Why Prevention ?

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Why Prevention

Prevention and Early Diagnosis are priority strategies in view of the diminishing economic resources and the skyrocketing prices of treating advanced diseases.

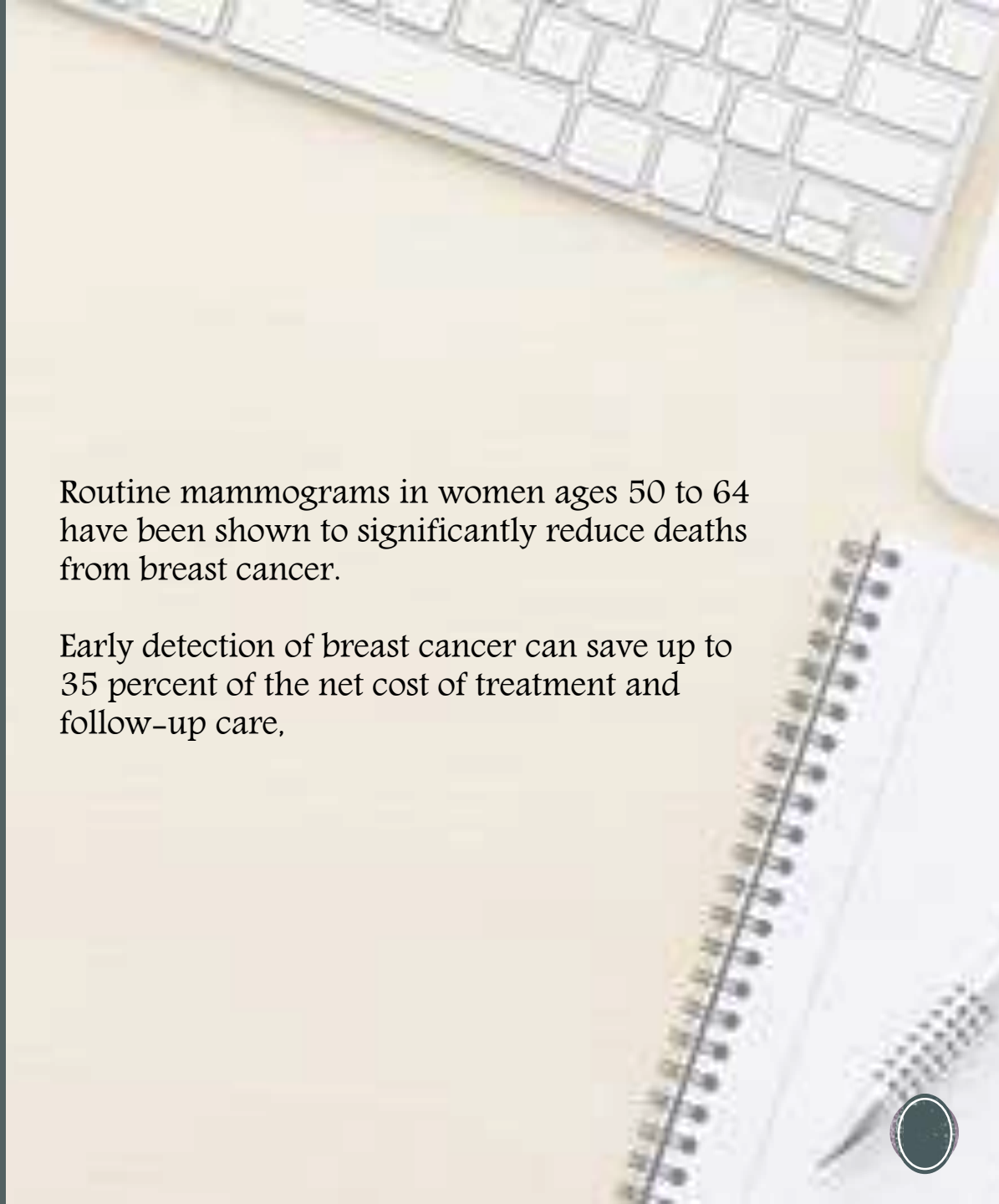
Disability and death associated with chronic conditions is preventable

Despite cost effectiveness many preventive services remain underutilized.

Prevention

Routine mammograms in women ages 50 to 64 have been shown to significantly reduce deaths from breast cancer.

Early detection of breast cancer can save up to 35 percent of the net cost of treatment and follow-up care,



Insurance companies

All employers should understand that increasing their investment in clinical preventive services will reduce cost and increase employee loyalty.

They must devote more attention to prevention, particularly among older workers, to reduce the prevalence and costs of chronic illness and disability.

The importance of primary care model as providers of service .

There has been an emerging recognition of the need for innovative delivery systems that integrate prevention into both health and community systems

Patients should be connected to health care providers to ensure they get needed preventive services to decrease health risks, identify problems early, and manage chronic conditions to minimize their impact on their lives .

Family physicians play an important role in cancer control that often goes beyond screening and diagnosis to treatment, survivorship, and palliative care.

Challenges

Priorities

Coverage

Possible harms

Patient preferences

Busy practices

US Preventive Services Task Force (USPSTF)

- Members of the panel are volunteers and represent the primary care disciplines of family medicine, internal medicine, nursing, obstetrics/gynecology, pediatrics, and behavioral medicine.
- The purpose of the panel is to conduct scientific evidence reviews of a broad range of clinical preventive healthcare services and develop recommendations for primary care clinicians and health systems, with the goal of improving clinical practice and promoting public health.

CARDIOVASCULAR DISEASE

- CVD remains the leading cause of mortality in adults worldwide

- Patients aged ≥20 years should undergo cardiovascular risk assessment every three to five years.
- Prevalence varies with race and ethnicity .
- Risk can be estimated using several widely available tools.

Risk factors

The USPSTF recommends offering or referring adults with cardiovascular disease risk factors to behavioral counseling interventions to promote a healthy diet and physical activity.

- Smoking
- Overweight and obesity
- Unhealthy diet
- Physical inactivity
- Dyslipidemia
- Hypertension
- Diabetes mellitus (considered in some guidelines as a coronary heart disease [CHD] risk equivalent)

Hyperlipidemia

- What does the USPSTF recommend?
- **B** For adults aged 40 to 75 years who have 1 or more cardiovascular risk factors (ie, dyslipidemia, diabetes, hypertension, or smoking) and an estimated 10-year cardiovascular disease (CVD) risk of 10% or greater: Initiate a statin.
- **C** For adults aged 40 to 75 years who have 1 or more cardiovascular risk factors (ie, dyslipidemia, diabetes, hypertension, or smoking) and an estimated 10-year CVD risk of 7.5% to 10%: Selectively offer a statin.
- For adults 76 years or older: The evidence is insufficient to recommend for or against starting a statin

Hypertension

- Hypertension screening is recommended for adults ≥18 years of age .
- Most patients have their blood pressure checked at each primary care visit.
- Adults aged 18 to 39 years without elevated blood pressure (ie, <130/80 mmHg) and without cardiovascular disease risk factors should be rescreened every three to five years.

Diabetes mellitus

1. *Screen asymptomatic adults aged 35 to 75 years of age who are obese or overweight .*
2. Clinicians should consider screening at an earlier age in persons from groups with disproportionately high incidence and prevalence or in persons who have a family history of diabetes, a history of gestational diabetes, or a history of polycystic ovarian syndrome, and at a lower BMI in Asian American persons.
3. *Patients with prediabetes should be referred to dietary interventions*
4. *Recommends screening women at 24 weeks of gestational age .*

Diabetes

1. **US Preventive Services Task Force** — 2021 guidelines from the US Preventive Services Task Force (USPSTF)
2. *Screen asymptomatic adults aged 35 to 75 years of age who are obese or overweight*
.
3. *Patients with pre diabetes should be referred to dietary interventions .screen all other patients with higher risk groups*
.
4. *Recommends screening women at 24 weeks of gestational age*

- **American Diabetes Association** — The American Diabetes Association (ADA) recommends testing for diabetes or prediabetes in adults with body mass index (BMI) ≥25 kg/m^2have one or more additional risk factors for diabetes, as well as in persons with gestational diabetes mellitus or HIV
- All other adults, it recommends that testing begin at age 35 years.
- People with prediabetes (A1C ≥5.7 percent [39 mmol/mol], impaired glucose tolerance, or impaired fasting glucose) should be tested for diabetes yearly.
- If the screening test is negative, repeat testing every three years is reasonable.)

Screening modality

- Fasting blood sugar.
- Hba1c.
- Glucose tolerance test.
- Random blood sugar testing .

Aspirin

Decisions regarding aspirin for primary prevention of CVD should be made on an individual basis.

Low-dose aspirin may prevent cardiovascular disease (CVD) in some patients but also increases the risk of bleeding.

New evidence , published in JAMA from the US Preventive Services Task Force (USPSTF) concludes with moderate certainty that aspirin use for the primary prevention of CVD events in adults aged 40 to 59 years who have a 10% or greater 10-year CVD risk has a small net benefit.

The USPSTF concludes with moderate certainty that initiating aspirin use for the primary prevention of CVD events in adults 60 years or older has no net benefit.

Aspirin

However, low-dose aspirin continues to be recommended, for secondary prevention for patients with ASCVD or who have existing heart problems, including a history of a heart attack or stroke, angioplasty, PCI or CABG

The USPSTF recommends the use of low-dose aspirin (81 mg/day) as preventive medication after 12 weeks of gestation in persons who are at high risk for preeclampsia..

Breast cancer

- The USPSTF recommends biennial screening mammography for women aged 50 to 74 years.
- The decision to start screening mammography in women prior to age 50 years should be an individual one. Women who place a higher value on the potential benefit than the potential harms may choose to begin biennial screening between the ages of 40 and 49 years.

Screening modality

- Mammogram .

- *What about ultrasound ?*
- *What about MRI?*
- *What about self breast exam?*
- *Clinical exam?*

Breast cancer

- The USPSTF recommends that primary care clinicians assess women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer or who have an ancestry associated with breast cancer susceptibility 1 and 2 (BRCA1/2) gene mutations with an appropriate brief familial risk assessment tool.
- Women with a positive result on the risk assessment tool should get genetic counselling and testing.

Colorectal cancer

- The age of initiation and frequency of colorectal cancer screening varies with the risk:
- Average-risk patients aged 45 -75 and older be screened for colorectal cancer

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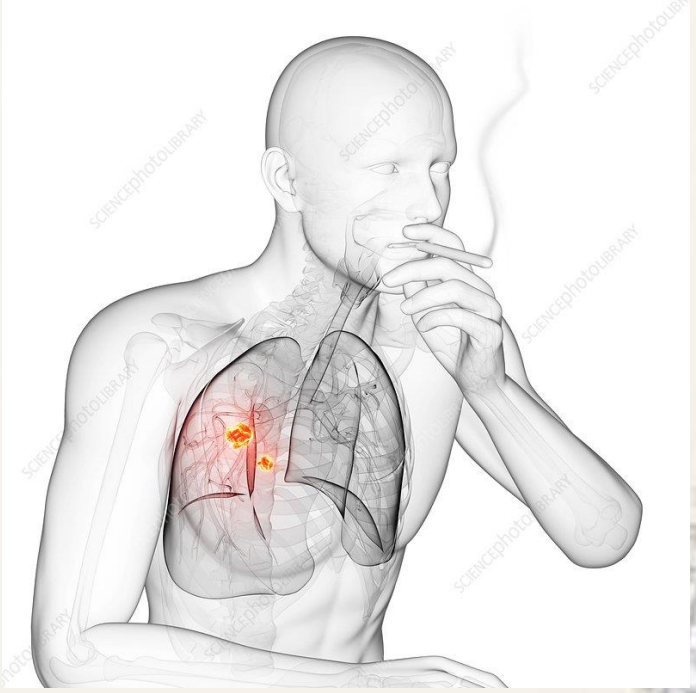
The recommended interval varies depending upon the screening strategy.

Recommended intervals for colorectal cancer screening tests include

- Recommended intervals for colorectal cancer screening tests include
- High-sensitivity gFOBT or FIT every year
- sDNA-FIT every 1 to 3 years
- CT colonography every 5 years
- Flexible sigmoidoscopy every 5 years
- Flexible sigmoidoscopy every 10 years + FIT every year
- Colonoscopy screening every 10 years

Lung cancer

- Annual screening with low-dose helical computed tomography (CT).
- Start at age 50-80 years , who have a 20-pack year smoking history within past 15 years or currently smoking



Prostate cancer

- Health care providers should periodically discuss prostate cancer screening with patients 55 and above who have average risk factors and are expected to live at least 10 years .
- Discussions about periodic screening should begin at age 40 to 45 in those at high risk for prostate cancer; those with a family history of prostate cancer, particularly in relatives younger than age 65; and individuals who are known or likely to have the *BRCA1* or *BRCA2* mutations)

Cervical cancer

- The available methods for cervical cancer screening are the Papanicolaou (Pap) test (ie, cytology),
- HPV testing, and co-testing
- Screening every 3 years from age 21-30 with cytology .
- Screening every 5 years with both cytology and HPV.
- No screening for patients with hysterectomy .

Primary HPV testing

- HPV test is performed alone, without cervical cytology; the suggested screening interval for primary HPV testing is every five years.
- If HPV testing is positive (abnormal), reflex genotyping for HPV types 16 and 18 and reflex cytology are performed (ie, a Pap test is performed as a result of the positive HPV test
- Self-collection of HPV samples may be useful for patients with barriers to collection.

Osteoporosis

- Postmenopausal women <65 years with risk factors for osteoporosis
- Men with clinical manifestation of low bone mass, history of low trauma fracture, risk factors for fracture (such as androgen deprivation therapy for prostate cancer, hypogonadism, primary hyperparathyroidism, or intestinal disorders).
- All women ≥65 years.
- There are several modalities to evaluate bone density. Dual-energy x-ray absorptiometry (DXA)

Psychological disorders

- Screen adults for **depression** .
- Systems should be in place to ensure appropriate follow-up and management of patients who screen positive.
- There is limited evidence to guide the optimal frequency of screening for depression.
- **Anxiety** — A 2020 guideline from the Women's Preventive Services Initiative (WPSI) recommends screening for anxiety in women and adolescent girls aged 13 years .
- **Intimate partner violence** __routine screening for all patients on all visits to primary care clinicians, to obstetrician-gynecologists, to the emergency department, and on hospital admission

Substance abuse

- **Alcohol**, Single-item screen question, "Do you sometimes drink beer, wine, or other alcoholic beverages?" If yes, then the clinician can follow up with,
- How many times in the past year have you had five (four for women) or more drinks in a day?“
- **Drugs** The screening question is:
- “How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?”

Abdominal aortic aneurysm

Population	Recommendation	Grade
Men aged 65 to 75 years who have ever smoked	The USPSTF recommends 1-time screening for abdominal aortic aneurysm (AAA) with ultrasonography in men aged 65 to 75 years who have ever smoked.	B
Men aged 65 to 75 years who have never smoked	The USPSTF recommends that clinicians selectively offer screening for AAA with ultrasonography in men aged 65 to 75 years who have never smoked rather than routinely screening all men in this group. Evidence indicates that the net benefit of screening all men in this group is small. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the balance of benefits and harms on the basis of evidence relevant to the patient's medical history, family history, other risk factors, and personal values.	C
Women who have never smoked	The USPSTF recommends against routine screening for AAA with ultrasonography in women who have never smoked and have no family history of AAA.	D
Women aged 65 to 75 years who have ever smoked	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for AAA with ultrasonography in women aged 65 to 75 years who have ever smoked or have a family history of AAA.	I

Immunization

- Influenza vaccine
- Tetanus, diphtheria, and acellular pertussis vaccination (Td/Tdap)
- Human papillomavirus vaccines
- Zoster vaccine
- Pneumococcal vaccines
- Meningococcal vaccines
- Hepatitis B vaccination
- COVID-19

Options

USPSTF Recommendations App for Web and Mobile Devices

Prevention TaskForce WEB

USPSTF Recommendations application for desktop browsers

Prevention TaskForce Mobile

USPSTF Recommendations application for mobile devices

Prevention TaskForce API

USPSTF Recommendations application into your application

Thank you