Adolescent Vaccination:

Did the gender-specific HPV vaccine recommendation affect uptake of other vaccines?

Robert A. Bednarczyk

Emory University

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Disclaimer

- All analyses, interpretations, or conclusions reached are attributed to the authors (Robert Bednarczyk, Walter Orenstein, Saad B. Omer) and not to the National Center for Health Statistics, which is responsible only for the initial data.

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Adolescent Vaccine Recommendations

- Meningococcal conjugate vaccination
  - ACIP recommendation: February 2005 (MMWR publication: May 2005)
  - 2013 coverage (13-17 year olds): 77.8%
- Tdap vaccination
  - ACIP recommendation: June 2005 (MMWR publication: March 2006)
  - 2013 coverage (13-17 year olds): 86.0%
- HPV vaccination
  - ACIP recommendation (girls): June 2006 (MMWR publication: March 2007)
  - ACIP permissive recommendation (boys): October 2009 (MMWR publication: May 2010)
  - 2013 coverage (13-17 year olds):
    - Girls, 1+ dose(s): 57.4%
    - Boys, 1+ dose(s): 34.6%

Gender-based Recommendations

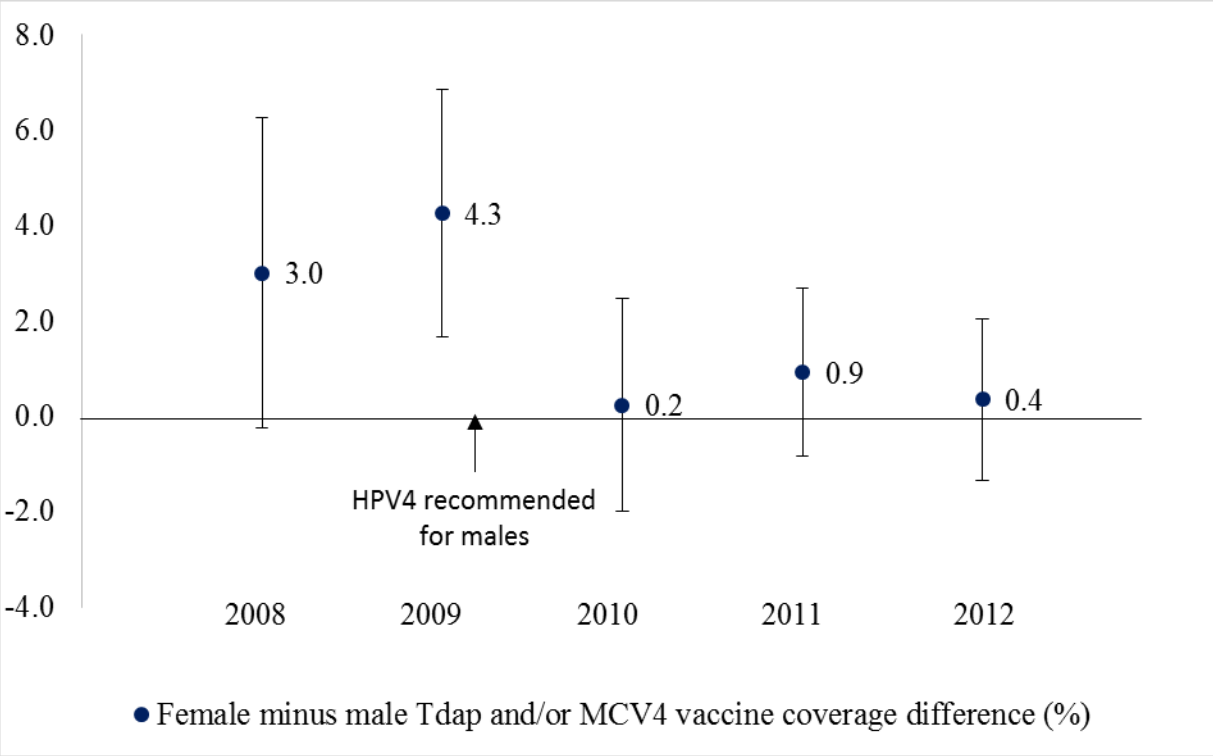
- For 3 years, HPV vaccine was recommended only for female adolescents
- Annual NIS-Teen estimates are presented in aggregate for Tdap and MCV4, but by gender for HPV
  - Possibility that gender-specific coverage of other vaccines may be different in the era of differential HPV vaccine recommendations by gender

Research Question and Methods

- Did the female-only HPV vaccine recommendation affect gender-specific uptake levels of Tdap and/or MCV4?

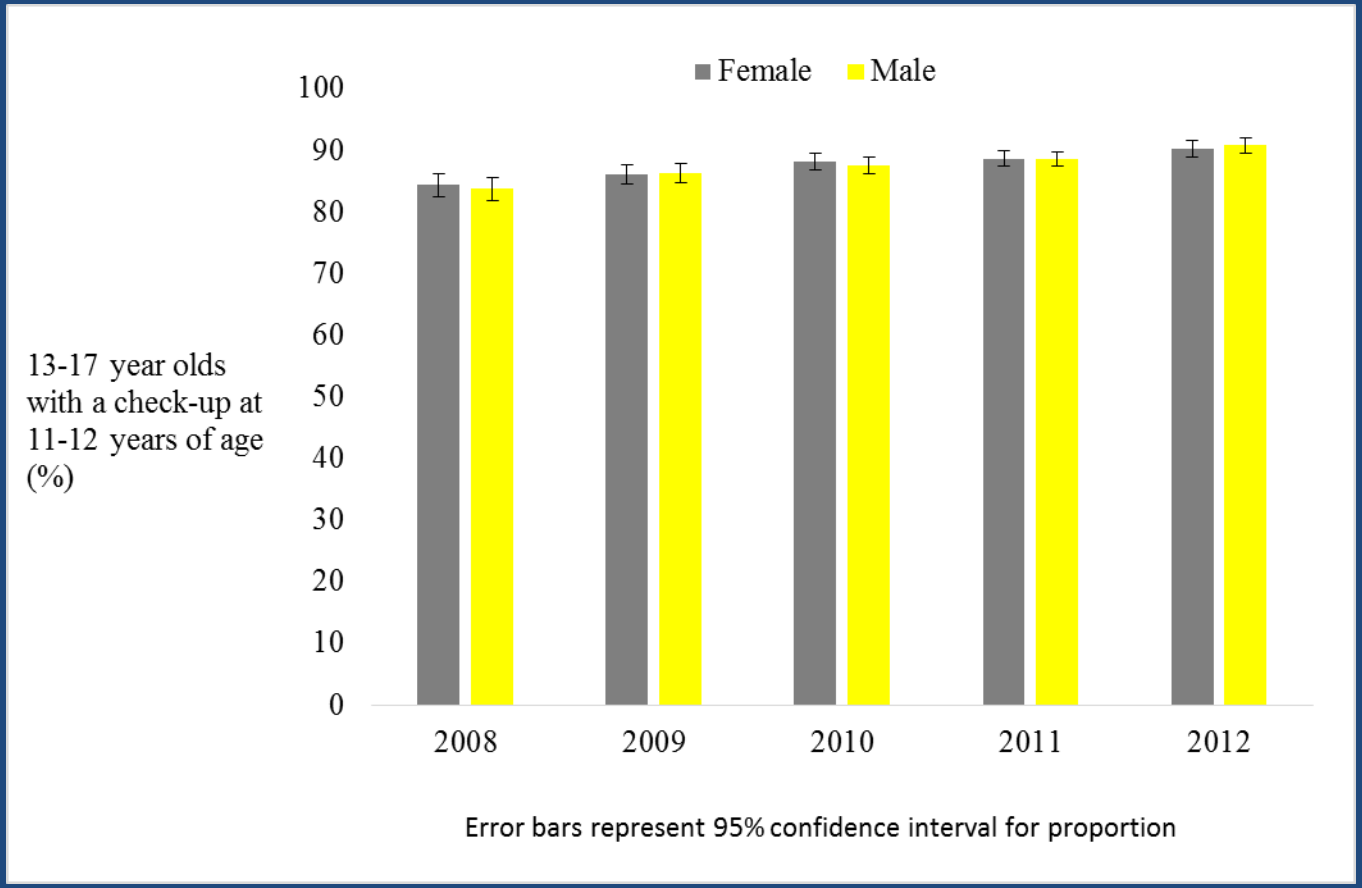
- Analysis conducted using publicly available NIS-Teen datasets (2008-2012)
  - Outcome: Annual gender-specific coverage of Tdap and/or MCV4
  - Analysis methods: Least-squares regressions using PROC SURVEYREG, SAS v9.3

Results



- Results show the same pattern when adjusted for age at interview, race/ethnicity, poverty status, history of checkup at 11-12 years of age

Impact of health-care seeking behavior



- Consistent 11-12 year old checkup history between male and female adolescents – does not appear to account for vaccine uptake difference

Discussion/Conclusions

- Consistency of the pattern and lack of gender-related difference in routine health care seeking provides confidence this is not an artifact
- Could differences be related to Tdap and/or MCV4 mandates?
  - 15 states had mandates in place in 2008 or earlier
  - 12 states had mandates that did not go into effect until 2012 or later
  - 6 states have no mandates for adolescent vaccines
- This study provides evidence that non-universal vaccination recommendations may impact uptake of other related vaccines
  - Other targeted recommendations (high-risk HepB, female only rubella) often replaced later with universal recommendations