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## **Title**

A scoping review of multi-level influences on rural HPV vaccine hesitancy

## **Priority 1 (Research Category)**

Systematic review, meta-analysis, or scoping review

## **Presenters**

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## **Abstract**

Objective. Human Papillomavirus (HPV) is the most common sexually transmitted infection and the leading cause of cervical and oropharyngeal cancers. Vaccination can prevent over 90% of HPVattributed cancers among those aged 9-26. Rural populations are less likely to receive the complete HPV protocol than urban; rates have further declined post-COVID. The aim of this scoping review is to evaluate multilevel (patient/young person, parent/caregiver, physician/team, healthcare organization, community, and policy) influences on HPV vaccine hesitancy in rural communities. Study Design and Analysis. An informationist conducted a systematic search of published empirical studies between 2010-2021 across 7 databases, resulting in 915 publications. Using pre-specified criteria, the team reviewed 33 full texts. With a standard codebook, two reviewers independently coded the studies; discrepancies were resolved by a third reviewer. A mixed methods analysis was conducted to integrate quantitative and qualitative data. Setting. Rural US communities. Population Studied. Empirical studies of rural HPV vaccination hesitancy. Instrument. Standard codebook. Outcome Measures. By the frequency cited, HPV vaccine prevalence, awareness, knowledge, attitudes/beliefs toward HPV vaccine hesitancy. Results. The modal publication year was 2020 (N=7 studies). Primary care provider recommendation strongly influenced parents' decisions to vaccinate their children. Prescriptive provider communication approaches were less common but more influential than consultative. Multilevel interventions, although rarely applied, were effective in reducing HPV vaccine hesitancy. Adolescents themselves were the most common foci of change. Barriers to rural HPV uptake included; limited vaccine awareness, few primary care sites, the stigma of STI's, and strict religious values. Most studies were observational (85% of studies); interventions included; educational materials or training (75%), media (12.5%), and a free HPV vaccine (12.5%). Conclusions. Tailored interventions to rural parents/caregivers, particularly of marginalized youth (e.g., LGBT+) could increase awareness and knowledge about the vaccine. Provider training increases HPV vaccine recommendations; programs should also be targeted to rural school nurses and dental care providers. Linking primary care practices and public health dissemination strategies on college campuses, secondary schools, and community sites, are key.