Clinical Preventive Services

Measures of Clinical Preventive Services: Screening

Clinical preventive services include screening for early detection of cancer and cardiovascular disease. Measures include:

- Women ages 21-65 years who received a Pap smear in the last 3 years.
- Invasive cervical cancer incidence per 100,000 women age 20 and over.
- Adults who received a blood pressure measurement in the last 2 years and can state whether their blood pressure was normal or high.

**Women Who Received a Pap Smear**

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<tr>
<th>Year</th>
<th>Total</th>
<th>&lt;High School</th>
<th>High School Grad</th>
<th>Any College</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Al/AN</th>
<th>&gt;1 Race</th>
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Key: Al/AN = American Indian or Alaska Native.
Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey, 2000-2010.
Denominator: Women ages 21-65.
Note: Measure is age adjusted. Data for this measure are not collected every year.

- **Importance:** Screening with Pap smears can detect high-grade precancerous cervical lesions that can be removed before they become cancerous.
- **Trends:** From 2000 to 2010, the percentage of women ages 21-65 years who received a Pap smear in the last 3 years decreased overall, among White women, among high school graduates and women with any college.
• **Groups With Disparities:** In all years, the percentage of women who received a Pap smear was lower:
  - Among Asian women compared with White women.
  - Among women with less than a high school education and high school graduates compared with women with any college.

### Invasive Cervical Cancer Incidence

#### Importance:
Since the implementation of widespread screening with Pap smears, rates of invasive cervical cancer have fallen dramatically. Most cases now occur among women who have not been appropriately screened.

#### Trends:
From 2004 to 2010, rates of invasive cervical cancer fell overall and among all age groups. Rates fell among all racial groups except American Indians and Alaska Natives (AI/ANs).

#### Groups With Disparities:
- In 2010, rates of invasive cervical cancer were higher:
  - Among women ages 50-64 compared with women age 65 and over.
  - Among Black women compared with White women.

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*Key:* API = Asian or Pacific Islander; AI/AN = American Indian or Alaska Native.


*Denominator:* Women age 20 and over

*Note:* Measures is age adjusted. Lower rates are better.
In 2010, rates of invasive cervical cancer were lower among Asian and Pacific Islander (API) women compared with White women.

**Achievable Benchmark:**

- The 2008 top 5 State achievable benchmark was 7.4 per 100,000 women. The top 5 States that contributed to the achievable benchmark are Connecticut, Kansas, Massachusetts, Utah, and Wisconsin.
- At the current annual rates of decrease, this benchmark would not be attained for over 20 years overall and for most age and racial groups. API women could achieve the benchmark in 5 years and women age 65 and over could achieve it in 10 years.

**Adults Who Received a Blood Pressure Measurement and Can State Whether Their Blood Pressure Was Normal or High**

![Graph showing blood pressure measurement by insurance and race/ethnicity, 1998-2012](image)

**Importance:** Early detection and treatment of high blood pressure can prevent heart failure, kidney failure, and stroke. Because high blood pressure typically causes no symptoms, screening is essential.

**Trends:** From 1998 to 2012, the percentage of adults who received a blood pressure measurement in the last 2 years and can state whether their blood pressure was normal or high did not change overall or for any insurance, racial, or ethnic group.
• **Groups With Disparities:** In all years, the percentage of adults who received a blood pressure measurement was lower:
  - Among people who were uninsured compared with people with private insurance.
  - Among Hispanics compared with Whites.

**Measures of Clinical Preventive Services: Immunization**

Important adult immunizations include pneumococcal and influenza immunization. Childhood and adolescent immunizations are presented in the section of this chartbook on Maternal and Child Care. Immunization measures include:

- Adults age 65 years and over who ever received pneumococcal vaccination
- Hospital patients who received:
  - Pneumococcal immunization
  - Influenza immunization
- Long-stay nursing home residents who were assessed and appropriately given:
  - Pneumococcal immunization
  - Influenza immunization

**Adults Age 65 and Over Who Received Pneumococcal Immunization**

![Graph showing pneumococcal immunization rates by insurance and income, 2005-2011.](image)

*Source:* Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey, 2005-2011.
*Denominator:* Adult civilian noninstitutionalized population age 65 and over.
*Note:* Measure is age adjusted.
• **Importance:** Immunization is a cost-effective strategy for reducing illness, death, and disparities associated with pneumococcal disease.

• **Trends:** From 2005 to 2011, the percentage of adults age 65 years and over who reported ever receiving pneumococcal immunization increased overall and for all insurance groups. Rates also increased among all income groups except poor people.

• **Groups With Disparities:** In all years, the percentage of adults who ever received pneumococcal immunization was lower:
  - Among adults with Medicare only compared with adults with Medicare and private insurance.
  - Among poor adults compared with high-income adults.

• **Achievable Benchmark:**
  - The 2008 top 5 State achievable benchmark was 67%. The top 5 States that contributed to the achievable benchmark are Colorado, Delaware, Maine, New Hampshire, and Oklahoma.
  - At the current annual rate of increase, this benchmark could be attained overall in about 4 years.
  - Adults with Medicare and private insurance and high-income adults have achieved the benchmark.
  - Other insurance and income groups could achieve the benchmark within 8 years except for poor adults, who show no progress toward the benchmark.
**Hospital Patients Who Received Pneumococcal Immunization**

- **Importance:** Hospitals are important sites for ensuring people receive needed immunizations including pneumococcal immunization.

- **Overall Rate:** In 2012, 89% of hospital patients received pneumococcal immunization.

- **Groups With Disparities:**
  - In 2012, the percentage of hospital patients who received pneumococcal immunization was higher among people ages 65-74, 75-84, and 85+ compared with people less than 65.
  - In 2012, the percentage of hospital patients who received pneumococcal immunization was lower among Blacks, Asians, AI/ANs, and Hispanics compared with Whites.

- **Achievable Benchmark:** The 2012 top 5 State achievable benchmark was 93%. The top 5 States that contributed to the achievable benchmark are Ohio, West Virginia, Florida, South Carolina, and Delaware. All groups were below the benchmark.

Key: AI/AN = American Indian or Alaska Native.
Denominator: Discharged hospital patients age 65 and over or ages 6-64 with a high-risk condition.
Hospital Patients Who Received Influenza Immunization

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<tr>
<th>Age Group</th>
<th>Achievable Benchmark: 93%</th>
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<tr>
<td>Total</td>
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<td>&lt;65</td>
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<td>65-74</td>
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<tr>
<td>75-84</td>
<td>88.3%</td>
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<tr>
<td>85+</td>
<td>87.2%</td>
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<tr>
<td>Male</td>
<td>86.5%</td>
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<tr>
<td>Female</td>
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<td>White</td>
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<tr>
<td>Black</td>
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<tr>
<td>Asian</td>
<td>87.6%</td>
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<td>AI/AN</td>
<td>88.3%</td>
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<tr>
<td>Hispanic</td>
<td>87.2%</td>
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**Key:** AI/AN = American Indian or Alaska Native.

**Source:** Centers for Medicare & Medicaid Services, Medicare Quality Improvement Organization Program, 2012.

**Denominator:** Hospital patients discharged in October-March.

- **Importance:** Hospitals are important sites for ensuring people receive needed immunizations, including influenza immunization.
- **Overall Rate:** in 2012, 87.2% of hospital patients received influenza immunization.
- **Groups With Disparities:**
  - In 2012, the percentage of hospital patients who received influenza immunization was higher among people ages 65-74, 75-84, and 85 and over compared with people less than 65.
  - In 2012, the percentage of hospital patients who received influenza immunization was lower:
    - Among females compared with males.
    - Among Blacks, Asians, AI/ANs, and Hispanics compared with Whites.
- **Achievable Benchmark:**
  - The 2012 top 5 State achievable benchmark was 93%. The top 5 States that contributed to the achievable benchmark are Delaware, Maryland, New Hampshire, South Carolina, and West Virginia.
  - All groups were below the benchmark.
Long-Stay Nursing Home Residents Who Were Given Pneumococcal Immunization

- **Importance:** Nursing homes are also important sites for ensuring people receive needed immunizations, including pneumococcal immunization.

- **Overall Rate:** in 2012, 93.6% of long-stay nursing home residents were assessed and appropriately given pneumococcal immunization.

- **Groups With Disparities:**
  - In 2012, the percentage of nursing home residents who were assessed and appropriately given pneumococcal immunization was higher:
    - Among residents ages 65-74, 75-84, and 85 and over compared with residents less than 65.
    - Among residents with 1, 2-3, and 4 or more chronic conditions compared with residents with no chronic conditions.

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*Key:* NHOPI = Native Hawaiian or Other Pacific Islander; AI/AN = American Indian or Alaska Native; CC = chronic conditions.


*Denominator:* Long-stay residents in Medicare- or Medicaid-certified nursing home facilities. Long-stay residents typically enter a nursing facility because they can no longer care for themselves at home. They tend to stay in the facility for several months or years.
In 2012, the percentage of nursing home residents who were assessed and appropriately given pneumococcal immunization was lower:

- Among males compared with females.
- Among Blacks, Asians, Native Hawaiians and Other Pacific Islanders (NHOPIs), AI/ANs, and multiple-race residents compared with Whites.

Achievable Benchmark:

- The 2012 top 5 State achievable benchmark was 98%. The top 5 States that contributed to the achievable benchmark are Alaska, Delaware, New Hampshire, North Dakota, and Wisconsin.
- All groups were below the benchmark.

**Long-Stay Nursing Home Residents Who Were Given Influenza Immunization**

Long-stay nursing home residents who were assessed and appropriately given influenza immunization, by age, sex, race, and number of chronic conditions, 2012

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2012 Achievable Benchmark: 95%

Key: NHOPI = Native Hawaiian or Other Pacific Islander; AI/AN = American Indian or Alaska Native; CC = chronic conditions.
Source: Centers for Medicare & Medicaid Services, Minimum Data Set, 2012.
Denominator: Long-stay residents in Medicare- or Medicaid-certified nursing home facilities. Long-stay residents typically enter a nursing facility because they can no longer care for themselves at home. They tend to stay in the facility for several months or years.

- **Importance**: Nursing home residents are at particularly high risk for contracting and developing serious complications of influenza.
- **Overall Rate**: in 2012, 90.4% of long-stay nursing home residents were assessed and appropriately given influenza immunization.
• **Groups With Disparities:**
  - In 2012, the percentage of nursing home residents who were assessed and appropriately given influenza immunization was higher:
    - Among residents ages 75-84 and 85 and over compared with residents less than 65.
    - Among residents with 2-3 and 4 or more chronic conditions compared with residents with no chronic conditions.
  - In 2012, the percentage of nursing home residents who were assessed and appropriately given pneumococcal immunization was lower among Blacks, NHOPIs, and multiple-race residents compared with Whites.

• **Achievable Benchmark:**
  - The 2012 top 5 State achievable benchmark was 95%. The top 5 States that contributed to the achievable benchmark are Hawaii, Iowa, New Hampshire, North Dakota, and South Dakota.
  - All groups were below the benchmark.