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# Impact of Sexual Education on HPV Vaccination Rates

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### Abstract

Since its approval by the FDA in 2006, the human papillomavirus (HPV) vaccine has caused much controversy. According to the CDC, HPV is a common sexually transmitted infection (STI) that can lead to many types of cancers in both men and women (2017). Part of the controversy surrounding this vaccine is that some parents believe it will encourage their pre-teens to be promiscuous. It is likely that many of these parents come from conservative states or communities. Many conservative-leaning states do not require conversations about STIs to be included in sex education in public high schools, if it's even mandated by law in the first place. This poster analyzes whether or not the type of sexual education mandated by state has any correlation with a state's HPV vaccination rate.

# Female, 2015, All 3 doses states Percent 4.4 4.5 - 62.0 6.2 1 - 70.4 7.0 5 - 77.5 7.8 0 - 83.9

Fig. 1: Full 3-dose vaccination rates for girls age 13-17 in 2015

### Research

The determination for type of sex education by state was made by analyzing whether or not states have rejected Title V federal funding (shown in Fig. 2). States that accept Title V funding must honor all points of the federal government's definition of abstinence-only education in public schools. For example, one of these required points is stressing that sex before marriage has harmful psychological consequences. Often, abstinence-only programs do not mention condoms or STI prevention. The states in green have rejected Title V funding. While this does not necessarily mean that these states exclusively teach comprehensive sex ed, it does suggest that they are far more likely to cover contraception and STI protection than the states in red, which have accepted Title V funding.

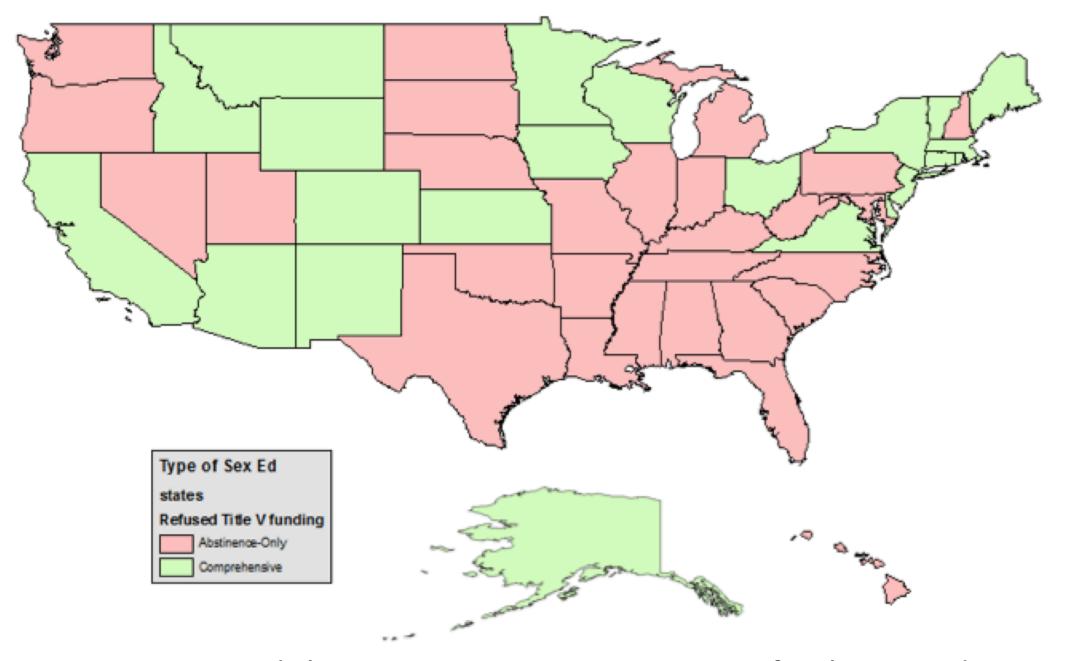


Fig. 2: States and their Acceptance or Rejection of Title V Funding

### Results and Conclusions

States such as Arkansas, Florida, and Tennessee, which have accepted Title V Funding and teach abstinenceonly education, have poor vaccination rates for both males and females (shown in Figures 1 and 3). On the other hand, states like Colorado, Massachusetts, and New York, which have rejected Title V funding, have high vaccination rates. There are some exceptions, such as Alaska, Minnesota, and Ohio. These states have rejected Title V funding but also have relatively low vaccination rates. On the whole, however, the data does follow the trend that states with comprehensive sex ed are more likely to have higher vaccination rates. These results show that there may be a correlation between the type of sexual education that is available and the likelihood of parents to have their adolescents vaccinated against HPV.

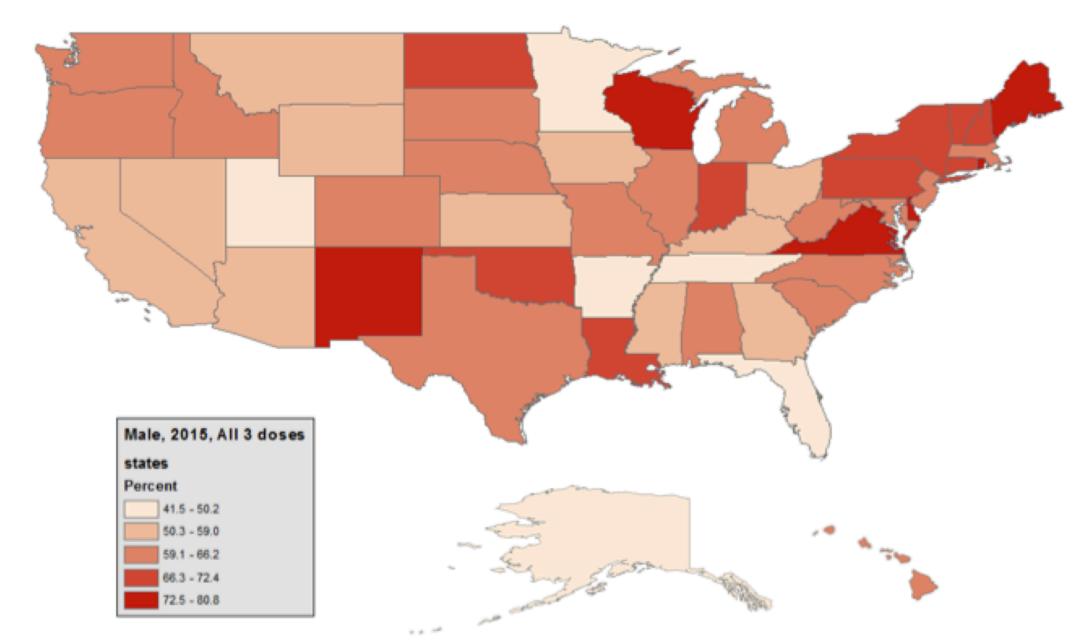


Fig. 3: Full 3-dose vaccination rates for boys age 13-17 in 2015

# Maps/Data:

Data collected by the Centers for Disease Control (for Figures 1 and 3) and advocates for youth.org (for Figure 2) was inputted into the ArcGIS desktop program ArcMap to create these visuals.

## References:

- 1. HPV Vaccine Information For Young Women. (2017, January 03). Retrieved April 05, 2017, from https://www.cdc.gov/std/hpv/stdfact-hpv-vaccine-young-women.htm
- 2. What's Going on in My State with Sex Education and Abstinence-only Programs? (n.d.). Retrieved April 05, 2017, from http://www.advocatesforyouth. org/understanding-sex-education-policy-and-funding