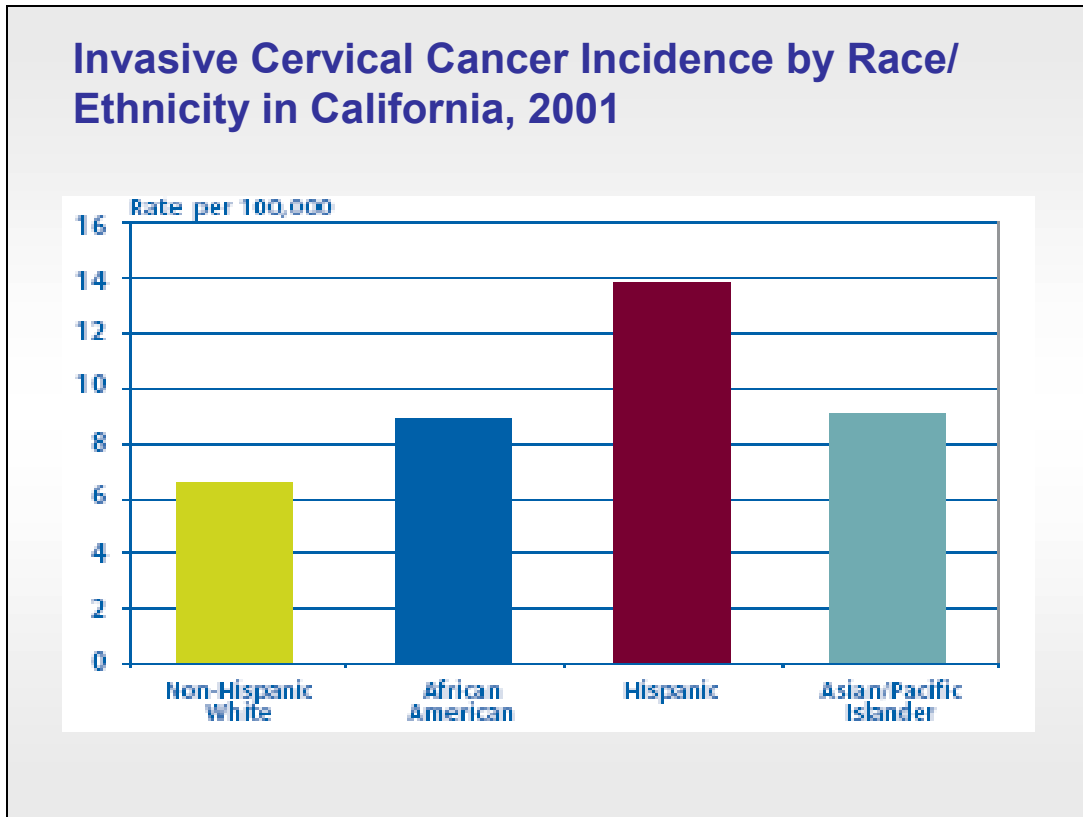
Swan J, Breen N, Coates RJ, Rimer BK, Lee NC. Progress in cancer screening practices in the United States: results from the 2000 National Health Interview Survey. *Cancer*. 2003;97(6):1528-40.

Cervical Cancer: racial ethnic disparities in cervical cancer screening

•African American women are the most likely to report a Pap smear in the past three years. Yet, this is not reflected in late diagnosis or mortality rates.

•Hispanic have lower use of Pap smears as compared to African American and White women, this contributes to the high cervical cancer incidence rate in this group.

•Asian/Pacific Islander are the least likely to report cervical cancer screening in the past three years even after adjusting for access to health care and sociodemographic factors.



Incidence of Cervical Cancer in California

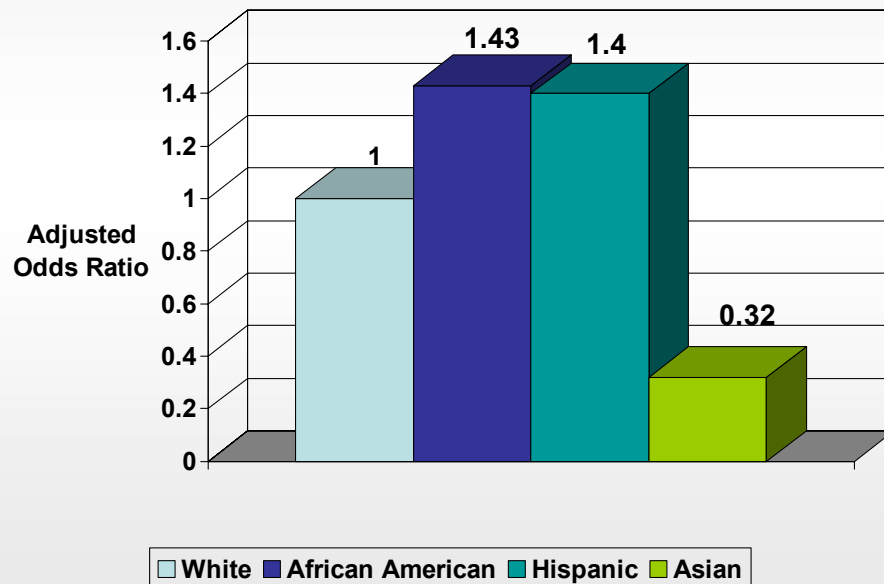
The cervical cancer screening rates in California mirror national figures; Hispanics have the highest incidence and White women the lowest

Note: Rates are age-adjusted to the 2000 U.S. population.

Source: *California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*

Pap smear use in California

Adjusted odds ratios of recent Pap smear



37

Pap smear use rates in California

Graph showing Pap smear use in California. Adjusted odds ratios for Pap smear in the past three years by race/ethnicity after adjusting for age, health status, health insurance status, having a usual source of care, income and education levels.

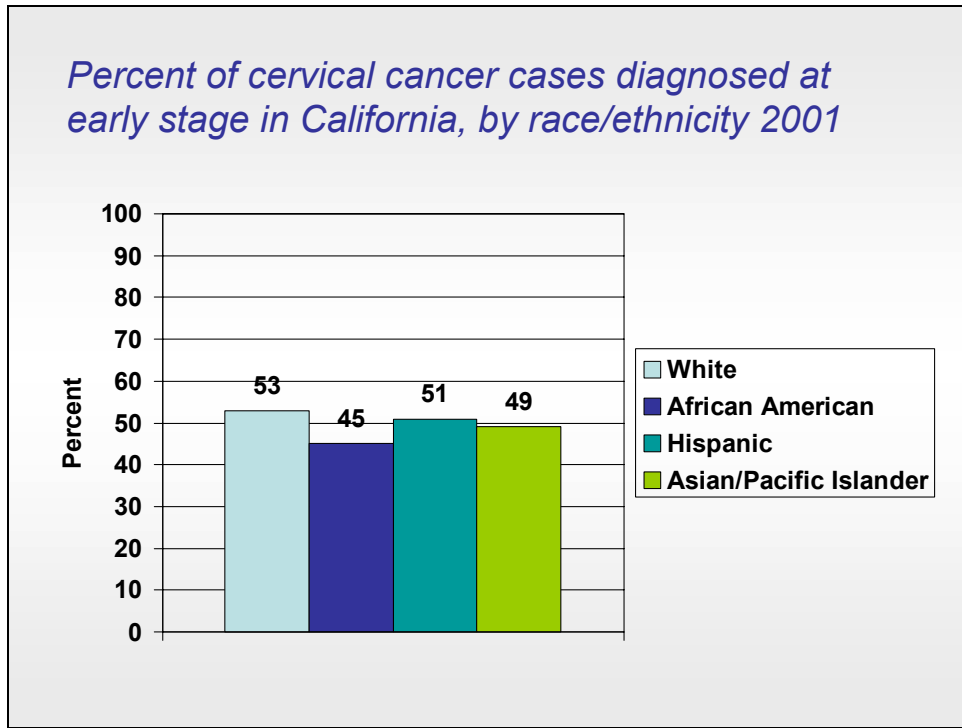
The crude Pap smear use rates in California mirror national figures; Hispanic women and Asian Pacific Islander have the lowest use of Pap smears and African American and White women the highest.

However, in California after adjusting for access and sociodemographic factors African American and Hispanic women are more likely to report a Pap smear in the past three years as compared to White women. This may reflect the positive impact of interventions aimed at low acculturated Hispanics in the state.

However, in spite of increased likelihood of receiving a Pap smear in the past three year among Hispanics, the incidence, late diagnosis and mortality disparities persist.

Asian women in California, on the other hand, are the least likely to report cervical cancer screening in the Past three years. Interventions targeting this group are urgently needed.

Source: **De Alba I**, Ngo-Metzger Q, Sweningson J, Hubbell FA. Cervical Cancer Screening in California: Are We Closing the Racial/Ethnic Gap? Preventive Medicine 2005; 40: 747-755.

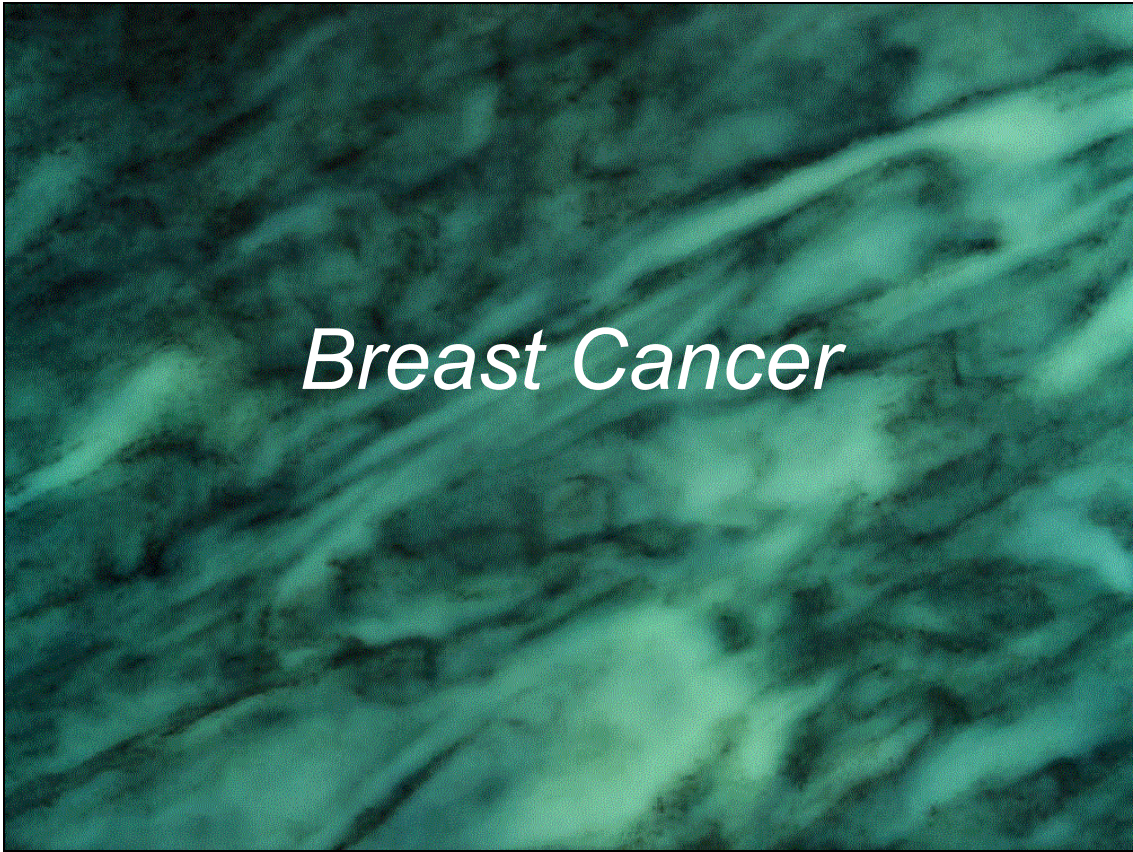


Percent of cervical cancer cases diagnosed at early stage in California, 2001

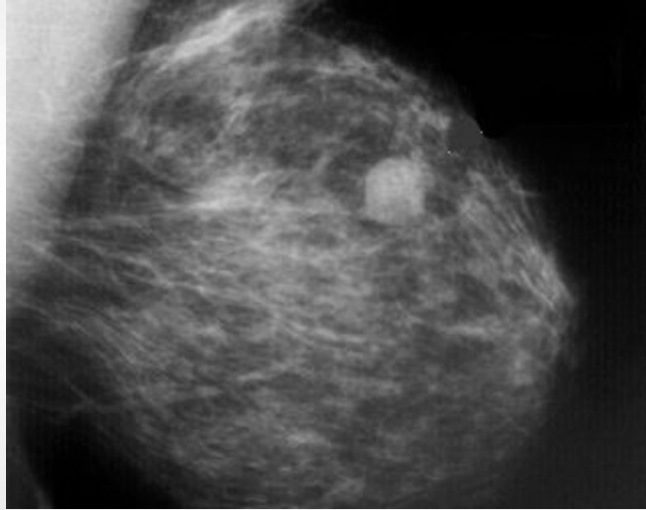
In spite of increased likelihood of receiving a Pap smear in the past three year among Hispanics and African Americans in California, the incidence, late diagnosis and mortality disparities persist.

Despite recent improvements in Pap smear use rates at the state and national levels, continued efforts are needed to narrow the race/ethnicity incidence and mortality gaps.

Data source: California Cancer Registry, California Department of Health Services and American Cancer Society



Breast cancer in the U.S.
Facts



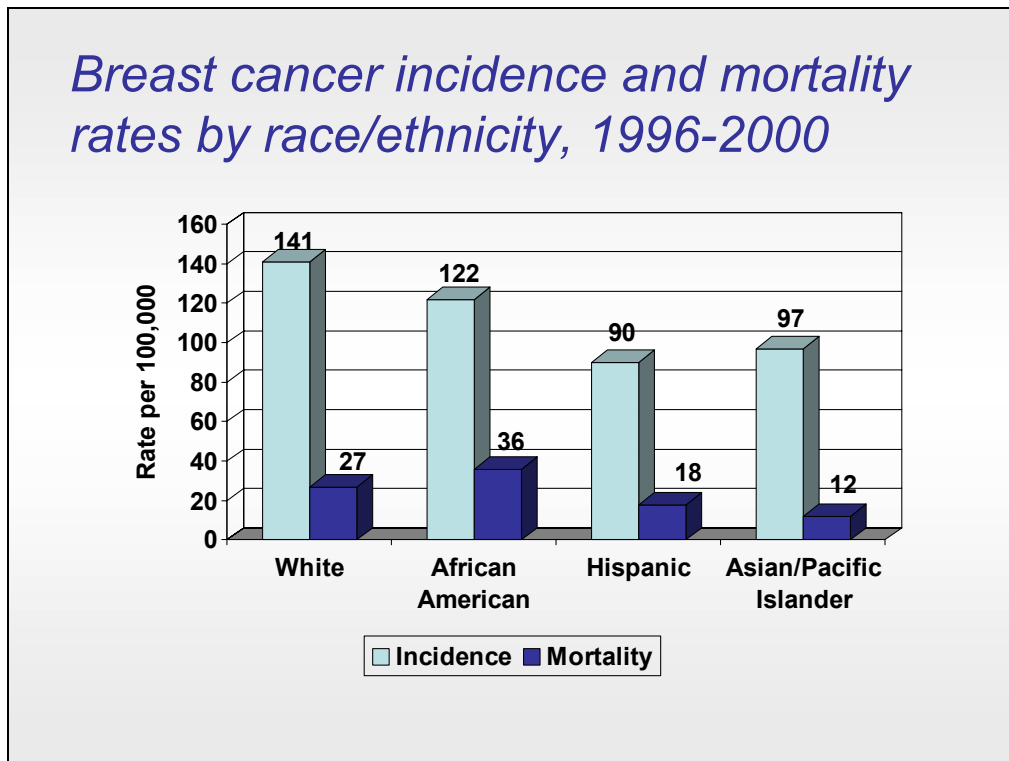
Breast Cancer in the U.S.

The most common non-skin malignancy among women in the US

Second only to lung cancer as a cause of cancer-related death

The most common cause of malpractice litigation is the missed or delayed diagnosis of breast cancer

(Schotman M, et al. J Am Board Fam Pract 2000; 13: 94-100)



Breast Cancer incidence and mortality rates by race/ethnicity in the U.S., 1996-2000

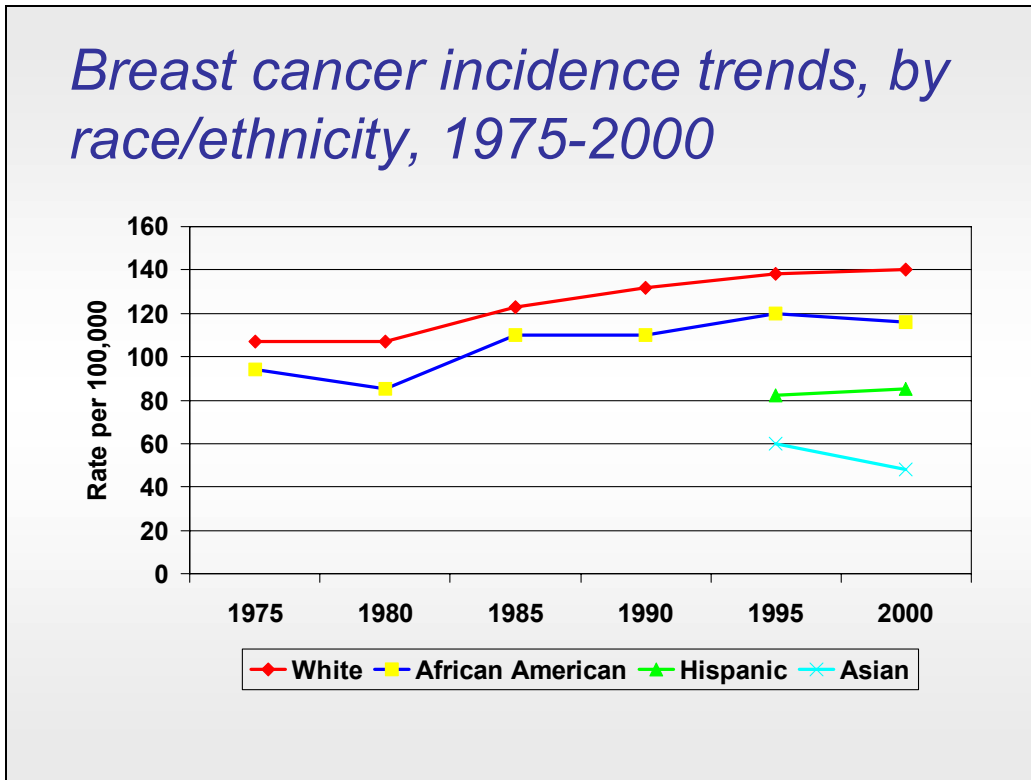
Female breast cancer incidence and mortality by race/ethnicity, 1996-2000. Rates are age-adjusted for standard 2000 U.S. population.

White women have the highest incidence rate of breast cancer or any racial/ethnic group

African American women have the second highest incidence rate but the highest mortality rate from breast cancer.

Hispanic and Asian women have the lowest incidence rates of breast cancer.

Source: Surveillance, Epidemiology and End Results Program



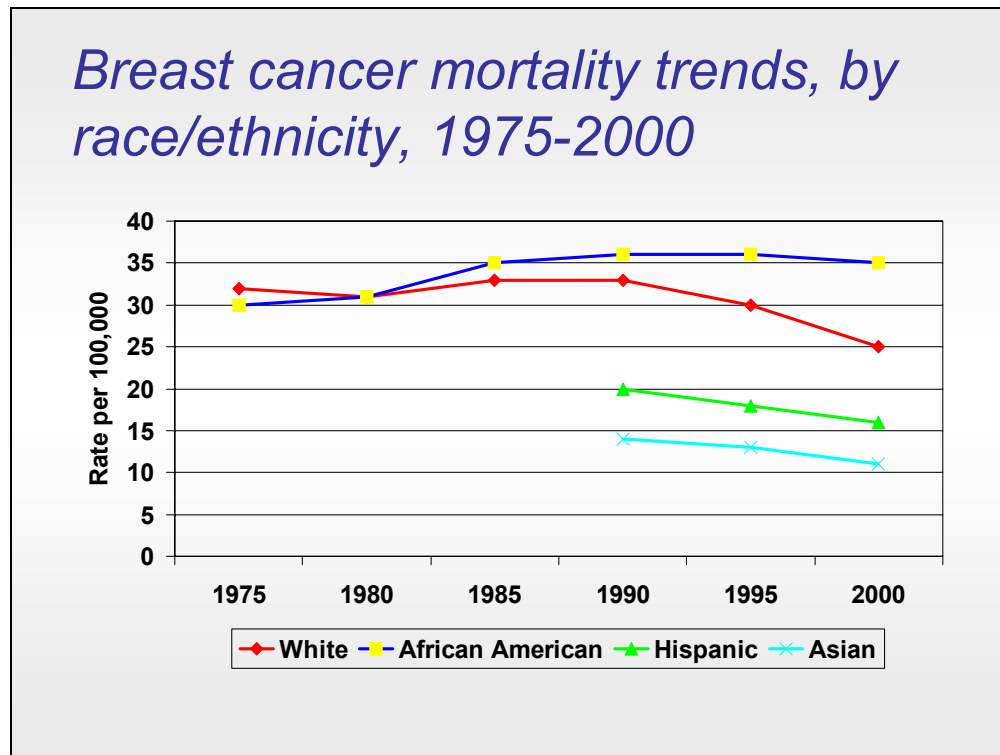
Breast cancer incidence trends in the U.S. by race/ethnicity, 1975-2000

From 1973 to 1980 the incidence of invasive breast cancer remained basically constant

From 1980 to 1987 it increased by about 4% per year; mostly related to increased use of mammogram.

From 1987 to 2000 the incidence increased by 0.4% per year

Source: Surveillance, Epidemiology and End Results Program. 2003



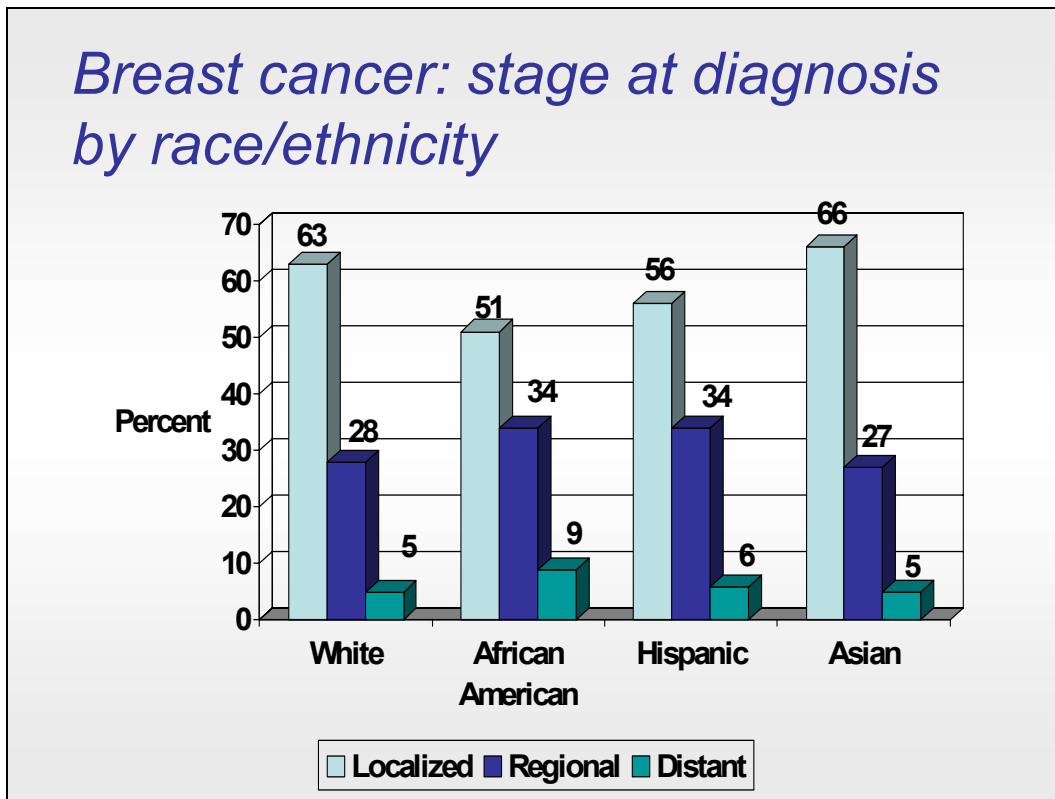
Breast cancer: mortality trends in the U.S. by race/ethnicity, 1975-2000

There have been important reductions in mortality in recent years:

- From 1974 to 1990 the combined breast cancer mortality for all races increased by 0.4% per year
- From 1990 to 2000 the mortality for all races combined decreased by 2.3% annually; this is due in part to early detection and improvement in treatment protocols.
- However, the benefits are not for every women, from 1992 to 2000 the decline rate varied by race/ethnicity
 - 2.6% annual decrease in White women
 - 1.6% annual decrease in Hispanics
 - 1.1% annual decrease in African Americans and Asian-Pacific Islanders

In the year 2000, African Americans have 30% higher mortality rates as compared to White women.

Source: Surveillance, Epidemiology and End Results Program. 2003



Breast Cancer

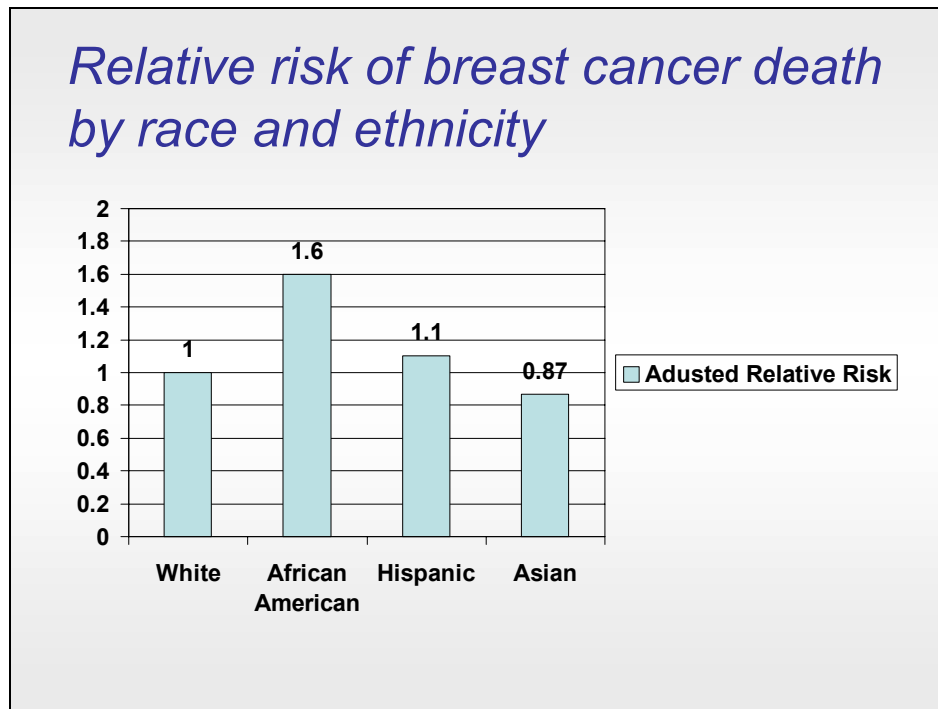
Graph showing stage distribution of breast cancer by race and ethnicity, 1988-1997, based on SEER (Surveillance, Epidemiology and End Results) data.

Asian and White women are the most likely to be diagnosed at localized stages of breast cancer; almost two thirds of all women of the races were diagnosed with early stage disease.

African American and Hispanic women are less likely to be diagnosed with localized disease but more likely to have regional spread at the time of diagnosis

Source:

Clegg LX, Li FP, Hanley BF, Chu K, Edwards BK. Cancer Survival among US Whites and Minorities. Archives of Internal Medicine 2002;162:1985-1993.



Graph showing adjusted relative risk of breast cancer death by race and ethnicity, 1988-1997, based on SEER (Surveillance, Epidemiology and End Results) data.

As compared to White women, African Americans and Hispanics are more likely and Asians are less likely to die from breast cancer if diagnosed with this disease

The relative risk in African Americans, Hispanics and Asians is significantly different from 1.

Source:

Clegg LX, Li FP, Hanley BF, Chu K, Edwards BK. Cancer Survival among US Whites and Minorities. Archives of Internal Medicine 2002;162:1985-1993.

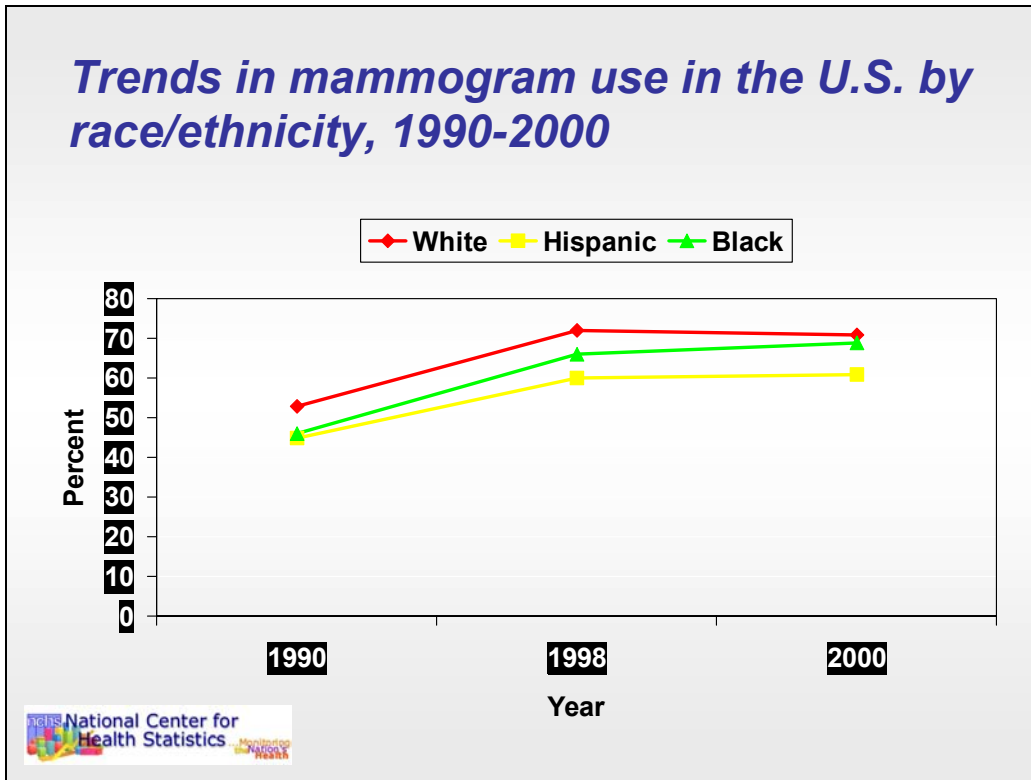
Mammography within the past two years in the U.S. by race/ethnicity

	Mammogram in past 2 years (%)
White	72
African American	68
Hispanic	63
Asian/Pacific Islander	57

Mammography use within the past two years among women 40 or older in the U.S. by race and ethnicity, year 2000.

White women are more likely to report a mammogram in the past two years as compared to any other group and Asian women are the least likely to report one in the past two years

Source: National Health Interview Survey 2000

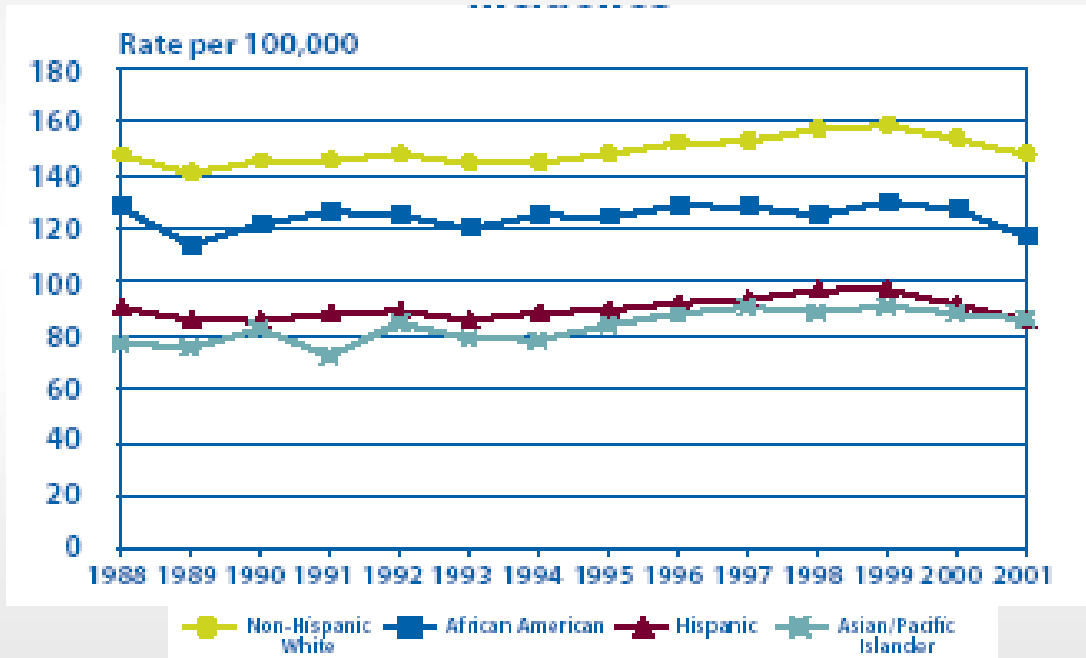


Percentage of women over 40 who had a mammogram in past 2 years, trends 1990-2000 by race/ethnicity

Overall, there are significant improvements in mammogram use in the U.S. in the past decade

Mammogram use rates have improved in a greater proportion among African American women

Breast cancer incidence in California by race and ethnicity, trends 1988-2001



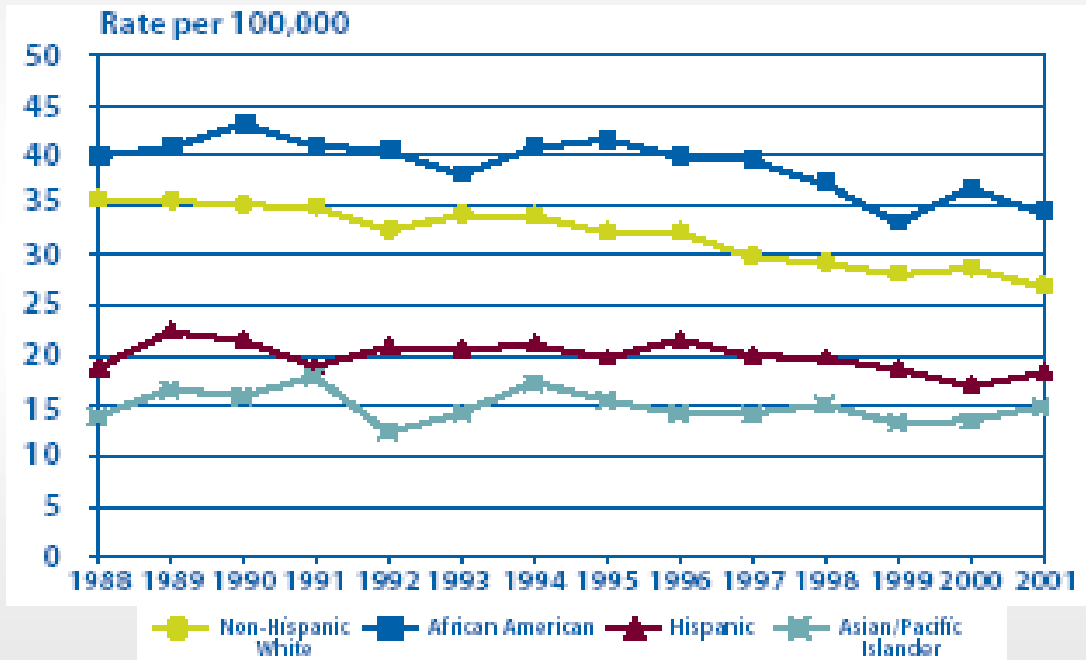
Breast cancer incidence in California trends in California by race/ethnicity, 1988-2001

As opposed to the country as a whole, the breast cancer incidence has remain stable in California since 1988

Note: Rates are age-adjusted to the 2000 U.S. population.

Source: *California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*

Trends in Breast Cancer mortality in California, 1988-2001



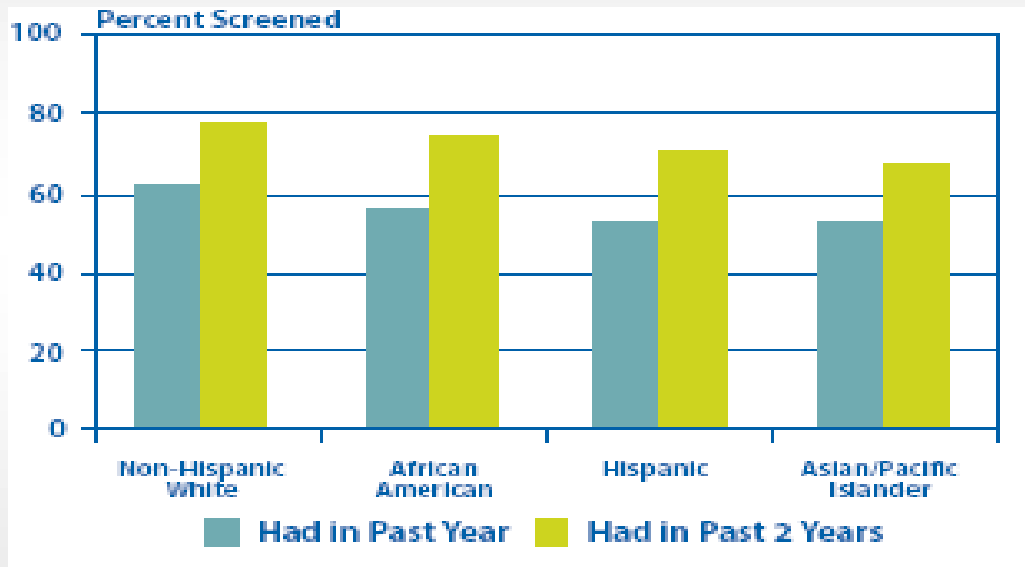
Breast Cancer Mortality in California

However, the mortality rates have decreased significantly particularly among White and African American women. This is a reflection of the increased use in mammograms and diagnosis at earlier stages.

Note: Rates are age-adjusted to the 2000 U.S. population.

Source: *California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*

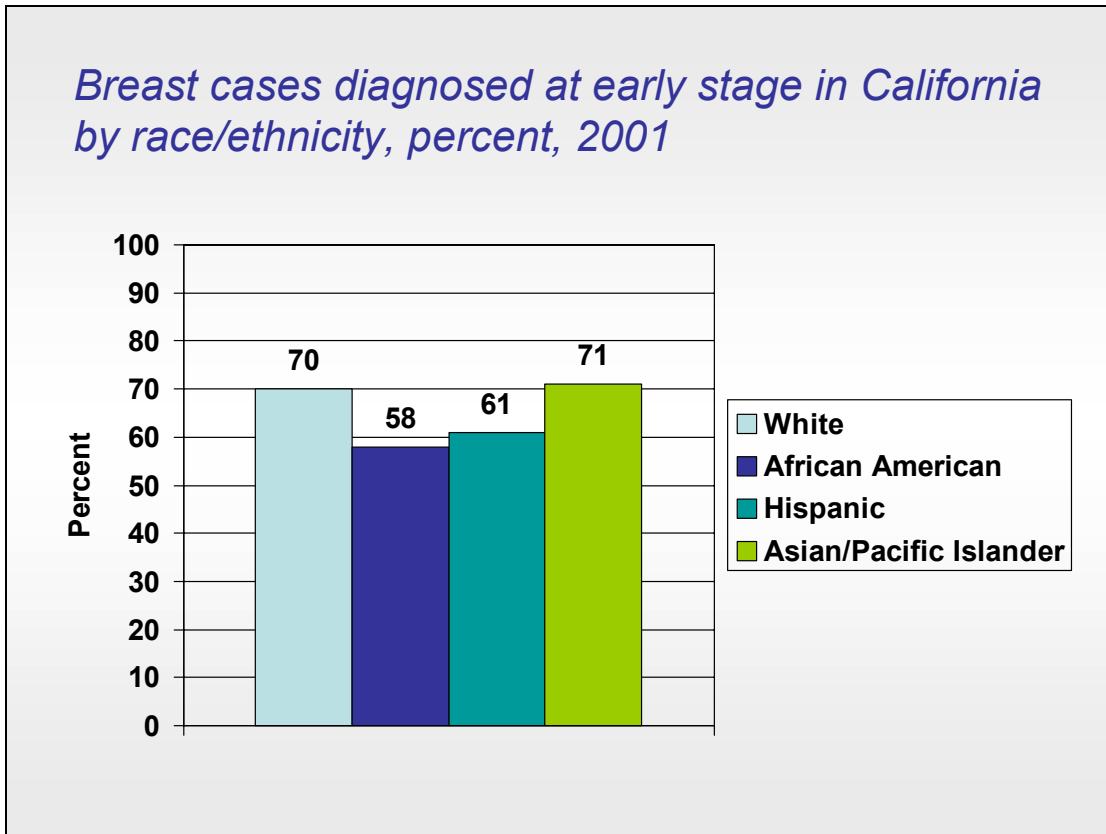
Mammography use in California by race and ethnicity, 2002



Mammography use in California among women age 40 or older, 2002.

In spite of recent improvements in breast cancer screening and mortality rates, racial/ethnic disparities persist in mammogram use

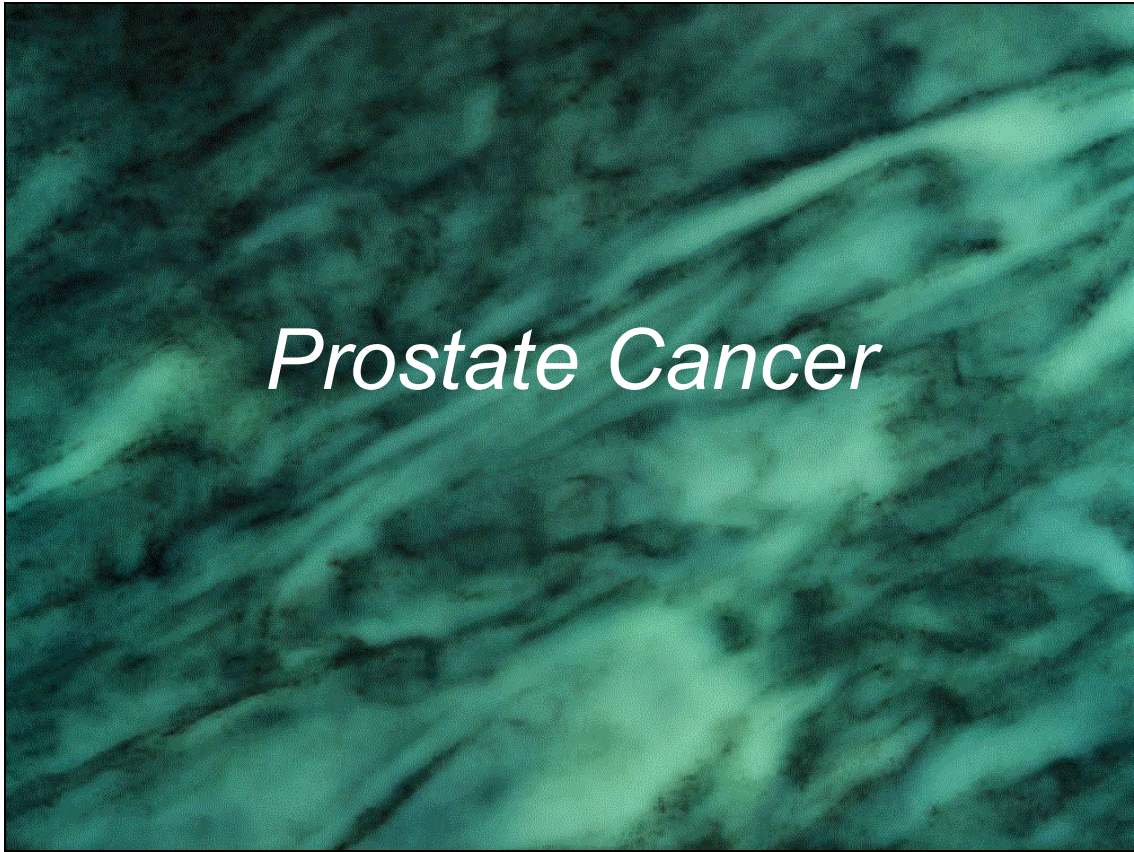
Source: *California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*



Percent of cases diagnosed at early stage in California by race/ethnicity, 2001

Although mammography rates have improved for all women, racial/ethnic disparities in early diagnosis of breast cancer persist in California.

Source: *California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*



Prostate Cancer Facts

- Prostate cancer is the most common cancer, excluding skin cancers, in American men. It has passed heart disease as top killer of Americans over the age of 85
- Almost a quarter million Americans will be diagnosed with prostate cancer this year and 30,000 will die from this disease
- Prostate cancer is the second leading cause of cancer death in men in the United States, exceeded only by lung cancer. However, the five-year survival rate for patients diagnosed with early-stage prostate cancer is nearly 100%
- 1 in 6 Americans will be diagnosed with prostate cancer during their lifetime; 1 in 33 will die.

Prostate Cancer

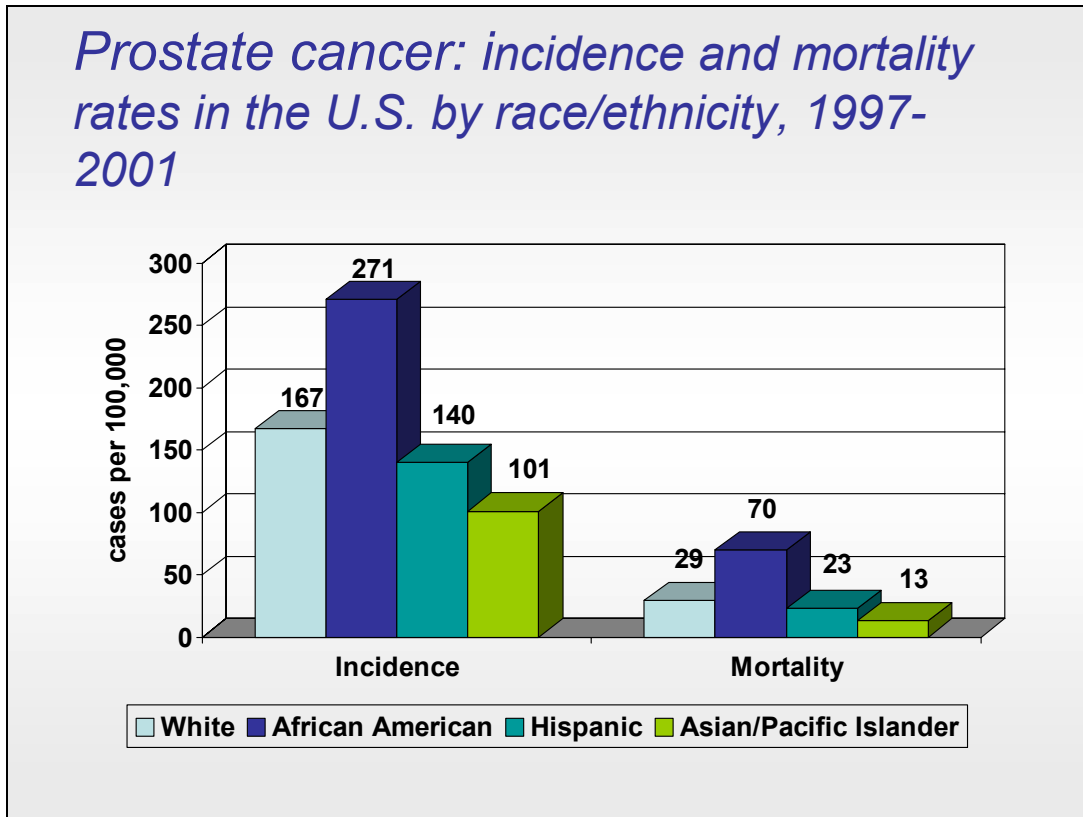
Facts

Ten-year survival rate for all prostate cancer patients: 92 percent

Fifteen-year survival rate for all prostate cancer patients: 61 percent

Five-year survival rate increase for all prostate cancer patients over the past 20 years: From 67 percent to 99

Source: Cancer Facts and Figures 2005. American Cancer Society



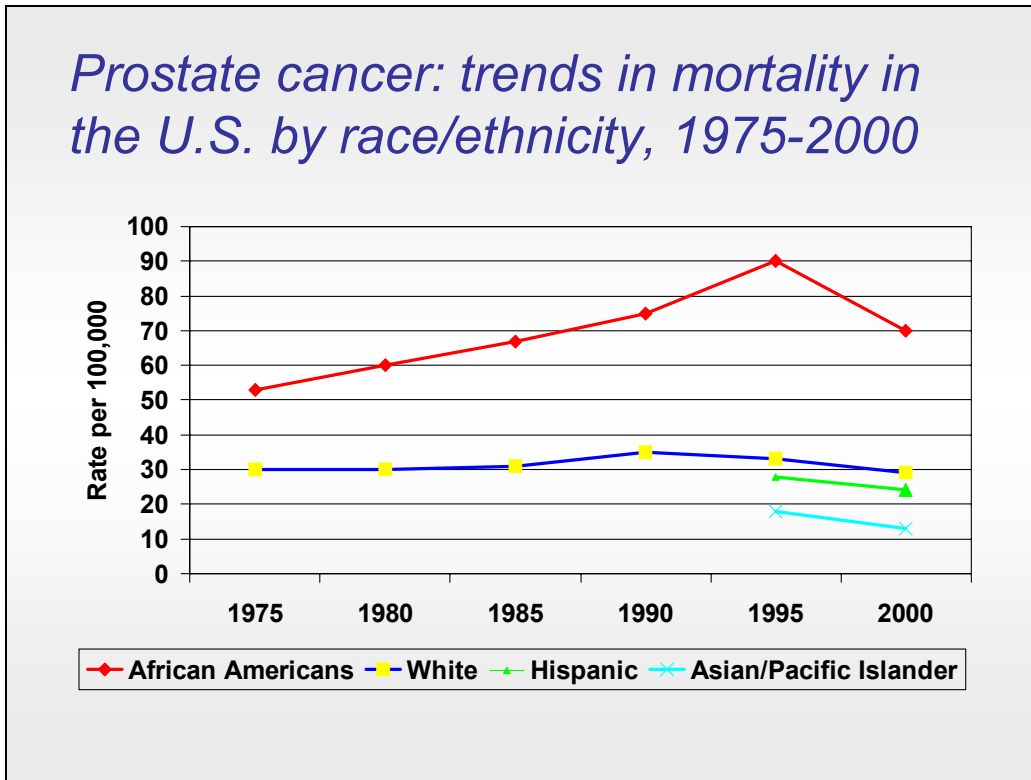
Prostate Cancer: Incidence rates by race/ethnicity in the United States, 1997-2001

African Americans have the highest incidence of prostate cancer, followed by White men.

Although African American men have an incidence of prostate cancer that is 62% higher than in White men, their mortality rate is over 200% higher.

Asian and Pacific Islanders have the lowest prostate cancer incidence and mortality

Source: Cancer Statistics 2005, American Cancer Society



Prostate cancer: trends in mortality in the U.S. by race/ethnicity, 1975-2000

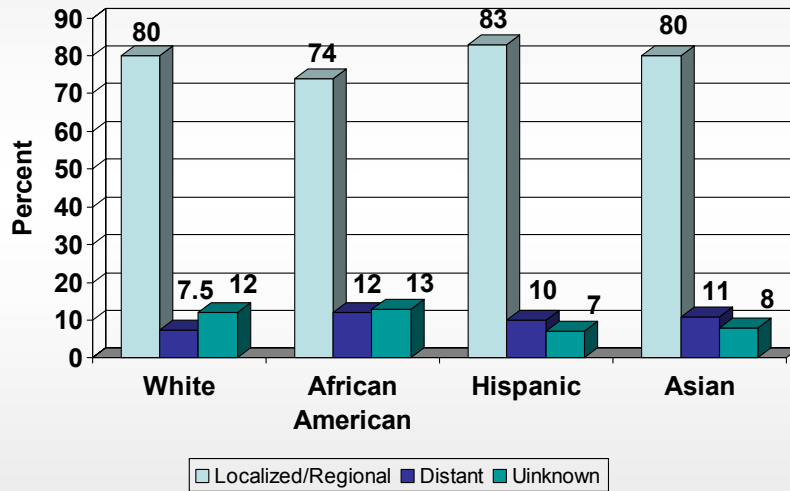
After an increment in number of deaths the mortality rates have decreased in the past five years.

However, the prostate cancer mortality gap between African Americans and all other racial/ethnic groups has widen.

The mortality rates for Hispanic and Asian/Pacific Islanders are the lowest.

Source: Surveillance, Epidemiology and End Results (SEER) Program

Prostate cancer: stage at diagnosis by race/ethnicity



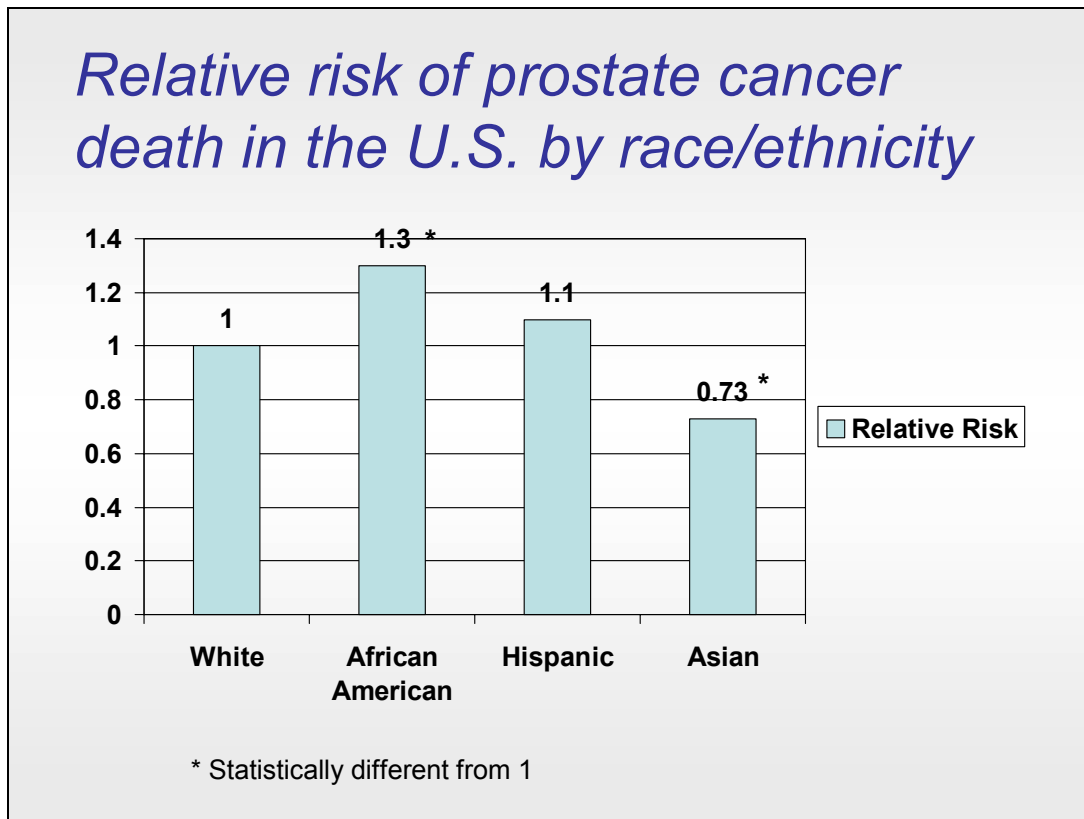
Prostate Cancer

Graph showing stage distribution of prostate cancer by race and ethnicity, 1988-1997, based on SEER (Surveillance, Epidemiology and End Results) data.

African American men are the least likely to be diagnosed at a localized/regional stage

Source:

Clegg LX, Li FP, Hanley BF, Chu K, Edwards BK. Cancer Survival among US Whites and Minorities. Archives of Internal Medicine 2002;162:1985-1993.



Prostate Cancer

Graph showing adjusted relative risk of prostate cancer death by race and ethnicity, 1988-1997, based on SEER (Surveillance, Epidemiology and End Results) data.

African American men are more likely and Asian men are less likely to die from prostate cancer once they are diagnosed with this disease as compared to White men.

Source:

Clegg LX, Li FP, Hanley BF, Chu K, Edwards BK. Cancer Survival among US Whites and Minorities. Archives of Internal Medicine 2002;162:1985-1993.

Prostate cancer screening in the U.S., by race/ethnicity

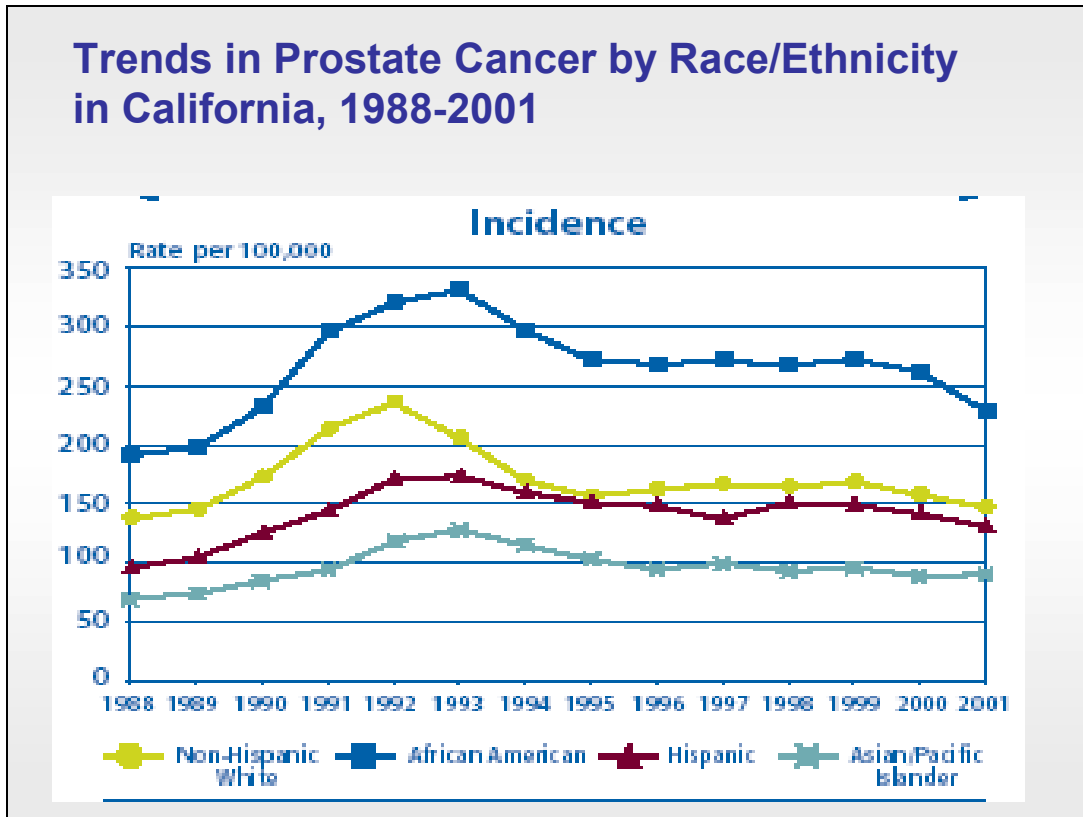
	% with PSA within 1 year	% with PSA within 2 years
White	48	61
African American	43	59
Hispanic	36	51
Other	28	35

Percentage of men ages 50 to 64 who received a PSA test to screen for prostate cancer within one year and two years, by race/ethnicity, 2002

In spite of higher prostate cancer incidence and mortality rates, African American Men are less likely to report recent PSA testing as compared to White men.

Source:

Brown, E. *Screening for Prostate Cancer with the Prostate-Specific Antigen Test, United States, 2002*. Statistical Brief #42. September 2004. Agency for Healthcare Research and Quality, Rockville, Md.
<http://www.meps.ahrq.gov/papers/st42/stat42.pdf>

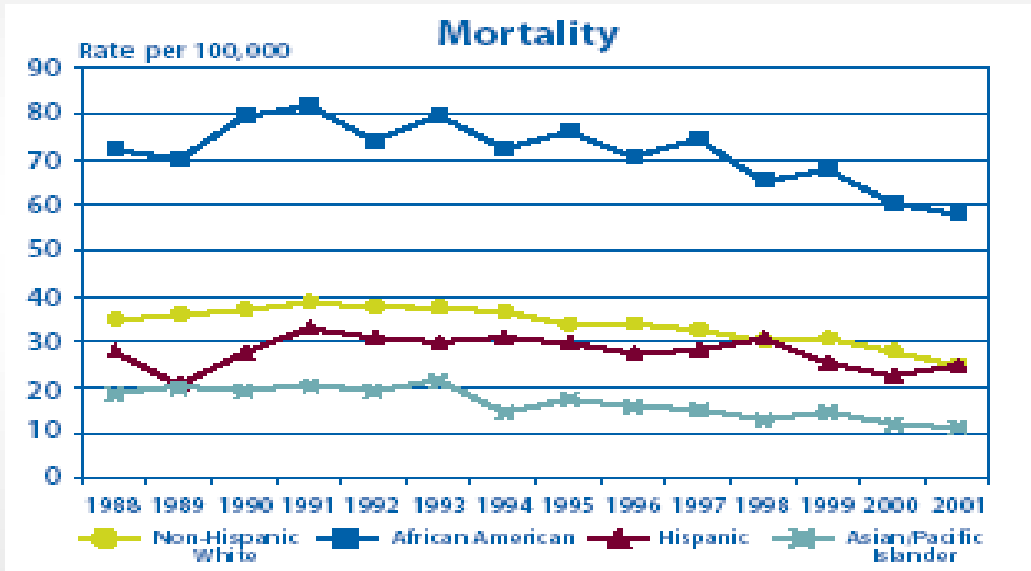


Prostate cancer incidence trends in California by race/ethnicity, 1988-2001

In California, the trends in prostate cancer incidence rate mirror national figures. After an elevation in the number of cases in the early 1990's due to the increased use of PSA testing, the incidence rates are returning to baseline.

Source: California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.

Prostate Cancer Mortality rates in California, trends by Race/Ethnicity, 1988-2001

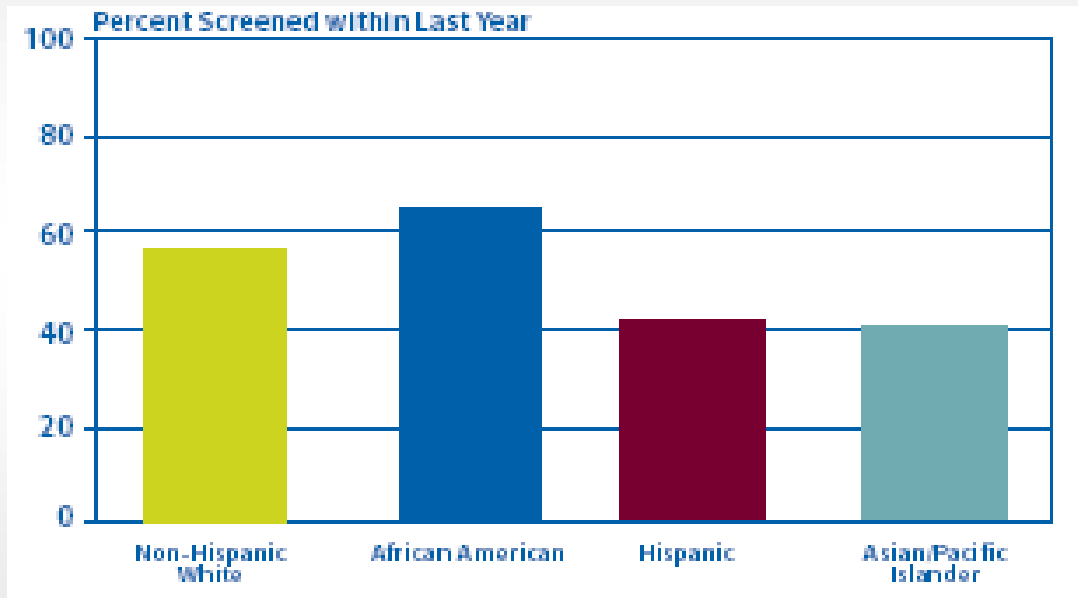


Prostate Cancer Mortality rates in California, trends by Race/Ethnicity, 1988-2001

Prostate cancer mortality in California has decreased significantly among men in each racial/ethnic group. This reflects increased screening rates and improved therapeutic approaches.

Source: California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.

Prostate cancer screening in California by race/ethnicity, 2002

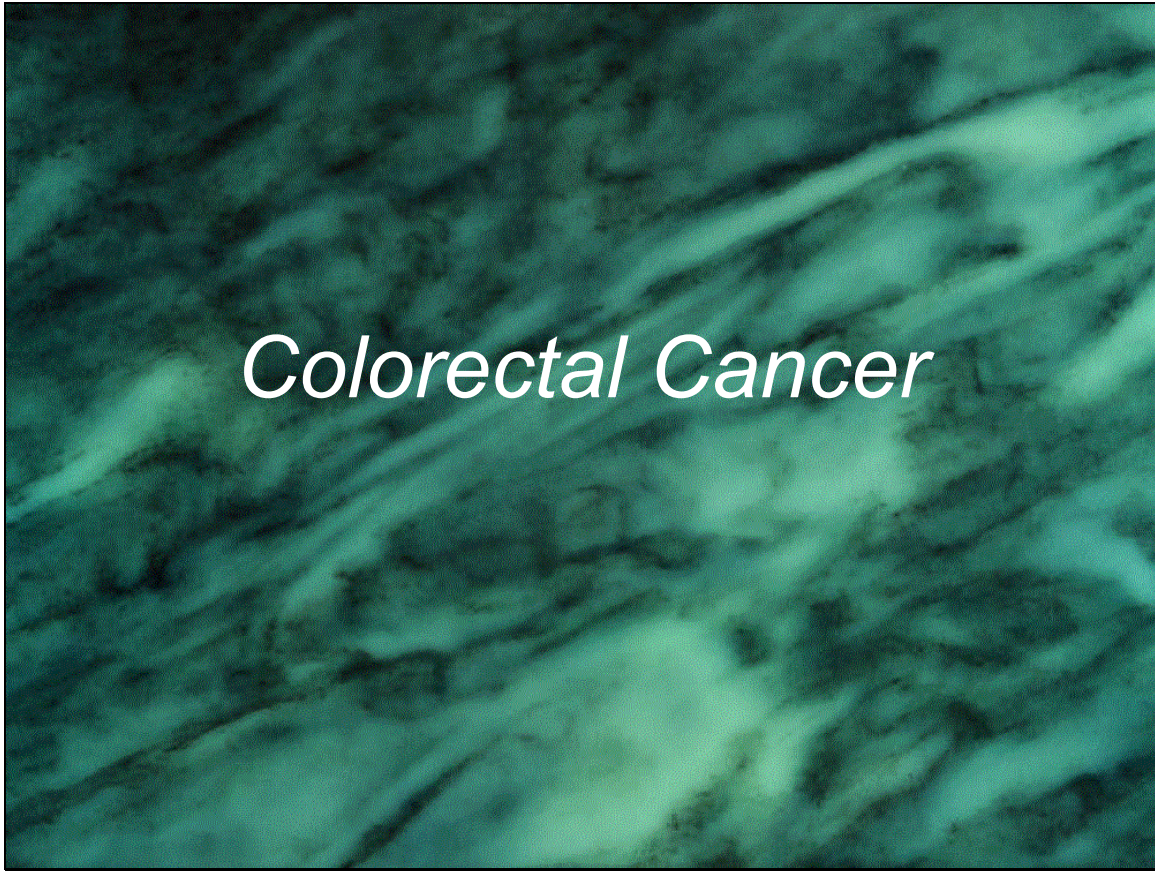


PSA Testing Among Men Ages 50 and Older by Race/Ethnicity in California, 2002

In California, African American men are most likely to report a recent PSA testing. This has had a positive impact on prostate cancer early stage diagnosis and mortality rates. Yet, continued efforts are needed since African American men still have by far the highest prostate cancer mortality rates.

Note: Data are weighted to the 1990 California population.

Source: *California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*



Colorectal Cancer facts

- An estimated 145,290 new cases of colon cancer will be diagnosed in the United States in 2005
- 105,000 of these new cases will be colon cancer and 40,000 will be rectal cancer.
- 56,290 deaths due to colon cancer are expected to occur in 2005 (10% of cancer deaths in the US)
- Overall, colon cancer is the third most common cancer in men and in women, and the second leading cause of cancer death among men and women combined in the United States.

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Overall, colon cancer is the third most common cancer in men and in women, and the second leading cause of cancer death among men and women combined in the United States.

Colorectal cancer facts

- African Americans have the highest colon cancer rates and the highest rate of death from the disease of any racial or ethnic group in the United States.
- The five-year survival for localized stage colon cancer is approximately 90%; however, due to low screening rates only 39% of colorectal cancers are detected at this stage.
- The five-year survival when colorectal cancer has metastasized is only about 10%.

Colorectal cancer: incidence rates in the U.S. by race/ethnicity and sex, 2002

	Male	Female
African American	73	56
Whites	63	45
Asian/Pacific Islander	56	39
Hispanic	50	33

Per 100,000, age-adjusted to the 2000 Standard Population

Source: Surveillance, epidemiology and End Results Program

Colorectal cancer incidence rates in the U.S. by race/ethnicity and sex, 2002

Men have higher incidence rates as compared to women.

African Americans have the highest incidence of any race or ethnic group.

Prior to 1987, the incidence of colorectal cancer was highest among White men and women. Since then, the incidence rate has been higher for African Americans.

Hispanics and Asian Pacific Islanders have the lowest incidence rates.

The overall incidence rates of colorectal cancer have been declining since 1998.

This may reflect detection and removal of precancerous polyps.

Colorectal cancer: mortality rates in the U.S. by race/ethnicity and sex, 2002

	Male	Female
African American	34	24
Whites	25	17
Asian/Pacific Islander	16	11
Hispanic	18	12

Per 100,000, age-adjusted to the 2000 Standard Population

Source: Surveillance, epidemiology and End Results Program

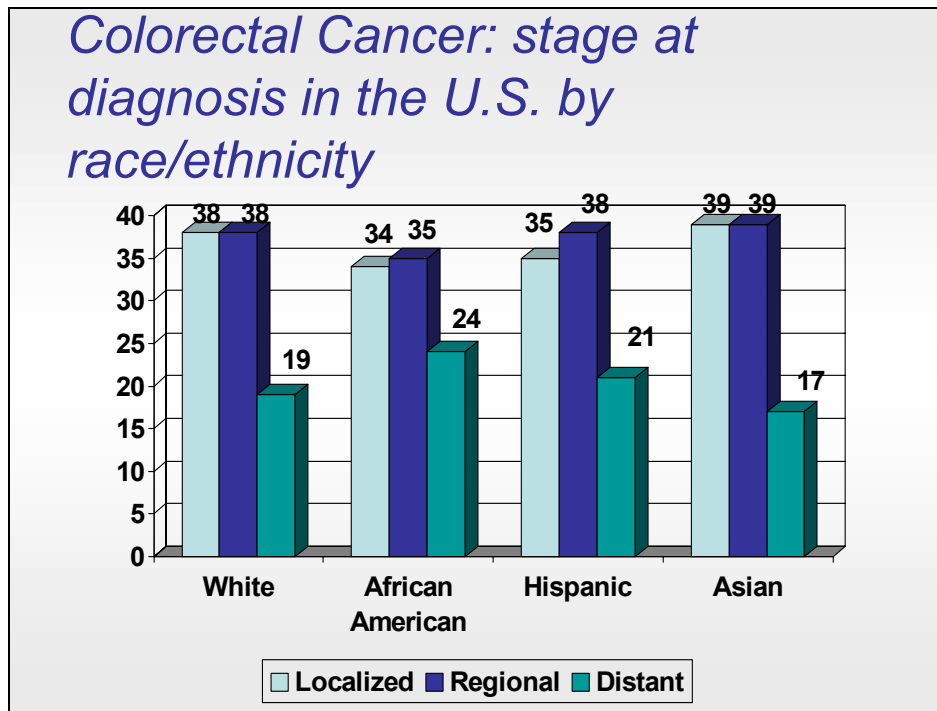
Colorectal cancer

Men have higher mortality rates as compared to women.

African Americans have the highest age-adjusted colorectal cancer mortality rates of any race or ethnic group.

While the incidence rate of colorectal cancer in African Americans is 15% higher than in Whites, the mortality rate is 40% higher.

Asians have the lowest age-adjusted mortality rates.



Colorectal cancer: stage at diagnosis in the U.S. by race/ethnicity, 2000

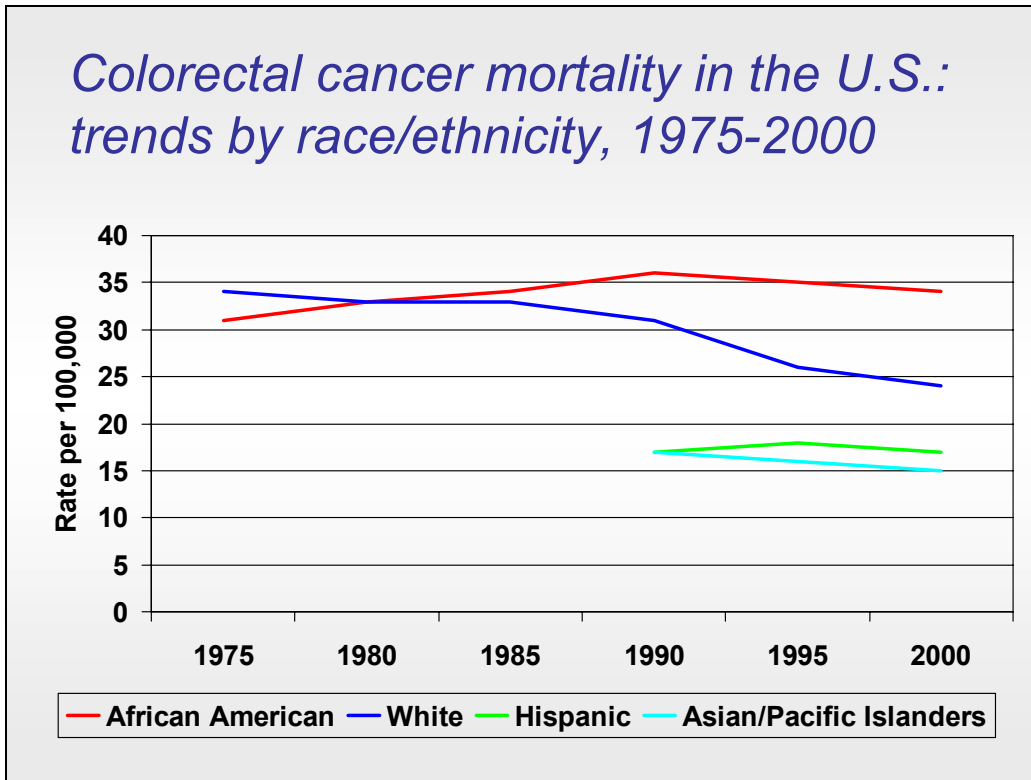
Graph showing stage distribution of colorectal cancer by race and ethnicity, 1992-2000, based on SEER (Surveillance, Epidemiology and End Results) data.

African American and Hispanics are less likely to be diagnosed with colorectal cancer at the localized stage as compared to Asian/Pacific Islanders and Whites.

African Americans are more likely to be diagnosed at advanced stage; this is reflected in higher mortality rates

The percentage does not add up to 100; cancers with unknown stage are not included

Source: Surveillance, Epidemiology and End Results Program.



Trends in age-standardized colorectal cancer mortality in the U.S. by race/ethnicity, 1975-2000

Graph depicting trends in age-standardized colorectal cancer mortality in men by race/ethnicity, 1975-2000

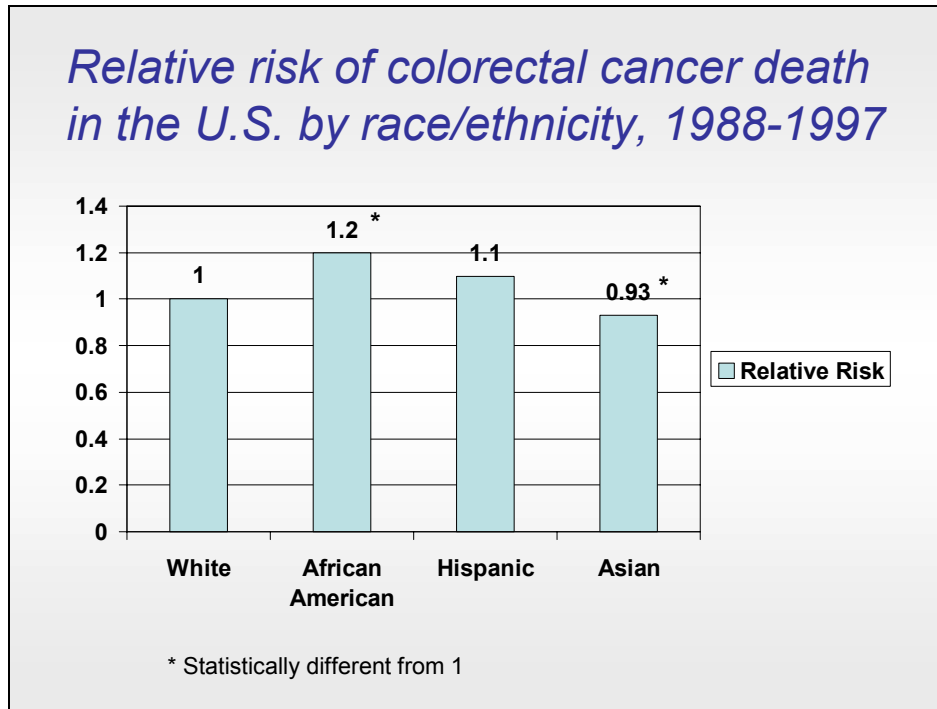
Source: Surveillance, Epidemiology and End Results Program

Prior to 1987, the incidence of colorectal cancer was highest among White men.

Since then, the incidence rate has been higher for African Americans.

The age-adjusted colorectal cancer mortality has increased slightly among African Americans while it has decreased significantly among Whites. Similar trends are observed in women.

The colorectal cancer mortality among Hispanics has remained stable over the past 10 years while it has decreased slightly among Asian/Pacific Islanders.



Relative risk of colorectal cancer death in the U.S. by race/ethnicity, 1988-1997

Graph showing adjusted relative risk of colorectal cancer death by race and ethnicity, 1988-1997, based on SEER (Surveillance, Epidemiology and End Results) data.

African American men are more likely and Asian men are less likely to die from colorectal cancer once they are diagnosed with this disease as compared to White men.

Factors that may contribute to disparities in survival include differences in access to early detection, timely and high-quality treatment and supportive care and co-morbidities.

Source:

Clegg LX, Li FP, Hanley BF, Chu K, Edwards BK. Cancer Survival among US Whites and Minorities. Archives of Internal Medicine 2002;162:1985-1993.

Use of screening for colorectal cancer by race/ethnicity

	FOBT*	Endoscopy*	FOBT/ Endoscopy
White	18.3	31.3	41.0
African American	14.9	27.0	35.4
Hispanic	9.8	21.8	27.5
Asian/ Pacific Islander	14.5	19.2	30.3

Colorectal Cancer

Colorectal cancer screening among adults aged 50 and older by race/ethnicity, percentage of eligible adults

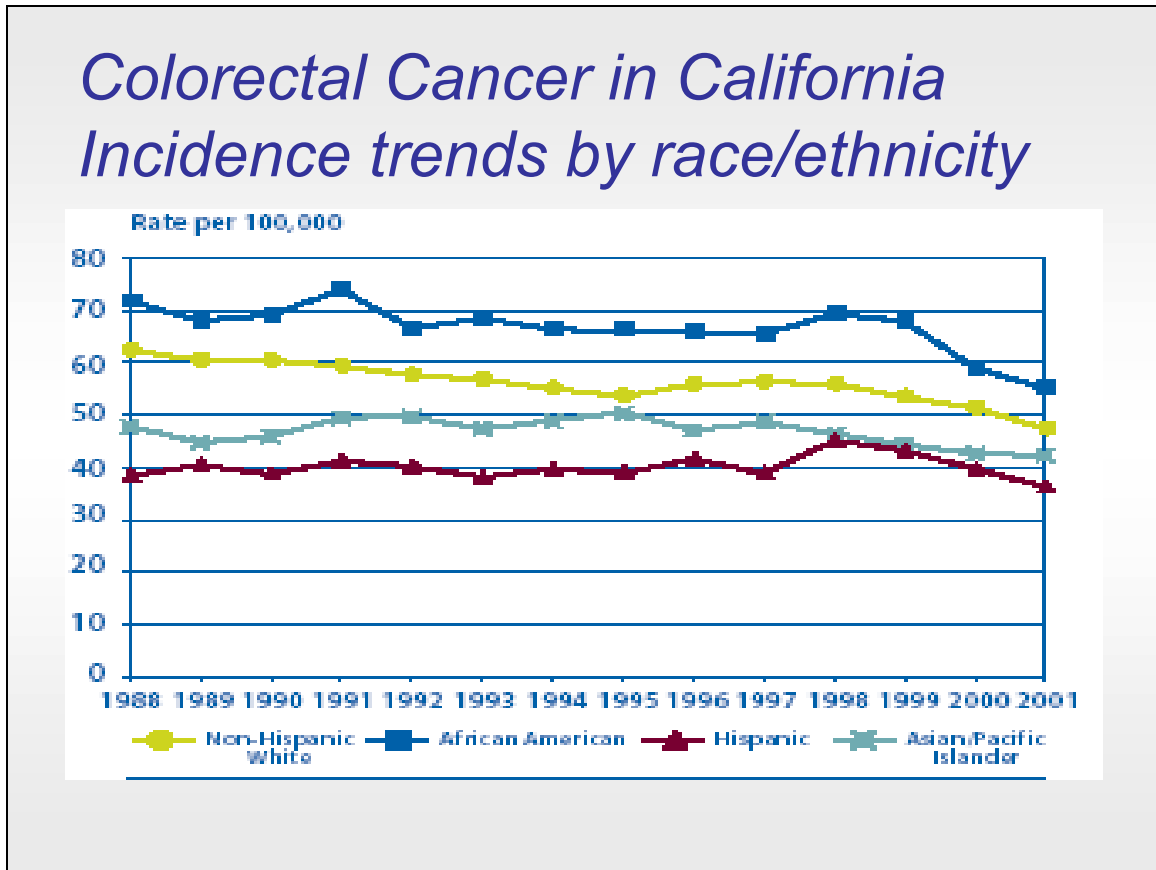
The use of colorectal cancer screening test remains extremely low.

On average, only 17% of adults aged 50 or older used a fecal occult blood test at home in the past year and 30% had an endoscopy (flexible sigmoidoscopy or colonoscopy) within the past 5 years.

African Americans, Hispanics and Asian/Pacific Islanders are less likely to report being screened for colorectal cancer as compared to Whites.

FOBT: fecal occult blood test done with home kit in the past year. Colonoscopy: Sigmoidoscopy or colonoscopy done within the past 5 years

Source: National Health Interview Survey 2000, National Center for Health Statistics, CDC

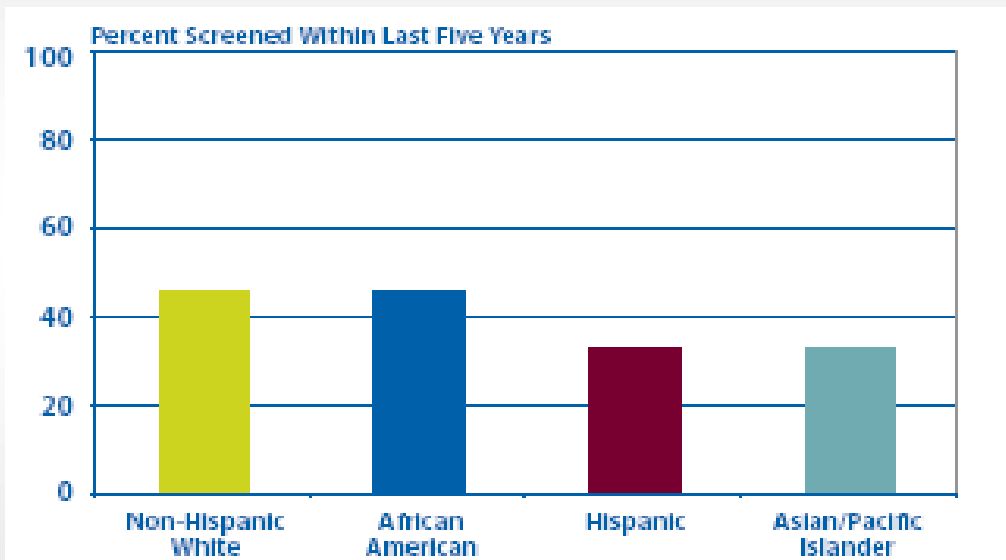


Colorectal Cancer in California Incidence trends by race/ethnicity, 1988-2001

In California, the colorectal cancer mortality rates mirror national figures. The incidence has decreased among men in each of the race/ethnic groups due to increased screening with identification and removal of pre-malignant polyps.

Source: *Source: California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*

Colorectal cancer screening in California by race/ethnicity, 2002

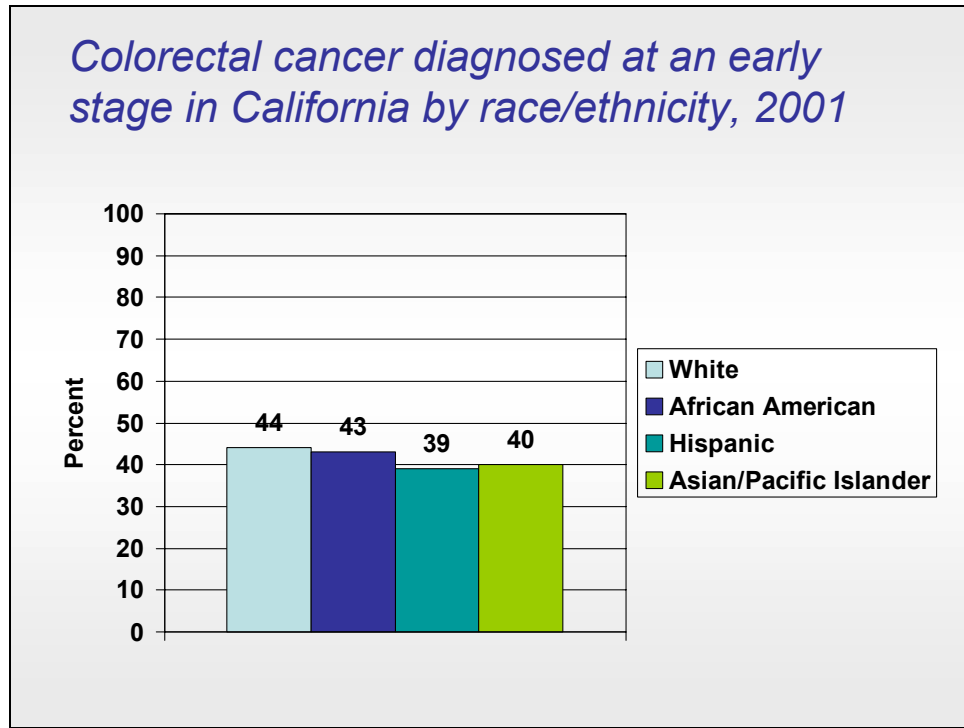


Sigmoidoscopy/colonoscopy within the past five years among persons ages 50 and older by race/ethnicity in California, 2002

Overall, the use of sigmoidoscopy/colonoscopy remains extremely low among persons in all racial/ethnic groups

Hispanics and Asian/Pacific Islanders are the least likely to report sigmoidoscopy/colonoscopy for colorectal cancer screening in the past five years.

Source: California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.



Percent of colorectal cancer diagnosed at early stage in California, by race/ethnicity 2001

All racial/ethnic groups have a low incidence of early stage colorectal cancer at diagnosis.

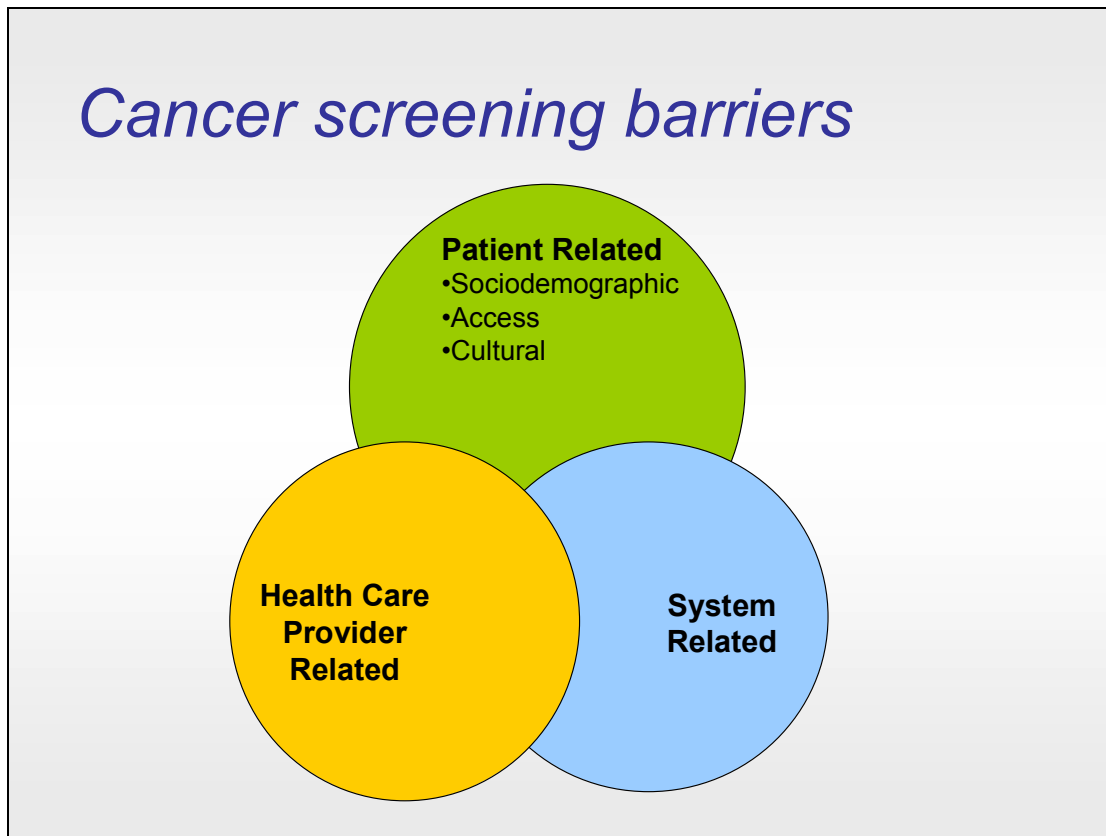
Improved efforts are needed to improve colorectal cancer screening rates among all racial/ethnic groups to improve early diagnosis and mortality rates.

Source: *California Cancer Facts and Figures, 2005. American Cancer Society, California Division and Public Health Institute, California Cancer Registry. Oakland, CA. American Cancer Society, California Division, September 2004.*

Module 3

Barriers to cancer screening among minorities in the U.S.

- Patient, physician and system related barriers to cancer screening
- Role of barriers in racial/ethnic disparities



Barriers to cancer screening

The reason for racial/ethnic differences in cancer screening result from a complex combination of factors. These are related to patients, health care providers and/or health care system.

Patient related cancer screening barriers

- Sociodemographic factors
- Access to health care factors
- Cultural factors
- Attitudinal factors

Patient Related Cancer Screening Barriers

Patient related barriers include sociodemographic and access, cultural and attitudinal factors.

Sociodemographic and access factors are the most important determinants of cancer screening. These include, for instance, low education and income

Access to health care related barriers include lack of health insurance and of a regular source of care.

At least 44 million Americans have no health insurance at all and at least 31 million non-elderly insured Americans are underinsured for cancer care costs.

Low income Americans cannot afford co-payments or income loss due to lost working time or child care

Barriers to cervical cancer screening among Hispanics

Predictor	Adjusted OR	95% CI
Age >65	.36	.25 - .53
Never married/widowed	.67	.47 - .94
College education	1.68	1.24 – 2.29
Good health	1.33	1.08 – 1.62
MD in past year	3.62	3.04 – 4.32
Health insurance	1.63	1.35 – 1.97

Coughlin SS, et al. Prev Med. 2002;34:242-251. N = 15,180 BRFSS

Sociodemographic factors in cervical cancer screening

For instance, in a recent study on cervical cancer screening barriers among Hispanics, those who saw a physician in the past year were more than 3 times as likely to report receiving a Pap smear as compared to those who did not see a physician in the past year. Other factors like college education and having health insurance were also important determinants

Patient related cancer screening barriers

Cultural factors

- Specific beliefs
 - Fatalism
 - Fear of cancer
 - Perceived benefit/competing priorities
 - Perceived susceptibility
- Acculturation
- Language/communication barriers
- Lack of cancer knowledge
- Embarrassment

Patient related cancer screening barriers: cultural factors

Cultural factors include misconceptions about cancer and cancer screening, low acculturation and language barriers.

Fatalism is a common barrier to cancer screening among minority populations.

Since cancer is perceived as necessarily deadly, cancer screening does not make a difference for them.

Cancer screening is uncommon in many countries; recent immigrants know little about cancer and cancer screening recommendations. Acculturation has been linked to increased use of cancer screening interventions.

Other important cultural barriers are embarrassment and mistrust of the health care system

Impact of English Language Proficiency on Receipt of Pap Smears Among Hispanics

Israel De Alba, MD, MPH, Jamie M. Sweningson, MPH, Christa Chandy, MPH, F. Allan Hubbell, MD, MSPH

Cross sectional study using 2000 National Health Interview Survey data that included 2,331 Hispanic women. After adjusting for sociodemographics and access factors, highly proficient English speakers were more likely to report a Pap smear in the past 3 years as compared to low proficient (aPR 1.16 (1.08-1.22)). Also associated with Pap smear use were higher income and having a usual source of care and health insurance.

J GEN INTERN MED 2004;19:967-970

Patient Related Barriers To Cancer Screening

Language barriers play a very important role among many minority patients. Language barriers limit access to general and preventive health care. Even after accounting for factors like health insurance and usual source of care, low English proficient Hispanics are less likely to use health services. Nearly one in five Spanish-speaker in the U.S. delayed or refused needed medical care because of language barriers with an English-speaking physician. Once access is achieved, language barriers may interfere with the physicians' ability to describe the benefits of screening and some may opt for postponing or omitting a recommendation for a Pap smear. Even if cancer screening is recommended, language barriers may impede adherence among the low English proficient.

Source:

Derose KP, Baker DW. Limited English proficiency and Latinos' use of physician services. *Med Care Res Rev.* 2000;57(1):76-91.

Robert Wood Johnson Foundation. New survey show language barriers causing many Hispanics to skip care. Vol. 2004; 2001.

Barriers to colorectal cancer screening

- **Demographic factors**
 - Younger age, male, minority race/ethnicity, lower education, lower income
- **Lack of health insurance or regular source of health care**
- **History of cancer**
 - No previous personal or family history of cancer
 - Lack of participation in other cancer preventive interventions (eg, mammography)
- **Psychological factors**
 - Anxiety, tendency to be pessimistic, fatalism
- **Knowledge, beliefs, attitudes**
 - Lack of knowledge on cancer or colorectal cancer screening
 - Lower perceived risk of CRC
 - Belief that colorectal cancer is not preventable
 - Screening test is painful or unpleasant

Patient related barriers to cancer screening

When patients are asked about the reasons for not participating in colorectal cancer screening; they answered:

- Lack of time
- Lack of physician recommendation
- Inconvenience
- Lack of interest
- Cost
- Embarrassment
- Unpleasantness of the test

Source:

Walsh J et al. Barriers to colorectal cancer screening in Latino and Vietnamese Americans. J Gen Int Med. 2004;19:156-166

Vernon S. Participation in colorectal cancer screening: a review. J Natl cancer Inst. 1997;89:1406-1422.

Barriers to cancer screening: health care providers

- Physician barriers
 - Inadequate communication
 - Lack of recommendation

- Factors that influence health care provider's recommendation
 - Beliefs about effectiveness of screening tests
 - Familiarity with screening guidelines
 - Lack of training to perform some tests
 - Perception of patient preference and/or adherence
 - Lack of adequate reminder system

Barriers to cancer screening: health care provider related.

The most important barrier is lack of physician recommendation for cancer screening. Clinicians often fail to provide recommended clinical preventive services,

Many factors influence health care provider's recommendation, these include:

- inadequate reimbursement for preventive services
- fragmentation of health care delivery
- expecting that a gynecologist or other physician will make the recommendation
- insufficient time
- competing co-morbidities
- competing tasks

Sources: Klabunde C et al. Health plan policies and programs for colorectal cancer screening: a national profile. *Am J Managed Care*. 2004;10:273-79.

Taylor M, Anderson R. Colorectal cancer screening; physician attitudes and practices. *Women Med J*. 2002;101:39-43.

Cancer screening barriers: health care system related

- Fragmentation of care
- Lack of late hours or weekend appointments
- Lack of familiarity with health care system
- Lack of interpreters or patient navigators

Cancer Screening Barriers: health care system related

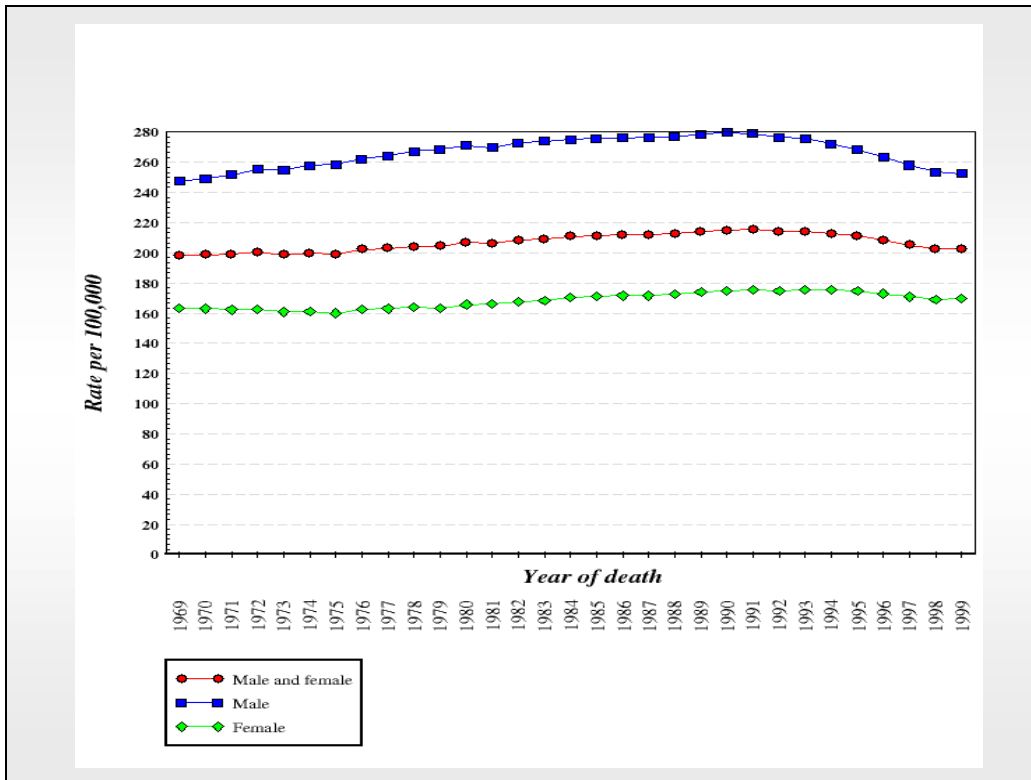
In many instances, although the patient wants the preventive intervention and the physician provides the recommendation, cancer screening does not take place due to additional system barriers.

Cancer screening in our health care system usually involves a multiple steps, several persons and visiting various physical places; the complexity of the system is a barrier on its own for many persons not familiar with the process. However, this complexity also increases the likelihood of administrative, clerical and other errors that would prevent the receipt of the screening intervention.

Module 4

Impact of physician's recommendation on cancer screening

- Prevention and early detection work
- The impact of physician recommendation on cancer screening
- Overcoming barriers during the clinical encounter



Impact Of Physician Recommendation

In spite of recent improvements in therapeutic approaches, cancer remains a highly deadly disease. An estimated 1.3 million new cancer cases and over 500,000 deaths are expected for this year in the United States.

Advances in chemotherapy, radiotherapy and surgical modalities have had a modest impact on cancer mortality. Consequently, cancer prevention and early detection are the most effective strategies in the fight against cancer.

The best contribution physicians, and health care providers in general, can make is to recommend cancer screening to every eligible patient.

Prevention and early detection work

– Most new cancer cases are related to:

- Nutrition
- Lack of physical activity
- Obesity
- Life style (tobacco, HIV, HPV, HBV, UVB)

Impact Of Physician Recommendation

There is solid evidence that cancer prevention and early detection efforts do work:

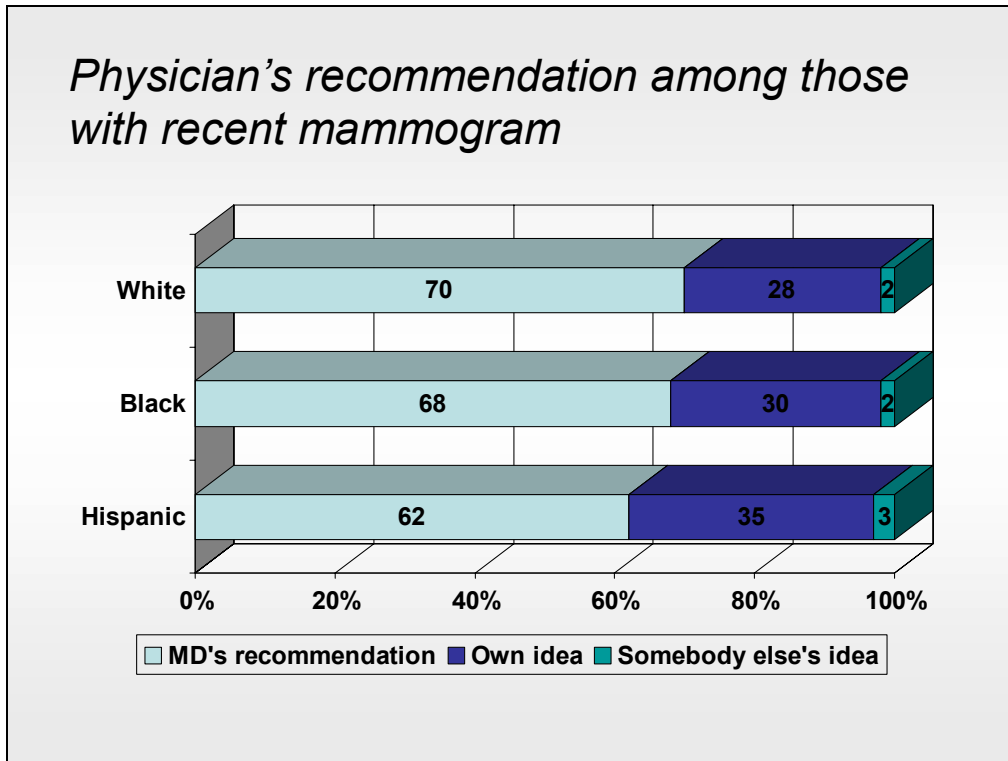
Most new cancer cases are related to:

- Nutrition
- Lack of physical activity
- Obesity
- Life style (tobacco, HIV, HPV, HBV, UVB)

33% of cancer cases can be detected by screening

5 year relative survival rate for these cases is 82% (for all cases is 62%)

Pap smear is a success story: most invasive cases today are in persons with no previous Pap smears



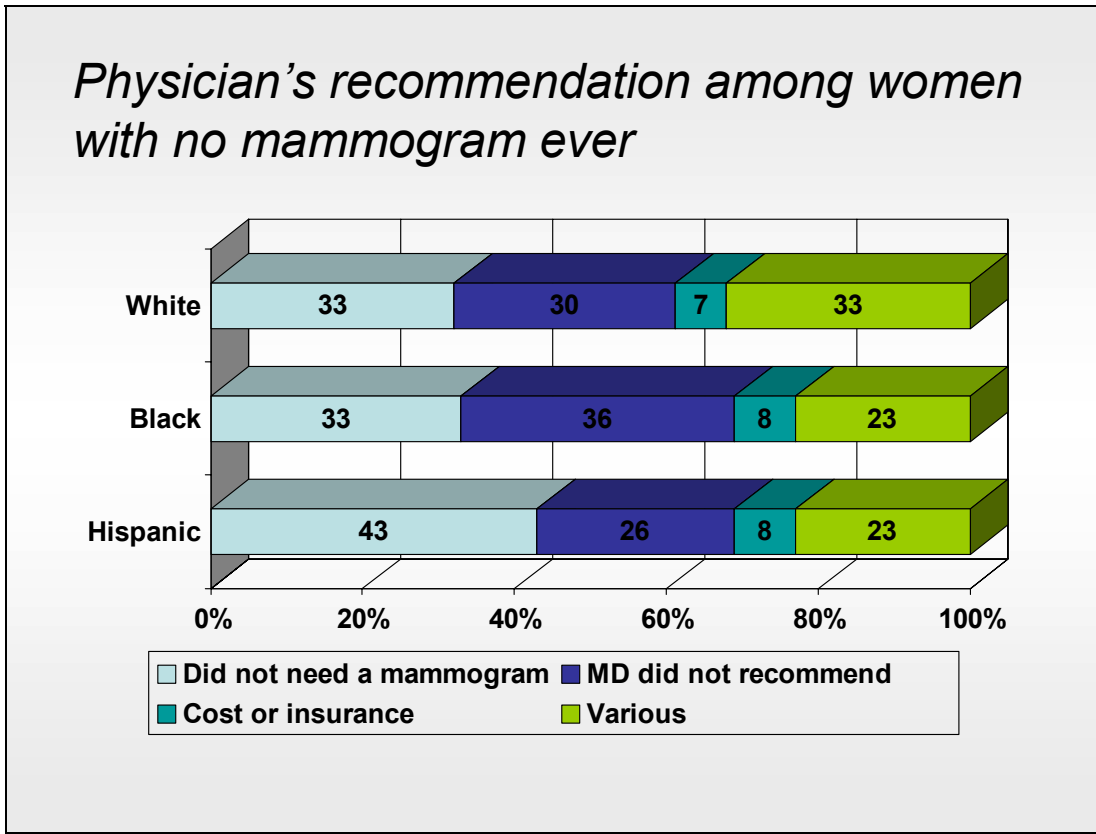
Impact Of Physician's Recommendation On Cancer Screening

Multiple studies have documented the positive impact of physicians' recommendation on use of cancer screening interventions.

For instance, in a telephone survey using data from the Behavioral Risk Factor Surveillance System (BRFSS) that included 22,657 women, most participants reported that physician recommendation was the most important factor in obtaining a recent mammogram.

Source:

Frazier EL, et al. Use of screening mammography and clinical breast examinations among Black, Hispanic and White women. Preventive Medicine 1996; 25: 118-125.

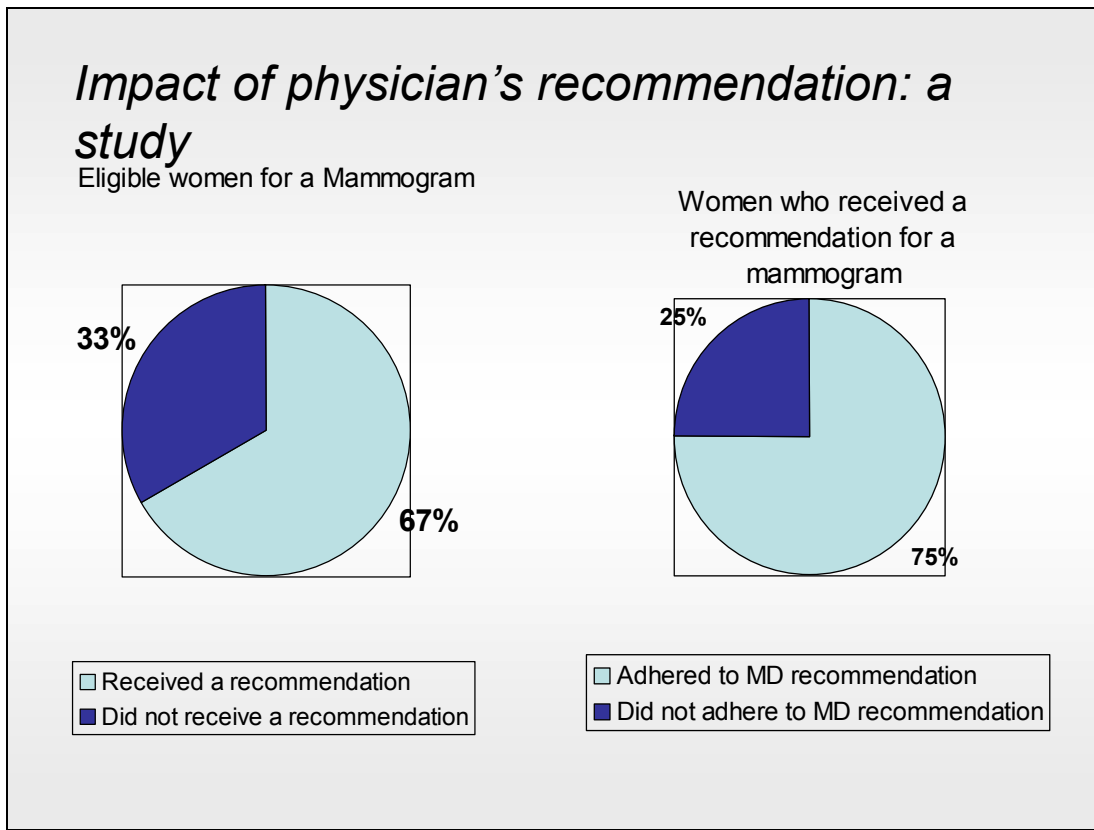


Impact Of Physician's Recommendation On Cancer Screening

In the same study, among women without a mammogram ever, lack of physician recommendation was the second most important reason for not obtaining one.

Source:

Frazier EL, et al. Use of screening mammography and clinical breast examinations among Black, Hispanic and White women. Preventive Medicine 1996; 25: 118-125.



Impact Of Physician's Recommendation On Cancer Screening

Physician recommendations do make a difference.

In a chart review of 1,111 consecutive patient charts at the internal medicine, family medicine and rheumatology clinics, 66.4% of eligible women received a recommendation. However, 75% of those adhered to it.

Source:

May DS, et al. Compliance with mammography guidelines: physician recommendation and patient adherence. Preventive Medicine 1999; 28: 386-394.

However, we are not screening as much as we should

Residents and screening

	Mammogram	Pap smear	FOBT	Flex-sig
Becker DM. Am J Prev Med 1989; 5:353-359	31%	48%	21%	
Cowan JA. Am J Prev. Med 1992;8:104-109	16%	12.5%	4.3%	
Litzelman DK. J Gen Intern Med 1993;8:311-317	55%	22%	63%	
Keim DB. South Med J. 1998;91:550-554	69%	53%	30%	18%
Zack DL. Am J Gastro 2001;96:3004-3008.	66%	65%	13%	16%

Impact Of Physician Recommendation

However, in spite of clear evidence on effectiveness of screening interventions, physicians are not recommending cancer screening as much they should.

Why Physicians do not follow guidelines?

- Barriers to physician adherence
 1. Knowledge
 2. Attitudes
 3. External barriers

Why physicians do not follow guidelines?

Reasons for not following guidelines can be grouped into 3 categories:

1. Physician knowledge related barriers include:

Lack of awareness of guidelines

Lack of familiarity with guidelines. This is due in part to the volume of relevant medical information generated, the significant time needed to stay updated and the low visibility or accessibility of some guidelines.

2. Physician attitudes related barriers

Lack of agreement with guidelines.

Differences in interpretation of the evidence

Believed that the benefits of interventions were not worth the patient risk or had disproportionate discomfort or cost.

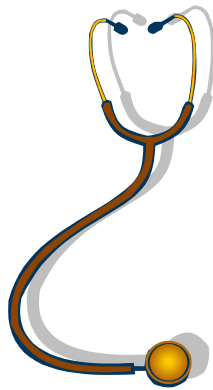
Low applicability of guidelines to population served

Guidelines were oversimplification of medical practice or represented “cookbook medicine”

Autonomy is reduced

The patient-physician relationship is made impersonal

Guidelines are bias or authors lack credibility



Lack of self-efficacy

The physician believes that he/she cannot perform guideline recommendation

Lack of outcome expectancy

Belief that overall, following guidelines will not lead to the desired outcome

Lack of motivation

Previous habits or inertia interfere with implementation of new knowledge

3. External barriers. Knowledge and familiarity with guidelines is not enough.

Lack of time

Competing co-morbidities

Lack of reminders

Lack of resources; counseling materials, culturally or linguistically appropriate materials,

Organizational constraints; insufficient staff or support staff

Lack of reimbursement

Perceived increased in malpractice liability

Patient characteristics or low probability of counseling success

Patient preference differing from guidelines

Source: Cabana D, et al. Why don't physicians follow clinical practice guidelines? A framework for improvement. JAMA 1999;282(15):1459-1465.

Interventions targeting physicians

Physician based interventions

- Flow sheet
- Computerized reminder
- Workshop + chart reminder
- Patient carried prompt
- Chart reminder
- Financial incentives
- Memo reminder
- Audit and feedback

• Others:

- Nurse-based interventions
- clinic reorganization
- audit with feedback

Interventions Aimed At Improving Cancer Screening Rates By Targeting Physicians.

Multiple interventions aimed at improving cancer screening physician recommendation rates have been attempted. Most include reminders and incentives.

Highly effective strategies include flow sheets and reminders. Computerized and manual reminders improved cervical cancer screening by as much as 40% and breast cancer screening by as much as 35%.

Moderately effective interventions include financial incentives and audit and feedback; the later has shown to improve breast cancer screening by 14-30%.

Information sheets placed on the chart were not effective

Source:

Kupets, R, et al. Strategies for the implementation of cervical and breast cancer screening of women by primary care physicians. Gynecologic oncology 2001;83:186-197.

Methods of encouraging women to access cancer screening tests

Cervix cancer screening

- Invitations (mail or phone)
- Reminders
- Education
- Message framing
- Counseling
- Risk factor assessment
- Economic interventions
- Lay health workers
- Mass media campaigns
 - Newspapers
 - Community adds
 - Radio

Breast Cancer Screening

- letter of invitation
- mailed educational material
- letter of invitation plus phone call
- phone call
- training activities plus direct reminders for the women

- home visits did not prove to be effective
- letters of invitation to multiple examinations plus educational material favored the control group

Strategies Targeting Patients

In general, patient based reminders, invitations (letter or phone call) and educational/counseling have been proven effective at increasing accrual for screening tests. Combinations of effective interventions can have an important effect, specially if done in a culturally sensitive manner.

Interventions that may be effective include in cervical cancer screening include educational home visits and opportunistic screening. Home visits did not prove to be effective at improving mammography use rates.

Interventions that were found to be less effective included printed and audio-visual educational materials; educational sessions and risk-factor questionnaires.

Source:

Forbes C, Jepson R, Martin-Hirsch P. Interventions targeted at women to encourage the uptake of cervical screening. *Cochrane Database Syst Rev.* 2002;(3):CD002834.

Jepson R, et al. The determinants of screening uptake and interventions for increasing uptake: a systematic review. *Health Technology Assessment* 2000; Vol. 4: No. 14

Cancer Screening in Minorities

Community interventions

- Interventions that enhance access to primary care and involve “in-reach” in community health clinics have been effective in improving cancer screening
- Interventions should be culturally sensitive

Among the patient-targeted interventions, most effective have been those that provided transportation, facilitated appointment scheduling, reduced costs or provided vouchers for screening tests, provided one-on-one counseling, sent tailored letters, or gave reminders

Overcoming barriers during the clinical encounter: from theory to practice

- The most important tool: AWARENESS
 - Physician recommendation is one of the most effective interventions to improve cancer screening rates.

Strategies For Physicians

Five Necessary Steps: awareness, education, action, performance and feedback

Awareness

Become aware that screening is important and needs to be done and that physician recommendation is the most effective strategy to improve cancer screening rates

Education

Seek for basic education and CME opportunities on cancer and cancer screening
Become an expert in at least one set of cancer screening recommendations (USPSTF, ACS, etc)
Become familiar with available support systems for patients (financial and educational resources)

Overcoming barriers during the clinical encounter: from theory to practice

Action

Performance

Feedback

Action

A clear and strong recommendation is essential

Systematically recommend appropriate age/gender cancer screening in every eligible patient.

Engage patient in share decision making

Have easily available educational materials that are adequate from the cultural and literacy perspectives

Enlist office personnel in the effort

Participate in community-based education and screening activities

Performance

Implement a physician reminder system

Establish a support system for follow-up of abnormal screening results and to manage referrals

Have a system in place for patient notification (positive and negative results); all patients should be notified, no exceptions

Feedback

Elicit feedback from patients

Have a system in place to assess cancer screening performance

Implement change based on feedback as necessary

Overcoming barriers during the clinical encounter: from theory to practice

- Patients with lack of knowledge and/or misconceptions about cancer screening
 - Never heard of screening or cancer screening
 - No perceived need for screening
 - Fatalism
 - Embarrassment

Overcoming Barriers During The Clinical Encounter: From Theory To Practice

Strategies to overcome barriers like patient's lack of knowledge and/or misconceptions about cancer or cancer screening may include:

Providing basic information and education about:
Cancer burden in patient's social and racial/ethnic group
Risk factors for the two most common cancer that may affect the particular patient
Benefits of early detection
Efficacy and safety of screening tests
Recommended frequency of screening
How and where to get screening
Available support systems for screening; financial and other

Overcoming barriers during the clinical encounter: from theory to practice

- Acceptance barriers
 - No discussion of cancer screening during encounter
 - Discomfort associated with screening
 - Cultural barriers
 - Preferring same gender screening physician

Overcoming barriers during the clinical encounter: from theory to practice

Some patients are aware of cancer screening tests; however, acceptance barriers impede screening. Strategies to overcome acceptance barriers may include:

Physicians should make discussion and recommendation of age/gender appropriate cancer screening the standard practice in every patient. Alternatively, an annual visit exclusively for cancer screening may be more appropriate in patients with multiple competing co morbidities or that need multiple tasks in each visit.

Provide culturally appropriate educational materials

Make sure that an interpreter is available when needed

Receive and provide cultural competency training to clinic staff

Refer to same gender or same culture health care provider for screening if needed

Overcoming barriers during the clinical encounter: from theory to practice

- Ability barriers
 - Lack of health insurance or inability to pay
 - Inability to pay for cancer treatment if screening is positive
 - Difficulty navigating the health care system
 - Lack of time
 - Lack of transportation
 - Low English proficiency

Overcoming Ability Barriers

Although some patients are aware of the need for cancer screening and are reminded about screening during the clinical encounter, logistics and other barriers may impede the receipt of screening tests.

Strategies to overcome ability barriers may include:

Have a list of free/low cost cancer screening programs

Recommend cancer screening routinely in all patients seen for the first time

Schedule annual visit exclusively for cancer screening

Practice opportunistic screening when appropriate

Have interpreter services available

Implement a patient reminder system

Resources available

- For a list of resources on cancer screening available for physicians go to:
- www.ethnicphysicians.org

Summary

- Cancer has surpassed heart disease as the leading cause of death in Americans younger than 85
- Although cancer related mortality has decreased, the benefits of early diagnosis are not reaching all Americans
- Multiple racial/ethnic disparities in cancer incidence, screening rates and survival have been documented

Summary

- Since physician recommendation is one of the most effective interventions to improve cancer screening rates, physicians have a central role in reducing racial/ethnic disparities in cancer screening and mortality

*Thanks to the
American Cancer Society
for their support.*