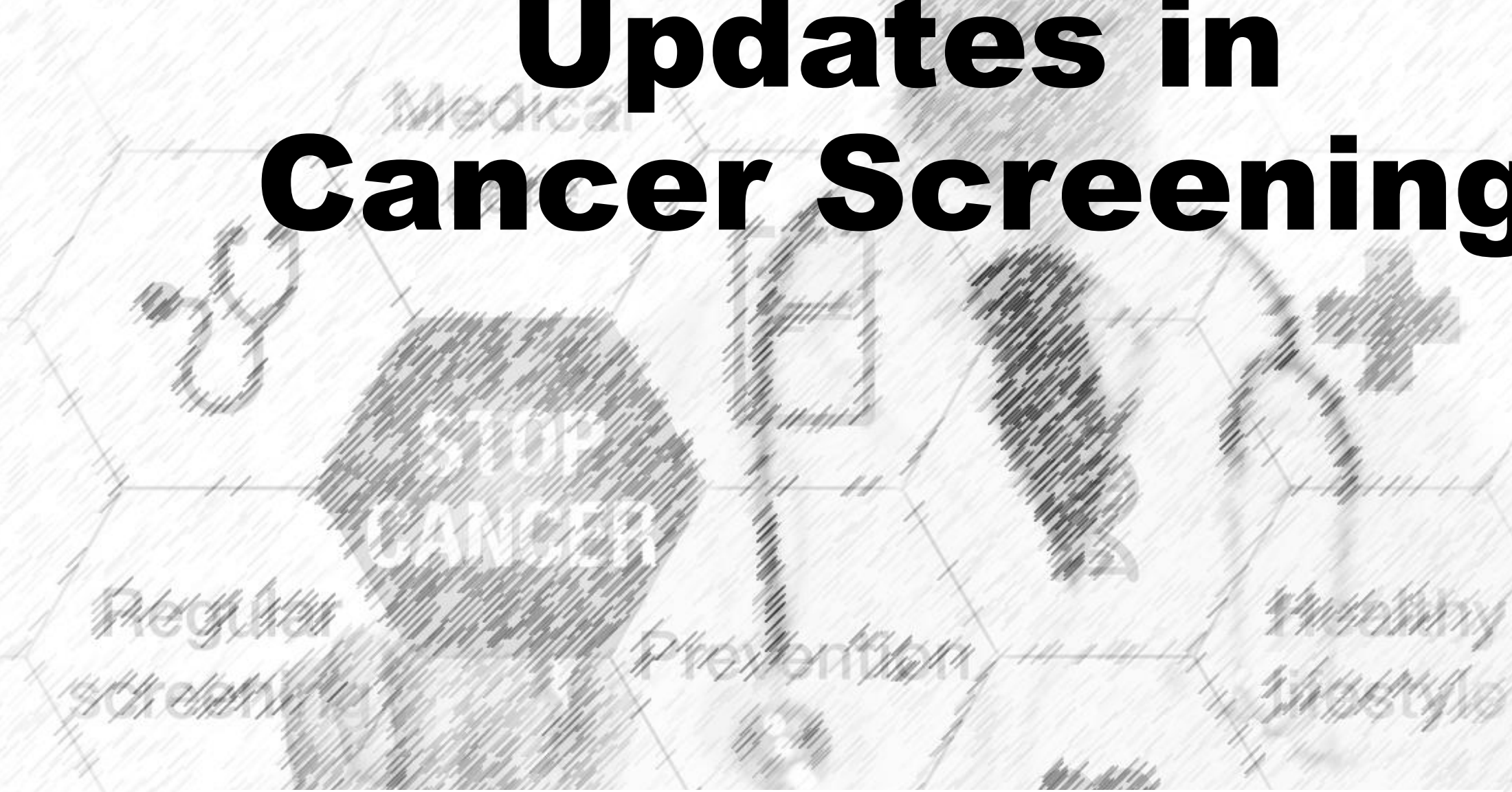
Updates in Cancer Screening



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Disclosures

- I have no conflicts of interest to disclose

OBJECTIVES

- ✓ Cite the burden of cancer in the US
- ✓ Discuss the impact that screening has had on cancer prevalence and mortality
- ✓ Describe appropriate cancer screening in asymptomatic adults
- ✓ Compare differences in a variety of society guidelines

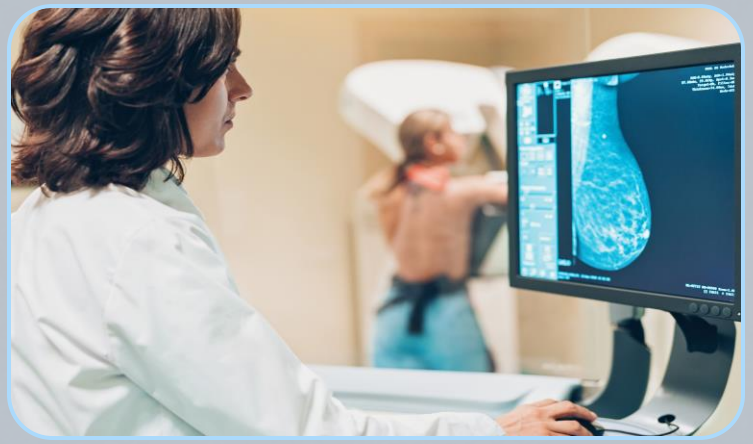
Cancer Screening

- ❑Colorectal cancer
- ❑Breast
- ❑Lung
- ❑Cervical
- ❑Prostate

https://www.celebhealth.com/basics/celeb-health-basics/cancer

Cure

Prevention



Primary Prevention

Secondary Prevention

Tertiary Prevention

Cancer

Second leading cause of death

Approximately 40% of people will be diagnosed with cancer at some point in their lives

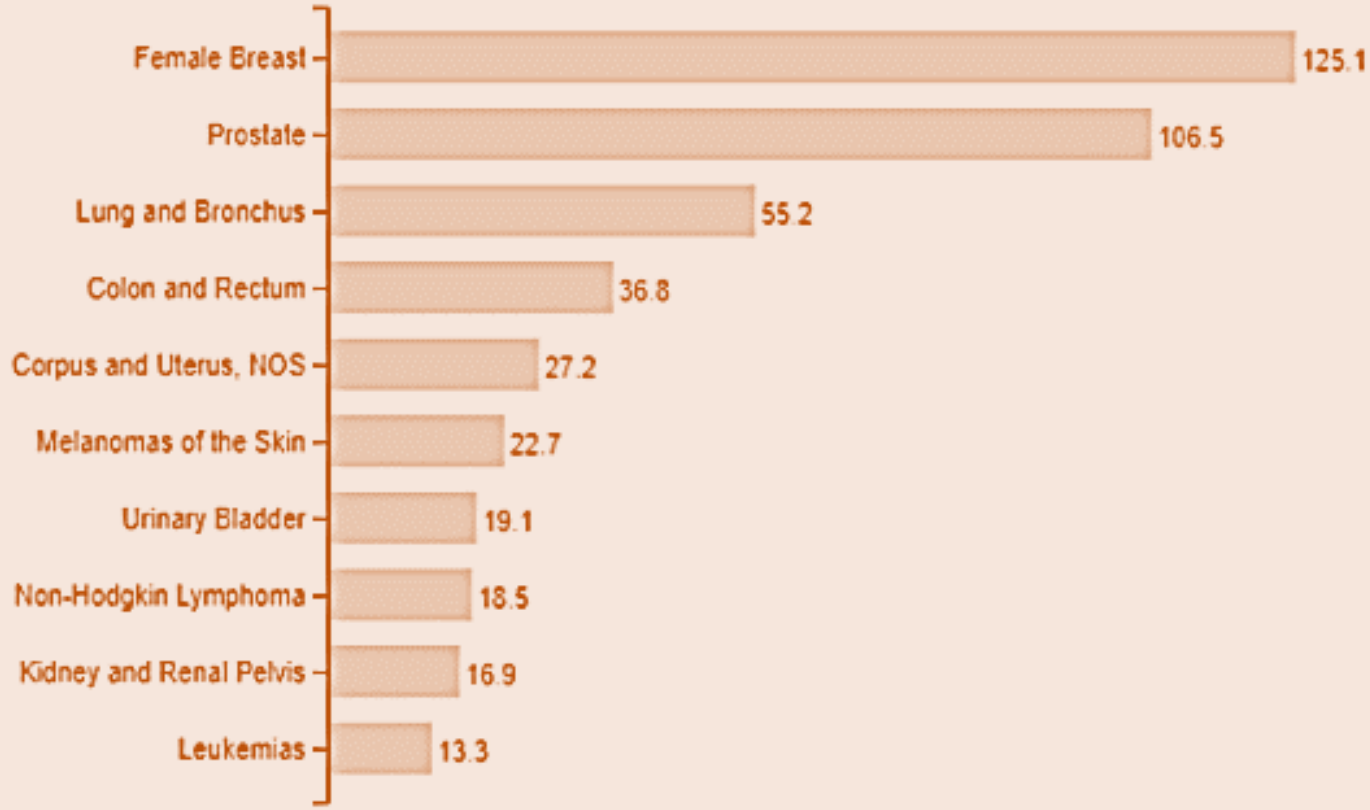
Costs of cancer are about $150B every year

Cancer Statistics published by the National Cancer Institute

Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

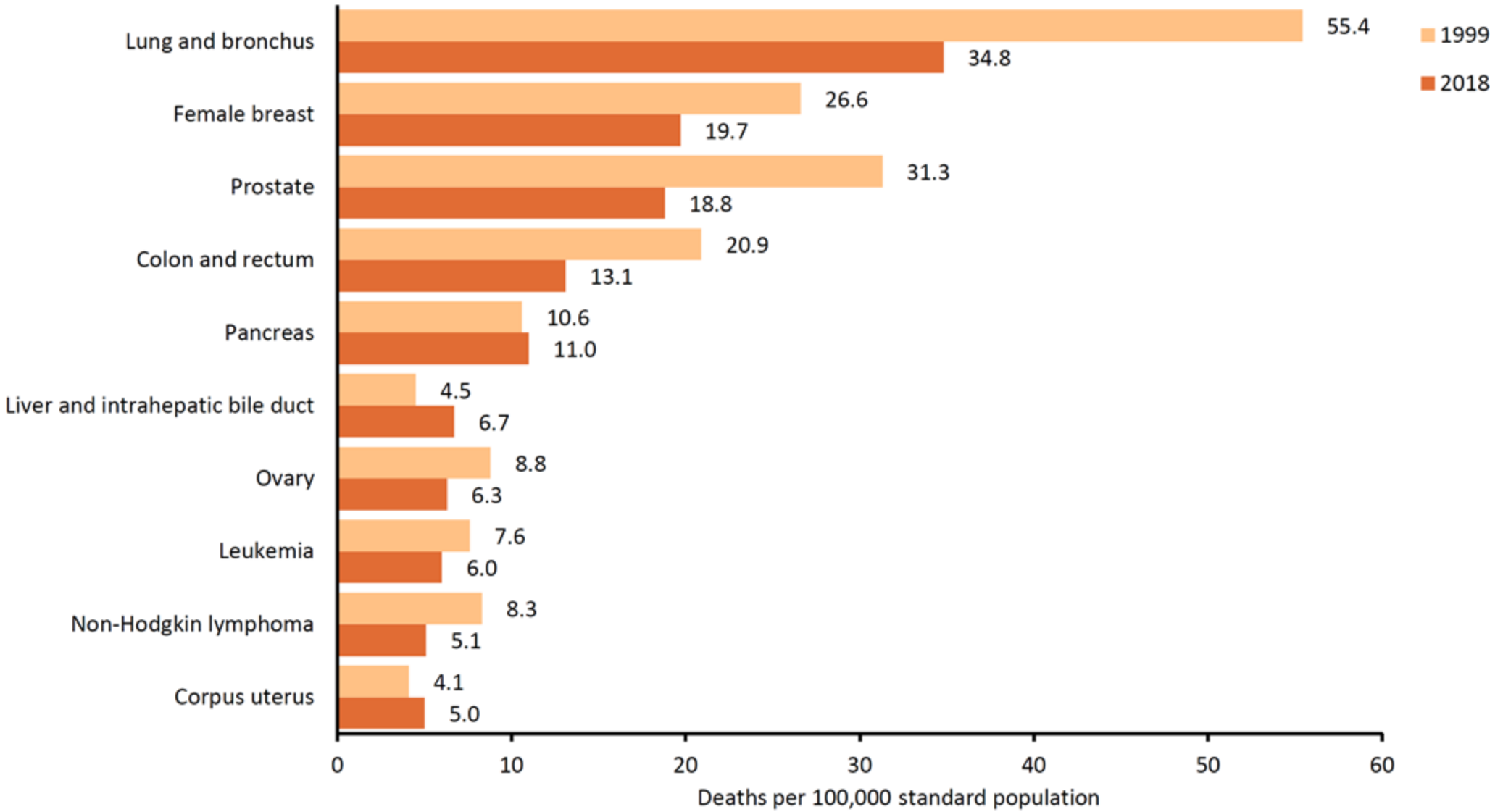
Top 10 Cancers by Rates of New Cancer Cases

All Types of Cancer, United States, 2017

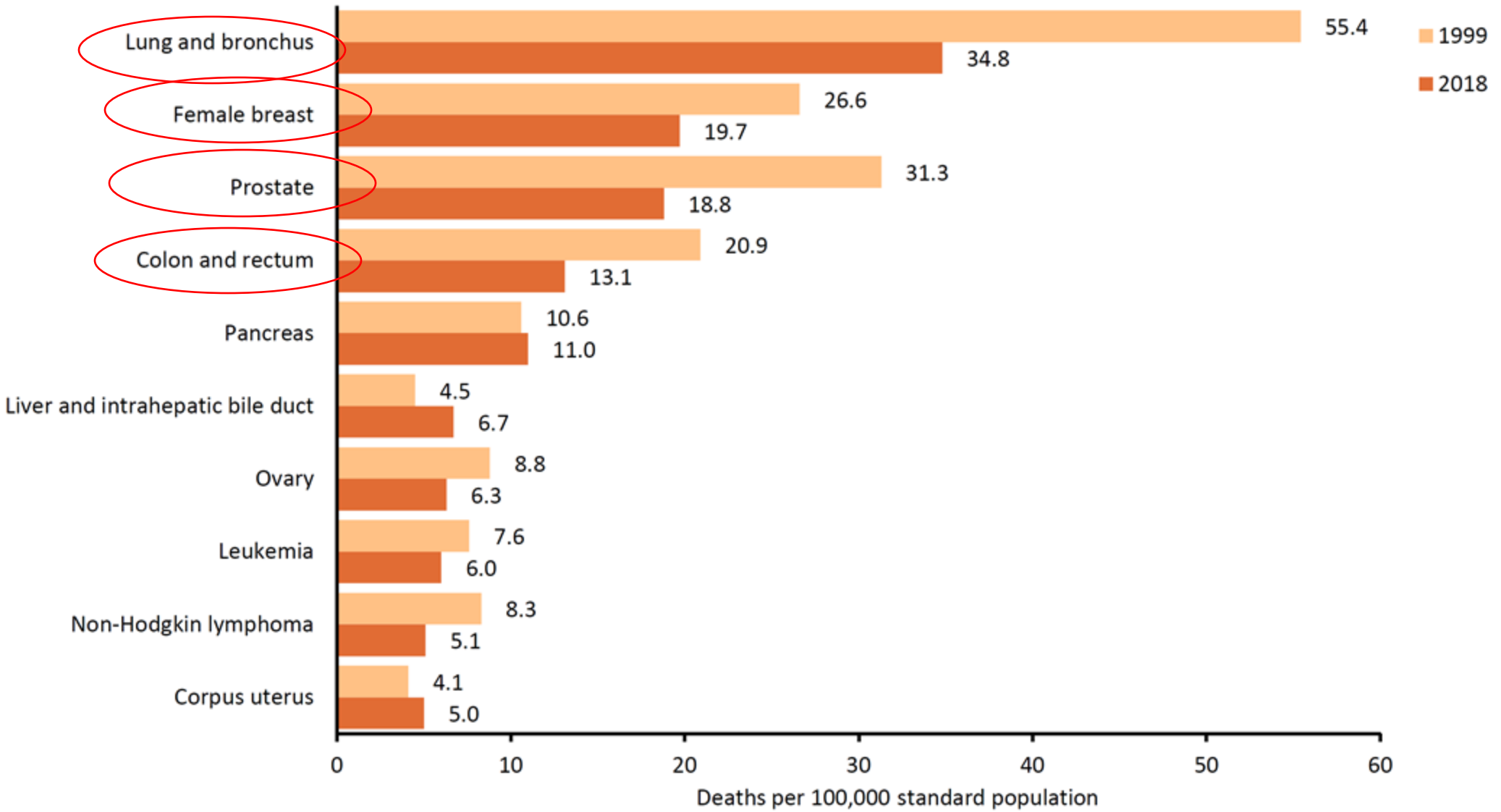


Rate per 100,000 people

Data source – U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on November 2019 submission data (1999-2017): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; https://www.cdc.gov/cancer/dataviz, June 2020.



Centers for Disease Control and Prevention. *An Update on Cancer Deaths in the United States.* Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, Division of Cancer Prevention and Control; 2020



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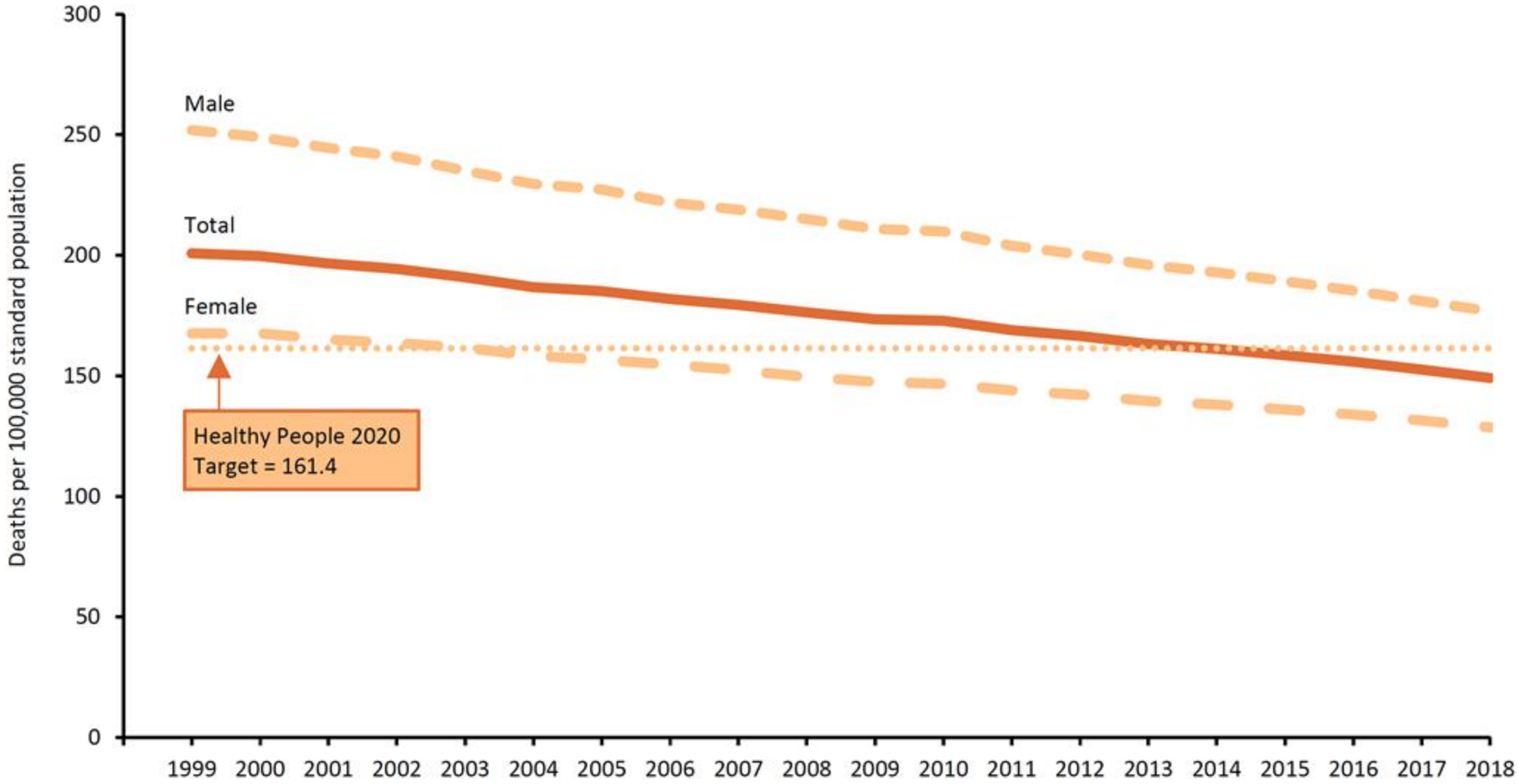


Centers for Disease Control and Prevention. *An Update on Cancer Deaths in the United States.* Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, Division of Cancer Prevention and Control; 2020

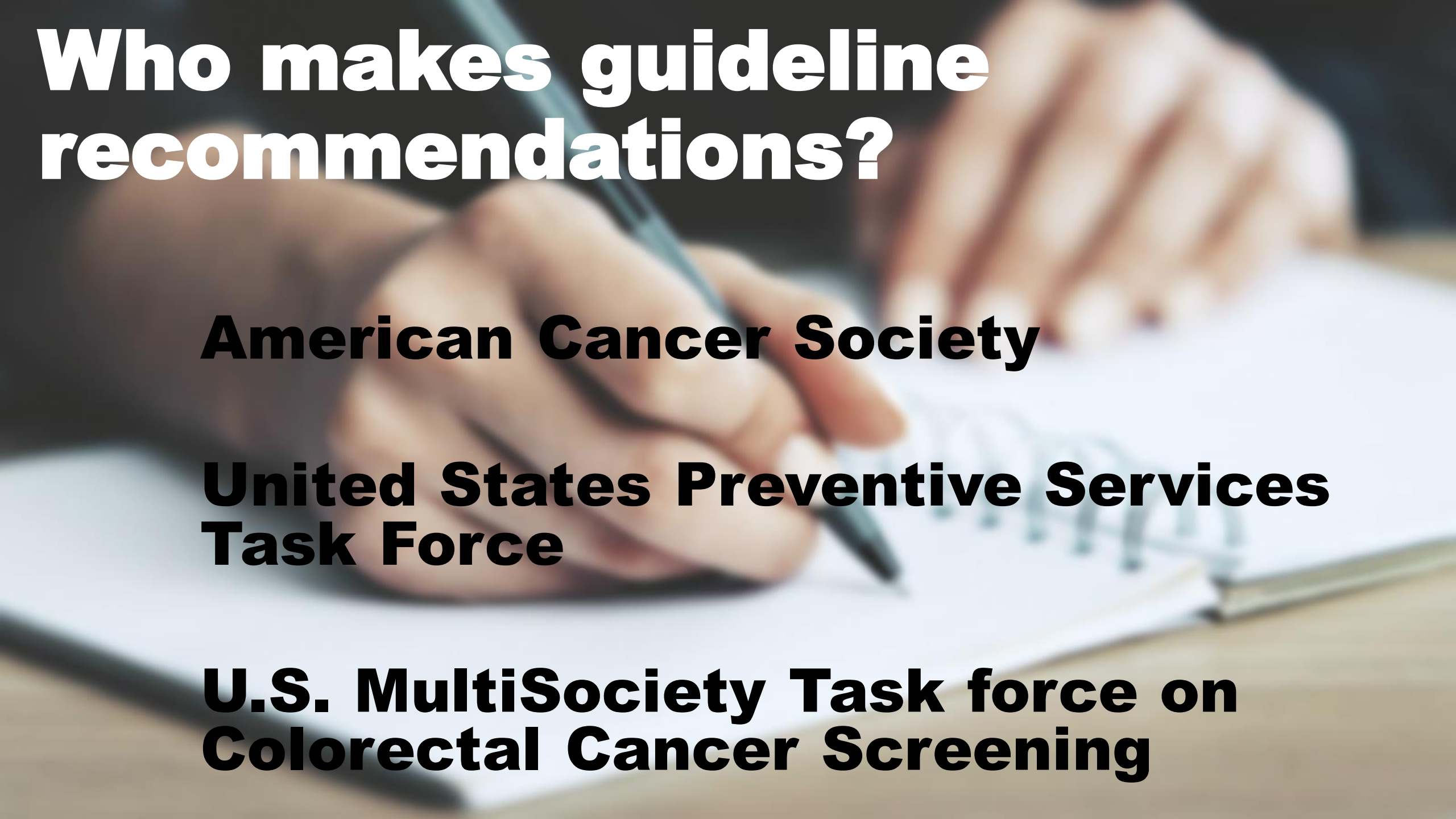
Colorectal Cancer Screening

Burden of Colorectal cancer

- **Globally affects 1.8 million, with 896,000 deaths**
- **In the US, 147,950 diagnosed and 53,200 deaths**
- **Incidence rates have decreased over the past 20 years due to decreased risk factors (smoking) and increased screening, especially colonoscopy**

The Lancet Gastroenterology & Hepatology, Volume 4, Issue 12, 913 – 933
Colorectal cancer statistics, 2020. CA A Cancer J Clin, 70: 145-164

Who makes guideline recommendations?



American Cancer Society

United States Preventive Services Task Force

U.S. MultiSociety Task force on Colorectal Cancer Screening

Who should be screened?

USPSTF

- Average risk adults age 50-75

American Cancer Society

- Average Risk adults age 45-75

USMSTF*

- Average risk adults age 50-75
- African Americans age 45

Age 76-85 could be considered depending on life expectancy and overall health

Screening options

Colonoscopy every 10 years

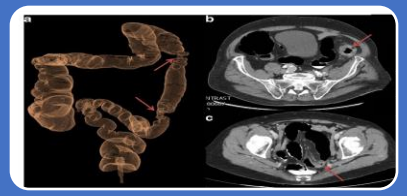
- Advantages are reduced incidence and mortality from CRC
- Disadvantages are risks such as perforation, bleeding, and from prep/sedation

FIT test every year

- Advantages is it's ease of use, low cost and sensitivity (79%)
- Disadvantage is need to repeat annually, and lower sensitivity advanced adenomas and poor to no sensitivity for serrated lesions

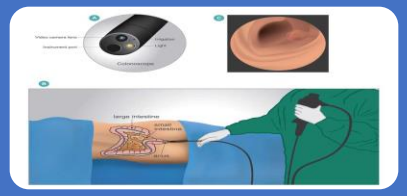
FIT DNA every 3 years

- Advantage is very good sensitivity of 92%, including for serrated lesions (40%)
- Disadvantage is lower specificity leading to more colonoscopy and higher cost compared to FIT



CT Colonography every 5 years

- Advantage is very good sensitivity for even small ademonas, less risk than colonoscopy
- Disadvantage is still requires prep and the incidence of extracolonic findings

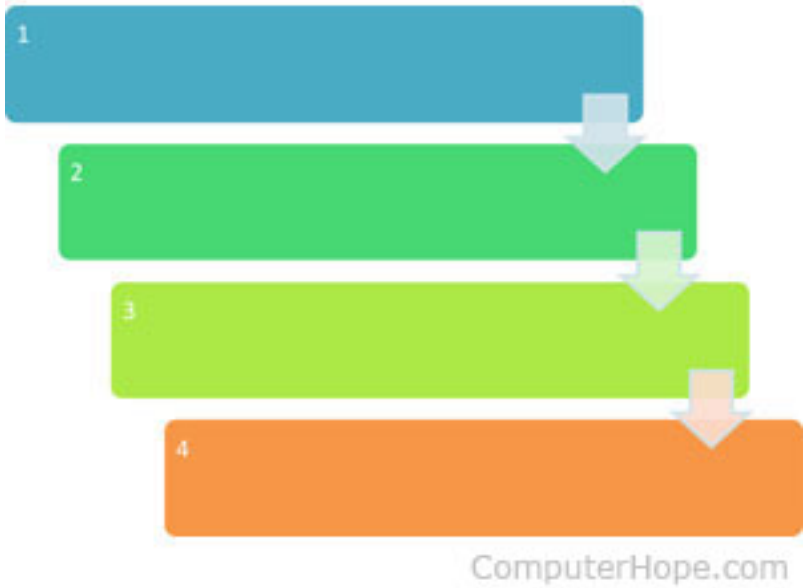


Flex Sigmoidoscopy every 5 years (often with yearly FIT)

- Advantages are reduced incidence and mortality from CRC; costs less than colonoscopy; no sedation
- Disadvantages are lower protection against right sided/proximal cancer

How to offer screening

Sequential

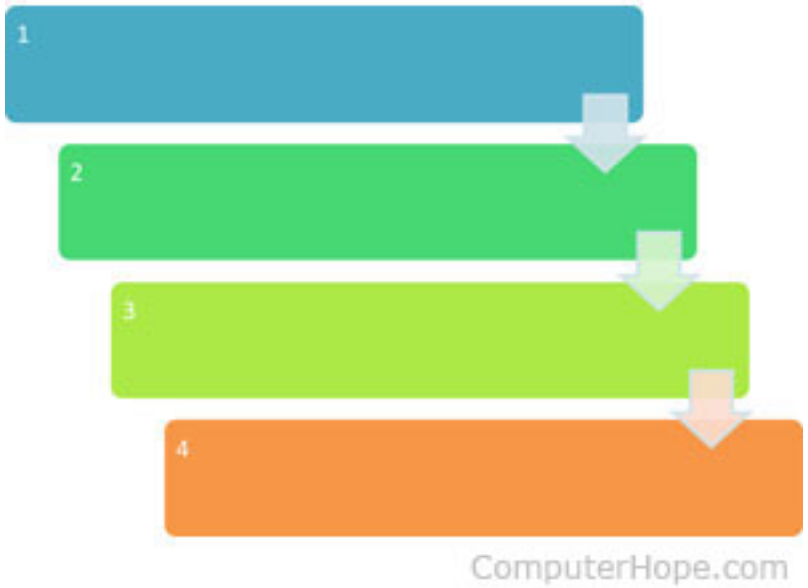


Options

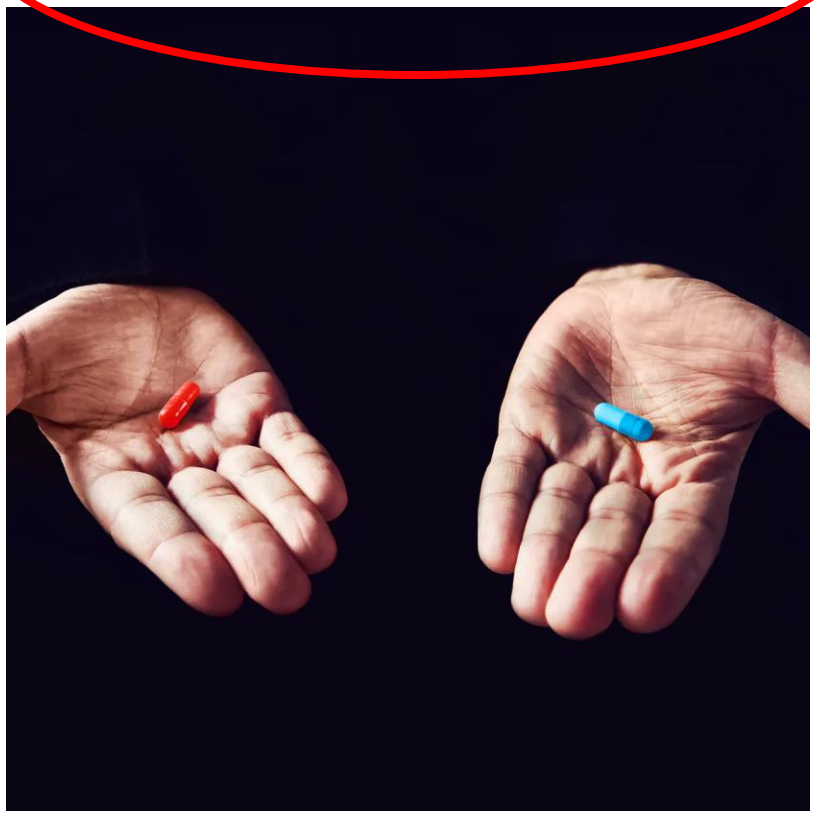
Risk Based

How to offer screening

Sequential



Options



Risk Based

What about increased risk?

- For persons with a first degree relative with CRC or advanced adenoma, should begin screening at age 40 or 10 years before family diagnosis (whichever is earlier)
  - MSTF recommends screening colonoscopy every 5 years if family diagnosis was <60 years
  - If the diagnosis was made >60 years, then can screen at age 40 but otherwise same approach as general population

Why not start earlier for general population?

- Incidence of CRC is increasing in younger age, with an increase of 2%/year in adults younger than 50
  - 11% of cancers diagnosed in those under 50
- Increased screening, leads to increased colonoscopies, but also additional life years gained
- Screening at age 45 while extending time between screening colonoscopies increased life years while not increasing number of colonoscopies

Evaluating the Benefits and Harms of Colorectal Cancer Screening Strategies: A Collaborative Modeling Approach. AHRQ Publication No. 14-05203-EF-2. Rockville, MD: Agency for Healthcare Research and Quality; 2015

U.S. Preventive Services
TASK FORCE

Screening for Colorectal Cancer
Draft Recommendation Statement

Frequently Asked Questions

What is the Task Force recommending?

In this draft recommendation statement, the Task Force recommends that adults who are 45 to 75 years old get screened for colorectal cancer to reduce their risk of dying from this disease. For adults who are 76 to 85 years old, whether to get screened for colorectal cancer depends on each person's overall health and personal circumstances. People in this age group should talk to their clinician about whether screening is right for them.

Why is the Task Force now recommending that people get screened starting at 45 years old?

New science is available showing that starting colorectal cancer screening at age 45 can prevent more deaths from colorectal cancer. This new science includes increasing rates of colorectal cancer in people younger than 50 and results from modeling studies from the Cancer Intervention and Surveillance Modeling Network.

Why is screening not recommended for all older adults?

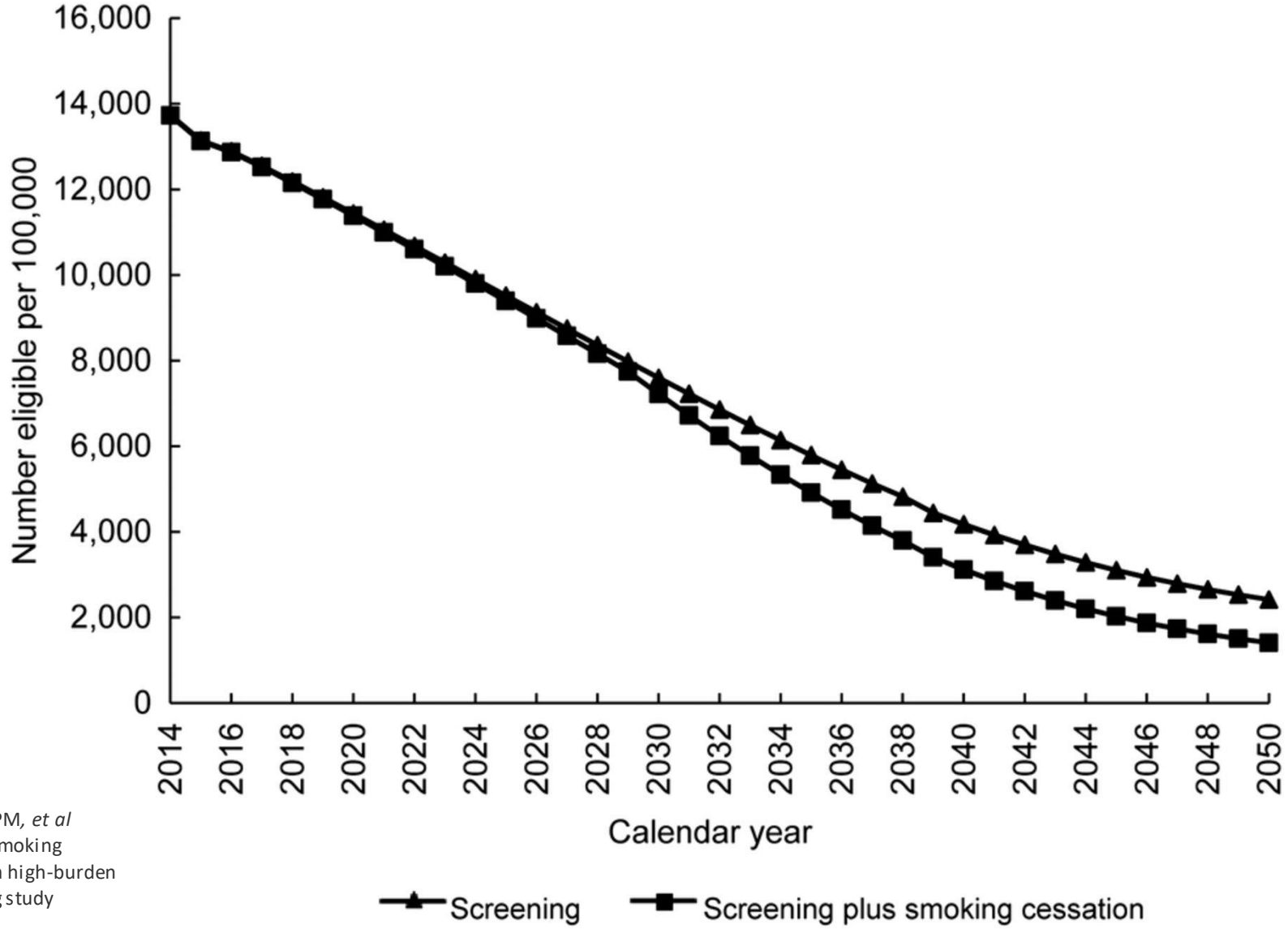
Lung Cancer

Burden of Lung Cancer

- Second most common cancer, yet the leading cause of cancer death in the US
- In the US 230,000 people are diagnosed annually, with over 130,000 dying from the disease
  - 1.6 million deaths globally
- Cigarette smoking is attributable in 85-90% of cases
  - Making Primary prevention more impactful than secondary (i.e. screening)

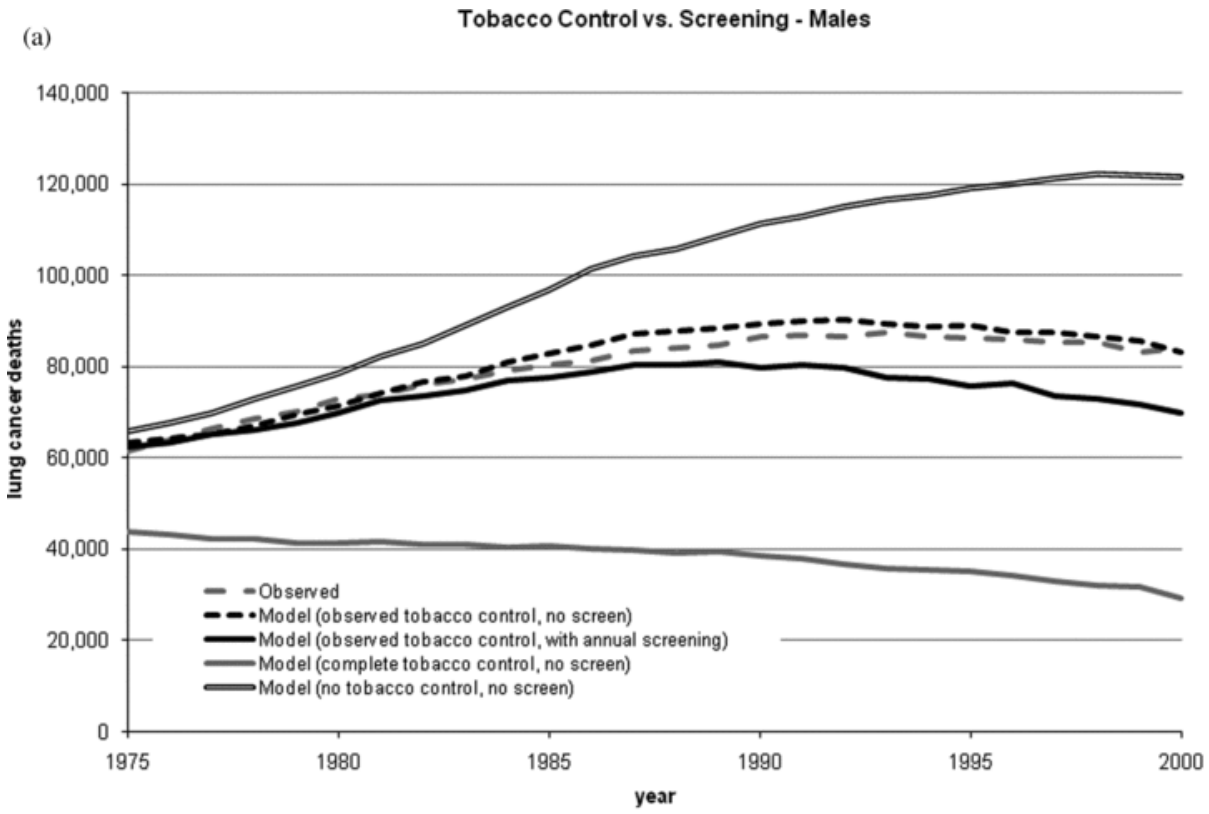
American cancer society 2021
Chest 2003;123

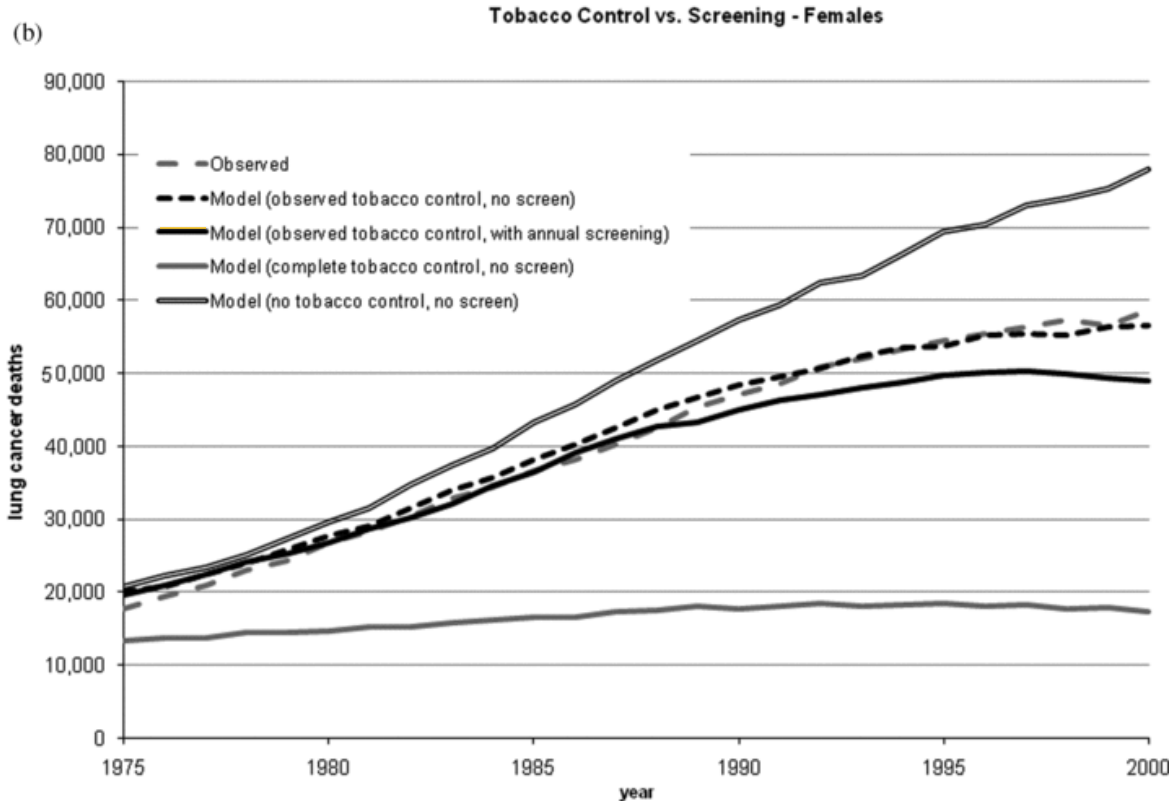
Number of people eligible for screening



Tramontano AC, Sheehan DF, McMahon PM*, et al*
Evaluating the impacts of screening and smoking cessation programmes on lung cancer in a high-burden region of the USA: a simulation modelling study
BMJ Open 2016;

Comparison of screening with tobacco control





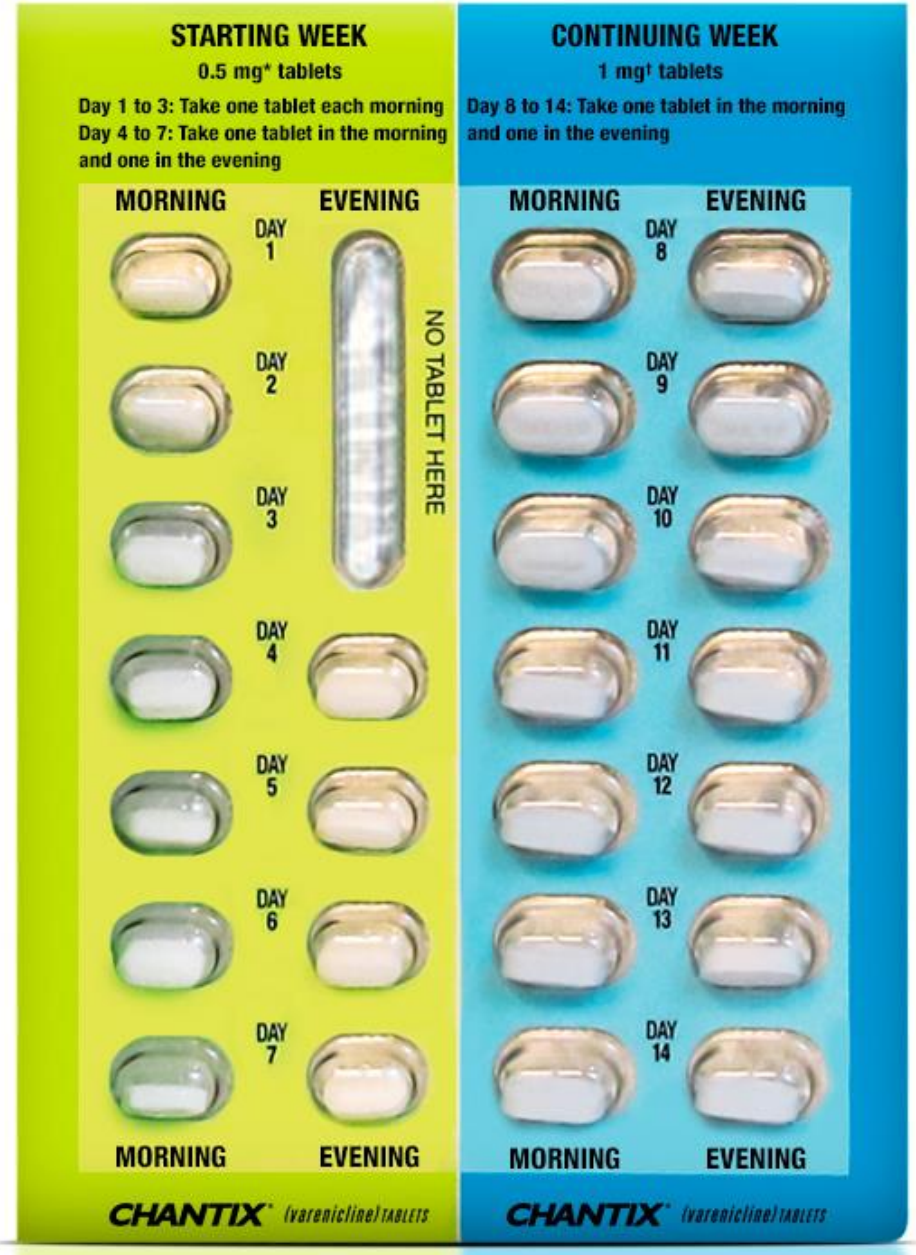
Special Issue: The Impact of the reduction in tobacco smoking on US Lung Cancer Mortality: Collective results from the Cancer Intervention and Surveillance Modeling Network (CISNET). Risk Analysis 2012; 32: S117-S124

NO SMOKING

Recommendations for tobacco cessation

- All adults should be asked about tobacco use and advised to stop using
  - Provide Behavioral interventions, pharmacotherapy

Pharmacotherapy



Behavioral Therapy

- Counseling of withdrawal symptoms, identifying trigger and how to deal with those triggers can easily be done in office (and can bill for it!)
- Other options often include :
  - Counseling
    - 1800 Quit now
  - Phone apps
  - Websites
    - Tobaccofreeflorida.com

Back to lung cancer screening

Who should be screened?

USPSTF

- Age 55-80 who have a 30 pack year history and are smoking or have quit in the last 15 years

American Cancer Society

- Age 55-74 who have a 30 pack year smoking history and currently smoke or have quit in the last 15 years

Who should be screened?

DRAFT update

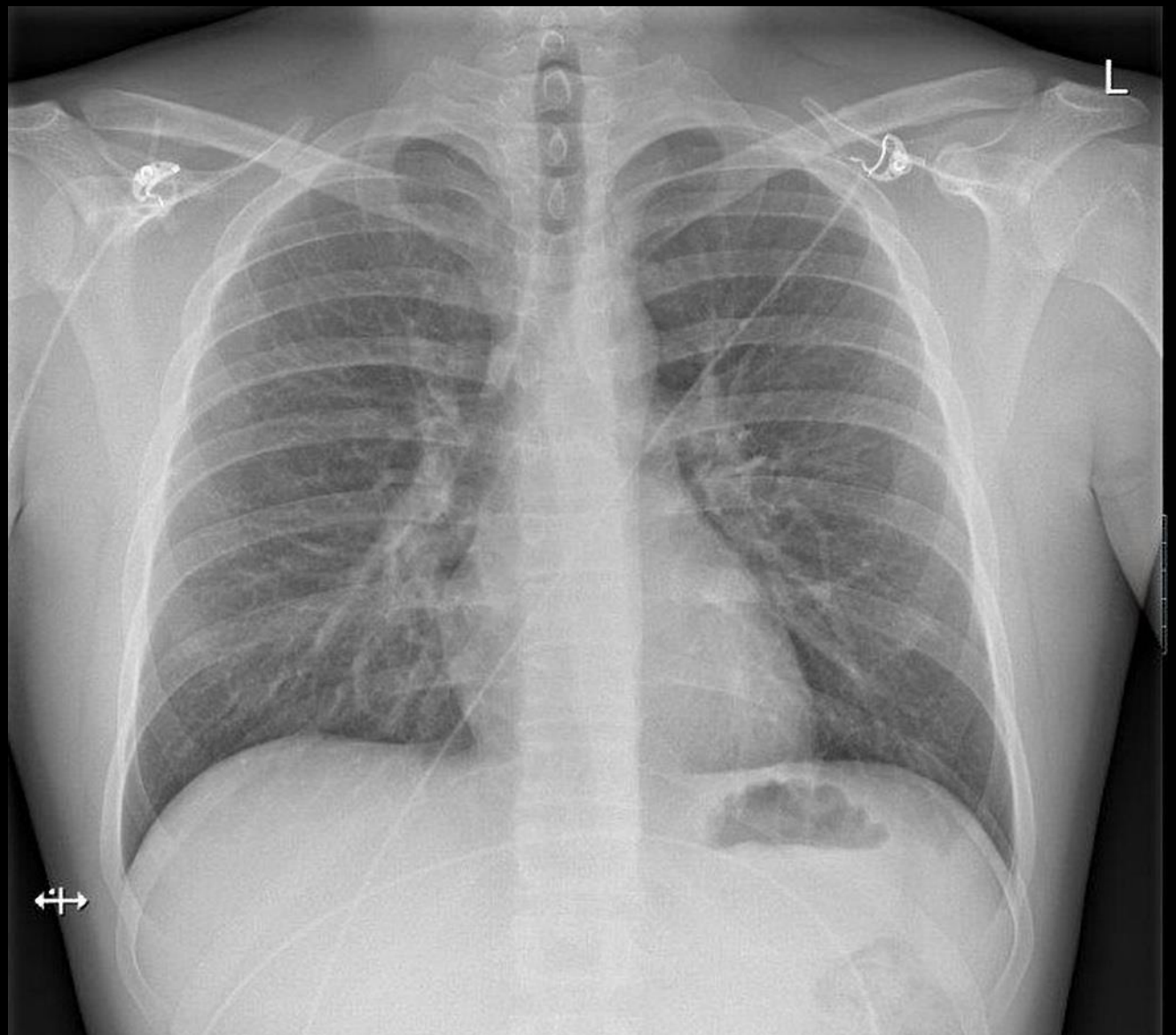
USPSTF

- Age 50-80 who have a 20 pack year history and are smoking or have quit in the last 15 years

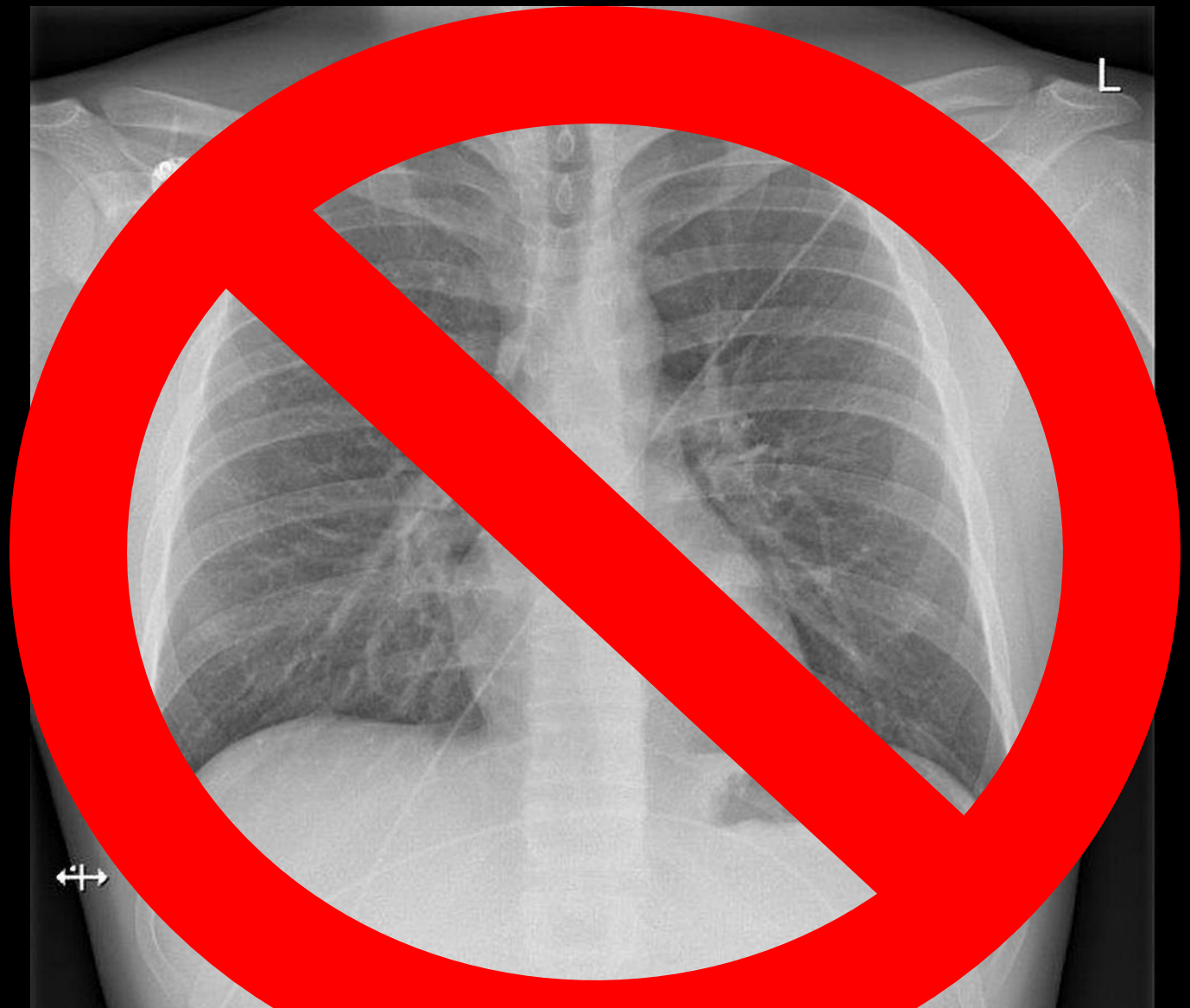
American Cancer Society

- Age 55-74 who have a 30 pack year smoking history and currently smoke or have quit in the last 15 years

Screening modalities

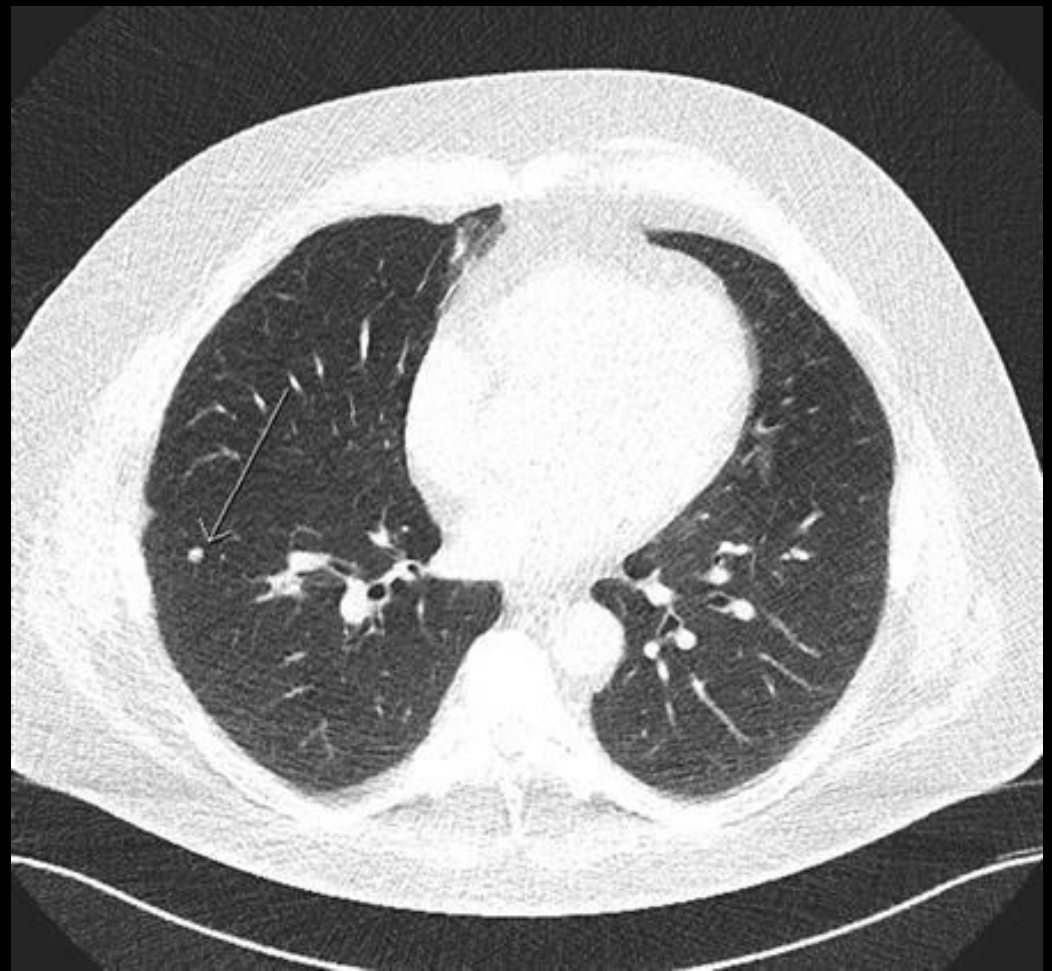


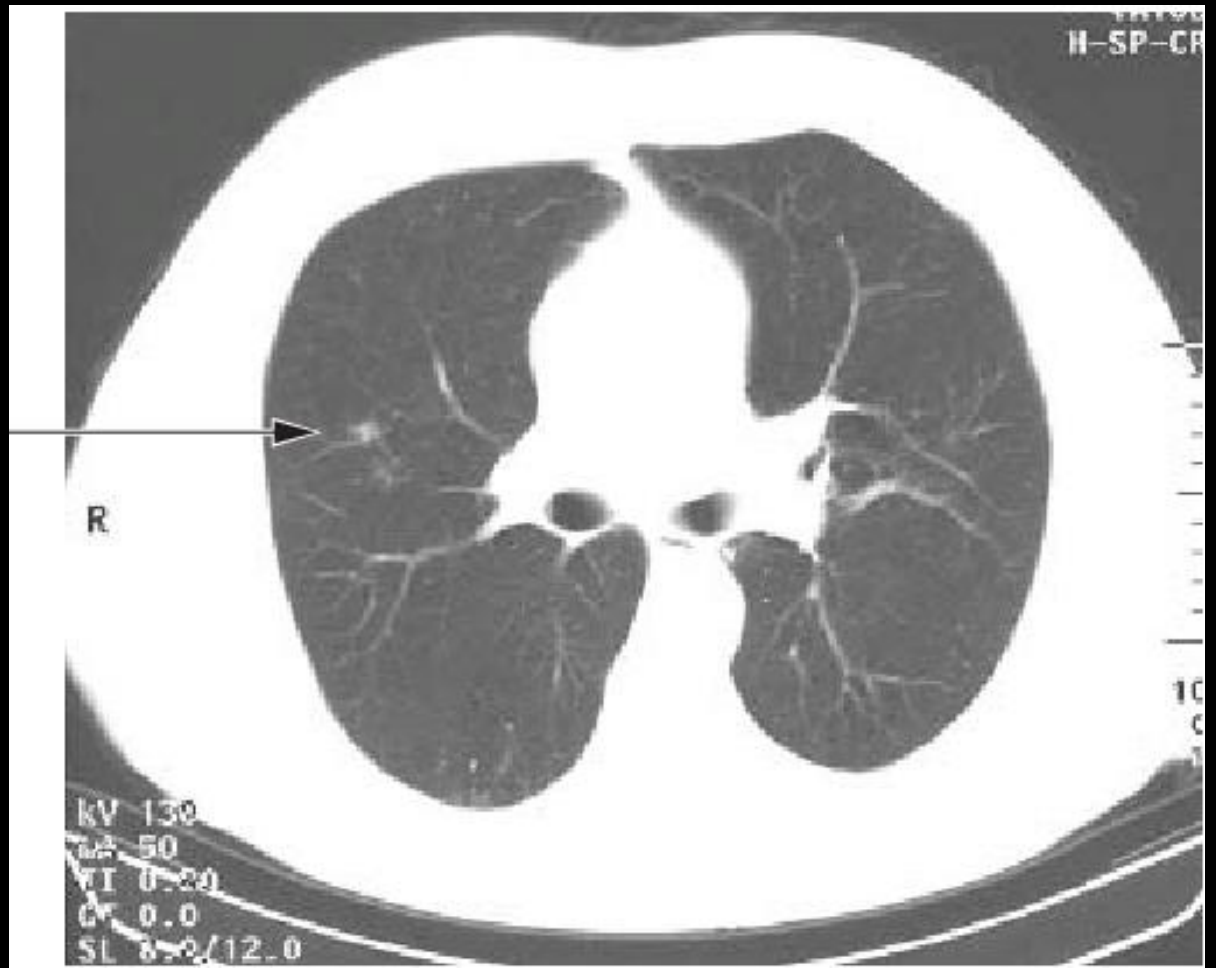
Screening modalities



Screening modalities

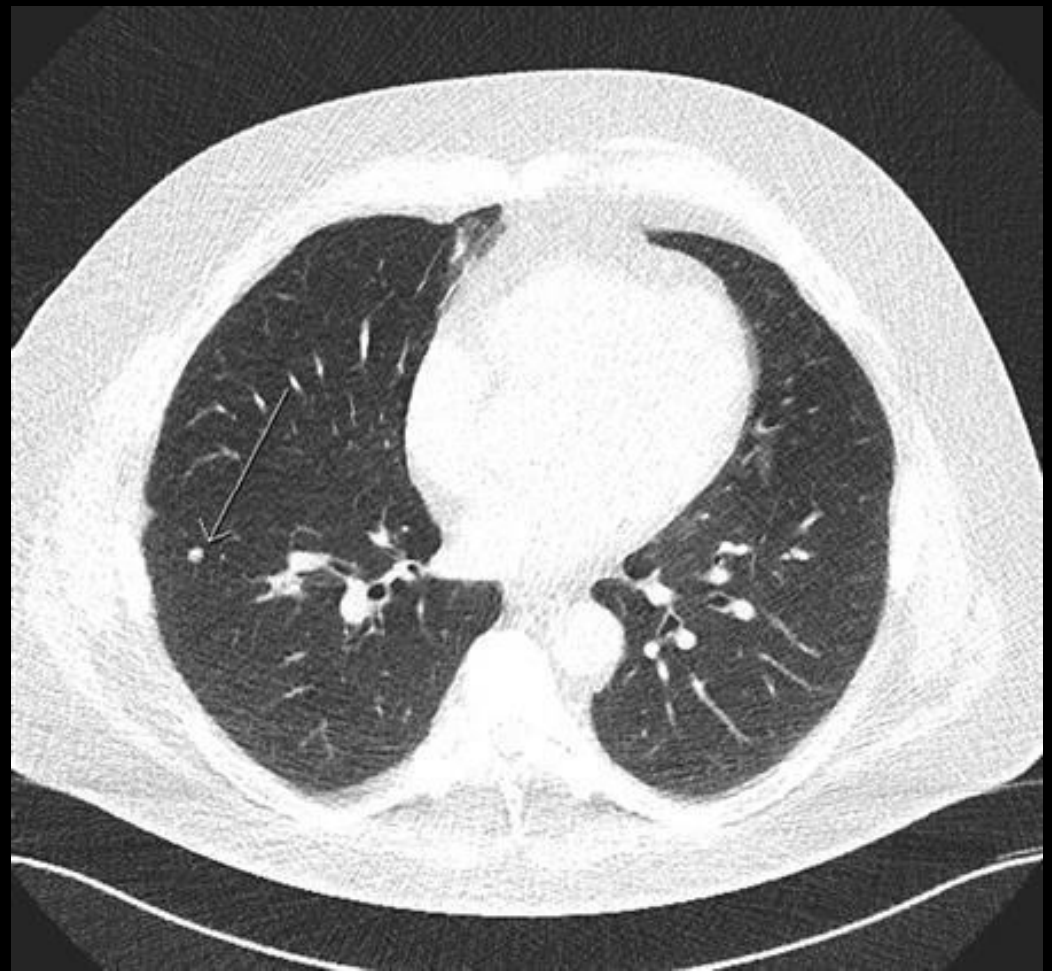
- Low Dose Chest CT





Screening modalities

- Low Dose Chest CT



Relative reduction in mortality of 20%

High rates of positives that need follow up

- 56% of patients will have a nodule that needs to be followed up
- 3.2% will need invasive tests
- 1.5% of those will have cancer

JAMA Intern Med. 2017;177(3):399

Offer screening

- Smoking cessation
- What screening entails and follow up
- What risks are
  - False positives
  - Radiation exposure
  - Distress
- What benefits are

Breast Cancer

Burden of Breast cancer

- 1.96 Billion cases globally, with 181,000 deaths
- In the US 276,000 are diagnosed annually and 42,000 will die from breast cancer
- Decreased mortality rate from breast cancer thought to be due to better treatment and screening

Journal of Hematology & Oncology volume 12, Article number: 140 (2019)
American Cancer Society. Cancer Facts & Figures 2020

Risks for breast cancer

- Age
- Breast Density
- Family and personal history of breast cancer
- BRCA1/BRCA2
- Obesity
- Post-menopausal estrogen
  - Typically more than 3 yrs
  - Unclear OCP effects

Protective factors

- Late Menarche
- Early age for first pregnancy
- Breastfeeding
  - Including protection in BRCA1, but not BRCA2
- Regular physical activity

Screening modalities

- Mammography
  - This is the standard screening modality
  - Need at least 2 views
  - Tomosynthesis
    - Increases cancer detection rate and decreases “recall rate”

JAMA 2014;311(24)
Radiology 2018;288(2)

Other imaging

- Ultrasound
  - Not used for screening purposes due to no additional detection rates, but more false positives
- Breast MRI
  - Can be used for screening women with 20% or more lifetime risk OR those with BRCA mutations

Who should be screened?

USPSTF

- Average risk women age 50-74 Biennial mammography
- Women 40-49 weigh benefit and harm, can

American Cancer Society

- Women 45-55 annual mammography, then 55 start biennial screening

ACOG/ASBS

- Annual mammography starting at age 40

ACOG: American College of Obstetrics and Gynecology
ASBS: American society for Breast Surgeons

Screening risks and benefits

Benefits

Reduction in Breast Cancer mortality from 12-36%

Risks

Recall because of mammo abnormality of 3-12%

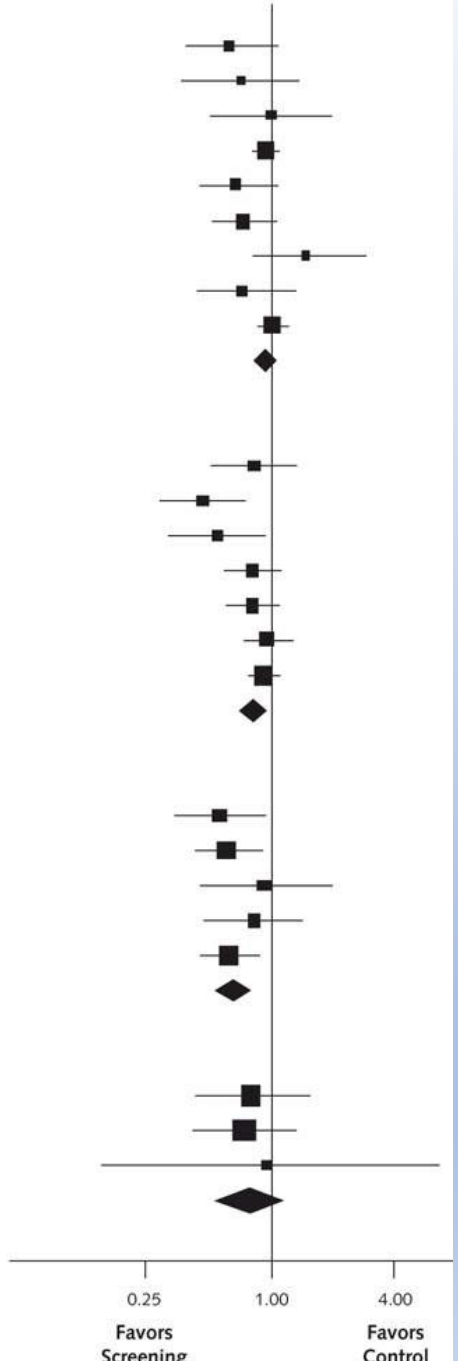
Radiation exposure

Overdiagnosis in the range of 11-22%

Ann Intern Med.2016;164
Cancer Biol Med. 2017;14(1)

Why the different recommendations?

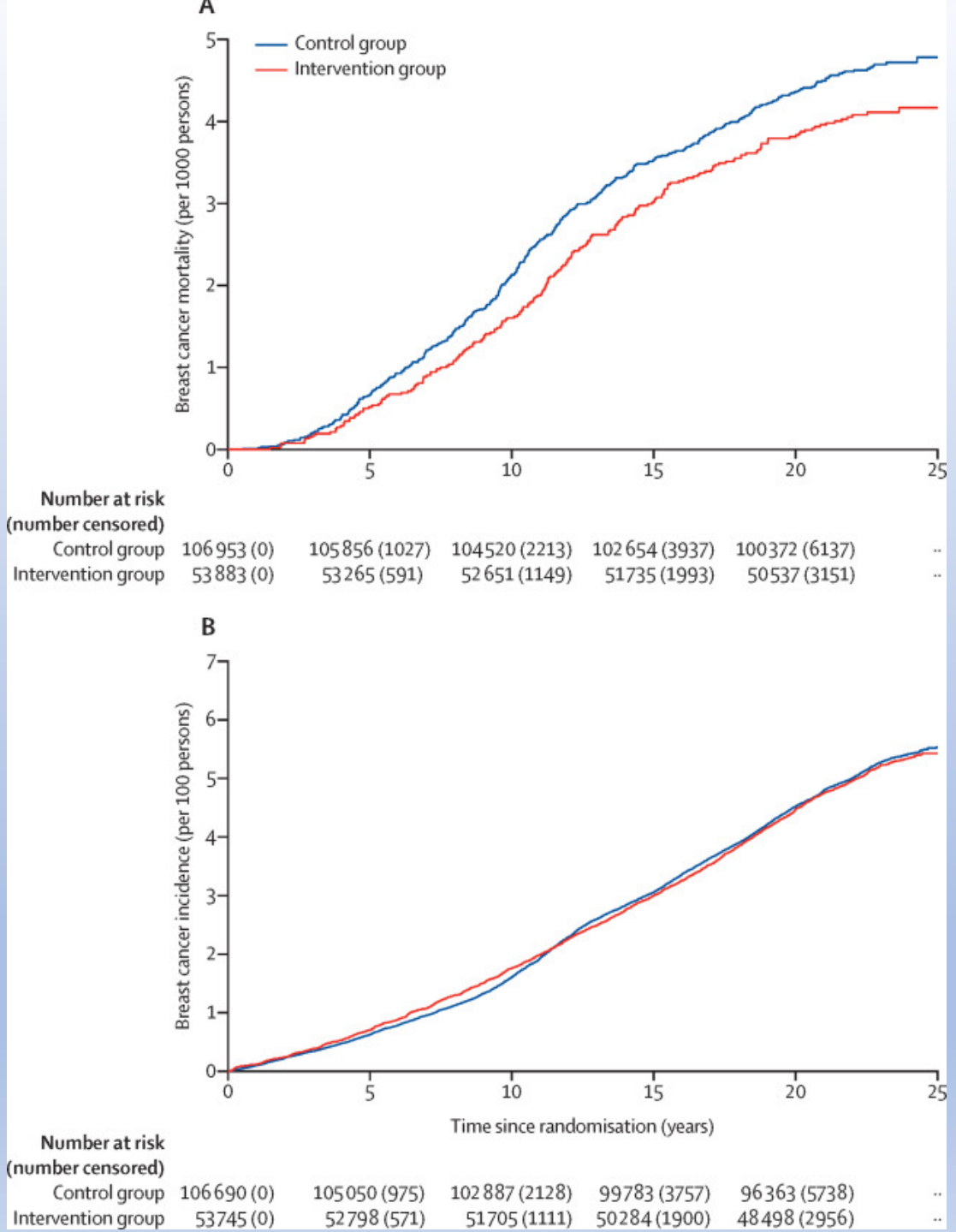
Author, Year (Reference)	Trial Name	Mean Follow-up, *y*	Relative Risk (95% CI)
Women aged 39–49 y			
Nyström et al, 2002 (30)*	MMST II	11.2	0.64 (0.39–1.06)
Tabár et al, 1995 (26)	Kopparberg	12.5	0.73 (0.37–1.41)
Tabár et al, 1995 (26)	Östergötland	12.5	1.02 (0.52–1.99)
Moss et al, 2015 (27)	Age	17.5	0.93 (0.80–1.09)
Bjurstam et al, 2003 (25)	Gothenburg	13.8	0.69 (0.45–1.05)
Habbema et al, 1986 (29)	HIP	14.0	0.75 (0.53–1.05)
Nyström et al, 2002 (30)*	Stockholm	14.3	1.52 (0.80–2.88)
Nyström et al, 2002 (30)*	MMST I	18.2	0.74 (0.42–1.29)
Miller et al, 2014 (15)	CNBSS-1	21.9	1.04 (0.87–1.24)
Overall (I^2 = 25%; P = 0.230)			0.92 (0.75–1.02)
Women aged 50–59 y			
Tabár et al, 1995 (26)	Östergötland	12.5	0.85 (0.52–1.38)
Tabár et al, 1995 (26)	Kopparberg	12.5	0.48 (0.29–0.77)
Nyström et al, 2002 (30)*	Stockholm	13.7	0.56 (0.32–0.97)
Bjurstam et al, 2003 (25)	Gothenburg	13.8	0.83 (0.60–1.15)
Habbema et al, 1986 (29)	HIP	14.0	0.83 (0.61–1.13)
Nyström et al, 2002 (30)*	MMST I	18.1	0.98 (0.75–1.29)
Miller et al, 2014 (15)	CNBSS-2	21.9	0.94 (0.78–1.13)
Overall (I^2 = 38.0%; P = 0.139)			0.86 (0.68–0.97)
Women aged 60–69 y			
Tabár et al, 1995 (26)	Kopparberg	12.5	0.58 (0.35–0.96)
Tabár et al, 1995 (26)	Östergötland	12.5	0.62 (0.43–0.91)
Nyström et al, 2002 (30)*	Stockholm	13.1	0.94 (0.46–2.02)
Habbema et al, 1986 (29)	HIP	14.0	0.85 (0.48–1.47)
Nyström et al, 2002 (30)*	MMST I	15.5	0.64 (0.45–0.92)
Overall (I^2 = 0.0%; P = 0.739)			0.67 (0.54–0.83)
Women aged 70–74 y			
Tabár et al, 1995 (26)	Östergötland	12.5	0.82 (0.43–1.58)
Tabár et al, 1995 (26)	Kopparberg	12.5	0.76 (0.42–1.36)
Nyström et al, 2002 (30)*	MMST I	13.6	0.98 (0.15–6.60)
Overall (I^2 = 0.0%; P = 0.962)			0.80 (0.51–1.28)



Ann Intern Med.2016;164:244-255

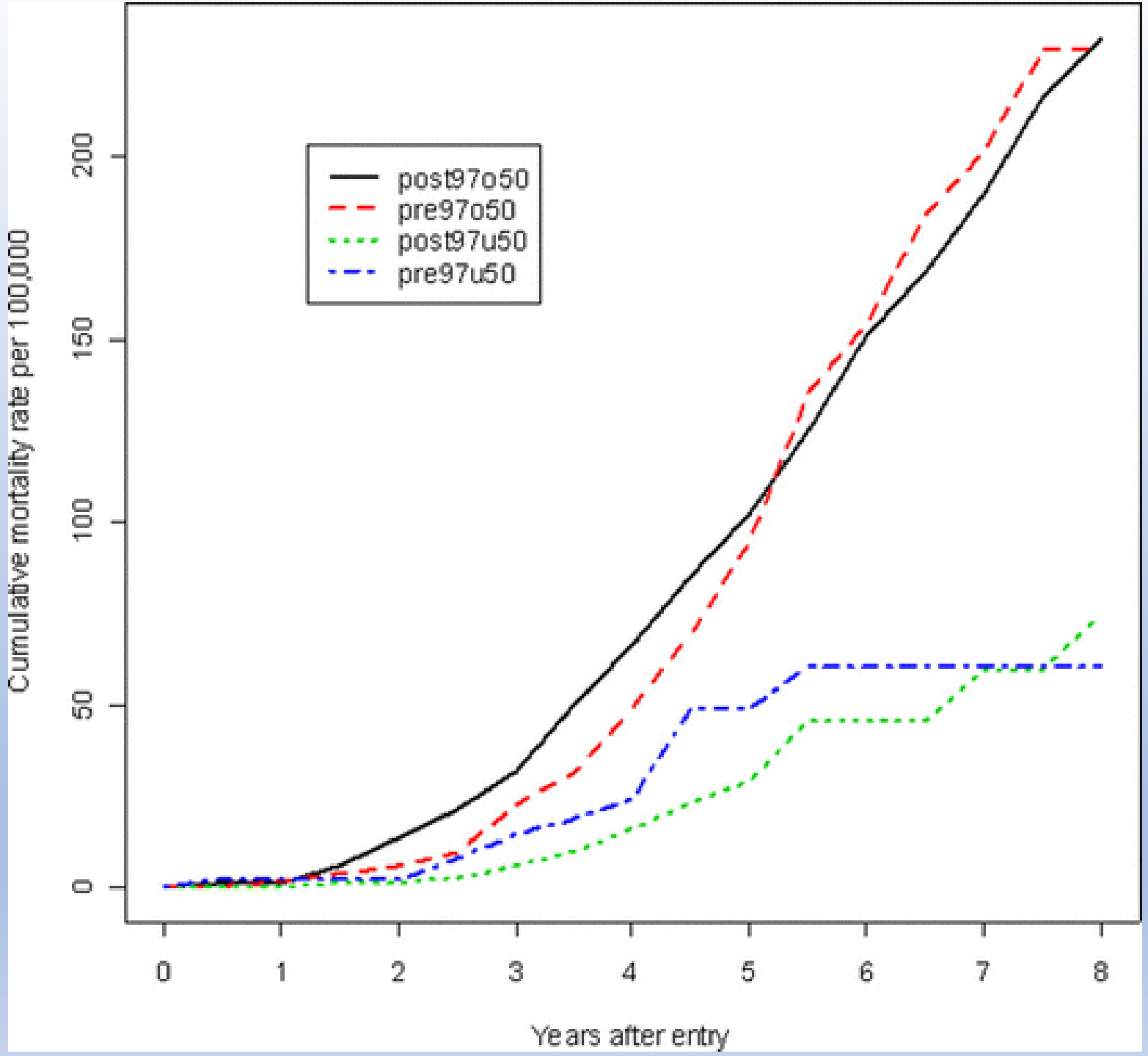
Breast Cancer Mortality

- Control: Invitation to screen at 50
- Intervention: Screening at 39-41



Lancet Oncology. 2020 21(9)

What about differences in intervals between screening?



Journal of Medical Screening 2008; 15(4)

How to determine risk

- Gail model
  - Bcrisktool.cancer.gov/calculator.html

Patient Eligibility

Does the woman have a medical history of any breast cancer or of ductal carcinoma in situ (DCIS) or lobular carcinoma in situ (LCIS) or has she received previous radiation therapy to the chest for treatment of Hodgkin lymphoma?

- ○ Yes
- ● No

Does the woman have a mutation in either the *BRCA1* or *BRCA2* gene, or a diagnosis of a genetic syndrome that may be associated with elevated risk

Lifetime Risk of Developing Breast Cancer

Patient Risk

9.9%

Average Risk

10.1%

Based on the information provided, the woman's estimated risk for developing invasive breast cancer over her lifetime (to age 90) is 9.9%, presented in green since hers is lower than the average risk of 10.1% (presented in blue) for women of the same age and race/ethnicity in the general U.S. population.

A little more about BRCA

- Breast Cancer susceptibility gene
- Autosomal dominant inheritance
- Risk of breast cancer is 45-70% (depending on which BRCA)
  - Also increased risk of other cancers such as ovarian, prostate, pancreas

Who to screen for BRCA

USPSTF and National Comprehensive Cancer Network are in agreement

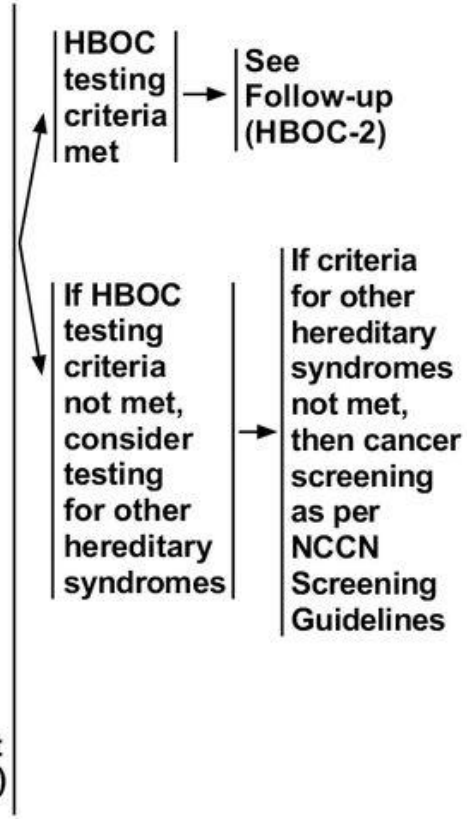
Women with a personal or family history of breast, ovarian, tubal or peritoneal cancer OR who have an ancestry associated with BRCA1/2 should receive **genetic counseling** and *possible* testing.

HEREDITARY BREAST AND/OR OVARIAN CANCER SYNDROME TESTING CRITERIA[a,b]

Meeting one or more of these criteria warrants further personalized risk assessment, genetic counseling, and often genetic testing and management. Testing of unaffected individuals should only be considered when an appropriate affected family member is unavailable for testing.

- Individual from a family with a known deleterious *BRCA1/BRCA2* mutation
- Personal history of breast cancer[b] + one or more of the following:
  - Diagnosed ≤45 y
  - Diagnosed ≤50 y with:
    - An additional breast cancer primary[c]
    - ≥1 close blood relative[d] with breast cancer at any age
    - ≥1 close relative with pancreatic cancer
    - ≥1 relative with prostate cancer (Gleason score ≥7)
    - An unknown or limited family history[a]
  - Diagnosed ≤60 y with a:
    - Triple negative breast cancer
  - Diagnosed at any age with:
    - ≥1 close blood relative[d] with breast cancer diagnosed ≤50 y
    - ≥2 close blood relatives[d] with breast cancer at any age
    - ≥1 close blood relative[d] with invasive ovarian[e] cancer
    - ≥2 close blood relatives[d] with pancreatic cancer and/or prostate cancer (Gleason score ≥7) at any age
    - A close male blood relative[d] with breast cancer
    - For an individual of ethnicity associated with higher mutation frequency (eg, Ashkenazi Jewish) no additional family history may be required[f]
- Personal history of invasive ovarian[e] cancer
- Personal history of male breast cancer
- Personal history of prostate cancer (Gleason score ≥7) at any age with ≥1 close blood relative[d] with breast (≤50 y) and/or invasive ovarian[e] and/or pancreatic or prostate cancer (Gleason score ≥7) at any age
- Personal history of pancreatic cancer at any age with ≥1 close blood relative[d] with breast (≤50 y) and/or invasive ovarian[e] and/or pancreatic cancer at any age
- Personal history of pancreatic cancer, and Ashkenazi Jewish ancestry

- Family history only (significant limitations of interpreting test results for an unaffected individual should be discussed):
  - First- or second-degree blood[d] relative meeting any of the above criteria
  - Third-degree blood[d] relative who has breast cancer[b] and/or invasive ovarian[e] cancer and who has ≥2 close blood relatives[d] with breast cancer (at least one with breast cancer ≤50 y) and/or invasive ovarian[f] cancer



[a]For further details regarding the nuances of genetic counseling and testing, see BR/OV-A.
[b]For the purposes of these guidelines, invasive and ductal carcinoma in situ breast cancers should be included.
[c]Two breast cancer primaries includes bilateral (contralateral) disease or two or more clearly separate ipsilateral primary tumors either synchronously or asynchronously.
[d]Close blood relatives include first-, second-, and third-degree relatives on same side of family. (See BR/OV-B)
[e]Includes fallopian tube and primary peritoneal cancers. *BRCA*-related ovarian cancers are associated with epithelial non-mucinous histology. Other cancer genetic syndromes may be associated with mucinous ovarian cancer. Non-epithelial ovarian cancer may be associated with PJS and possibly other cancer syndromes. Ovarian/fallopian tube/primary peritoneal cancers are component tumors of Lynch syndrome; be attentive for clinical evidence of this syndrome. See NCCN Guidelines for Genetic/Familial High-Risk Assessment: Colorectal.
[f]Testing for Ashkenazi Jewish founder-specific mutation(s) should be performed first. Comprehensive genetic testing may be considered if ancestry also includes non-Ashkenazi Jewish relatives or if other HBOC criteria are met. Founder mutations exist in other populations.

Example of screening tool

	Seven Question Family History Screening
1	Did any of your first degree relatives have breast OR ovarian cancer?
2	Did any of your relatives have bilateral breast cancer?
3	Did any man in your family have breast cancer
4	Did any woman in your family have breast AND ovarian cancer?
5	Did any woman in your family have breast cancer before age 50?
6	Do you have 2 or more relatives with breast and/or ovarian cancer?
7	Do you have 2 or more relatives with breast and/or bowel cancer?

Do transgender women need screening?

In retrospective studies, the risk is much lower – approximately 4.1/100,000 person-years for transgender women vs 155/100,000 in cis-gender women

- Transgender males have a rate of 5.9/100,000 person years

Because of lower risk, recommendation is to begin screening no earlier than age 50 in transgender women, and at least 5 years of feminizing hormones, and done biennially

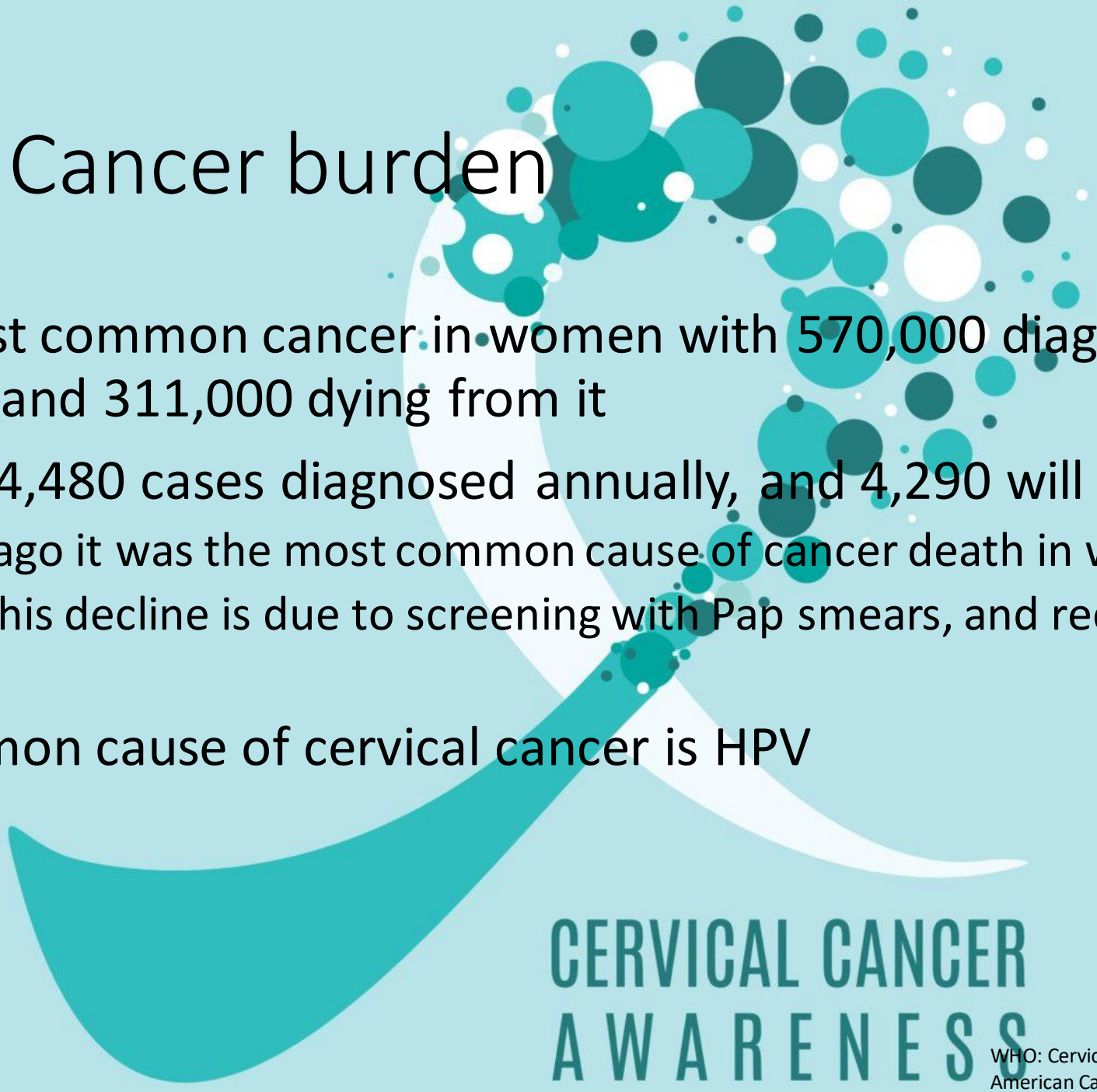
Transgender men who have not had mastectomy should be screened similarly to cisgender women.

Journal of Sexual Medicine 2013;10(12)
https://transcare.ucsf.edu/guidelines/breast-cancer-women

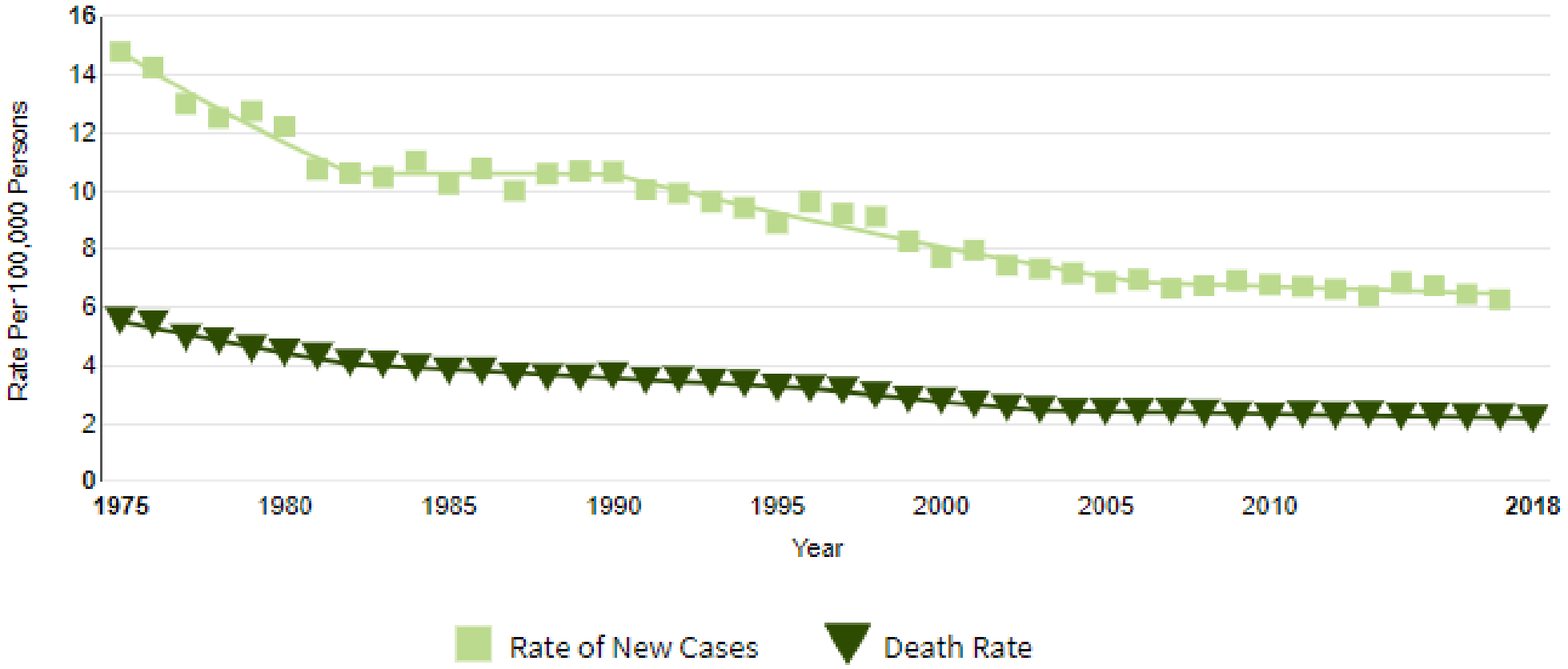
Cervical Cancer

Cervical Cancer burden

- Fourth most common cancer in women with 570,000 diagnosed worldwide and 311,000 dying from it
- In the US 14,480 cases diagnosed annually, and 4,290 will die from it
  - 40 years ago it was the most common cause of cancer death in women
  - Most of this decline is due to screening with Pap smears, and recently HPV vaccine
- Most common cause of cervical cancer is HPV



WHO: Cervical Cancer
American Cancer Society: Cervical cancer statistics
National Institutes of Health. Cervical Cancer. NIH



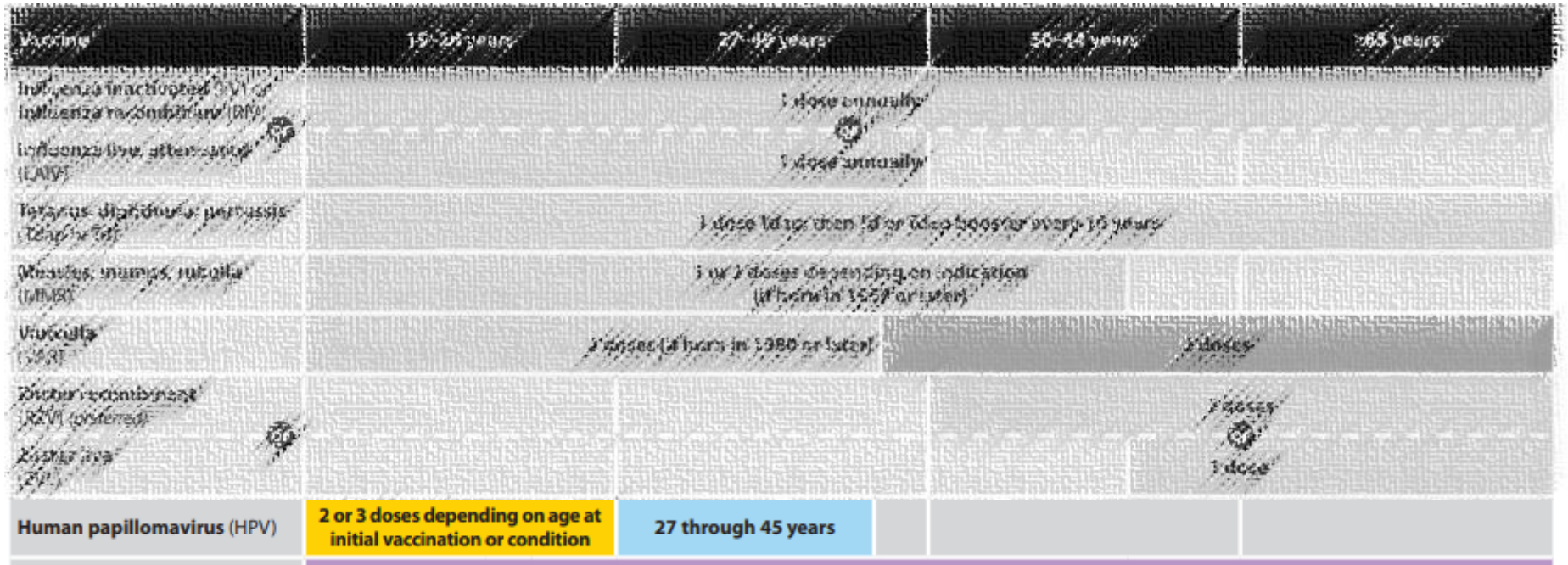
New cases come from SEER 9. Deaths come from U.S. Mortality.
All Races, Females. Rates are Age-Adjusted.
Modeled trend lines were calculated from the underlying rates using the Joinpoint Trend Analysis Software.

HPV vaccine

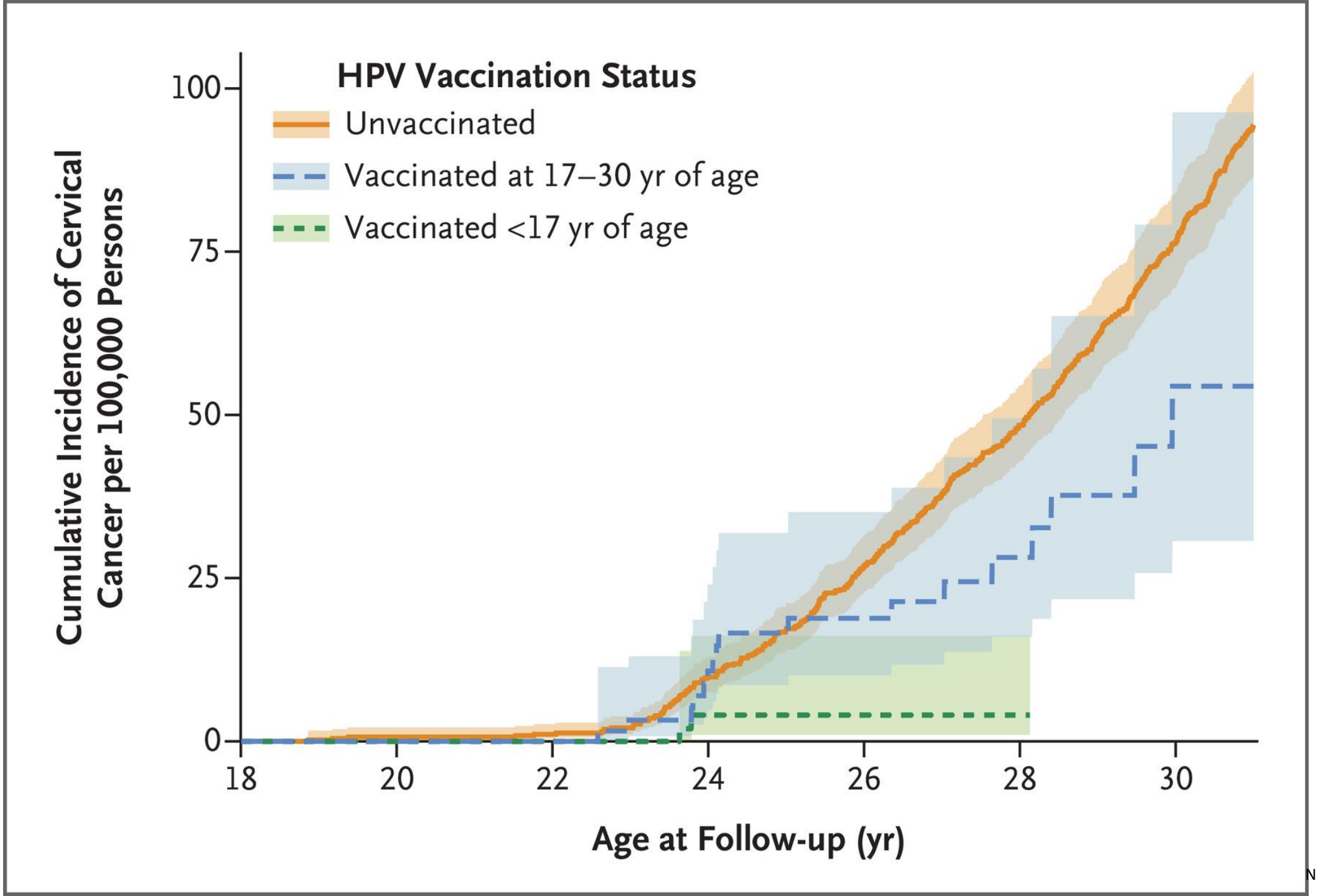
HPV Vaccine recommendations

- Females and Males should receive HPV vaccine at 11 or 12, but can be given anytime between 9-26 years
  - If given prior to age 15, then 2 dose is sufficient
  - If 15 or older, need 3 doses

  - New recommendations to have shared clinical decision making for adults 27-45



MMWR Weekly 2019 ;68(32)



N Engl J Med 2020; 383

Who should be screened?

USPSTF

- Women age 21-29 screen every 3 years with cervical cytology (Pap)
- Women age 30-65 screen every 3 yrs with cervical cytology, every 5 years with high risk HPV alone or every 5 years with hrHPV with cytology

American Cancer Society

- Screening should start at age 25 with primary HPV test every 5 years
- Can alternatively do co-test with cytology and HPV every 5 years or cytology alone every 3 yrs
- Stop at age 65 if regular screening over past 10 years was normal and no history of CIN2 or higher

ACOG/ASBS

- Women age 21-29 screen with Pap test every 3 years
- Women age 30-65 have co testing (pap and HPV) every 5 years, Pap test alone every 3 years or HPV test alone every 5 years.
- Stop at age 65 if regular screening over past 10 years with normal results

No Screening for women after hysterectomy of uterus and cervix

ACOG: American College of Obstetrics and Gynecology
ASBS: American society for Breast Surgeons

Prostate cancer

Burden of Prostate Cancer

Worldwide there are 1,276,000 new cases and 359,000 deaths annually

In the US there are about 248,000 new cases and 34,000 deaths from prostate cancer

European Urology 2020;77(1)
American Cancer Society: Prostate Cancer statistics

Who should be screened?

has pretty good conser

USPSTF

- Men aged 55-69 should have a discussion with their clinician, weighing the risks and benefits of prostate cancer screening with PSA based approach

American Cancer Society

- Patient should make an informed decision taking risks and benefits into account on whether to be screened. This should occur at:
  - 50 for those at average risk
  - 45 for those at high risk (African American, one first degree relative diagnosed <65)
  - 40 for men with more than 1 first degree relative with early prostate cancer

ACOG/ASBS

- Men aged 55-69 should weigh the risks and benefits of screening, and "strongly recommends shared decision making" using a PSA based approach

Role of DRE

- Most societies do not recommend DRE as part of the screening process
- American Cancer Society and National Comprehensive Cancer Network says it could be done in combination with PSA
- It does increase rate of detection when combined with PSA
- Most recommend DRE if PSA elevated

Benefits

For every 781 men screened between 55-69, 1 death will be prevented

For every 1000 screened, you would see a reduction of 3 metastatic disease

Screen detected cancers have a more favorable stage than if diagnosed without screening

Risks

Overdetection rate of 48%

Risks associated with prostate biopsy which occur in up to 2% of men

False positive

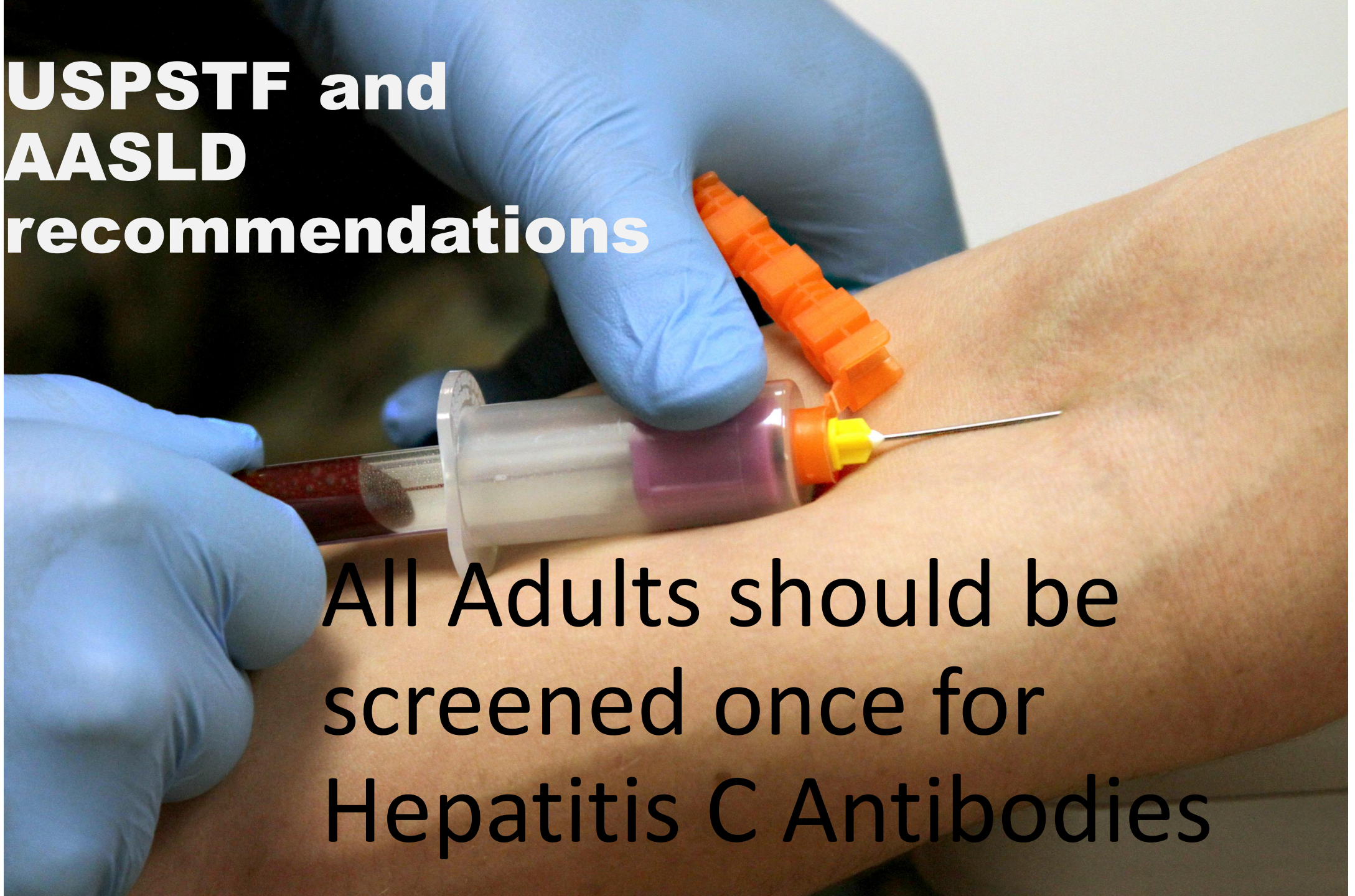
Eur Urol. 2012;62(5)
Lancet 2014;384(9959)
Journal of National Cancer institute 2003;95(12)

Hepatitis C Screening

Hepatitis C

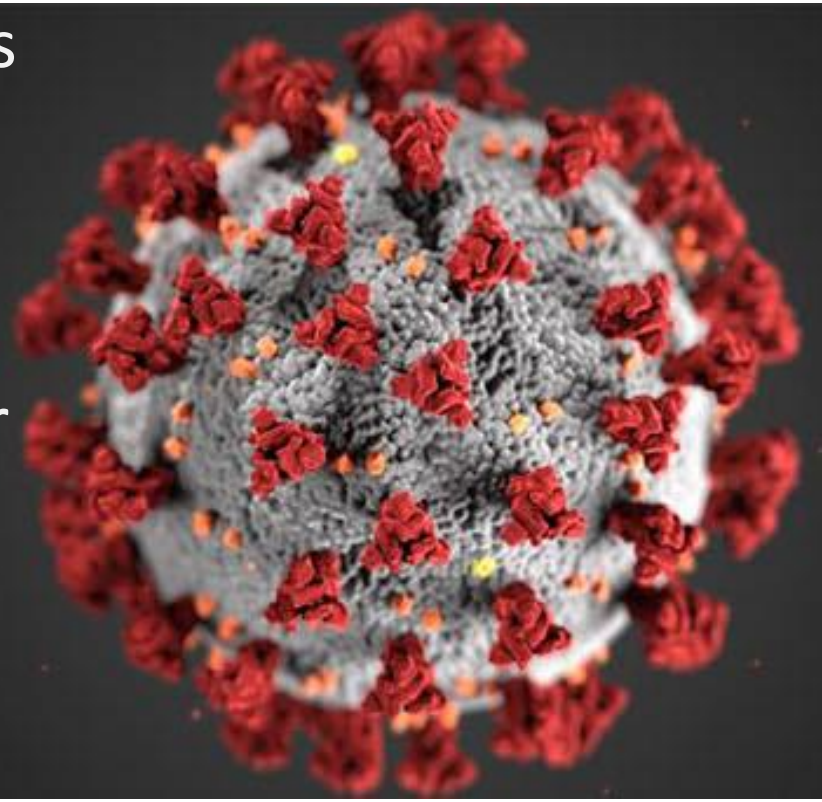
Most common indication for liver transplantation

Accounts for 1/3 of Hepatocellular carcinoma in the US


USPSTF and AASLD recommendations
All Adults should be screened once for Hepatitis C Antibodies

COVID-19?

- 43% of Americans missed routine medial appointments because of the pandemic
- 35% of Americans missed a cancer screening appointment
- 17% of parents missed a scheduled vaccination of their children
- There was a drop of 86-94% in preventive cancer screening compared with equivalent weeks in the previous 3 years



Epic Health Research Network . Preventive cancer screenings during COVID-19 pandemic https://www.preventcancer.org/2020/08/prevent-cancer-foundation-announces-back-on-the-books-a-lifesaving-initiative-in-the-face-of-covid-19/

Take home points

- Primary prevention is key, but secondary prevention can also have significant impacts on morbidity and mortality
- Colorectal cancer screening in average risk adults should begin at the latest by 50 years old, but probably start earlier at age 45
- Lung cancer screening can improve mortality from lung cancer, but smoking cessation will have a bigger impact.
  - Low dose CT should be performed on current or former smokers age 50 who have a 20 pack year history (currently 55 y/o and 30 pack year)
- Breast Cancer screening should be discussed with women beginning at age 40, but should definitely begin by age 50.
  - Referral for genetic counseling for BRCA screening in certain populations
- Cervical Cancer screening after age 30 should be done with co-testing every 5 years and should continue despite vaccination
  - Age 21-29 cytology along would suffice, although could consider contesting in 25 year old
  - Vaccinating patients can have a significant impact on incidence
- Prostate cancer

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FAU
CHARLES E. SCHMIDT
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A 67 year old female presents to your office for a yearly physical. She has no past medical history, does not drink etoh or use tobacco products or any drugs, and has been feeling well. Last year you reviewed all of her screening tests, and her last pap smear was 4 years ago and normal; She had a FIT test done 12/2019; and her last mammogram was 12/2019

- Which of the following cancers should you screen for in this patient at this visit?

A. Cervical Cancer
B. Lung Cancer
C. Colorectal Cancer
D. Breast Cancer

A 44 year old male who has not seen a physician for over 10 years comes to your office to establish care after his father died of colon cancer 3 months ago at the age of 78. He wishes to be tested "for everything". He smokes tobacco daily (1ppd for 25 years), but doesn't drink etoh or use drugs. He denies any abdominal, pulmonary or cardiac symptoms.

- Which of the following should you screen this patient for?

A. Colorectal Cancer
B. Lung Cancer
C. Prostate Cancer
D. Hepatitis C

A 56 year old female with a history of tobacco use (1 ppd for 30 years) quit 3 years ago comes in saying she is concerned about lung cancer, although has no symptoms. Which of the following is appropriate screening?

A. No need for screening for lung cancer since she quit 3 years ago
B. Chest x-ray PA and lateral to assess for masses
C. Contrast CT of chest
D. Low dose CT of chest
E. Pulmonary function tests
F. Sputum cytology