Patient Navigation to Increase Cancer Screening and Advance Health Equity

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The Community Preventive Services Task Force (CPSTF)

- Established by the U.S. Department of Health and Human Services in 1996
- Independent, nonfederal panel of 15 public health and prevention experts
- Develop guidance on which public health intervention approaches work and which do not work in the communities, based on available scientific evidence
- Has 32 federal and non-federal liaison organizations, including the US Preventive Services Task Force (USPSTF).

1. About the Community Preventive Services Task Force | The Community Guide
The relationship between the U.S. Preventive Services Task Force and the Community Preventive Services Task Force
CDC’s Community Guide Program, in Conjunction with CPSTF, Conducts Systematic Reviews Assessing Interventions to Improve the Health of Populations

1. Adapted from The Concept of a Systematic Review 2 12 15 no shadow (cochrane.org)
CPSTF Issues Recommendations and Findings Based on Evidence from Community Guide System Reviews

- **Recommended**
  - If strong or sufficient evidence shows the intervention is effective

- **Recommends Against (rare)**
  - If evidence shows the intervention is ineffective or harmful

- **Insufficient Evidence**
  - If not enough evidence to determine intervention’s effectiveness
  - Does NOT mean that the intervention is not effective
  - DOES mean that additional research is needed to determine effectiveness
LATEST FINDINGS: PATIENT NAVIGATION SERVICES TO INCREASE BREAST, CERVICAL, AND COLORECTAL CANCER SCREENING AND ADVANCE HEALTH EQUITY
Breast, Cervical, and Colorectal Cancer Incidence and Death Rates in 2019¹

1. USCS Data Visualizations – CDC. All data from 2019, age-adjusted per 100,000 population
## Cancer Screening Rates in the United States in 2019

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Healthy People 2030 Goals²</th>
<th>Received Recent Screening</th>
<th>Race/Ethnicity</th>
<th>Income (% FPL³)</th>
<th>Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cancer Screening</td>
<td></td>
<td>White Black AI/AN Asian Hispanic</td>
<td>&gt;400% ≤138% Private Public Not Insured</td>
<td></td>
</tr>
<tr>
<td>Breast Cancer Screening</td>
<td>80.5%</td>
<td>76.2%</td>
<td>76.0% 79.0% 64.3% 72.3% 78.1%</td>
<td>82.9% 66.9% 80.0% 74.6% 43.2%</td>
<td></td>
</tr>
<tr>
<td>Cervical Cancer Screening</td>
<td>84.3%</td>
<td>76.4%</td>
<td>77.9% 77.8% 75.6% 67.3% 69.9%</td>
<td>84.3% 64.6% 81.5% 70.9% 57.4%</td>
<td></td>
</tr>
<tr>
<td>Colorectal Cancer Screening</td>
<td>74.4%</td>
<td>68.3%</td>
<td>69.8% 69.5% 62.8% 57.6% 53.8%</td>
<td>75.8% 53.7% 67.4% 54.7% 31.1%</td>
<td></td>
</tr>
</tbody>
</table>


AI/AN: American Indian and Alaska Native

Population group with lower screening rates when compared to others

Population group meeting Healthy People 2030 cancer screening objectives
Patient navigation services provided through healthcare systems help patients overcome barriers to accessing colorectal cancer screening. Services are offered to populations experiencing greater disparities in cancer screening, including people from historically disadvantaged racial and ethnic populations and people with lower incomes.

Patient navigation services must include one or more of the following:

• Provide client reminders
• Reduce structural barriers (e.g., reduce administrative barriers; assist with appointment scheduling, transportation, translation, or childcare; arrange alternative screening site or screening hours)
• Reduce patients’ out-of-pocket costs

1. CPSTF Finding and Rationale Statement - Patient Navigation Services to Increase Breast, Cervical, and Colorectal Cancer Screenings and Advance Health Equity (thecommunityguide.org)
2. Cancer Findings Summary Table | The Community Guide https://www.thecommunityguide.org/content/task-force-findings-cancer-prevention-and-control#cancerscreening
Intervention Definition Created by Community Guide Program, cont.¹

- Services may also provide one-on-one or group education to inform patients’ understanding of cancer and cancer screening.

- Services may be delivered by community health workers, healthcare professionals, nurses, patient navigators, social workers, or others. They are often designed to be culturally- and language-appropriate.

1. CPSTF Finding and Rationale Statement - Patient Navigation Services to Increase Breast, Cervical, and Colorectal Cancer Screenings and Advance Health Equity (thecommunityguide.org)
Research Questions

- How effective are patient navigation services interventions in increasing breast, cervical, and colorectal cancer screening among people from historically disadvantaged racial and ethnic populations and people with lower incomes?

- Does intervention effectiveness vary with intervention and population characteristics?
REVIEW RESULTS
-SEARCH RESULTS
-INTERVENTION AND POPULATION CHARACTERISTICS
-FINDINGS
Search for Evidence and Results

2. A few studies reported on screening for multiple cancers
Geographic Location Included Studies (34 Studies)

*1 study implemented in both West and South Regions

Population Density

- Urban 76%
- Rural 15%
- Urban and rural 6%
- Not reported 3%
Types of Service Deliverer (34 Studies)

1. Other: case manager, preventive care manager, nurse manager
PN: patient navigator; CHW: community health worker
Interaction Between Service Deliverer and Patients (34 Studies)

- Face-to-Face + Remote: 53%
- Remote Only: 44%
- Not Reported: 3%
Patient Navigation Services Offered across Cancer Types (34 Studies)

- Reducing administrative barriers
- Assisting with appointment scheduling
- Assisting with transportation
- Providing childcare
- Reducing structural barriers, not specified
- Providing alternative screening site
- Providing translation
- Client reminder
- Reducing patient out-of-pocket cost

Number of Studies Reporting on the Specific Services Offered

Services to Reduce Structural Barriers
Additional Services Offered across Cancer Types (34 Studies)

Number of Studies Reporting on the Specific Services Offered

- One-on-one education
- Small media
- Group education
- Client incentive
- Provider reminder
- Provider assessment and feedback

Other Client-Oriented Services
Provider-Oriented Services
Population Characteristics (34 studies)

**Gender (Colorectal Only)**
- Female: 59%

**Median Age**
- 59.5 years

**Employment**
- Unemployed: 59%

**Income**
- Majority of study patients had annual income <$40,000

**Education**
- Greater than HS: 37%
- HS graduate: 31%
- Less than HS: 39%

**Insurance**
- Public: 54%
- Private: 37%
- Not Insured: 17%

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HS: High school
Race and Ethnicity (31 of 34 Studies Reporting)

Studies that Recruited from a Single Racial or Ethnic Group
- American Indian: 1 study
- Asian: 2 studies
- Black or African American: 5 studies
- Hispanic: 2 studies

U.S. Census Bureau QuickFacts: United States
### Overall results: Changes in Breast, Cervical, and Colorectal Cancer Screening Use

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Screening Test Used</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast cancer</td>
<td>Mammography</td>
<td>Increased by a median of 12.0 percentage points, or 54.5%</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>Pap test</td>
<td>Increased by a median of 22.5 percentage points, or 64.5%</td>
</tr>
<tr>
<td>Colorectal cancer</td>
<td>Screened using any test</td>
<td>Increased by a median of 13.6 percentage points, or 76.2%</td>
</tr>
<tr>
<td></td>
<td>Colonoscopy</td>
<td>Increased by a median of 13.9 percentage points, or 109.9%</td>
</tr>
<tr>
<td></td>
<td>FOBT or FIT</td>
<td>Increased by a median of 12.4 percentage points, or 57.3%</td>
</tr>
</tbody>
</table>

FOBT, fecal occult blood test; FIT, fecal immunochemical test
Patient Navigation Services Improved Cancer Screening Rates, but They Remain Below Healthy People 2030 Goals

- **Breast Cancer Screening**: Before Intervention: 50.1%; After Intervention: 61.8%; Healthy People 2030 Goal: 80.5%
- **Cervical Cancer Screening**: Before Intervention: 33.8%; After Intervention: 48.6%; Healthy People 2030 Goal: 84.3%
- **Colorectal Cancer Screening**: Before Intervention: 13.6%; After Intervention: 28.2%; Healthy People 2030 Goal: 74.4%
Similar Increases in Cancer Screening Observed Across These Settings

- **Across the U.S.**
  - Northeast, South, Midwest, or West regions

- **Population Density**
  - Urban, rural, or a mix
  - Greater increases in rural areas

- **Place of Services**
  - Clinics only or Clinics + Community

- **Across Population**
  - Population groups with different age, gender, race or ethnicity

- **Contact Method**
  - Remote only, or remote and face-to-face

- **Services Offered**
  - Reducing structural barriers, reducing client out-of-pocket costs, client reminder, one-on-one or group education

- **# of Services Offered**
  - 1 to 5+ services

- **All Deliverers**
  - Navigators, CHWs, nurses, case managers, and others
  - Greater increase if navigator or CHW working with a team

SES, socioeconomic status; CHW, community health worker
The CPSTF recommends patient navigation services to increase breast, cervical, and colorectal cancer screening among historically disadvantaged racial and ethnic populations and people with lower incomes.

Patient navigation services are expected to advance health equity when implemented among these populations who often have lower screening rates.

Cancer types and tests used:
- Breast cancer screening by mammography
- Cervical cancer screening by Pap test
- Colorectal cancer screening by colonoscopy, fecal occult blood test (FOBT), or fecal immunochemical test (FIT)
Evidence Gaps

How effective are patient navigation services in increasing the following?

- Repeat screenings
- Proportion of patients with positive screening tests who receive follow-up diagnostic tests
- Cervical cancer screening for younger females or using Human Papillomavirus tests
- Colorectal cancer screening for adults aged 45-49 years or using other USPSTF-recommended tests such as the stool DNA test, flexible sigmoidoscopy, or computed tomography colonography

Does intervention effectiveness vary by the following?

- Patients’ health literacy
- Number of interactions between service deliverers and patients
Community Preventive Services Task Force (CPSTF) Recommendation

Cancer Screening: Patient Navigation Services to Increase Colorectal Cancer Screening and Advance Health Equity

**Recommended**

July 2022

CPSTF recommends patient navigation services to increase colorectal cancer screening by colonoscopy, fecal occult blood test (FOBT) or fecal immunochemical test (FIT), among historically disadvantaged racial and ethnic populations and people with lower incomes.

<table>
<thead>
<tr>
<th>What are patient navigation services?</th>
<th>Why is this important?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare systems provide these services that include client reminders, reduced structural barriers or improved assistance getting around them or reduced out-of-pocket costs.</td>
<td>Screening rates are lower among people from historically disadvantaged racial and ethnic groups, people with lower incomes and people who are uninsured.</td>
</tr>
</tbody>
</table>

**Major Findings**

These interventions increased colorectal cancer screening by a median of 13.6 percentage points.

**Evidence gap**

How effective are patient navigation services in increasing colorectal cancer screening for adults aged 45-49 years (following 2021 update of US Preventive Services Task Force that lowered the starting age of screening)?

More than 25 years of evidence-based findings for population health

New Publication About Engaging Community Health Workers for Cancer Screening
New publication details systematic review findings for interventions that engage community health workers to increase breast, cervical, and colorectal cancer screening.
OTHER CPSTF FINDINGS FOR INTERVENTIONS TO INCREASE BREAST, CERVICAL, AND COLORECTAL CANCER SCREENING
CPSTF Recommendations for Interventions to Increase Cancer Screening\textsuperscript{1,2}

Client-Oriented Interventions, Recommended

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client reminder (2010)</td>
<td>![pink ribbon]</td>
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<tr>
<td>One-on-one education (2010)</td>
<td>![pink ribbon]</td>
</tr>
<tr>
<td>Small media (2005)</td>
<td>![pink ribbon]</td>
</tr>
<tr>
<td>Reducing structural barriers (2010)</td>
<td>![pink ribbon]</td>
</tr>
<tr>
<td>Group education (2009)</td>
<td>![pink ribbon]</td>
</tr>
<tr>
<td>Reducing out-of-pocket costs (2009)</td>
<td>![pink ribbon]</td>
</tr>
</tbody>
</table>

1. Cancer Findings Summary Table | The Community Guide
2. Insufficient evidence: client incentive; mass media

- Breast cancer screening
- Cervical cancer screening
- Colorectal cancer screening
CPSTF Recommendations for Interventions to Increase Cancer Screening

Provider-Oriented Interventions, Recommended

<table>
<thead>
<tr>
<th>Intervention</th>
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<tbody>
<tr>
<td>Provider assessment and feedback (2009)</td>
<td></td>
<td></td>
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<tr>
<td>Provider reminder (2006)</td>
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Interventions that can Include Multiple Interventions, Recommended

<table>
<thead>
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<tr>
<td>Interventions engaging community health workers (2019)</td>
<td></td>
<td></td>
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<tr>
<td>Multicomponent interventions (2016)</td>
<td></td>
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</tr>
<tr>
<td>Patient navigation services (2022)</td>
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</tbody>
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1. [Cancer Findings Summary Table | The Community Guide](#)
2. Insufficient evidence: provider incentive