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Title

Association between a mother's cervical cancer screening and their adolescent's human papillomavirus (HPV) vaccination status

Priority 1 (Research Category)

Child and adolescent health

Presenters

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Abstract

Context: Previous evidence shows that mothers who received the human papillomavirus (HPV) vaccine were 3.5 times more likely to report HPV vaccination for their 11-14 year-old children than unvaccinated mothers. However, it remains unknown if parental receipt of cervical cancer screening is associated with HPV vaccination of their children and whether this association is modified by social deprivation.

Objective: To understand if the association between parent cervical cancer screening and child HPV is moderated by social deprivation, using the social deprivation index (SDI). Study Design: Retrospective observational cohort study. Setting or Dataset: National cohort of children linked to at least one parent (Angier et al., 2021), created using electronic health record (EHR) data from OCHIN (not an acronym) Inc., a practice-based research network of community health centers (CHCs) from across the US that share a single instance of the Epic © EHR. Population Studied: Children with at least one ambulatory visit (AV) at an eligible clinic between 2007 and 2018 between ages 10 and 14 and who had an EHR-linked mother who also had an AV visit in one of these clinics during the child's study period. Outcome Measures: Binary variable denoting completion of a 2-dose HPV series between ages 8 to <18 with an exposure of interest of maternal completion of cervical cancer screening during the child's study period (aged 10 to <15 years). Results: N = 52,919 linked mother-child pairs. Mother's receipt of CC screening was positively associated with the linked child's odds of receiving HPV vaccination by the age of 18 [adjusted odds ratio(AOR): 1.39, 95% confidence interval (CI): 1.32, 1.47]. Neither sex or SDI modified this association. There were no significant differences in odds of HPV vaccination in children between SDI quartiles or between male and female children. Conclusions: This study found a significant association between mother's receipt of CC screening and their child's HPV vaccination. This association was consistent across all SDI quartiles and for both males and females. Further studies are needed to understand how other social factors may impact the relationship between mother and child cervical cancer prevention. This study suggested that an indirect way to improve rates of HPV vaccination among children is to target attention towards increasing cervical cancer screening rates among mothers.