**Supplementary Data**

**Supplementary Table S1. Inclusion/exclusion criteria**

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Inclusion** | **Exclusion** |
| Population | Medically underserved patient populations, including but not limited to:  a. Rural residents  b. Racial/ethnic minorities  c. Low-income populations  d. Non-primary language speakers  e. Immigrants/foreign born  f. Disabled  g. LGBTQ populations  h. Uninsured  i. Veterans  j. Low educational attainment  populations (less than high school  education) | Studies not specifying a medically underserved population in the inclusion/exclusion criteria |
| Comparison | Cervical cancer screening modalities, provider characteristics, and program attributes and delivery mechanisms | All other comparisons |
| Outcome | Patient-level cervical cancer screening preferences related to test modality, provider characteristics, and program attributes and delivery | All other outcomes |
| Time | Articles published through February 2019 | Articles published after February 2019 |
| Setting | United States | Outside of the US |
| Study Design | Quantitative, qualitative, and mixed-methods observational and experimental studies (including randomized controlled trials) | Literature reviews, systematic reviews |

**Supplementary Table S2. Search Strategy**

**PUBMED**

**Search #1:**  **973 articles 3/12/2019**

(HPV[tw] OR Pap[tw] OR papillomavirus[tw] OR Papanicolaou[tw] OR "Cervix Uteri"[Mesh] OR cervical[tw] OR cervix[tw] OR endocervix[tw] OR endocervical[tw]) AND (Test\*[tw] OR screen\*[tw] OR self-test[tw] OR self-tests[tw] OR self-testing[tw] OR self-tested[tw]) AND (Preference[tw] OR perception[tw] OR perceptions[tw] OR (discrete AND choice\*)[tw] OR attitude[tw] OR attitudes[tw]) AND ("Neoplasms"[Mesh] OR neoplasms[tw] OR neoplasm[tw] OR neoplasia[tw] OR neoplasias[tw] OR neoplastic[tw] OR dysplastic[tw] OR dysplasia[tw] OR dysplasias[tw] OR cancer[tw] OR cancers[tw] OR cancerous[tw] OR malignant[tw] OR malignancy[tw] OR malignancies[tw]) NOT Vaccine[Title] NOT Vaccination[Title]

Filters: Human, English

**Web of Science**

**Search #1: 1,245 Articles 3/12/2019**

(TS=(HPV OR Pap OR papillomavirus OR Papanicolaou OR cervical OR cervix OR endocervix OR endocervical) AND TS=(Test\* OR screen\* OR self-test OR self-tests OR self-testing OR self-tested) AND TS=(Preference OR perception OR perceptions OR (discrete AND choice\*) OR attitude OR attitudes) AND TS=( Neoplasms OR neoplasm OR neoplasia OR neoplasias OR neoplastic OR dysplastic OR dysplasia OR dysplasias OR cancer OR cancers OR cancerous OR malignant OR malignancy OR malignancies) NOT TI=(Vaccine) NOT TI=(vaccination)) AND LANGUAGE: (English) AND DOCUMENT TYPES: (Article) Indexes=SCI-EXPANDED, SSCI, A&HCI Timespan=All years

Refined by: Languages=( ENGLISH ), Document Types: (Article)

Databases=SCI-EXPANDED, SSCI, A&HCI.

**EMBASE**

**Search #1: 957 articles 3/12/2019**

('hpv':ti,ab,kw OR 'pap':ti,ab,kw OR 'papillomavirus':ti,ab,kw OR 'papanicolaou':ti,ab,kw OR 'cervical':ti,ab,kw OR 'cervix':ti,ab,kw OR 'endocervix':ti,ab,kw OR 'endocervical':ti,ab,kw) AND ('test\*':ti,ab,kw OR 'screen\*':ti,ab,kw OR 'self-test':ti,ab,kw OR 'self-tests':ti,ab,kw OR 'self-testing':ti,ab,kw OR 'self-tested':ti,ab,kw) AND ('preference':ti,ab,kw OR 'perception':ti,ab,kw OR 'perceptions':ti,ab,kw OR ((‘discrete’ AND 'choice\*'):ti,ab,kw) OR 'attitude':ti,ab,kw OR 'attitudes':ti,ab,kw) AND ('neoplasms':ti,ab,kw OR 'neoplasm':ti,ab,kw OR 'neoplasia':ti,ab,kw OR 'neoplasias':ti,ab,kw OR 'neoplastic':ti,ab,kw OR 'dysplastic':ti,ab,kw OR 'dysplasia':ti,ab,kw OR 'dysplasias':ti,ab,kw OR 'cancer':ti,ab,kw OR 'cancers':ti,ab,kw OR 'cancerous':ti,ab,kw OR 'malignant':ti,ab,kw OR 'malignancy':ti,ab,kw OR 'malignancies':ti,ab,kw) NOT 'vaccine':ti NOT 'vaccination':ti AND [article]/lim AND [english]/lim

Map to preferred terminology (with spell check)

Include sub-terms/derivatives (explosion search)

Limits: Only in English, Publication Types (Articles)

**Scopus**

**Search #1: 1,520 articles 3/12/2019**

TITLE-ABS-KEY ( ( hpv OR pap OR papillomavirus OR papanicolaou OR cervical OR cervix OR endocervix OR endocervical ) ) AND TITLE-ABS-KEY ( ( test\* OR screen\* OR self-test OR self-tests OR self-testing OR self-tested ) ) AND ( TITLE-ABS-KEY ( preference OR perception OR perceptions OR ( discrete AND choice\* ) ) OR TITLE-ABS ( attitude OR attitudes ) ) AND TITLE-ABS-KEY ( ( neoplasms OR neoplasm OR neoplasia OR neoplasias OR neoplastic OR dysplastic OR dysplasia OR dysplasias OR cancer OR cancers OR cancerous OR malignant OR malignancy OR malignancies ) ) AND NOT TITLE ( ( vaccine ) ) AND NOT TITLE ( ( vaccination ) ) AND DOCTYPE ( ar )

Limits: Document Type (Article), Language (English)

**CINAHL**

**Search #1: 967 Articles 3/12/2019**

(HPV OR Pap OR papillomavirus OR Papanicolaou OR cervical OR cervix OR endocervix OR endocervical) AND (Test\* OR screen\* OR self-test OR self-tests OR self-testing OR self-tested) AND (Preference OR perception OR perceptions OR (discrete AND choice\*) OR attitude OR attitudes) AND (Neoplasms OR neoplasm OR neoplasia OR neoplasias OR neoplastic OR dysplastic OR dysplasia OR dysplasias OR cancer OR cancers OR cancerous OR malignant OR malignancy OR malignancies) NOT TI (vaccine) NOT TI (vaccination)

Apply related words

Limits: English Language, Peer Reviewed, Human

**PsycInfo**

**Search #1: 780 Articles 3/12/2019**

(HPV OR Pap OR papillomavirus OR Papanicolaou OR cervical OR cervix OR endocervix OR endocervical) AND (Test\* OR screen\* OR self-test OR self-tests OR self-testing OR self-tested) AND (Preference OR perception OR perceptions OR (discrete AND choice\*) OR attitude OR attitudes) AND (Neoplasms OR neoplasm OR neoplasia OR neoplasias OR neoplastic OR dysplastic OR dysplasia OR dysplasias OR cancer OR cancers OR cancerous OR malignant OR malignancy OR malignancies) NOT TI (vaccine) NOT TI (vaccination)

Apply related words

Limits: English Language, Peer Reviewed

**Supplementary Table S3. Results of risk of bias assessment**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Study | Study Question Well-Defined | Inclusion Criteria Well-Described | Comprehensive Description of Alternatives | Appropriate Measure of Preferences | Appropriate Analysis | Pre-specified Analysis |
| Agenor 2015 | low | low | high | low | low | low |
| Alexander 1981 | low | high | high | high | low | low |
| Anhang 2004 | low | high | low | low | low | low |
| Anhang 2005 | low | high | low | low | low | low |
| Barbee 2010 | low | low | high | low | low | low |
| Brandzel 2016 | low | low | low | low | low | low |
| Carey Jackson 2000 | low | low | low | low | low | low |
| Christopher 2005 | low | low | low | low | low | low |
| Cina 2017 | low | low | high | low | low | low |
| Crosby 2015 | low | low | high | high | low | low |
| Crosby 2017 | low | low | high | high | high | low |
| Galbraith 2014 | low | low | high | high | high | low |
| Greaney 2014 | low | low | low | low | low | low |
| Hatcher 2011 | low | low | low | low | low | low |
| Haworth 2014 | low | low | low | low | low | low |
| Hunter 2012 | low | low | low | low | low | low |
| Ilangovan 2016 | low | low | high | low | low | low |
| Jones 2012 | low | high | low | low | high | low |
| Katz 2017 | low | low | low | low | low | low |
| Kenya 2015 | low | low | low | low | low | low |
| Kilfoyle 2018 | low | low | low | low | low | low |
| Kim 2017 | low | low | low | low | low | low |
| Lanier 1999 | low | low | low | low | low | low |
| Lee 2015 | low | low | low | low | low | low |
| Levinson 2016 | low | low | low | low | high | low |
| Litton 2013 | low | low | low | low | high | low |
| Ma 2012 | low | low | low | low | low | low |
| McAlearney 2012 | low | low | low | low | low | low |
| McDowell 2017 | low | low | low | low | high | low |
| Molokwu 2018 | low | low | high | low | low | low |
| Nguyen 2002 | low | low | low | low | high | low |
| Penaranda 2014 | low | low | low | low | low | low |
| Penaranda 2015 | low | low | high | low | high | low |
| Pieters 2013 | low | high | low | low | high | low |
| Reed 2002 | low | high | low | low | high | low |
| Reisner 2018 | low | low | low | low | low | low |
| Scarinci 2013 | low | low | low | low | low | low |
| Seay 2017 | low | low | low | low | low | low |
| Sharpe 2013 | low | low | low | low | high | low |
| Torres 2013 | low | low | low | low | high | low |
| Winer 2016 | low | low | high | low | low | low |
| Yemane 2016 | low | low | high | low | high | low |
| Yu 2001 | low | low | low | high | high | low |