Proposed Changes to Existing Measure for HEDIS®+ 2020:
Cervical Cancer Screening (CCS)

NCQA seeks comments on proposed modifications to the HEDIS Health Plan Cervical Cancer Screening measure. NCQA proposes to add primary screening with a high-risk human papillomavirus (hrHPV) test as a screening option for this measure.

The current measure assesses the proportion of women 21–64 years of age who were screened for cervical cancer by either cervical cytology within the last 3 years or, for women who are at least 30, cervical cytology with hrHPV cotesting within the last 5 years.

In August 2018, the U.S. Preventive Services Task Force released updated guidelines on cervical cancer screening, with a new screening option for women 30–65 years of age: screening with hrHPV testing alone every 5 years. The Task Force continues to recommend the cytology and cotesting options.

Our expert panels supported adding the primary HPV testing method to the measure so that screening by any of the three methods recommended by the Task Force are numerator compliant:

- Cytology screening every 3 years for women 21–64.
- Cotesting every 5 years for women 30–64.
- Primary HPV testing every 5 years for women 30–64 (new).

The Task Force evidence review lists five currently available hrHPV tests, noting only one is approved by the Food and Drug Administration for primary screening. Since the publication of the Task Force evidence review, an additional hrHPV test has been approved for primary screening, but identifying hrHPV testing for primary screening is challenging. Administrative codes cannot distinguish between the two types and, based on feedback, it may also be challenging to make the distinction through medical record review.

Given these issues, our expert panels suggested that using less-restrictive criteria to identify numerator compliance would be appropriate. It is likely that the presence of either a cytology or hrHPV result of any kind indicates screening for cervical cancer.

Supporting documents include the draft measure specification, evidence workup and performance data.

NCQA acknowledges the contributions of the Cervical Cancer Screening Measurement Advisory Panel

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Cervical Cancer Screening (CCS)

**SUMMARY OF CHANGES TO HEDIS® 2020**

- Updated appropriate screening methods to include primary high-risk human papillomavirus (hrHPV) testing.

**Description**

The percentage of women 21–64 years of age who were screened for cervical cancer using either of the following criteria:

- Women 21–64 years of age who had cervical cytology performed every 3 years within the last 3 years.
- Women 30–64 years of age who had high-risk human papillomavirus (hrHPV) testing-cervical cytology/human papillomavirus (HPV) co-testing performed every 5 years within the last 5 years.

**Eligible Population**

*Note: Members in hospice are excluded from the eligible population. If an organization reports this measure using the Hybrid method, and a member is found to be in hospice or using hospice services during medical record review, the member is removed from the sample and replaced by a member from the oversample. Refer to General Guideline 17: Members in Hospice.*

**Product lines**
Commercial, Medicaid (report each product line separately).

**Ages**
Women 24–64 years as of December 31 of the measurement year.

**Continuous enrollment**
- **Commercial:** The measurement year and the two years prior to the measurement year.
- **Medicaid:** The measurement year.

**Allowable gap**
No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

**Anchor date**
December 31 of the measurement year.

**Benefit**
Medical.

**Event/diagnosis**
None.

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**Administrative Specification**

**Denominator**
The eligible population.

**Numerator**
The number of women who were screened for cervical cancer, as identified in steps 1 and 2 below. Either of the following meet criteria:

**Step 1**
- Identify: Women 24–64 years of age as of December 31 of the measurement year who had cervical cytology (Cervical Cytology Value Set; Cervical Cytology Lab Test Value Set; Cervical Cytology Result or Finding Value Set) during the measurement year or the two years prior to the measurement year.
- Women 30–64 years of age as of December 31 of the measurement year who had cervical high-risk human papillomavirus (HPV) testing (HPV Tests Value Set) (High Risk HPV Lab Test Value Set; High Risk HPV Test Result or Finding Value Set) during the measurement year or the four years prior to the measurement year and who were 30 years or older on the date of the test.

**Step 2** From the women who did not meet step 1 criteria, identify women 30–64 years of age as of December 31 of the measurement year who had cervical cytology (Cervical Cytology Value Set) and a human papillomavirus (HPV) test (HPV Tests Value Set) with service dates four or less days apart during the measurement year or the four years prior to the measurement year and who were 30 years or older on the date of both tests. For example, if the service date for cervical cytology was December 1 of the measurement year, then the HPV test must include a service date on or between November 27 and December 5 of the measurement year.

In administrative data, there is flexibility in the date of service (i.e., four days or fewer apart) to allow for lab processing that may result in separate billing of the two tests.

**Step 3** Sum the events from steps 1 and 2 to obtain the rate.

**Exclusion (optional)**
Hysterectomy with no residual cervix, cervical agenesis or acquired absence of cervix (Absence of Cervix Value Set) (Absence of Cervix Diagnosis Value Set; Hysterectomy With No Residual Cervix Value Set) any time during the member’s history through December 31 of the measurement year.

**Hybrid Specification**

**Denominator**
A systematic sample drawn from the eligible population. Organizations may reduce the sample size using the current year’s administrative rate or the prior year’s audited rate. Refer to the Guidelines for Calculations and Sampling for information on reducing the sample size.

**Numerator**
The number of women who were appropriately screened for cervical cancer as documented through either administrative data or medical record review.

**Administrative**
Refer to Administrative Specification to identify positive numerator hits from the administrative data.
Medical record
Appropriate screenings are defined by either of the following:

Step 1
- Identify the number of Women 24–64 years of age as of December 31 of the measurement year who had cervical cytology during the measurement year or the two years prior to the measurement year.
  - Documentation in the medical record must include both of the following:
    - A note indicating the date when the cervical cytology was performed.
    - The result or finding.
  - Count any cervical cancer screening method that includes collection and microscopic analysis of cervical cells. Do not count lab results that explicitly state the sample was inadequate or that "no cervical cells were present"; this is not considered appropriate screening.
  - Do not count biopsies because they are diagnostic and therapeutic only and are not valid for primary cervical cancer screening.

Note: Lab results that indicate the sample contained “no endocervical cells” may be used if a valid result was reported for the test.

Step 2
- From the women who did not meet step 1 criteria, identify the number of Women 30–64 years of age as of December 31 of the measurement year who had cervical high-risk human papillomavirus (hrHPV) testing cervical cytology and an HPV test on the same date of service during the measurement year or the four years prior to the measurement year and who were 30 years or older as of the date of testing.
  - Documentation in the medical record must include both of the following:
    - A note indicating the date when the hrHPV test was performed cervical cytology and the HPV test were performed. The cervical cytology and HPV test must be from the same data source.
    - The result or finding.
    - The result or finding.
  - Include only cytology and HPV “co-testing”; in co-testing, both cytology and HPV tests are performed (i.e., the samples are collected and both tests are ordered, regardless of the cytology result) on the same date of service. Do not include reflex testing. In addition, if the medical record indicates the HPV test was performed only after determining the cytology result, this is considered reflex testing and does not meet criteria for the measure.
  - Count any cervical cancer screening method that includes collection and microscopic analysis of cervical cells. Do not count lab results that explicitly state the sample was inadequate or that "no cervical cells were present"; this is not considered appropriate screening.
  - Do not count biopsies because they are diagnostic and therapeutic only and are not valid for primary cervical cancer screening.
  - Note: Lab results that indicate the sample contained “no endocervical cells” may be used if a valid result was reported for the test.

Step 3
Sum the events from steps 1–2 to obtain the rate.
Exclusion (optional)

Refer to Administrative Specification for exclusion criteria. Evidence of a hysterectomy with no residual cervix, cervical agenesis or acquired absence of cervix any time during the member’s history through December 31 of the measurement year. Documentation of “complete,” “total” or “radical” abdominal or vaginal hysterectomy meets the criteria for hysterectomy with no residual cervix. The following also meet criteria:

- Documentation of a “vaginal pap smear” in conjunction with documentation of “hysterectomy.”
- Documentation of hysterectomy in combination with documentation that the patient no longer needs pap testing/cervical cancer screening.
  - Documentation of hysterectomy alone does not meet the criteria because it is not sufficient evidence that the cervix was removed.

Note

- Cervical cancer screening using a combination of cervical cytology and the hrHPV test together (cotesting) meets criteria. Evidence of hrHPV testing within the last 5 years captures cotesting.

Data Elements for Reporting

Organizations that submit HEDIS data to NCQA must provide the following data elements.

Table CCS-1/2: Data Elements for Cervical Cancer Screening

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Administrative</th>
<th>Hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement year</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Data collection methodology (Administrative or Hybrid)</td>
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<td>✔</td>
</tr>
<tr>
<td>Eligible population</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Number of numerator events by administrative data in eligible population</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Current year’s administrative rate (before exclusions)</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Minimum required sample size (MRSS)</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Oversampling rate</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Number of oversample records</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Number of numerator events by administrative data in MRSS</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Administrative rate on MRSS</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Number of original sample records excluded because of valid data errors</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Number of administrative data records excluded</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Number of medical records excluded</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Number of employee/dependent medical records excluded</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Records added from the oversample list</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Denominator</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Numerator events by administrative data</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Numerator events by medical records</td>
<td></td>
<td>✔</td>
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<tr>
<td>Numerator events by supplemental data</td>
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<tr>
<td>Reported rate</td>
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</table>
Cervical Cancer Screening (CCS)
Measure Workup

Topic Overview

Importance and Prevalence

Cervical cancer is a disease in which cells in the cervix, the lower, narrow end of the uterus, grow out of control. Cervical cancer is usually a slow-growing cancer that may not produce symptoms, but regular screening can catch cancer early, when interventions are most effective, according to the American Cancer Society (ACS) (ACSa 2018).

Due to the success of cervical cancer screening in the U.S., dramatic decreases have been observed in both mortality and incidence of invasive cervical cancer. The current incidence rate is 6.9 cervical cancer cases per 100,000 women per year in the U.S., and the mortality rate associated with cervical cancer is 2.3 deaths per 100,000 per year (ACSb 2018). The National Cancer Institute (NCI) estimated that there were 13,240 new cervical cancer cases and 4,170 related deaths in 2018 (NCIa 2018).

Human papillomavirus (HPV) causes virtually all cases of cervical cancer and associated precancerous lesions (ACSa 2018). Cervical intraepithelial neoplasia, known as CIN, is a precancerous condition where abnormal cells are found on the surface of the cervix (NCIb 2018). There are three stages of CIN, with the likelihood of becoming cancer and spreading to nearby normal tissues increasing from stage 1 to 3 (NCIb 2018). Although vaccines to prevent most HPV infections that can cause cervical cancer are available, those who have been vaccinated should continue to be screened regularly (U.S. Preventive Services Task Force 2018).

Financial importance and cost-effectiveness

National expenditures for cervical cancer stayed at approximately $1.5 billion from 2010–2017 (NCIc 2018). Several studies have assessed the ideal screening intervals for cervical cancer. Modeling estimates of cost-effectiveness of cervical cancer screening found that more lives would be saved by screening every three years until 75 years of age, with Pap testing at an incremental cost of $11,830 per quality-adjusted life-year (QALY) (Mandelblatt et al. 2002).

Supporting Evidence for Screening

Screening tests

Three screening strategies can detect cervical precancers and cancers: cytology testing, high-risk HPV (hrHPV) testing and cytology supplemented with HPV screening (cotesting).

In a cytology test, cells are scraped from the cervix and viewed under a microscope to look for precancers and cellular changes (NCI 2014). If precancers are found, they can be treated to prevent them from developing into cervical cancer. Cytology tests can also detect cervical cancer in its earliest stages, when treatment is most effective.

An HPV test looks for high-risk HPV genotypes that are known to cause precancerous cell changes and cervical cancer (NCI 2016). HPV testing has a high sensitivity for detecting high-grade cervical cancer and precancerous lesions and has significant predictive power for a patient’s level of risk (Saraiya et al. 2010; Sherman et al. 2003; Kjaer et al. 2006). It has been found to be effective in women older than 30 because there is a higher incidence of false positives in younger women (Kulasingam et al. 2011; Vesco et al. 2011). Compared to HPV testing alone, cotesting reduces the probability of a false negative finding (National Cancer Center 2011; Saslow et al. 2012).
Current guidelines recommend three different screening schedules for patients, depending on the testing method and age of the patient (see Clinical Practice Guidelines: Cervical Cancer Screening table). For women 21–65, the U.S. Preventive Services Task Force (USPSTF) and American College of Obstetricians and Gynecologists (ACOG) recommend screening with cytology every three years. Women 30–65 also have the option of screening with HPV testing every five years, or HPV and cytology cotesting every five years.

These screening guidelines apply to individuals who have a cervix, regardless of their sexual history or whether they have received the HPV vaccine. The guidelines do not apply to individuals who have been diagnosed with a high-grade CIN or cervical cancer, individuals with in utero exposure to diethylstilbestrol or immunocompromised individuals (USPSTF 2018; ACOG 2016).

### Age to screen

**Women <21** The USPSTF concluded there was no net benefit to starting screening earlier than age 21 (Kulasingam et al., 2011). Screening is not recommended for women younger than 21 because cervical cancer is rare among young women, and the harms from false positives can be detrimental. From 1999–2008, 0.1% of all incident cervical cancer cases were reported for this age group (Benard et al. 2012). Treatment of the last two stages of cervical intraepithelial neoplasia (CIN) has a probability of adverse pregnancy outcomes for adolescents (Melnikow et al. 2009; Benard et al. 2012).

**Women 21–29** The USPSTF recommends screening for cervical cancer every 3 years with cytology alone in women 21–29.

Screening with hrHPV testing is not recommended for women younger than 30 because it results in more harms than benefits. Studies have shown that life-years gained through switching from screening with cytology alone to hrHPV testing alone at ages 25, 27 and 30 years did not vary significantly (Kim et al. 2018). However, when using colposcopy as a proxy for harms, screening with hrHPV testing alone at age 25 increased the number of colposcopies by nearly 400 per 1,000 women screened, compared to initiating at age 30 (Kim et al. 2018).

**Women 30–65** The USPSTF recommends three cervical cancer screening strategies starting at age 30: cytology alone, hrHPV testing alone or cotesting (USPSTF 2018). A modeling study comparing these screening options suggests that any option provides “substantial reductions” in cancer cases and increases in life-years (Kim et al. 2018). Testing with cytology every 3 years would lead to the lowest number of life-years gained and fewest cervical cancer cases averted (Kim et al. 2018). Women who are screened more frequently than necessary might experience unnecessary procedures that result in physical and psychological harm (USPSTF 2018).

**Women >65** Women older than 65 should stop screening if they have had adequate prior screening (3 consecutive negative cytology results or 2 consecutive negative HPV results within 10 years before stopping screening, with the most recent test performed within 5 years) (ACS 2016).

Evidence suggests that, in most cases, a new carcinogenic HPV infection in a woman 65 or older with a cervix should clear by itself, and only a small percentage of cases will develop into a persistent infection (Chen et al. 2011). Furthermore, it takes several years for cervical cancer to develop after an incident infection; therefore, only a small number of new cases of CIN2+ would be detected and few cases of cervical cancer would be prevented (Rodriguez et al. 2010).

In the meantime, there can be adverse events for older women, including discomfort during cytology sampling and false-positive screening tests that lead to unnecessary procedures (Habbema et al. 2017). The potential harms from regular screening of this population outweigh the benefits.
Cervical cancer is one of the most successfully treated cancers if it is detected early (ACS 2016). In the past 30 years, improvement in screening and treatment has reduced the mortality rate by more than 50% (ACS 2016). According to data collected by the National Cancer Data Base, the 5-year survival rate is over 80% for women at Stage 0 (cancer cells confined to the surface of the cervix) and Stage I (cancer confined to the uterus) (ACS 2017).

There are two main treatment approaches for precancerous lesions (Berretta et al. 2013). One approach is ablative, such as cryotherapy. The other is excisional, including laser conization, cold knife conization (CKC) and large loop excision of the transformation zone (LEEP/LLETZ) (Berretta et al. 2013). For women who have histologically confirmed CIN2+ disease, the WHO recommends cryotherapy and LEEP over CKC, which is considered major surgery. Most women prefer LEEP in the clinical setting (WHO 2014).

Women diagnosed with cervical cancer have a number of treatment options, including surgery, radiation therapy, chemotherapy or a combination (NCIe 2018). The treatment choice will generally depend on the tumor size, whether the cancer has spread to other parts of the body and the woman’s pregnancy plans (NCIe 2018). For women with Stage I or II cervical cancer, surgery is the best option to remove tissue that may contain cancer cells. Radical trachelectomy (removal of the cervix, part of the vagina and the lymph nodes in the pelvis) is an option for a small number of women with small tumors who may want to attempt pregnancy in the future. Total hysterectomy (removal of the cervix and uterus completely) and radical hysterectomy (removal of the cervix, some tissue around the cervix, the uterus and part of the vagina) are options for women with larger tumors (NCIf 2018).

Radiation therapy, or radiotherapy, instead of surgery is a common treatment option for women with early-stage cervical cancer. Radiation therapy may also be used as a follow-up to surgery to destroy any remaining cancer cells. Women with cancer that extends beyond the cervix may have both radiation therapy and chemotherapy (NCIf 2018).

Regular check-ups are recommended after treatment for cervical cancer; these may include physical exams, Pap tests and chest x-rays (NCIf 2018).

For women in all age groups, any screening strategy can cause harms. A higher frequency of follow-up testing and procedures (e.g., cervical biopsy) can cause physical and mental discomfort (Habbema et al. 2017). Physical side effects may include lower abdominal pain, urinary discomfort, feeling sick, feeling dizzy and/or painful sexual activity (Habbema et al. 2017). Apart from physical health problems, women can experience psychological harms as well, such as anxiety after an abnormal test result (Habbema et al. 2017). False-positive results may lead to unnecessary treatment and invasive procedures (USPSTF 2018).

Women who had treatment for any grade of cervical precancer or early cervical cancer are at higher risk of preterm deliveries and low birth weight (Kyrgiou et al. 2006; Jin et al. 2014). This leads to costs for neonatal intensive care and continued care after hospital discharge (Habbema et al. 2017).

Treatment of CIN 2 or CIN 3 can cause more problems for women under 21 years, both physically (e.g., adverse pregnancy outcomes) and psychologically (e.g., potential stigmatization and discomfort for additional diagnostic and treatment procedures) (Melnikow et al. 2009; Benard et al. 2012).
Gaps in care and health care disparities

In 2012, 8 million U.S. women reported they had not been screened in the last 5 years (CDC 2014). Insurance coverage plays an important role in access to cervical cancer screening. According to the 2012 Behavioral Risk Factor Surveillance System (BRFSS) survey on cervical cancer screening in women 21–64 years of age, 23.1% of women who did not have insurance had not been screened in the past 5 years (BRFSS 2012; Benard et al. 2014).

Among women 21–65 who responded to the 2015 National Health Interview Survey (NHIS), the national average reported rate for cytology alone was 81.1% and for cotesting, 32%. African American women were most likely to have had cervical cancer screening within 3 years: 84.5% of African American women reported having a cytology test and 35.2% reported having cotesting (Watson et al. 2017). The rates for White women were slightly above the national average: 82.6% and 33% for cytology and cotesting, respectively (Watson et al. 2017). Both Hispanic women and Asian women had rates below the national average; Asian women reported the lowest screening rates (cytology alone: 73.5%; cotesting: 21.4%) (Watson et al. 2017). Multiple studies have demonstrated that for Hispanic women, fear of finding cancer, male physicians and language could be barriers to screening (Akinlotan et al. 2017).

Despite gains among African American women (Watson et al. 2017; Beavis et al. 2017), a recent meta-analysis covering research from 2000–2012 found there is still a racial disparity in cervical cancer mortality. The mortality rate for African American women was 5.7 per 100,000, compared to 4.7 per 100,000 for White women (Beavis et al. 2017). Disparity in mortality still exists due to inadequate follow-up after screening, differences in treatment and, in part, the higher-than-average rate of adenocarcinoma (AC) in African American women (Galic et al. 2012; Wang et al. 2004), a rarer type of cervical cancer with malignant cells found in the inner part of the cervix (NCId 2018). AC demonstrates a dramatically worse 5-year survival rate in Stage II cervical cancer patients (Shimada et al. 2013) than squamous cell carcinoma (SCC). This might partially explain why African American women have a higher mortality rate.

Cervical Cancer Screening performance rates also reveal a gap between product lines (Tables 1 and 2). Since the last evaluation of this measure in 2013, the average national performance rates for commercial plans has been stable, between approximately 73% and 75%. However, the average national performance for Medicaid plans has been consistently lower, ranging between 55% and 60%.

In 2017, there was a 16.2 percentage point difference between plans in the 10th percentile and plans in the 90th percentile for commercial plans and 23.4 for Medicaid plans. These gaps in performance underscore the opportunity for improvement in providing cervical cancer screening to women 21–65 years.
**Table 1. HEDIS CCS Measure Performance—Commercial Plans**

<table>
<thead>
<tr>
<th>Measurement Year</th>
<th>Total Number of Plans (N)</th>
<th>Number of Plans Reporting (N (%))</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>10th Percentile</th>
<th>25th Percentile</th>
<th>50th Percentile</th>
<th>75th Percentile</th>
<th>90th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017*</td>
<td>406</td>
<td>404 (99.5%)</td>
<td>73.8</td>
<td>7.3</td>
<td>65.6</td>
<td>70.4</td>
<td>74.4</td>
<td>78.0</td>
<td>81.8</td>
</tr>
<tr>
<td>2016</td>
<td>420</td>
<td>418 (99.5%)</td>
<td>73.6</td>
<td>7.2</td>
<td>65.5</td>
<td>69.9</td>
<td>74.5</td>
<td>77.9</td>
<td>81.4</td>
</tr>
<tr>
<td>2015</td>
<td>428</td>
<td>425 (99.3%)</td>
<td>73.2</td>
<td>7.4</td>
<td>65.7</td>
<td>69.6</td>
<td>73.7</td>
<td>77.4</td>
<td>81.2</td>
</tr>
<tr>
<td>2014</td>
<td>413</td>
<td>405 (98.1%)</td>
<td>75.1</td>
<td>5.9</td>
<td>67.6</td>
<td>71.4</td>
<td>75.7</td>
<td>78.6</td>
<td>82.0</td>
</tr>
</tbody>
</table>

*For 2017 the average denominator across plans was 23,053 individuals, with a standard deviation of 80,789.

**Table 2. HEDIS CCS Measure Performance—Medicaid Plans**

<table>
<thead>
<tr>
<th>Measurement Year</th>
<th>Total Number of Plans (N)</th>
<th>Number of Plans Reporting (N (%))</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>10th Percentile</th>
<th>25th Percentile</th>
<th>50th Percentile</th>
<th>75th Percentile</th>
<th>90th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017*</td>
<td>275</td>
<td>262 (95.3%)</td>
<td>59.4</td>
<td>10.1</td>
<td>47.2</td>
<td>54.3</td>
<td>60.1</td>
<td>66.0</td>
<td>70.6</td>
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<tr>
<td>2016</td>
<td>282</td>
<td>265 (94.0%)</td>
<td>58.0</td>
<td>11.4</td>
<td>44.7</td>
<td>51.9</td>
<td>58.4</td>
<td>65.7</td>
<td>70.8</td>
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<tr>
<td>2015</td>
<td>278</td>
<td>261 (93.9%)</td>
<td>55.8</td>
<td>11.9</td>
<td>41.1</td>
<td>48.3</td>
<td>55.9</td>
<td>63.5</td>
<td>69.8</td>
</tr>
<tr>
<td>2014</td>
<td>237</td>
<td>220 (93.2%)</td>
<td>60.0</td>
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<td>45.6</td>
<td>53.9</td>
<td>60.9</td>
<td>67.9</td>
<td>73.0</td>
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</tbody>
</table>

*For 2017 the average denominator across plans was 936 individuals, with a standard deviation of 3,228
References


## Specific Guideline Recommendations

### Clinical Practice Guidelines: Cervical Cancer Screening

<table>
<thead>
<tr>
<th>Organization (Year)</th>
<th>Women &lt;21 Years</th>
<th>Women 21–29 Years</th>
<th>Women 30–65 Years</th>
<th>Women &gt;65 Years</th>
<th>Women After Hysterectomy</th>
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</thead>
<tbody>
<tr>
<td>U.S. Preventive Services Task Force (2018)</td>
<td>Recommends against screening.</td>
<td>Recommends screening with cytology alone every 3 years.</td>
<td>Recommends screening with cytology alone every 3 years or High-risk human papillomavirus (hrHPV) testing alone every 5 years or Cervical cytology/hrHPV cotesting every 5 years.</td>
<td>Recommends against screening women who have had adequate prior screening and are not otherwise at high risk for cervical cancer.</td>
<td>Recommends against screening in women who have had a hysterectomy with removal of the cervix and who do not have a history of a high-grade precancerous lesion or cervical cancer.</td>
</tr>
<tr>
<td>Grade D recommendation</td>
<td>Grade A recommendation</td>
<td>Grade A recommendation</td>
<td>Grade A recommendation</td>
<td>Grade D recommendation</td>
<td>Grade D recommendation</td>
</tr>
<tr>
<td>The American College of Obstetricians and Gynecologists (2016)</td>
<td>Recommends against screening before 21 years with the exception of women who are infected with HIV or who are otherwise immunocompromised.</td>
<td>Recommends screening with cervical cytology alone every 3 years. Annual screening should not be performed. Recommends primary hrHPV screening starting from age 25.</td>
<td>Recommends cervical cytology/hrHPV cotesting every 5 years or Cytology alone every 3 years. Cotesting is preferred and cytology alone screening is acceptable. Annual screening should not be performed. Level A recommendation</td>
<td>Recommends against screening by any modality after age 65 years in women with evidence of adequate negative prior screening test results and no history of CIN 2 or higher.</td>
<td>Recommends against screening in women who have had a hysterectomy with removal of the cervix (total hysterectomy) and have never had CIN 2 or higher.</td>
</tr>
<tr>
<td>Level A recommendation</td>
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</tr>
</tbody>
</table>

Recommends primary HPV screening for women age 25 and older. Level B recommendation
Grading System Key

**U.S. Preventive Services Task Force: Recommendation Grading System**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Suggestion for Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is substantial.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>B</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>C</td>
<td>The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.</td>
<td>Offer or provide this service for selected patients depending on individual circumstances.</td>
</tr>
<tr>
<td>D</td>
<td>The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.</td>
<td>Discourage the use of this service.</td>
</tr>
<tr>
<td>I Statement</td>
<td>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</td>
<td>Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.</td>
</tr>
</tbody>
</table>

**American College of Obstetricians and Gynecologists (ACOG): Recommendation Grading System**

<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Recommendations are based on good and consistent scientific evidence.</td>
</tr>
<tr>
<td>B</td>
<td>Recommendations are based on limited or inconsistent scientific evidence.</td>
</tr>
<tr>
<td>C</td>
<td>Recommendations are based primarily on consensus and expert opinion.</td>
</tr>
</tbody>
</table>

**References for Recommendations**
