COLON CANCER SCREENING AND MINORITY HEALTH

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ACOI Annual Scientific Convention 2016

Outline

- Facts and Figures
- 2016 Recommended Colon Cancer Screening Guidelines
  - US Preventive Services Task Force Recommendation Statement June 2016
- Barriers to Screening
- Solution

Facts and Figures

- **Colorectal cancer is the SECOND leading cause of cancer death in the United States**
- Fourth most common type of cancer affecting men and women (breast, lung, prostate)
- 2016 estimates:
  - 134,000 will be diagnosed
  - 49,000 will die
- Colorectal cancer is most frequently diagnosed among adults 65-74y; median age at death is 68y
- SCREENING SAVES LIVES!

Colon Cancer At-A-Glance*

Colon cancer is the second leading cause of cancer-related death in the U.S.

On average, your risk is about 1 in 20, although this varies widely according to individual risk factors.

50+

90% of new cases occur in people 50 or older.

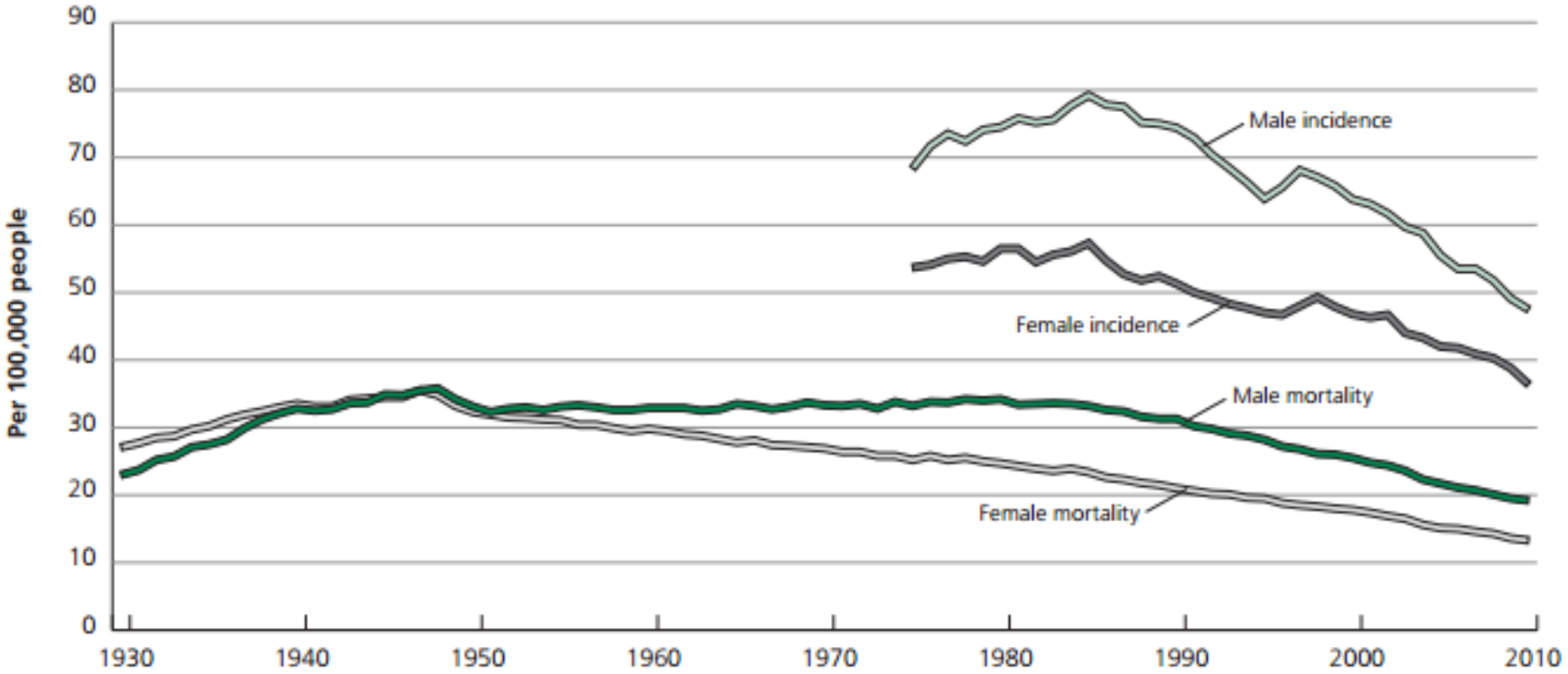
People with a first-degree relative (parent, sibling or offspring) who has colon cancer have two to three times the risk of developing the disease.

There are currently more than one million colon cancer survivors in the U.S.

*Source: American Cancer Society

Facts and Figures

Figure 4. Trends in Colorectal Cancer Incidence and Death Rates by Sex, US, 1930-2010



Rates were age adjusted to the 2000 US standard population. Incidence rates were adjusted for delays in reporting. Due to changes in International Classification of Diseases (ICD) coding for mortality, numerator information has changed over time.

Source: Incidence - Surveillance, Epidemiology, and End Results (SEER) Program, SEER 9 registries, National Cancer Institute, 2013.
Mortality - US Mortality Volumes 1930 to 1959, US Mortality Data 1960-2010, National Center for Health Statistics, Centers for Disease Control and Prevention, 2013.

American Cancer Society, Surveillance Research, 2014

Facts and Figures - Incidence

MEN	Rates per 100,000	WOMEN	Rates per 100,000
African American	63.8	African American	47.6
American Indian	51.7	American Indian	42.7
White	50.9	White	38.6
Hispanic	47.3	Hispanic	32.6
Asian	40.8	Asian	31.0
TOTAL	51.7	TOTAL	39.1

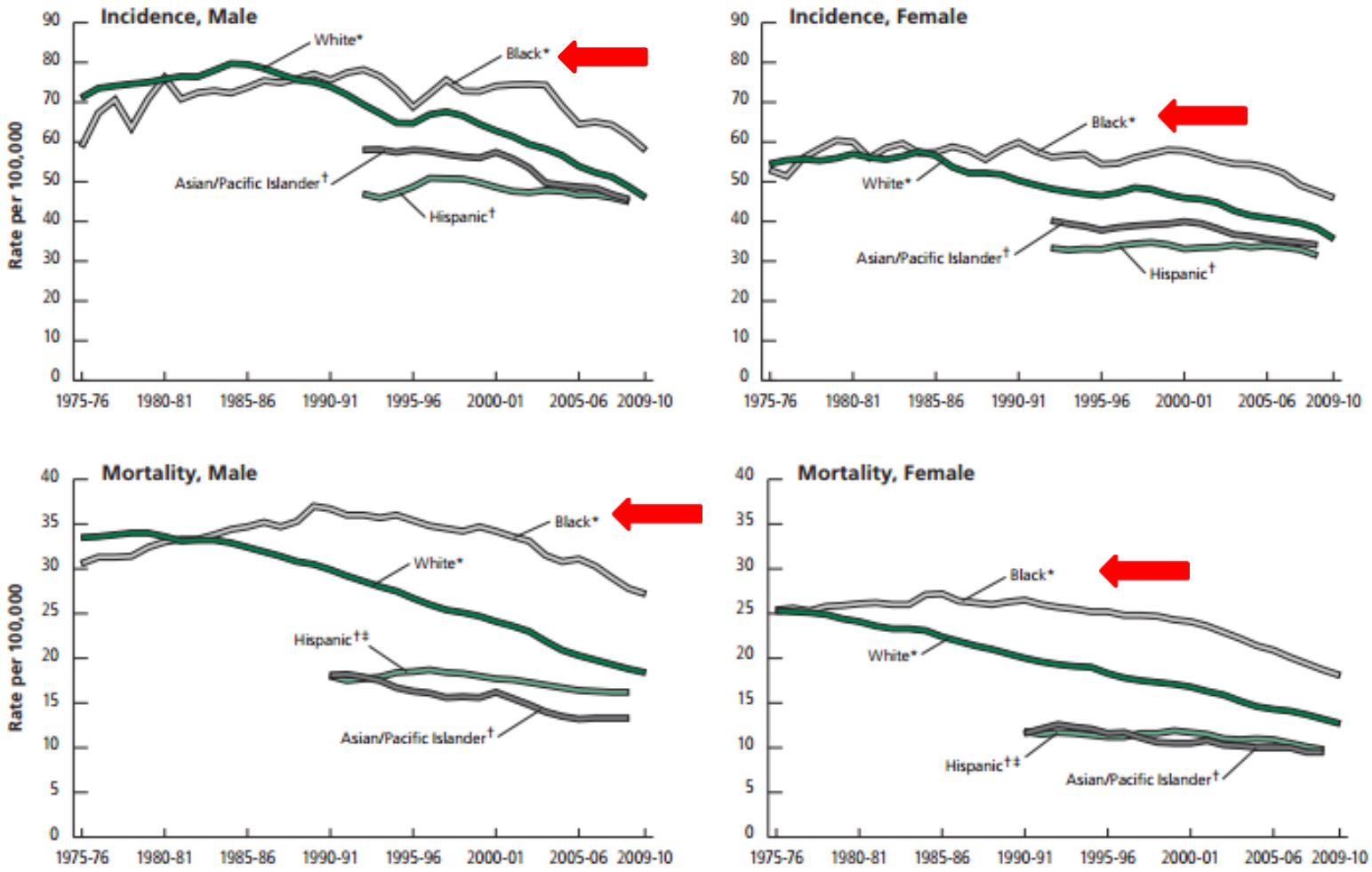
American Cancer Society. 4th ed. *Colorectal Cancer Facts & Figures:2014-2016*

Facts and Figures - Mortality

MEN	Rates per 100,000	WOMEN	Rates per 100,000
African American	29.4	African American	19.4
White	19.2	American Indian	15.4
American Indian	18.7	White	13.6
Hispanic	16.1	Hispanic	10.2
Asian	13.1	Asian	9.7
TOTAL	19.6	TOTAL	13.9

American Cancer Society. 4th ed. *Colorectal Cancer Facts & Figures:2014-2016*

Figure 5. Trends in Colorectal Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex, 1975-2010



Trends for American Indians/Alaska Natives are not included due to sparse data. Rates are per 100,000 and age adjusted to the 2000 US standard population. *Rates are two-year moving averages. †Rates are three-year moving averages. ‡Rates exclude deaths from Connecticut, District of Columbia, Louisiana, Maine, Maryland, Minnesota, Mississippi, New Hampshire, New York, North Dakota, Oklahoma, South Carolina, Vermont, and Virginia due to incomplete ethnicity data.

Source: Incidence - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute. Mortality - National Center for Health Statistics, Centers for Disease Control and Prevention, 2013.

American Cancer Society, Surveillance Research, 2014

CRC:
American College of Gastroenterology

- Colonoscopy, beginning at age 50 and performed every 10 years, is the “preferred” screening test for colorectal cancer. They recommend that physicians first offer this test alone rather than a menu of options

- However, if patients are not willing to have a colonoscopy, they support offering:
  - Preferably, a cancer prevention test: Either flexible sigmoidoscopy every 5 to 10 years or CT colonography every 5 years
  - A test primarily for cancer detection: Preferred test is fecal immunohistochemical test for blood (FIT)

- They further recommend that African Americans begin testing at 45 rather than 50

Rex, et al. Am J Gastroenterol 2009;104:739–750

CRC Changes from 2000 Guidelines American College of Gastroenterology

Screening tests are divided into cancer prevention and cancer detection tests. Cancer prevention tests are preferred over tests that primarily detect colorectal cancer.

- Screening is recommended for African Americans beginning at age 45.
- CT colonography every 5 years replaces double contrast barium enema as the radiology screening alternative when patients decline colonoscopy.
- FIT (fecal immunohistochemical testing) replaces older guaiac-based fecal occult blood testing. FIT is the preferred cancer detection test.
- Annual Hemoccult SENSA and fecal DNA testing every three years are alternative cancer detection tests.
- A family history of only small tubular adenomas in first-degree relatives (parents, children, siblings) is not considered to increase the risk of colorectal cancer.
- Individuals with a single first-degree relative with colorectal cancer or advanced adenomas diagnosed at age 60 or older can be screened like average risk people.

Rex, et al. Am J Gastroenterol 2009;104:739–750

Recommended Colon Cancer Screening

- US Preventive Services Task Force Recommendation Statement June 2016
- Risk:
  - Average (no personal or family hx)- age 50
  - High (personal and/or family hx)- age 40 or 10y prior to 1st degree family member dx
  - Symptoms- any age
- CRC Screening start at age 50y, continue to age 75y
- Individualized decision for ages 76-85y, and those at high risk or with symptoms
- African Americans start at age 45y (American College of Gastroenterology)

JAMA. 2016;315(23):2564-2575.
doi:10.1001/jama.2016.5989.

Risk Factors

Table 2. Summary of Selected Risk Factors for Colorectal Cancer

	Relative Risk*
Factors that increase risk:	
Heredity and Medical History	
Family history	
1 first-degree relative[43]	2.2
more than 1 relative[43]	4.0
relative with diagnosis before age 45[44]	3.9
Inflammatory bowel disease† [62]	
Crohn disease (colon)	2.6
Ulcerative colitis	
colon	2.8
rectum	1.9
Diabetes[42]	1.2
Behavioral factors[42]	
Alcohol consumption (heavy vs. nondrinkers)	1.6
Obesity	1.2
Red meat consumption	1.2
Processed meat consumption	1.2
Smoking (current vs. never)	1.2
Factors that decrease risk:	
Physical activity (colon)[73]	0.7
Dairy consumption[87]	0.8
Fruit consumption[85]	0.9
Vegetable consumption[85]	0.9
Total dietary fiber (10 g/day)[84]	0.9

*Relative risk compares the risk of disease among people with a particular "exposure" to the risk among people without that exposure. Relative risk for dietary factors compares the highest with the lowest consumption. If the relative risk is more than 1.0, then risk is higher among exposed than unexposed persons. Relative risks less than 1.0 indicate a protective effect.

†Several recent, small studies indicate that current risk may be lower due to improvements in treatment and the use of colonoscopy screening to detect precancerous lesions.

American Cancer Society. 4th ed. *Colorectal Cancer Facts & Figures:2014-2016*

CRC Screening Tests

Table. Characteristics of Colorectal Cancer Screening Strategies[a]

Screening Method	Frequency[b]	Evidence of Efficacy	Other Considerations
Stool-Based Tests			
gFOBT	Every year	RCTs with mortality end points: High-sensitivity versions (eg, Hemoccult SENSA) have superior test performance characteristics than older tests (eg, Hemoccult II)	Does not require bowel preparation, anesthesia, or transportation to and from the screening examination (test is performed at home)
FIT[c]	Every year	Test characteristic studies: Improved accuracy compared with gFOBT Can be done with a single specimen	Does not require bowel preparation, anesthesia, or transportation to and from the screening examination (test is performed at home)
FIT-DNA	Every 1 or 3 y[d]	Test characteristic studies: Specificity is lower than for FIT, resulting in more false-positive results, more diagnostic colonoscopies, and more associated adverse events per screening test Improved sensitivity compared with FIT per single screening test	There is insufficient evidence about appropriate longitudinal follow-up of abnormal findings after a negative diagnostic colonoscopy; may potentially lead to overly intensive surveillance due to provider and patient concerns over the genetic component of the test

JAMA. 2016;315(23):2564-2575

CRC: Direct Visualization Tests

Direct Visualization Tests			
Colonoscopy[a]	Every 10 y	Prospective cohort study with mortality end point	Requires less frequent screening Screening and diagnostic follow-up of positive findings can be performed during the same examination
CT colonography[a]	Every 5 y	Test characteristic studies	There is insufficient evidence about the potential harms of associated extracolonic findings, which are common
Flexible sigmoidoscopy	Every 5 y	RCTs with mortality end points: Modeling suggests it provides less benefit than when combined with FIT or compared with other strategies	Test availability has declined in the United States
Flexible sigmoidoscopy with FIT[c]	Flexible sigmoidoscopy every 10 y plus FIT every year	RCT with mortality end point (subgroup analysis)	Test availability has declined in the United States Potentially attractive option for patients who want endoscopic screening but want to limit exposure to colonoscopy

JAMA. 2016;315(23):2564-2575

Stool Tests (Low-sensitivity stool tests, such as single-sample FOBT done in the doctor's office or toilet bowl tests, are not recommended)

High-Sensitivity Guaiac-based Fecal Occult Blood Test (FOBT)

• No bowel preparation • Sampling is done at home • Low cost • Noninvasive	**Performance:** Intermediate for cancer **Complexity:** Low	• Requires multiple stool samples • Will miss most polyps • May produce false-positive test results • Pre-test dietary limitations • Slightly more effective when combined with a flexible sigmoidoscopy every five years • Colonoscopy necessary if abnormalities are detected	Annual

Fecal Immunochemical Test (FIT)

• No bowel preparation • Sampling is done at home • Low cost • Noninvasive	**Performance:** Intermediate for cancer **Complexity:** Low	• Requires multiple stool samples • Will miss most polyps • May produce false-positive test results • Slightly more effective when combined with a flexible sigmoidoscopy every five years • Colonoscopy necessary if abnormalities are detected	Annual

Stool DNA Test

• No bowel preparation • Sampling is done at home • Requires only a single stool sample • Noninvasive	**Performance:** Intermediate for cancer **Complexity:** Low	• Will miss most polyps • High cost compared to other stool tests • New technology with uncertain interval between testing • Colonoscopy necessary if abnormalities are detected	Uncertain

*Complexity involves patient preparation, inconvenience, facilities and equipment needed, and patient discomfort.

American Cancer Society. 4th ed. *Colorectal Cancer Facts & Figures:2014-2016*

Table 3. Considerations When Deciding with Your Doctor Which Test Is Right for You:

Benefits	Performance & Complexity*	Limitations	Test Time Interval
Structural Exams			
Flexible Sigmoidoscopy			
• Fairly quick • Few complications • Minimal bowel preparation • Does not require sedation or a specialist	**Performance:** High for rectum & lower one-third of the colon **Complexity:** Intermediate	• Views only one-third of colon • Cannot remove large polyps • Small risk of infection or bowel tear • Slightly more effective when combined with annual fecal occult blood testing • Colonoscopy still needed if abnormalities are detected • Limited availability	5 years
Colonoscopy			
• Examines entire colon • Can biopsy and remove polyps • Can diagnose other diseases • Required for abnormal results from all other tests	**Performance:** Highest **Complexity:** Highest	• Full bowel preparation needed • Can be expensive • Sedation of some kind usually needed, necessitating a chaperone to return home • Patient may miss a day of work. • Highest risk of bowel tears or infections compared with other tests	10 years
Double-contrast Barium Enema			
• Can usually view entire colon • Few complications • No sedation needed	**Performance:** High (for large polyps) **Complexity:** High	• Full bowel preparation needed • Some false positive test results • Cannot remove polyps or perform biopsies • Exposure to low-dose radiation • Colonoscopy necessary if abnormalities are detected • Very limited availability	5 years
Computed Tomographic Colonography			
• Examines entire colon • Fairly quick • Few complications • No sedation needed • Noninvasive	**Performance:** High (for large polyps) **Complexity:** Intermediate	• Full bowel preparation needed • Cannot remove polyps or perform biopsies • Exposure to low-dose radiation • Colonoscopy necessary if abnormalities are detected • Not covered by all insurance plans	5 years

American Cancer Society. 4th ed. *Colorectal Cancer Facts & Figures:2014-2016*

Table 4. Colorectal Cancer Screening (%) among Adults Age 50 and Older in the US, 2010

	FOBT*	Endoscopy†	Either FOBT or Endoscopy‡
Gender			
Men	9.0	57.4	60.2
Women	8.6	55.6	58.3
Age (years)			
50-64	8.0	52.3	55.2
65+	9.7	61.2	63.7
Race/Ethnicity			
White (non-Hispanic)	9.2	58.5	61.5
Black (non-Hispanic)	8.4	53.0	55.5
Asian§	6.9	44.5	45.9
American Indian/ Alaskan Native¶	6.1	46.5	48.1
Hispanic/Latino	5.6	45.3	47.0
Education (years)			
11 or fewer	5.8	42.1	43.9
12	6.8	51.9	54.2
13 to 15	11.0	59.5	63.1
16 or more	10.4	66.7	69.2
Health Insurance			
Yes	9.2	59.4	62.2
No	1.6	17.8	18.8
Immigration			
Born in US	9.2	58.0	60.9
Born in US Territory	4.7	53.3	55.6
In US less than 10 years	1.7	24.1	25.3
In US 10 years or more	6.5	46.5	48.4
Total	**8.8**	**56.4**	**59.1**

Percentages are age adjusted to the 2000 US standard population.

Note: The 2010 estimate for endoscopy and combined FOBT/endoscopy cannot be compared to estimates from 2008 and prior because of changes in questions assessing endoscopy use.

Source: National Health Interview Survey Public Use Data File 2010, National Center for Health Statistics, Centers for Disease Control and Prevention.

CRC Screening

YEAR	5 YEAR SURVIVAL %
1975	48.6
1985	58.0
1995	59.7
2007	66.5

SEER 9 Incidence and US Mortality 1975-2012

Barriers to Screening among Minorities

- Health Literacy
  - Not informed about colon cancer and importance of screening
- Low income individuals
  - Fear of cost
- Lack of access to healthcare
  - Rural areas
  - Lack of health insurance
  - Access/Scheduling
- Language and culture
- Differences in provider and patient testing preferences

Patient Reported Barriers to Screening

• Fear	10.1%
• Lack of knowledge	7.9%
• Bowel prep	7.9%
• Pain	7.6%
• Cost	6.0%
• Afraid of results	5.4%
• Fear of procedure	4.4%
• Time	4.4%
• Embarrassment	4.1%
• Lack of symptoms	4.1%

Jones et al. Patient-reported barriers to colorectal cancer screening: a mixed-methods analysis. Am J Prev Med. 2010 May; 38(5):508-516

Solution

- Personal v Automated Phone Call Reminders
- Reaching the Patient
- Reaching the Provider
- Photo Booklet – easy to understand
- Multimedia
  - Physician EMR
  - Patient Education
- Culturally targeted patient navigator
- Peer navigation: patients helping patients

Solution

Recent progress in policies and legislation related to colorectal cancer screening

On March 23, 2010, Congress passed and the president signed health care reform legislation, which included approximately 160 provisions that will meaningfully improve the health care system for cancer patients. Many of those provisions will help colorectal cancer patients and give greater access to colorectal cancer screening and treatment. For example:

- Ensure that individuals with a history of colorectal cancer are no longer denied coverage because of a pre-existing condition.
- Prohibit the sudden discontinuation of coverage because a patient is diagnosed with colorectal cancer or another health condition.
- Prohibit the use of annual dollar limits on coverage and lifetime limits that leave cancer patients without coverage.
- Require that all commercial health insurance plans cover colorectal cancer screening tests (fecal occult blood testing, sigmoidoscopy, or colonoscopy) for all adults beginning at age 50 and continuing until age 75.
- Ensure that colorectal cancer screening tests, except when a polyp is removed during a screening colonoscopy, are administered at no cost to patients in the Medicare program. (Patients can be charged a co-pay if a polyp is removed during a screening colonoscopy.)
- Create a national prevention and public health fund to expand and sustain national investment in prevention and public health programs, including health screenings

American Cancer Society. 4th ed. *Colorectal Cancer Facts & Figures:2014-2016*

Solution

- In February 2013, the federal government issued an important clarification on preventive screening benefits under the Affordable Care Act.
- Patients with private insurance will no longer be liable for cost sharing when a precancerous colon polyp is removed during screening colonoscopy.
- This ensures that colorectal cancer screening is available to privately insured patients at no additional cost, as intended by the new healthcare law.
- Patients with Medicare coverage must still pay a coinsurance when a polyp is removed as a result of the screening colonoscopy.

www.congress.gov

Solution – in the works

- Removing Barriers to Colorectal Cancer Screening Act of 2015
- This bill amends title XVIII (Medicare) of the Social Security Act to waive coinsurance for colorectal cancer screening tests (in order to cover 100% of their cost under Medicare part B [Supplementary Medical Insurance Benefits for the Aged and Disabled]), regardless of the code billed for a diagnosis as a result of a test, or for the removal of tissue or other procedure furnished in connection with, as a result of, and in the same clinical encounter as the screening test.

US Representative Charlie Dent (R-PA) and US Senator Sherrod Brown (OH)

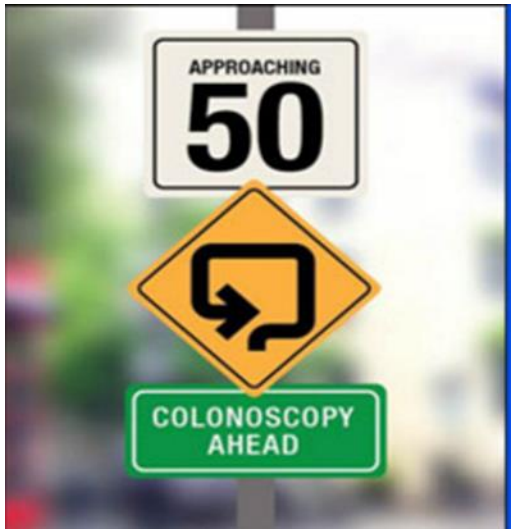
www.congress.gov

Solution – in the works

- Benefits of the Removing Barriers to Colorectal Cancer Screening Act of 2015 include:
  - Lifting a financial burden for people living on a fixed income, allowing men and women on Medicare to receive these important screenings without risking coinsurance
  - Increasing screening rates and reducing the incidence of colorectal cancer

Solution

- CDC Colorectal Cancer Program
- American Cancer Society-Cancer Action Network
- NCCRT (National Colorectal Cancer Round Table)
  - Goal of 80% by 2018



The National Colorectal Roundtable

The National Colorectal Cancer Roundtable (NCCRT) is a coalition of more than 70 public, private, and voluntary organizations, led by the American Cancer Society and the Centers for Disease Control and Prevention, whose mission is to advance colorectal cancer control efforts by improving communication, coordination, and collaboration among health agencies, medical-professional organizations, and the public.

The ultimate goal of the Roundtable is to increase the use of colorectal cancer screening tests among the population for whom screening is recommended. It serves as a forum for communication and developing consensus in order to advance key initiatives that can address gaps and create opportunities to improve cancer screening. Once the Roundtable identifies a key issue, it leverages the talents of the members to conduct studies, create tools, and identify emerging issues that can advance colorectal cancer control efforts. While the Roundtable focuses on colorectal cancer control, many of the initiatives, tools, and evidence-based interventions developed by the coalition can easily be adapted to inform a broad array of cancer control activities.

Recent initiatives include:

- Partnering with Patient Centered Primary Care Collaborative to increase cancer screening in the patient centered medical home
- Collaborating with the National Association of Community Health Centers to implement strategies that increase colorectal cancer screening for the vulnerable populations served by these facilities
- Developing the signature guide: *How to Increase Colorectal Cancer Screening Rates in Practice: A Primary Care Clinician's Evidence-Based Toolbox and Guide*
- Promoting collaborative efforts to improve the quality of screening colonoscopy
- Developing a March Colorectal Cancer Awareness Month marketing kit
- Commissioning research to assess state-by-state Medicaid coverage of preventive services published in *Health Affairs*
- Developing a colorectal cancer evaluation tool kit that includes template evaluation materials in both English and Spanish and conducts evaluation training

In short, the National Colorectal Cancer Roundtable and its partners work together to unify and magnify efforts around colorectal cancer. In this way, it maximizes limited resources, pools talent, and strengthens the collective energy behind CDC strategic priorities for increasing colorectal cancer screening.


HOPE
COLON CANCER AWARENESS

An Amazing Problem
Prostate Cancer & American Black Men

Watson Ducatel D.O., M.P.H.

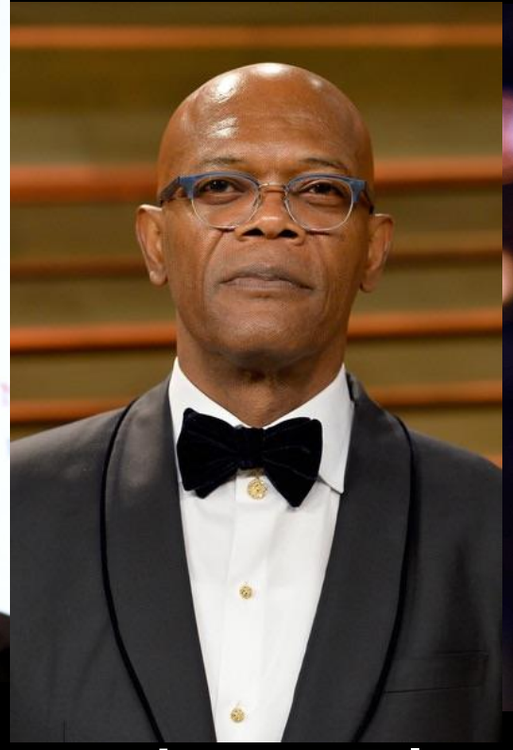
Most common diagnosed tumor in U.S. Men except for non melanoma skin cancer.

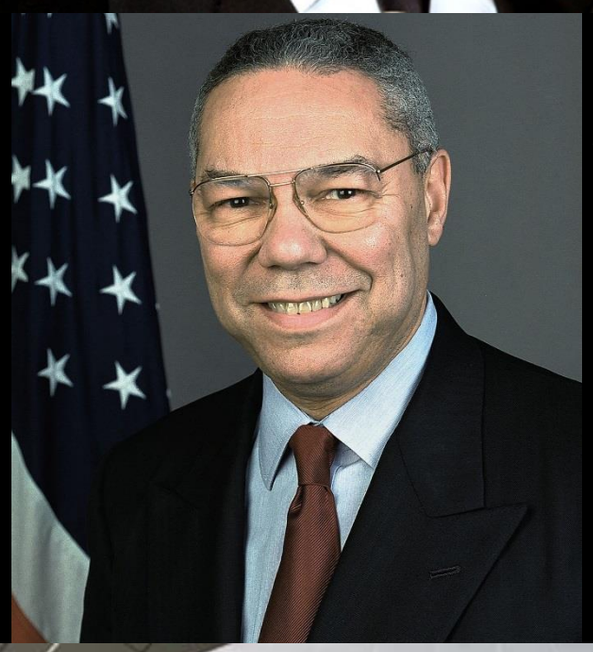
Second leading cause of cancer death in men in the U.S.

86% of the new cases between 2009-2013 were in men 55-84.

In the United States, it's estimated there will be 180,890 new cases and 26,120 deaths in 2016.

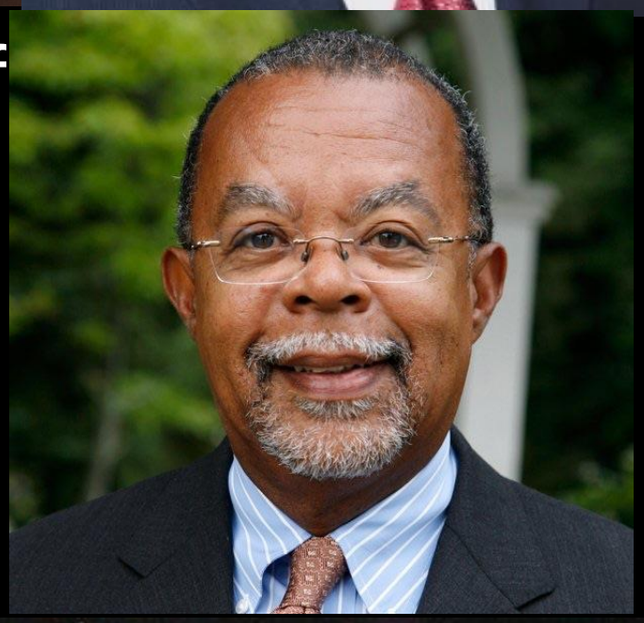
An estimated 1 in 7 men in the U.S. will have prostrate cancer in their lifetime.





American Black men have one of the highest incidence of prostate cancer in the world!

Incidence rate is more than 1.7 times higher.

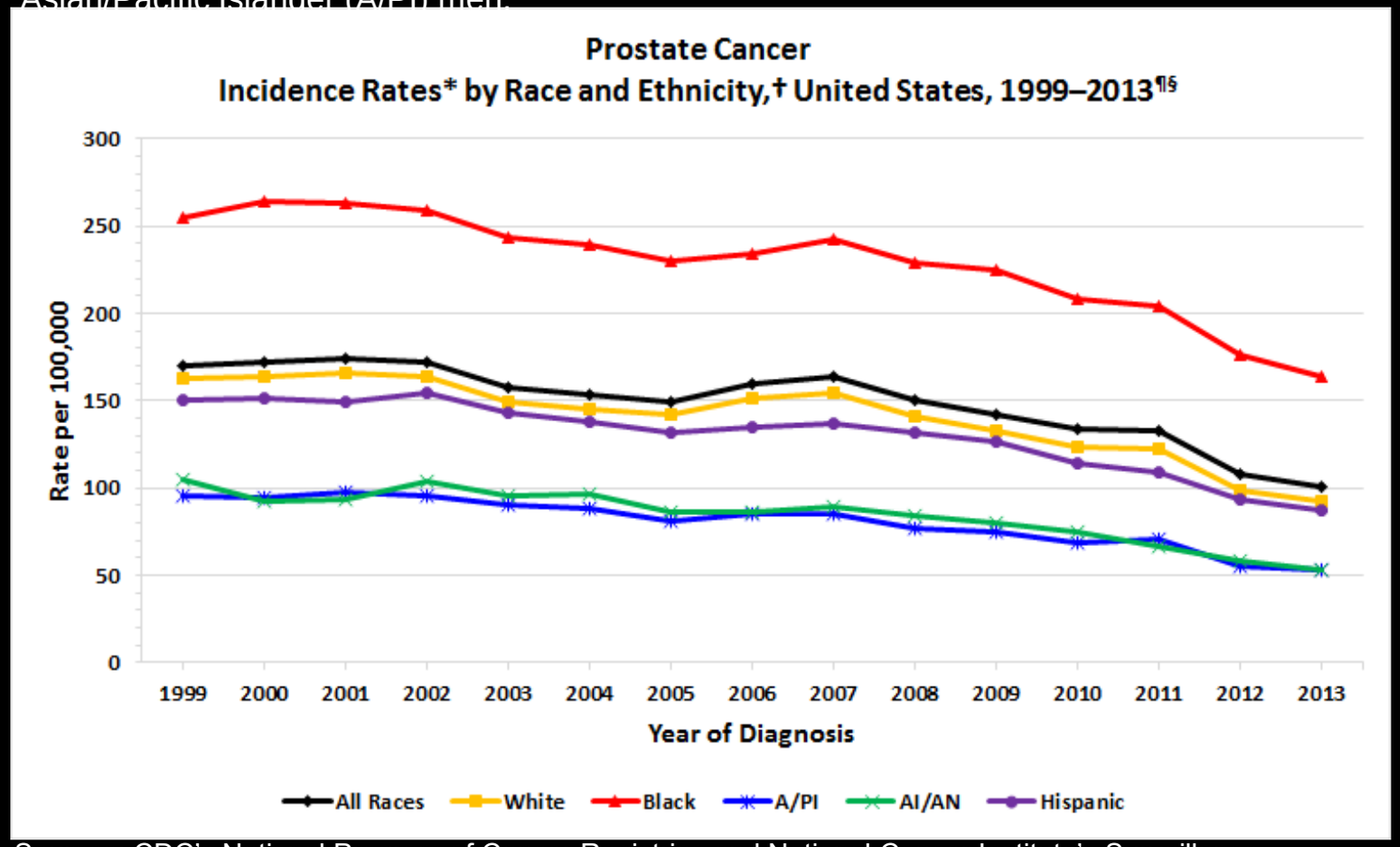


Death rate is more than 2 times higher compared to american white men.

cases per 100,00 2009-2013 SEER Data

203.5 (Black men)
121.9 (White men)
106.9 (Hispanic men)
68.9 (Asian/Pacific Islander men)
63.9 (American/Alaska native men)

Incidence Rates by Race/Ethnicity
"Incidence rate" means how many men out of a given number get the disease each year. The graph below shows how many men out of 100,000 got prostate cancer each year during the years 1999–2013. The year 2013 is the most recent year for which numbers have been reported. The prostate cancer incidence rate is grouped by race and ethnicity.
The graph below shows that in 2013, black men had the highest rate of getting prostate cancer, followed by white, Hispanic, American Indian/Alaska Native (AI/AN), and Asian/Pacific Islander (A/PI) men.

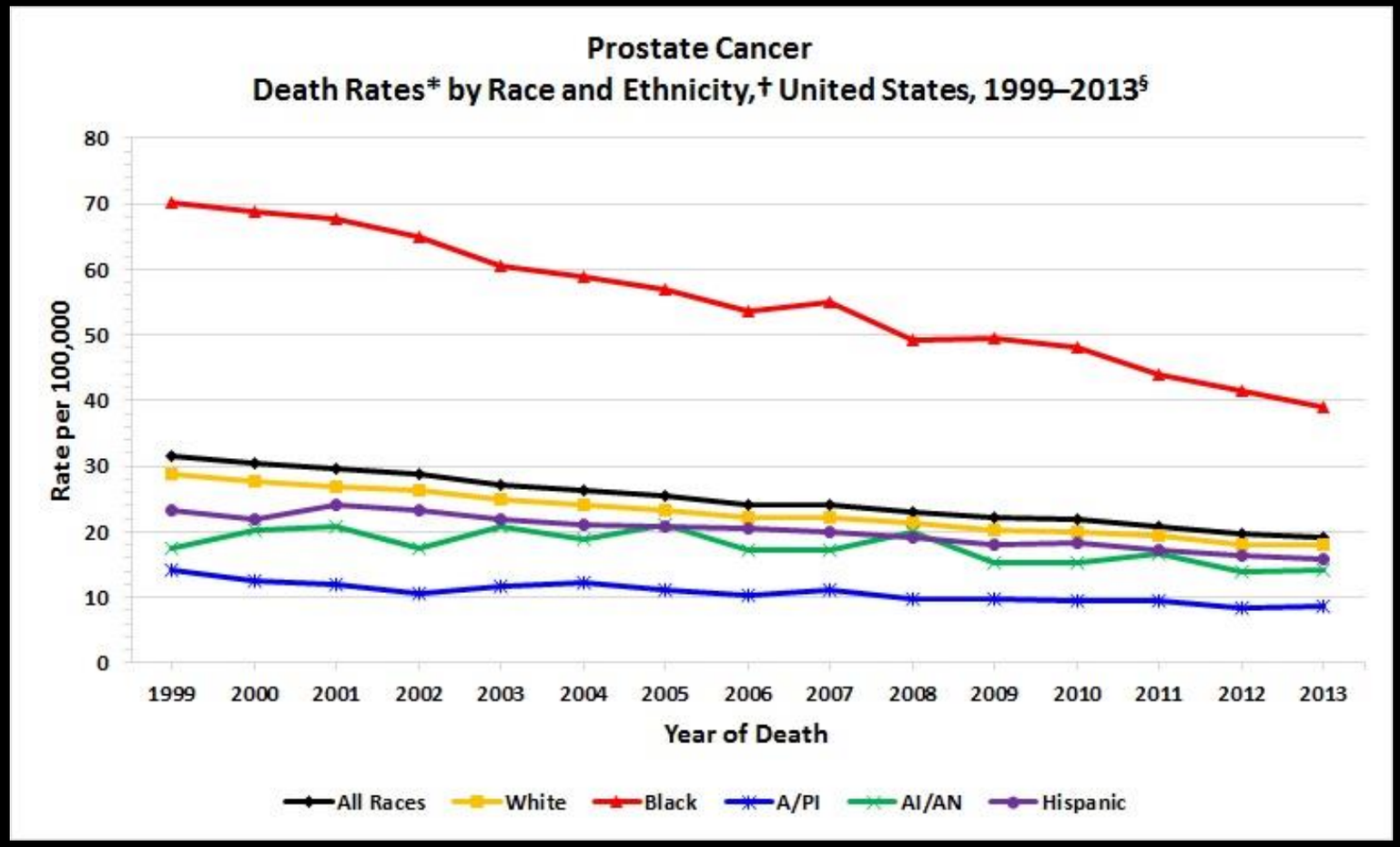


Sources: CDC's National Program of Cancer Registries and National Cancer Institute's Surveillance, Epidemiology, and End Results program.
*Rates are the number of cases per 100,000 persons and are age-adjusted to the 2000 U.S. standard population (19 age groups – Census P25–1130). For more information, see the USCS technical notes.
†Race categories are not mutually exclusive from Hispanic origin. Rates are not presented for persons of unknown or other race. Data for specified racial or ethnic populations other than white and black should be interpreted with caution. For more information, see the USCS technical notes.
¶ Data are compiled from cancer registries that meet the data quality criteria for all invasive cancer sites combined for all years, 1999–2013 (covering approximately 92% of the U.S. population). See registry-specific data quality information for all years, 1999–2013. Use caution when comparing incidence and death rates because of potential differences in population coverage.
§Invasive cancer excludes basal and squamous cell carcinomas of the skin except when these occur on the skin of the genital organs, and in situ cancers except urinary bladder.
Behavior recode for analysis used for 1999–2013 individual years.

http://www.cdc.gov/cancer/prostate/statistics/race.htm

Death Rates by Race/Ethnicity

From 1999–2013, the rate of men dying from prostate cancer has varied, depending on their race and ethnicity. The graph below shows that in 2013, black men were more likely to die of prostate cancer than any other group, followed by white, Hispanic, American Indian/Alaska Native, and Asian/Pacific Islander men.



*Rates are the number of deaths per 100,000 persons and are age-adjusted to the 2000 U.S. standard population (19 age groups – Census P25–1130). For more information, see the USCS technical notes.

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§Data are from the National Vital Statistics System (NVSS). Data for death rates cover 100% of the U.S. population. Use caution when comparing incidence and death rates because of potential differences in population coverage.

cases per 100,000 2009-2013 SEER Data

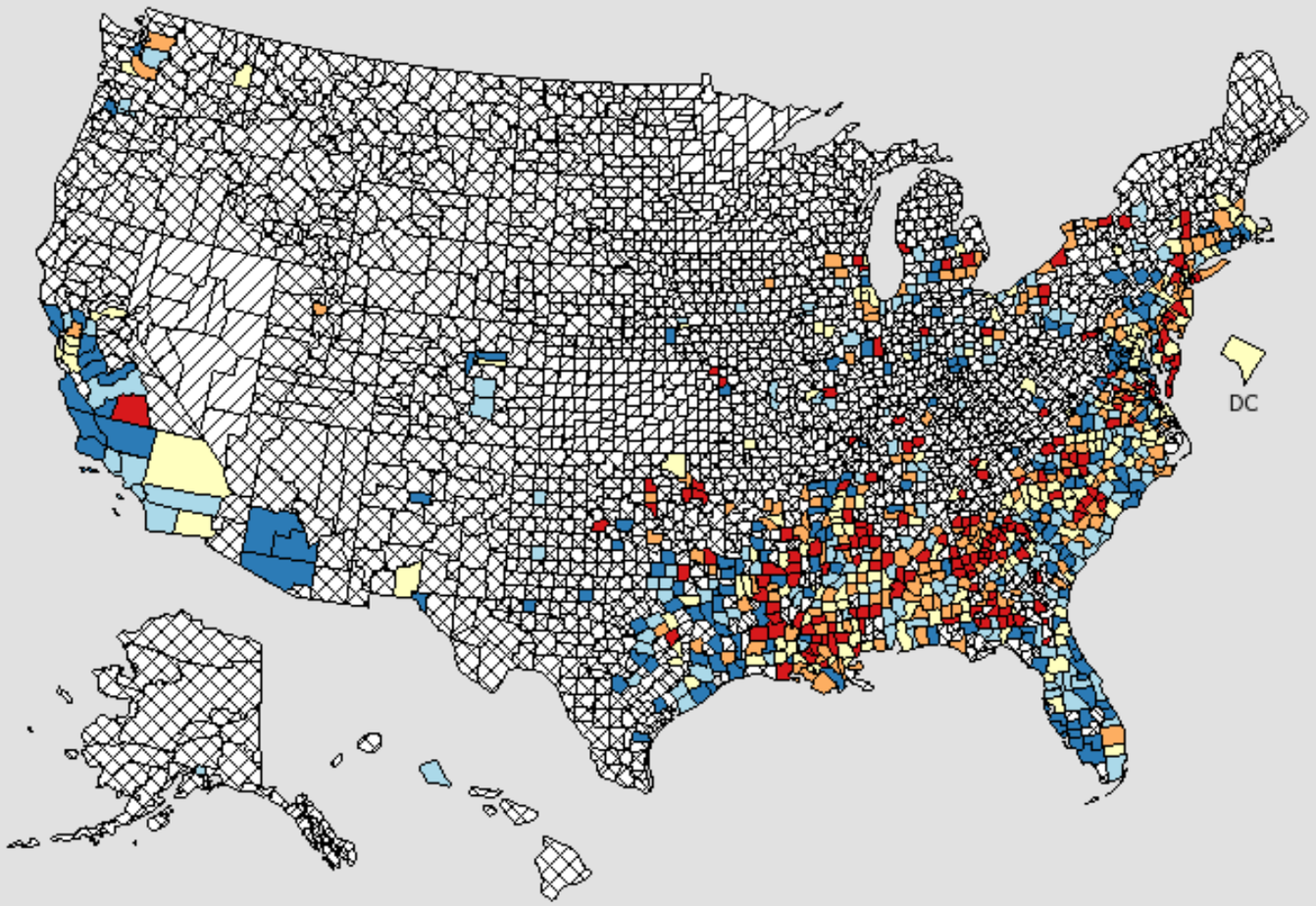
44.2 (Black men)
19.1 (White men)
17.1 (Hispanic men)
9.1 (Asian/Pacific Islander men)
19.1 (American/Alaska native men)

http://www.cdc.gov/cancer/prostate/statistics/race.htm

Incidence Rates† for United States by County

Prostate, 2009 - 2013

Black (includes Hispanic), Male, All Ages



Age-Adjusted

Annual Incidence Rate

(Cases per 100,000)

Quantile Interval

- 68.9 to 161.9
- 161.9 to 189.5
- 189.5 to 211.8
- 211.8 to 238.5
- 238.5 to 760.9
- Suppressed * /**
- Data Not Available ◇

US (SEER + NPCR)
Rate (95% C.I.)
194.3 (193.3 - 195.3)

Notes:

Created by statecancerprofiles.cancer.gov on 09/13/2016 5:38 pm.

¶¶ - Data for the United States does not include data from Nevada.

¶ - Data for the Minnesota and Kansas is not availible at the county level.

State Cancer Registries may provide more current or more local data.

Data presented on the State Cancer Profiles Web Site may differ from statistics reported by the State Cancer Registries (for more information).

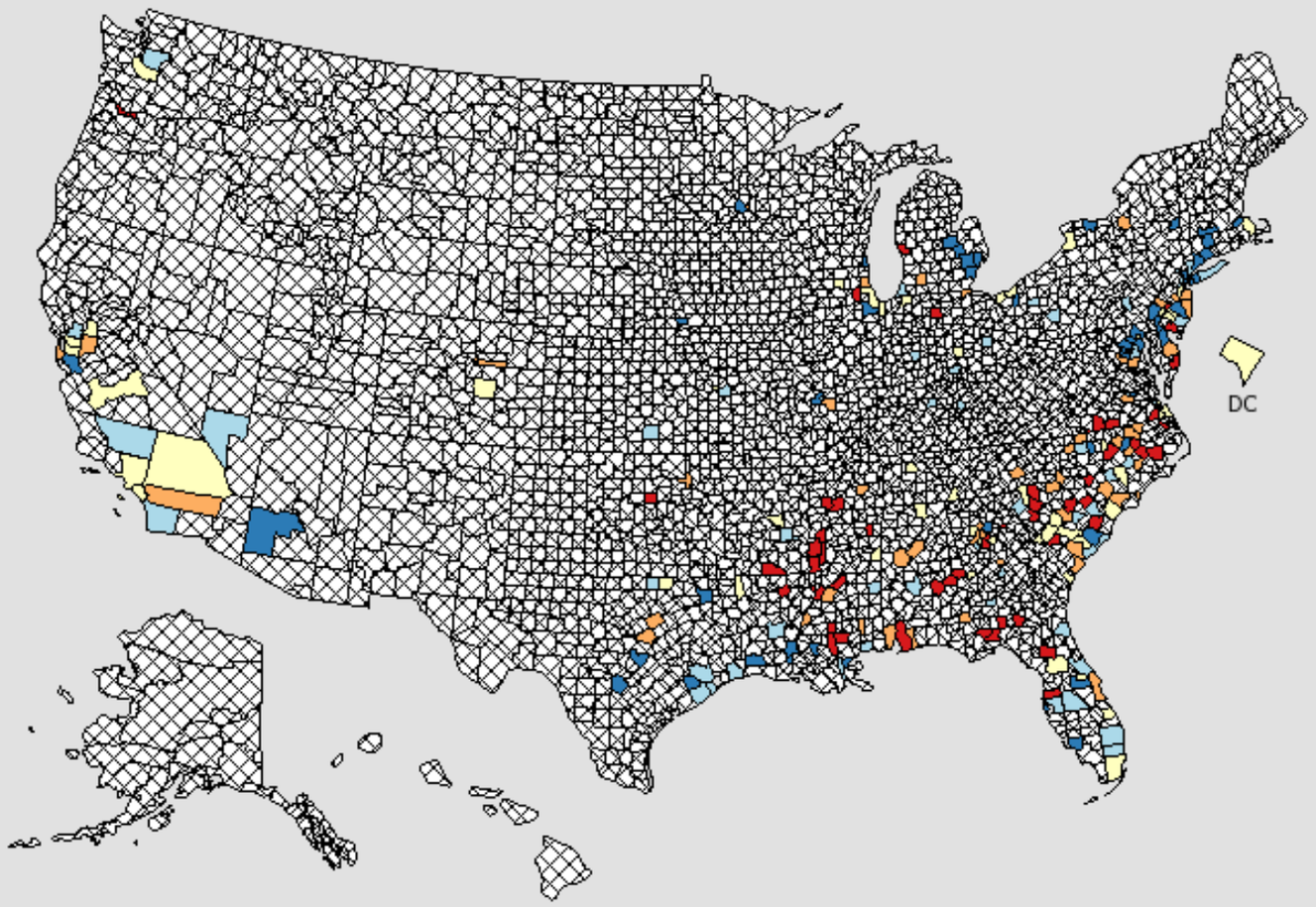
† Incidence rates (cases per 100,000 population per year) are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ... , 80-84, 85+). Rates are for invasive cancer only (except for bladder which is invasive and in situ) or unless otherwise specified. Rates calculated using SEER*Stat. Population counts for denominators are based on Census populations as modified by NCI. The 1969-2014 US Population Data File is used for SEER and NPCR incidence rates.

* Data have been suppressed to ensure confidentiality and stability of rate estimates. Data is currently being suppressed if there are fewer than 16 counts for the time period.

** Data have been suppressed for states with a population below 50,000 per sex combination for American Indian/Alaska Native or Asian/Pacific Islanders because of concerns regarding the relatively small size of these populations in some states.

◇ Data not available for this combination of geography, statistic, age and race/ethnicity.

Death Rates for United States by County
Prostate, 2009 - 2013
Black (includes Hispanic), Male, All Ages



Age-Adjusted

Annual Death Rate

(Deaths per 100,000)

Quantile Interval

- 24.1 to 38.1
- 38.1 to 43.7
- 43.7 to 48.0
- 48.0 to 57.8
- 57.8 to 113.6
- Suppressed *

United States
Rate (95% C.I.)
44.2 (43.6 - 44.8)

Healthy People 2020
Goal C-7
21.8

Notes:
Created by statecancerprofiles.cancer.gov on 09/13/2016 5:50 pm.
State Cancer Registries may provide more current or more local data.
Data presented on the State Cancer Profiles Web Site may differ from statistics reported by the State Cancer Registries (for more information).
Source: Death data provided by the National Vital Statistics System public use data file. Death rates calculated by the National Cancer Institute using SEER*Stat . Death rates (deaths per 100,000 population per year) are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ... , 80-84, 85+). The Healthy People 2020 goals are based on rates adjusted using different methods but the differences should be minimal. Population counts for denominators are based on the Census 1969-2014 US Population Data File as modified by NCI.
* Data have been suppressed to ensure confidentiality and stability of rate estimates. Data is currently being suppressed if there are fewer than 16 counts for the time period.
** Data have been suppressed for states with a population below 50,000 per sex combination for American Indian/Alaska Native or Asian/Pacific Islanders because of concerns regarding the relatively small size of these populations in some states.
Healthy People 2020 Goal C-7 : Reduce the prostate cancer death rate to 21.8.
Healthy People 2020 Objectives provided by the Centers for Disease Control and Prevention .

Table 23.15
Cancer of the Prostate (Invasive)

Estimated United States Cancer Prevalence Counts[a] on January 1, 2013
By Race/Ethnicity and Years Since Diagnosis

Years Since Diagnosis	0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <21[e]	0 to <38[e]	>=38[g]	Complete[h]
Race										
All Races[b]	996,735	835,034	588,312	302,931	105,849	16,054	2,810,743	2,849,303	836	2,850,139
White[b]	793,823	686,303	496,168	260,108	95,674	14,647	2,315,571	2,350,701	988	2,351,689
Black[b]	148,024	111,939	73,675	34,907	8,142	1,133	375,436	378,155	84	378,239
Asian/Pacific Islander[c]	21,381	16,882	10,000	+	+	+	52,881	+	+	+
Hispanic[d]	60,772	45,886	29,420	+	+	+	150,385	+	+	+

Estimated prevalence percent[a] on January 1, 2013, of the SEER[c] population diagnosed in the previous 21 years
By Age at Prevalence and Race/Ethnicity

	Age Specific (Crude)										Age-Adjusted[f]
Age at Prevalence	All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
Race											
All Races[c]	1.5451%	-	-	0.0003%	0.0014%	0.0774%	1.0088%	4.8974%	11.8301%	15.0969%	1.6948%
White[c]	1.6325%	-	-	0.0003%	0.0012%	0.0666%	0.9540%	4.8256%	11.9166%	15.0297%	1.6837%
Black[c]	1.7495%	-	-	-	0.0034%	0.2055%	2.0295%	8.4702%	17.8005%	20.8709%	2.6527%
Asian/Pacific Islander[c]	0.7380%	-	-	-	-	0.0193%	0.3384%	2.0299%	5.8994%	9.8450%	0.8715%
Hispanic[d]	0.5682%	-	-	-	-	0.0406%	0.6020%	3.3836%	9.3451%	12.9804%	1.3247%

a US 2013 cancer prevalence counts are based on 2013 cancer prevalence proportions from the SEER registries and 1/1/2013 US population estimates based on the average of 2012 and 2013 population estimates from the US Bureau of the Census.
b c d Prevalence was calculated using the First Malignant Primary Only for a person. Statistics based on (b) SEER 9 Areas (c) SEER 13 Areas excluding the Alaska Native Registry (d) NHIA for Hispanic for SEER 13 Areas excluding the Alaska Native Registry.
e Maximum limited-duration prevalence: 38 years for 1975-2013 SEER 9 data; 21 years for 1992-2013 SEER 13 data (excluding the Alaska Navtive Registry) used to calculate prevalence for Hispanics and Asian Pacific Islanders.
f Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.
g h i (g) Cases diagnosed more than 38 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <38 and >=38. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.
- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.
+ Not available.

What Can Internists Do?

Discuss the possible risk factors.

Discuss and Complete screening in higher risk men.

Refer to a urologist when PSA level is persistently elevated.

Associations for Higher Risk

Obesity
Smoking
High Fat diet
High Red Meat Intake
Agent Orange Exposure

Established Risk Factors

Age
Being an American Black Man
Prostate Cancer in Father or Brother

Prostate Cancer Guidelines

The U.S. Preventive Services Task Force (USPSTF) recommends against prostate-specific antigen (PSA)-based screening for prostate cancer.

But

Majority of men diagnosed with prostate cancer underwent biopsy because an abnormal PSA.

Fight for Screening

ERSPC VS PLCO

Both resulted in little or no affect on prostate cancer specific mortality.

2013 Guideline Statements

1: The Panel recommends against PSA screening in men under age 40 years. (Recommendation; Evidence Strength Grade C)

- In this age group there is a low prevalence of clinically detectable prostate cancer, no evidence demonstrating benefit of screening and likely the same harms of screening as in other age groups.

Guideline Statement

2: The Panel does not recommend routine screening in men between ages 40 to 54 years at average risk. (Recommendation; Evidence Strength Grade C)

- For men younger than age 55 years at higher risk (e.g. positive family history or African American race), decisions regarding prostate cancer screening should be individualized.

Guideline Statement

3: For men ages 55 to 69 years the Panel recognizes that the decision to undergo PSA screening involves weighing the benefits of preventing prostate cancer mortality in 1 man for every 1,000 men screened over a decade against the known potential harms associated with screening and treatment. For this reason, the Panel strongly recommends shared decision-making for men age 55 to 69 years that are considering PSA screening, and proceeding based on a man's values and preferences. (Standard; Evidence Strength Grade B)

- The greatest benefit of screening appears to be in men ages 55 to 69 years.

Guideline Statement

4: To reduce the harms of screening, a routine screening interval of two years or more may be preferred over annual screening in those men who have participated in shared decision-making and decided on screening. As compared to annual screening, it is expected that screening intervals of two years preserve the majority of the benefits and reduce overdiagnosis and false positives. (Option; Evidence Strength Grade C)

- Additionally, intervals for rescreening can be individualized by a baseline PSA level.

Guideline Statement

5: The Panel does not recommend routine PSA screening in men age 70+ years or any man with less than a 10 to 15 year life expectancy. (Recommendation; Evidence Strength Grade C)

- Some men age 70+ years who are in excellent health may benefit from prostate cancer screening.

Carter, HB at el Early detection of prostate cancer: AUA Guideline. JUrol. 2013 Aug;190(2):419-26.

Guidelines 2016

The ACS recommends that asymptomatic men who have at least a 10-year life expectancy have an opportunity to make an informed decision with their health care provider about screening for prostate cancer after they receive information about the uncertainties, risks, and potential benefits associated with prostate cancer screening. Prostate cancer screening should not occur without an informed decision-making process. Men at average risk should receive this information beginning at age 50 years. Men in higher risk groups should receive this information before age 50 years. Men should either receive this information directly from their health care providers or be referred to reliable and culturally appropriate sources. Patient decision aids are helpful in preparing men to make a decision whether to be tested. CA Cancer J Clin 2010;60:70–98.

Guidelines 2016

1. PSA screening should not occur unless a man with a 10 year life expectance has given informed consent after discussing their prostate cancer risk and risks and benefits of PSA screening with their healthcare provider.

2. Discuss the risks and benefits of PSA screening with men older than 50 and men less than 50 with high risk of prostate cancer.

For men who choose to be screened for prostate cancer after considering the possible benefits and risks:

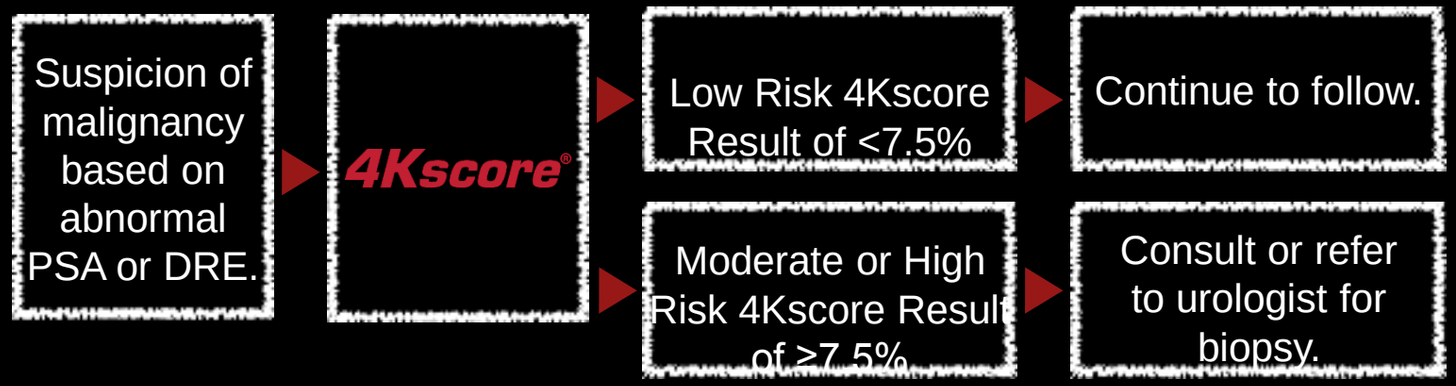
- Screening is recommended with PSA with or without DRE.
- Screening should be conducted yearly for men whose PSA level is 2.5 ng/mL or greater.
- For men whose PSA is less than 2.5 ng/mL, screening intervals can be extended to every 2 years.
- A PSA level of 4.0 ng/mL or greater historically has been used to recommend referral for further evaluation or biopsy, which remains a reasonable approach for men at average risk for prostate cancer.
- For PSA levels between 2.5 ng/mL and 4.0 ng/mL, health care providers should consider an individualized risk assessment that incorporates other risk factors for prostate cancer, particularly for high-grade cancer, that may be used to recommend a biopsy. Factors that increase the risk of prostate cancer include African American race, family history of prostate cancer, increasing age, and abnormal DRE. A previous negative biopsy lowers the risk. Methods are available that merge this information to achieve an estimate of a man's overall risk of prostate cancer and, more specifically, of his risk of high-grade prostate cancer (see “Beyond Prostate-Specific Antigen: Individualized Risk Assessment,” below).

New Horizons

PHI, p2PSA, Free PSA, 4 kallikrein assay

4Kscore®

- Low Risk: 4Kscore result <7.5%
- Intermediate Risk: 4Kscore result 7.5-19%
- High Risk: 4Kscore result ≥20%



LIMITATIONS AND EXCLUSIONS:
Do not use the 4Kscore Test for a patient:

- With a previous diagnosis of prostate cancer.
- That has received a DRE in the previous 96 hours (4 days) before phlebotomy. A DRE performed after the phlebotomy is acceptable.
- That has received 5-alpha reductase inhibitor (5-ARI) therapy, such as Avodart® (dutasteride) or Proscar® (finasteride), within the previous six (6) months.
- That has undergone any procedure or therapy to treat symptomatic BPH or any invasive, urologic procedure that may be associated with a secondary PSA elevation prior to phlebotomy within the previous six (6) months.

Don't believe the hype!

Keep this in Mind

Biological Distinct Human Races Do Not Exist.

The genes of American Black men are not predominantly responsible for the disparity in cases of prostate cancer.

It is not Scientific Fact that Darker skin innately increases the risk of Black American men developing prostate cancer.
Black Americans in the U.S. have higher incidence and mortality in a variety of cancers.

Public health data and other studies suggest cultural and environmental causes may be responsible for much of the disparity.

Prostate cancer incidents rates can vary among all men according to geography and culture.

Conclusion

DO NOT TELL YOUR BLACK MALE PATIENTS THAT THEIR DNA IS THE PROBLEM.

Assuming because your patient is born

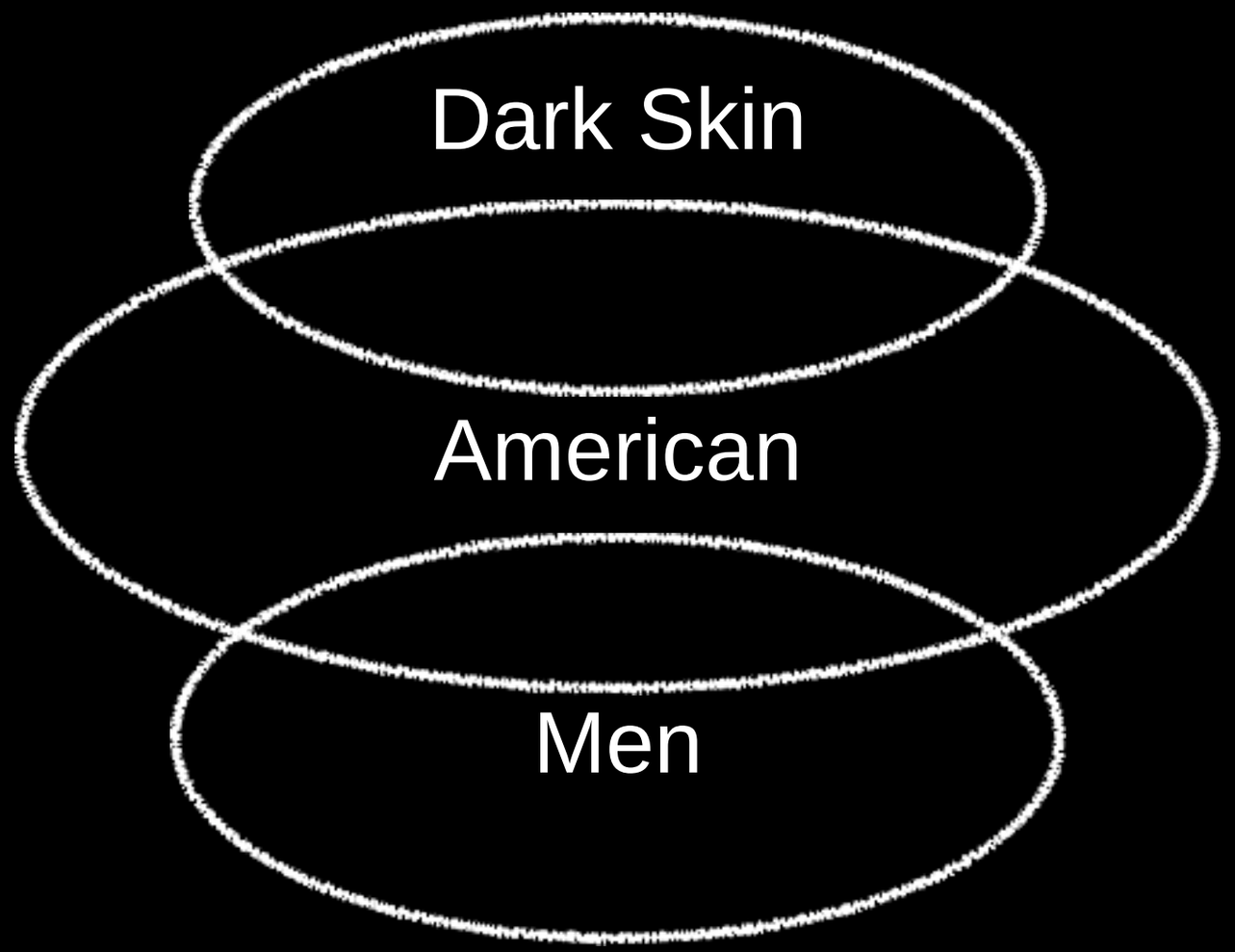
Destined

Higher incidence Prostate Cancer and Cancer Mortality

= Pseudoscience

Prostate Cancer risk is mostly acquired.

Disparities in health and health outcomes.



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Consequences Cultural/Social Position and Environmental Exposures

Increased risk of prostate cancer and poor health outcomes

- Prostate Cancer is prevalent and American Black men are diagnosed and die with prostate cancer disproportionately.
- We can have a great impact now by treating patients as individuals while assessing and discussing their risk.
    - Do not assume nor treat Black men like the increased risk of prostate cancer is mostly due to their DNA, it's most likely due to the affect of the environment and society/culture on their bodies.

Focus on decreasing possible acquired risk factors.
Discuss screening with those at high risk.
Test high risk patients per AUA/ACS guidelines.
Refer them to urology as soon as possible if needed.

Don't Miss It.

Disclosures

NONE

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