

Cancer Disparity

Satellite Conference and Live Webcast
Monday, June 17, 2013
1:00 – 3:00 p.m. Central Time

Produced by the Alabama Department of Public Health
Video Communications and Distance Learning Division

Faculty

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Objectives

- Discuss cancer disparity and some of its root causes
- Discuss cancer disparities in breast, cervical, prostate, and colorectal cancer
- Discuss avenues to address inequalities in cancer care across the continuum

Introduction

- Cancer is a major public health problem in the United States
 - Estimated that over 1.6 million new cases in 2013
 - Estimated 580,350 deaths
 - Corresponds to 1,600 deaths each day

Introduction

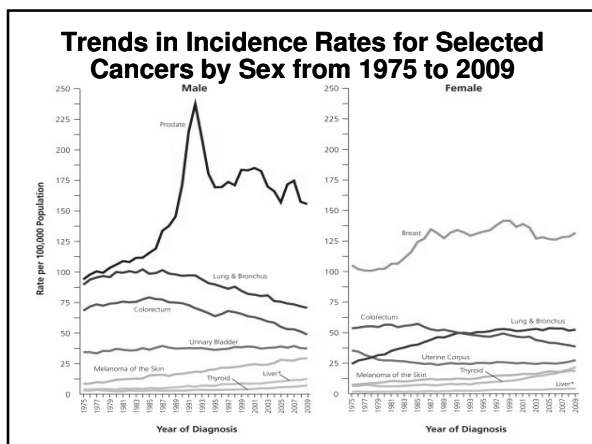
- However, substantial gains have been made:
 - Incidence rates in the most recent 5 years have decreased in males by 0.6% per year and were stable in females
 - Cancer death rates have decreased by 1.8% per year for males and 1.5% per year for females

2013 Estimated New Cases

Prostate	238,590	28%	Breast	232,340	29%
Lung & bronchus	118,080	14%	Lung & bronchus	110,110	14%
Colorectum	73,680	9%	Colorectum	69,140	9%
Urinary bladder	54,610	6%	Uterine corpus	49,560	6%
Melanoma of the skin	45,060	5%	Thyroid	45,310	6%
Kidney & renal pelvis	40,430	5%	Non-Hodgkin lymphoma	32,140	4%
Non-Hodgkin lymphoma	37,600	4%	Melanoma of the skin	31,630	4%
Oral cavity & pharynx	29,620	3%	Kidney & renal pelvis	24,720	3%
Leukemia	27,880	3%	Pancreas	22,480	3%
Pancreas	22,740	3%	Ovary	22,240	3%
All Sites	854,790	100%	All Sites	805,500	100%

2013 Estimated Deaths

Lung & bronchus	87,260	28%	Lung & bronchus	72,220	26%
Prostate	29,720	10%	Breast	59,620	14%
Colorectum	26,500	9%	Colorectum	24,530	9%
Pancreas	19,480	6%	Pancreas	18,980	7%
Liver & intrahepatic bile duct	14,890	5%	Ovary	14,030	5%
Leukemia	13,660	4%	Leukemia	10,060	4%
Esophagus	12,220	4%	Non-Hodgkin lymphoma	8,430	3%
Urinary bladder	10,620	4%	Uterine corpus	8,190	3%
Non-Hodgkin lymphoma	10,590	3%	Liver & intrahepatic bile duct	6,780	2%
Kidney & renal pelvis	8,780	3%	Brain & other nervous system	6,150	2%
All Sites	306,620	100%	All Sites	273,430	100%



The Lifetime Probability of Developing Cancer for Women, 2007- 2009*

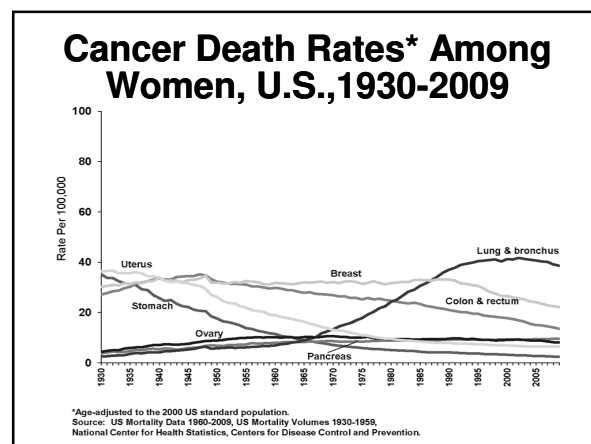
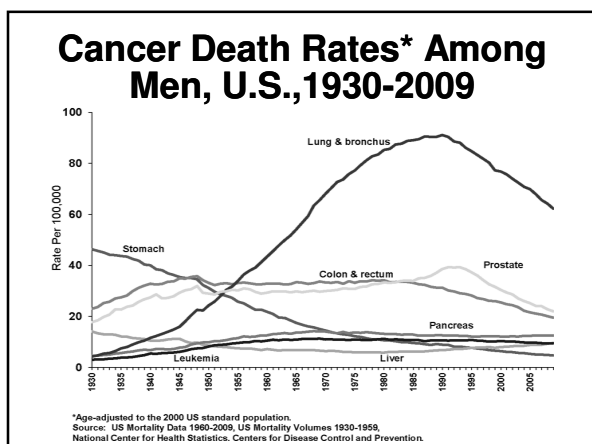
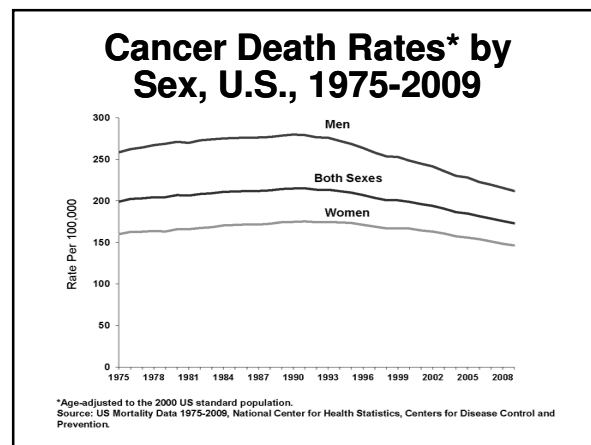
Site	Risk
All sites [†]	1 in 3
Breast	1 in 8
Lung & bronchus	1 in 16
Colon & rectum	1 in 21
Uterine corpus	1 in 38
Non-Hodgkin lymphoma	1 in 52
Urinary bladder [‡]	1 in 87
Melanoma [§]	1 in 54
Ovary	1 in 72
Pancreas	1 in 69
Uterine cervix	1 in 147

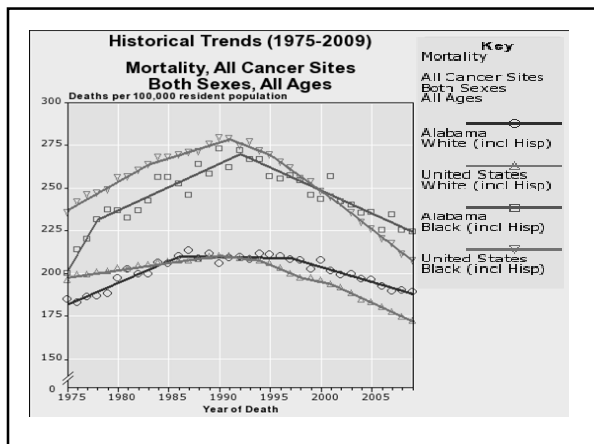
* For those free of cancer at beginning of age interval.
[†] All sites exclude basal and squamous cell skin cancers and in situ cancers except urinary bladder.
[‡] Includes invasive and in situ cancer cases.
[§] Statistic for white women.
 Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.6.1 Statistical Research and Applications Branch, National Cancer Institute, 2012.

The Lifetime Probability of Developing Cancer for Men, 2007- 2009*

Site	Risk
All sites [†]	1 in 2
Prostate	1 in 6
Lung and bronchus	1 in 13
Colon and rectum	1 in 19
Urinary bladder [‡]	1 in 26
Melanoma [§]	1 in 35
Non-Hodgkin lymphoma	1 in 43
Kidney	1 in 49
Leukemia	1 in 63
Oral Cavity	1 in 66
Stomach	1 in 92

* For those free of cancer at beginning of age interval.
[†] All sites exclude basal and squamous cell skin cancers and in situ cancers except urinary bladder.
[‡] Includes invasive and in situ cancer cases.
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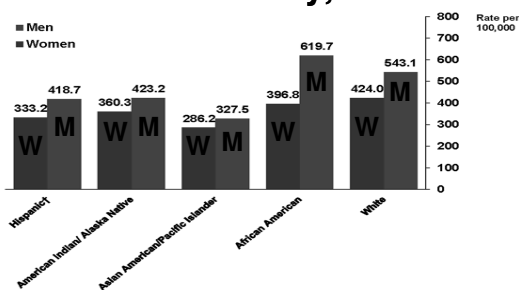
Introduction: Cancer Disparity

- The NCI defines “cancer health disparities” as “differences in the incidence, prevalence, mortality, and burden of cancer and related adverse health conditions that exist among specific population groups in the United States”

Introduction: Cancer Disparity

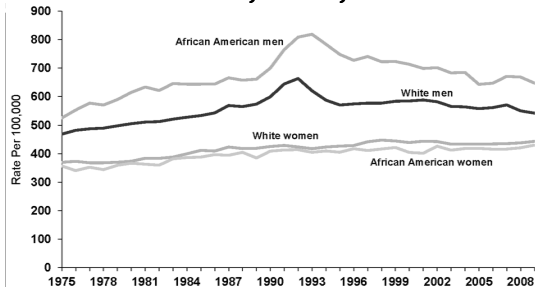
- Despite notable advances in cancer prevention, screening, and treatment, a disproportionate number of the uninsured, minorities, and other medically underserved populations are still not benefiting from such important progress

Cancer Incidence Rates* by Race and Ethnicity, 2005-2009



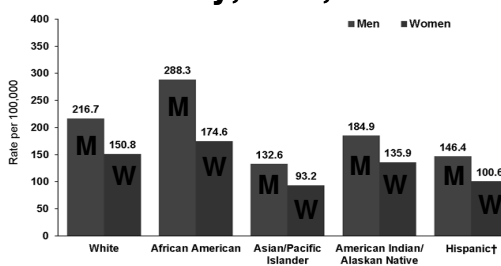
*Age-adjusted to the 2000 US standard population.
 †Persons of Hispanic origin may be of any race.

Cancer Incidence Rates* by Sex and Race, U.S., 1975-2009



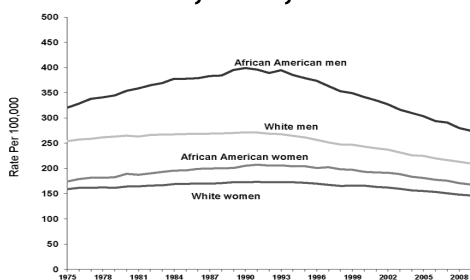
*Age-adjusted to the 2000 US standard population.
 Source: Surveillance, Epidemiology, and End Results Program, Delay-adjusted Incidence database; SEER Incidence Delay-adjusted Rates, 9 Registries, 1975-2009, National Cancer Institute, 2012.

Cancer Death Rates* by Race and Ethnicity, U.S., 2005-2009



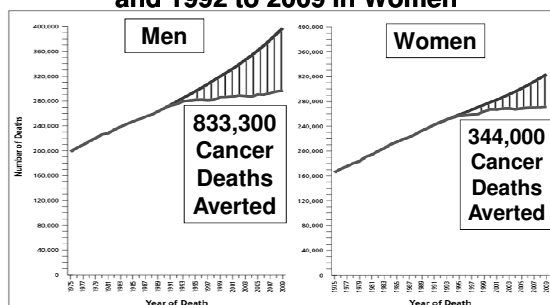
*Per 100,000, age-adjusted to the 2000 US standard population.
 †Persons of Hispanic origin may be of any race.

Cancer Death Rates* by Sex and Race, U.S., 1975-2009



*Age-adjusted to the 2000 US standard population. Source: Surveillance, Epidemiology, and End Results Program, 1975-2009, Division of Cancer Control and Population Sciences, National Cancer Institute, 2012.

Total Number of Cancer Deaths Averted from 1991 to 2009 in Men and 1992 to 2009 in Women



Blue line represents actual number of cancer deaths recorded each year and the red line represents the number of cancer deaths that would have been expected if cancer death rates had remained at their peak.

Trends in Five-year Relative Cancer Survival Rates (%), 1975-2008

Site	1975-1977	1987-1989	2002-2008
All sites	49	56	68
Breast (female)	75	84	90
Colon	51	61	65
Leukemia	34	43	58
Lung & bronchus	12	13	17
Melanoma	82	88	93
Non-Hodgkin lymphoma	47	51	71
Ovary	36	38	43
Pancreas	2	4	6
Prostate	68	83	100
Rectum	48	58	68
Urinary bladder	73	79	80

5-year relative survival rates based on patients diagnosed from 2002 to 2008, all followed through 2009. Source: SEER Cancer Statistics Review 1975-2009 (SEER 9 registries), National Cancer Institute, 2012.

Five-year Relative Cancer Survival Rates (%) by Race, 2002-2008

Site	White	African American	Absolute Difference
All Sites	66	58	8
Breast (female)	90	78	12
Colon	64	56	8
Esophagus	18	11	7
Leukemia	55	48	7
Non-Hodgkin lymphoma	69	61	8
Oral cavity	63	42	21
Prostate	100	96	4
Rectum	67	59	8
Urinary bladder	78	64	14
Uterine cervix	69	59	10
Uterine corpus*	84	60	24

5-year relative survival rates based on patients diagnosed from 2002 to 2008, all followed through 2009. *Includes uterus, NOS (not otherwise specified). Source: SEER Cancer Statistics Review 1975-2009 (SEER 18 registries), National Cancer Institute, 2012.

Disparity Across the Cancer Spectrum

- Cancer disparity exists across the cancer spectrum from screening to palliative care

Disparity Across the Cancer Spectrum

- Cancer disparity is related to a number of contributing factors related to:
 - Health care delivery
 - Patient-related / cultural factors
 - Socioeconomic factors

Disparity Across the Cancer Spectrum

- To truly address cancer disparity it will take a multi-faceted, community-wide approach

Incidence Rates of Breast Cancer Are Highest in White Women

- Per 100,000 population
 - White, non-Hispanic: 132.5
 - Hispanic: 89.3
 - African American, non-Hispanic: 118.3
 - Asian and Pacific Islander: 89
 - American Indian / Alaskan Native: 69.8

Death Rates from Breast Cancer Highest in African American Women

- Per 100,000 population
 - White, non-Hispanic: 23.4
 - Hispanic: 15
 - African American, non-Hispanic: 32.8
 - Asian and Pacific Islander: 12.2
 - American Indian / Alaskan Native: 15.2

Race / Ethnicity Affects Access to High Quality Treatment

- Compared to whites, blacks are 50% less likely to receive appropriate treatment for breast cancer
 - American Indians are 70% less likely

Race / Ethnicity Affects Access to High Quality Treatment

- Odds ratio of receiving inappropriate treatment
 - White, non-Hispanic: 1.0
 - Mexican: 1.3
 - Black, non-Hispanic: 1.5
 - Asian and Pacific Islander: 0.9
 - American Indian / Alaskan Native: 1.7

African Americans 68% More Likely than Whites to be Diagnosed with Prostate Cancer

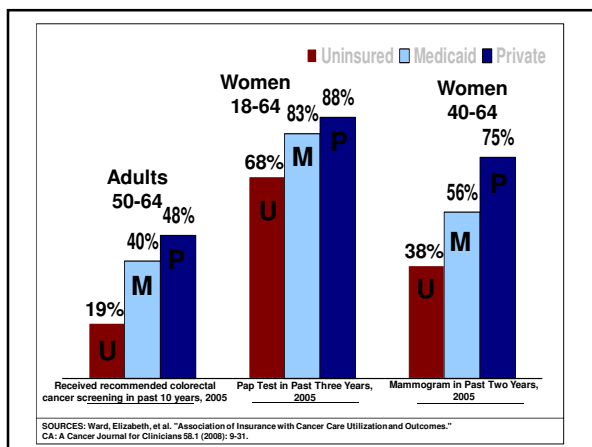
- Per 100,000 population
 - White, non-Hispanic: 161.4
 - Hispanic: 140.8
 - African American, non-Hispanic: 255.5
 - Asian and Pacific Islander: 96.5
 - American Indian / Alaskan Native: 68.2

African Americans 2.5 Times as Likely than Whites to Die of Prostate Cancer

- Per 100,000 population
 - White, non-Hispanic: 22.6
 - Hispanic: 18.5
 - African American, non-Hispanic: 53.3
 - Asian and Pacific Islander: 10.4
 - American Indian / Alaskan Native: 17.6

Having Insurance Makes a Difference

- Uninsured persons are less likely than privately insured persons to receive timely cancer screenings



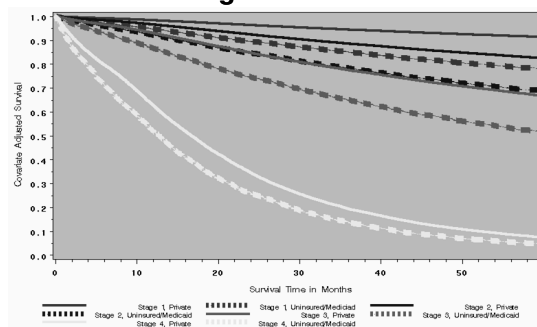
Having Health Insurance Matters

- Uninsured, publicly insured women are three times more likely to be diagnosed with a later stage of breast cancer than privately insured women

Having Health Insurance Matters

- Likelihood of being diagnosed with Stage III / IV Breast Cancer vs. Stage I Breast Cancer
 - Private Insurance: 1.0
 - Uninsured: 2.9
 - Medicaid: 2.7
 - Medicare, 65+: 1.2

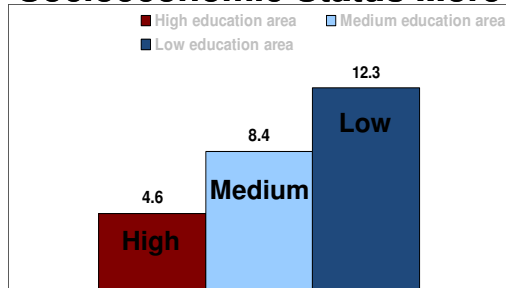
Adjusted Colorectal Cancer Survival by Stages and Insurance Status Among Patients Diagnosed in 1999 - 2000



Costs of Care Impact Persons of Lower Socioeconomic Status More

- Small co-pays for mammography are more likely to deter lower education women from receiving mammograms

Costs of Care Impact Persons of Lower Socioeconomic Status More



Breast Cancer Screening Guides

- Annual mammograms beginning at age 40
- Clinical breast exam
 - Ages 20-39 as part of a periodic health exam at least every three years
 - Ages 40+ prior to mammogram as part of a periodic health exam annually

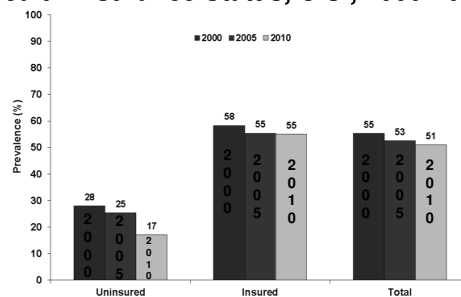
Breast Cancer Screening Guides

- Breast self-exam
 - Optional
 - Beginning in their early 20s, women should be told about the benefits and limitations of breast self-examination

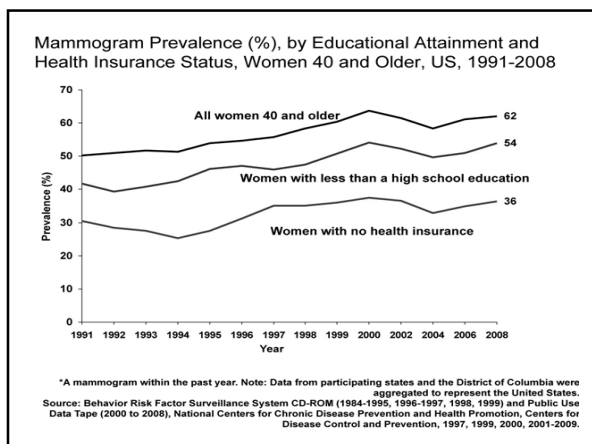
Breast Cancer Screening Guides

- Women should know how their breasts normally feel and report changes to their health care provider

Trends in Annual Mammography Use by Health Insurance Status, U.S., 2000-2010



A mammogram within the past year among women ≥ 40 years; estimates are age-adjusted to the 2000 US standard population. Source: National Health Interview Survey, National Center for Health Statistics, Centers for Disease Control and Prevention.



Cervical Cancer Screening Guidelines

- Cervical cancer screening should begin at age 21
- Preferred screening test/s and frequency vary by age:

Age	Frequency	Test
21-29	Every 3 years	Pap test*
30-65†	Every 5 years	HPV and Pap tests

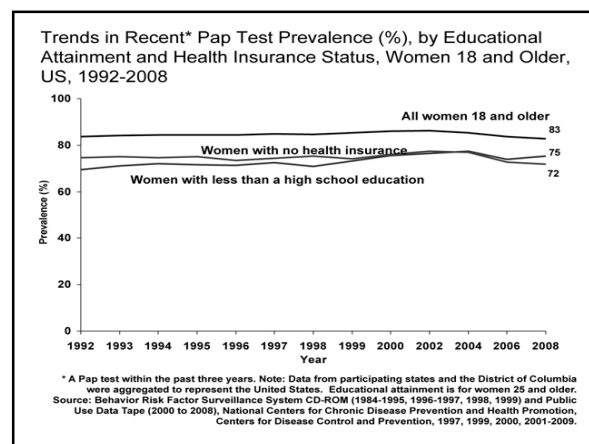
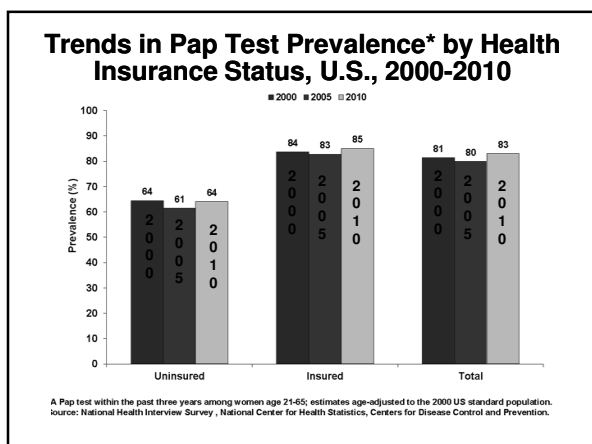
* Conventional or liquid-based test
† Every 3 years with the Pap test alone is acceptable

Cervical Cancer Screening Guidelines

- Women should stop screening:
 1. At age 66 with adequate negative prior screening
 - ≥ 3 consecutive negative Pap tests within 10 years
 - Most recent within 5 years OR

Cervical Cancer Screening Guidelines

- ≥ 2 consecutive negative HPV and Pap tests within 10 years
 - Most recent within 5 years
- 2. After hysterectomy



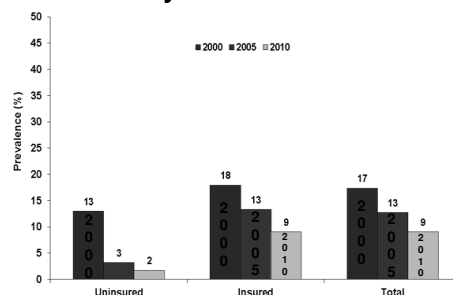
Colorectal Cancer Screening Guidelines*

- Beginning at age 50, men and women should follow one of the following examination schedules:

Test	Time Interval
Fecal occult blood test	Annual
Flexible sigmoidoscopy	5 years
Double contrast barium enema	5 years
Colonoscopy	10 years
CT Colonography	5 years

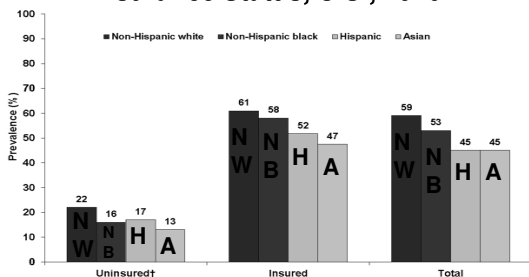
* For people at average risk; individuals at higher risk should talk with a doctor about a different testing schedule

Trends in Prevalence of Fecal Occult Blood Test* by Health Insurance Status



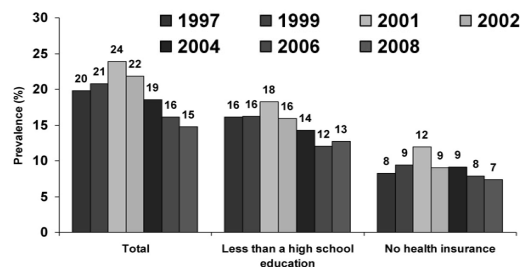
*A fecal occult blood test in the past year among adults ≥ 50 years; estimates age-adjusted to the 2000 US standard population. Source: National Health Interview Survey, National Center for Health Statistics, Centers for Disease Control and Prevention.

Flexible Sigmoidoscopy or Colonoscopy Prevalence* by Race / Ethnicity and Health Insurance Status, U.S., 2010



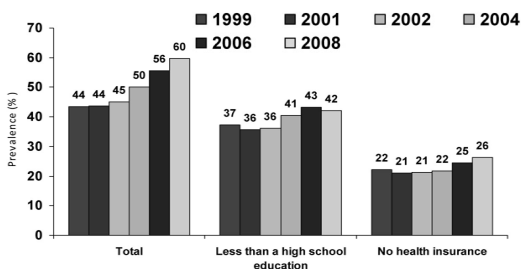
* A sigmoidoscopy within five years or a colonoscopy within 10 years among adults ≥ 50; estimates age-adjusted to the 2000 US standard population. Source: National Health Interview Survey, National Center for Health Statistics, Centers for Disease Control and Prevention.

Trends in Recent* Fecal Occult Blood Test Prevalence (%), by Educational Attainment and Health Insurance Status, Adults 50 Years and Older, US, 1997-2008



*A fecal occult blood test within the past year. Note: Data from participating states and the District of Columbia were aggregated to represent the United States. Source: Behavior Risk Factor Surveillance System CD-ROM (1984-1995, 1996-1997, 1998, 1999) and Public Use Data Tape (2000 to 2008), National Centers for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 1997, 1999, 2000, 2001-2008.

Trends in Recent* Flexible Sigmoidoscopy or Colonoscopy Prevalence (%), by Educational Attainment and Health Insurance Status, Adults 50 Years and Older, US, 1997-2008

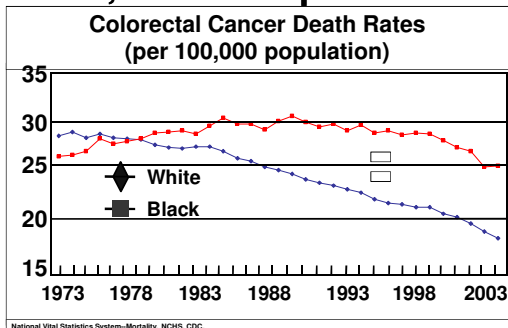


*A flexible sigmoidoscopy or colonoscopy within the past ten years. Note: Data from participating states and the District of Columbia were aggregated to represent the United States. Source: Behavior Risk Factor Surveillance System CD-ROM (1984-1995, 1996-1997, 1998, 1999) and Public Use Data Tape (2000 to 2008), National Centers for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 1997, 1999, 2000, 2001-2009.

Despite Progress Fighting Cancer, Racial Disparities Grow

- The difference in black and white colorectal cancer death rates is almost 50 times larger than in 1978

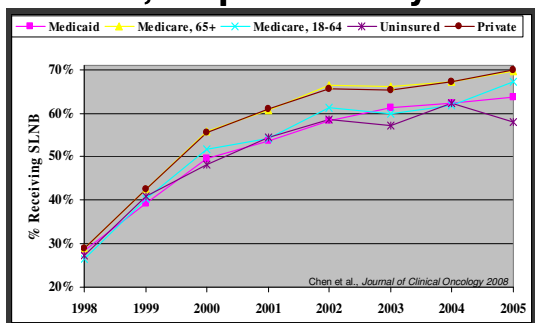
Despite Progress Fighting Cancer, Racial Disparities Grow



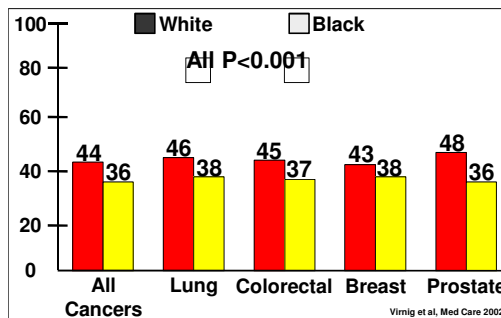
As New Treatment Technology Is Used, Disparities May Grow

- Disparities in the receipt of sentinel node lymph biopsy by insurance status have grown as the technology has become more popular

As New Treatment Technology Is Used, Disparities May Grow



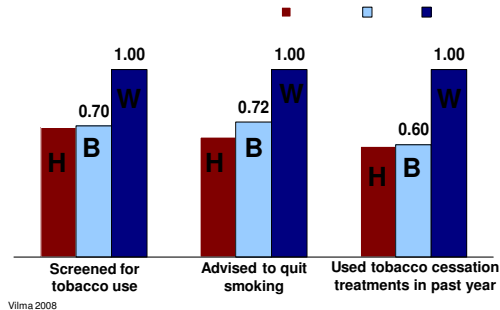
Blacks Less Likely to Use Hospice Prior to Death from Cancer

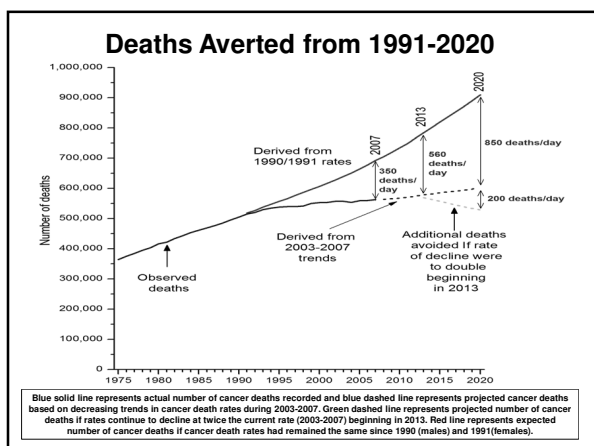
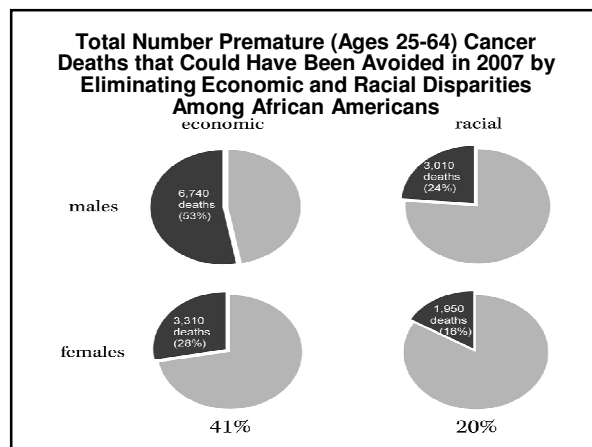
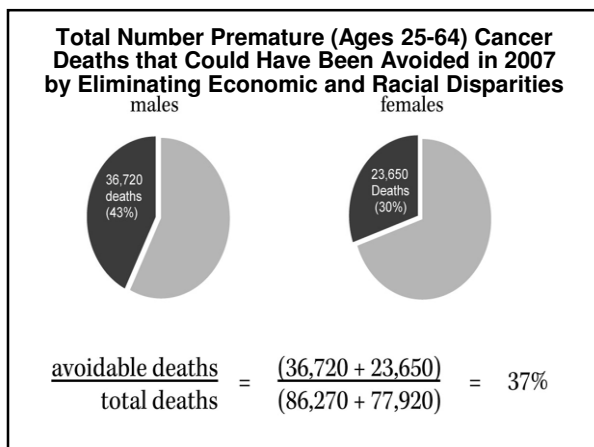
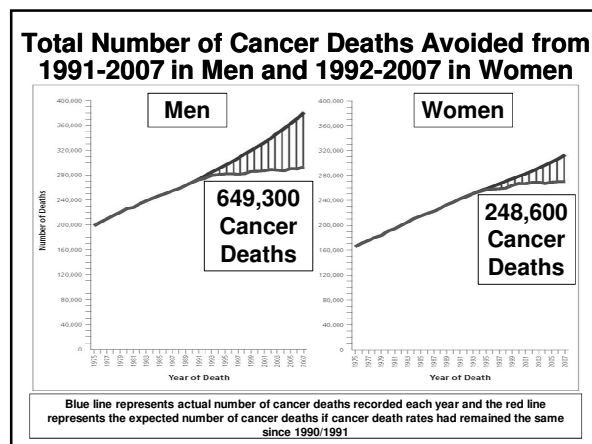
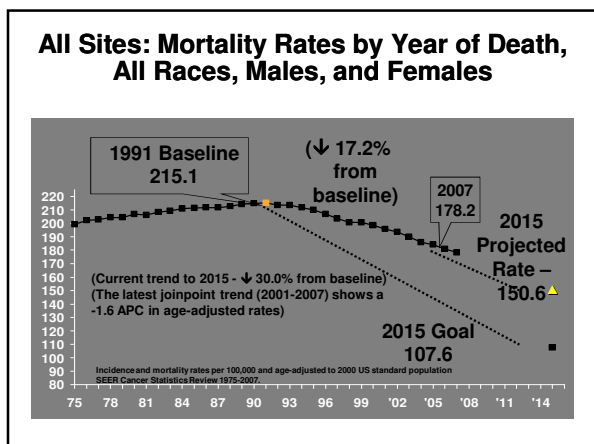


Healthcare Providers Can Make a Difference

- Racial and ethnic minorities are less likely to be advised to quit smoking

Healthcare Providers Can Make a Difference





Cancer Disparity

- The consequences of cancer disparities is that cancers are more often diagnosed at later stages when the severity is likely to be greater and options for treatment, as well as the odds of survival, are decreased

Cancer Disparity

- Thus, eliminating disparities in cancer screening, diagnosis, treatment, and mortality is an essential step toward improved health outcomes for all Americans with cancer

Cancer Disparity

- We cannot hope to address the differences in the burden of cancer in these populations without creative public health interventions that seek to overcome the financial, cultural, geographic, and educational barriers to care

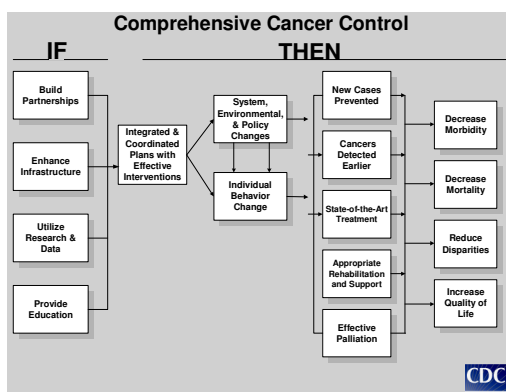
Comprehensive Cancer Control

- Integrated and coordinated approach to reduce cancer incidence, morbidity, and mortality



Comprehensive Approaches to Cancer Control

- Science data or evidence-based agenda
- Infrastructure support
- Horizontal planning
- Diverse partnerships
- Planned dissemination / institutionalization



Addressing Cancer Disparity

- The consequences of cancer disparities is that cancers are more often diagnosed at later stages when the severity is likely to be greater and options for treatment, as well as the odds of survival, are decreased

Addressing Cancer Disparity

- **Have to address some of the root causes**
 - **Persistent inequalities in access to care**
 - **Socioeconomic barriers**
 - **Cultural barriers**
 - **Language barriers**

Addressing Cancer Disparity

- **Educational barriers**
- **Unhealthy environments**
- **Racial discrimination**

Areas to Address

- **Acknowledge that cancer disparities exist**
- **Provide access to care via affordable insurance for all and adequate funding and infrastructure support to institutions**

Areas to Address

- **Address barriers to screening by fully funding the National BCCEDP and state programs**
- **Provide culturally appropriate cancer education to patients**
- **Provide funding for patient navigator services to increase screening and follow-up**

Areas to Address

- **Cultural sensitivity training to medical providers and accountability for care**
- **Building partnership with stakeholders**

Alabama Department of Public Health

- **Breast and Cervical Cancer Early Detection Program (ABCCEDP)**
- **FITway**
 - **Colorectal cancer screening**

Alabama Department of Public Health

- **Collaboration with community partners:**
 - **Alabama Comprehensive Cancer Control Coalition**
 - **University of South Alabama Mitchell Cancer Institute**
 - **Joy to Life**
 - **American Cancer Society**

Conclusion

- **Eliminating disparities in cancer screening, diagnosis, treatment, and mortality is an essential step toward improved health outcomes for all Americans with cancer**

Conclusion

- **Reducing cancer disparities can be achieved by:**
 - **Instituting cost-effective public health programs that promote overall wellness and save lives**
 - **Developing community partnerships that allows for cost-sharing and benefit across the healthcare spectrum**

Thank you!