

**DECIDING TO DELAY:  
MEDICAL UNCERTAINTY,  
SEXUALITY, AND THE  
TIMING OF HPV  
VACCINATION**

Katharine A.S.  
Rendle, PhD  
Candidate,  
MA, MSW

**M** SCHOOL OF SOCIAL WORK  
UNIVERSITY OF MICHIGAN

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**PRESENTER DISCLOSURES**

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

- No relationships to disclose

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**BACKGROUND**

- Vaccines represent one of the most successful public health interventions in modern medicine.
- Despite successes, cultural anxieties over vaccine safety and necessity continue in the United States—most recently in the context of the human papillomavirus (HPV) vaccine.
  - Concerns over the influence of pharmaceutical companies on HPV vaccination policies
  - Fears that HPV vaccination may lead to riskier or earlier sexual behavior, or lead to physical or cognitive harm
  - Concerns regarding the long-term effectiveness & safety of vaccine
- Little is known about the impact these debates have on parents' HPV vaccination decisions for their sons & daughters.

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## HPV VACCINATION IN THE UNITED STATES

- Recommended that adolescent girls (since 2006) and boys (since 2011) complete the three-dose series before 13<sup>th</sup> birthday.
- Completion rates remain low across population (NIS-Teen 2012)
  - Girls (aged 13-17): 33.4% completed; 53.8% at least one dose
  - Boys (aged 13-17): 6.8% completed; 20.8% at least one dose
- Studies have identified several factors contributing to vaccination, including:
  - Vaccine-related attitudes & HPV-related knowledge
  - Receipt of healthcare provider recommendation
  - Health insurance status
- Some studies have shown disparities by race and socioeconomic status (Downs et al. 2010; Niccolai et al. 2011).

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## RESEARCH QUESTION & PROJECT AIMS

How are parents making decisions regarding HPV vaccination for their sons and daughters amid political & moral controversy?

- Explore parental perceptions of the risks and benefits of HPV vaccination
- Identify salient factors and values underlying parents' HPV vaccination decisions
- Collect and compare media coverage of HPV vaccination to situate the perspectives of parents within the broader cultural context




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## METHODS

- Mixed-methods exploratory study
  - Audio-recorded, semi-structured interviews
  - Written questionnaires completed at time of interview
  - Content analysis of local and national media coverage
- Recruitment
  - Online parenting networks and flyers at community locations across the San Francisco Bay Area, including:
    - East Bay (Oakland, Berkeley, San Leandro, Castro Valley)
    - North Bay (Mill Valley, Sausalito, San Rafael)
    - City of San Francisco
    - Peninsula (Redwood City, San Mateo, Palo Alto)
- Participant eligibility criteria
  - Adults (18 or older) with at least one child between the ages of 7-17
  - At least heard of HPV and the HPV vaccine
  - Able to speak and read English

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# IMPACT OF PUBLIC CONTROVERSIES: SEX, POLITICS, & DRUG COMPANIES

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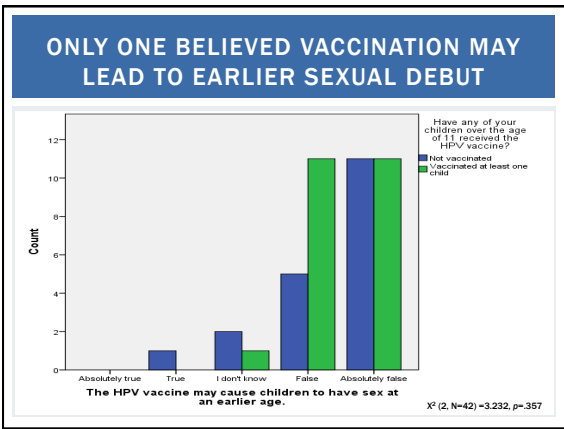
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### DIDN'T EVEN CROSS MY MIND

*I never, ever was looking at any kind of moral factor—like that my daughter having this shot would make her feel free to go and be promiscuous or something. **That just didn't even—sorry, that just didn't even cross my mind.** So then when this Mom was saying that she was shocked, it became clear to me that...she felt that the doctor was making some kind of statement about what his expectations were of her child or something.*

-Age 44, Mother of 13-yr old vaccinated daughter

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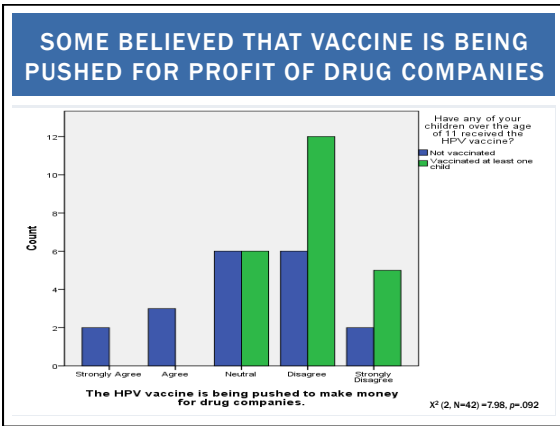
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### COMPETING INTERESTS

*I do think [pharmaceutical companies] influence the picture a lot, that doctors do get samples and make them available to people and that doctors, they're human too and they're gonna get lots of perks and stuff from the pharmaceutical companies. I don't trust them completely to have our interests. I think we've learned over the years that lots of times people say something is safe and it is not. We've got evidence of that. **And I think whenever there's that much money involved—it's a ton of money—that decisions are going to be made that aren't necessarily in our best interest.***

-Age 56, Mother of 15- & 12-yr old unvaccinated daughters

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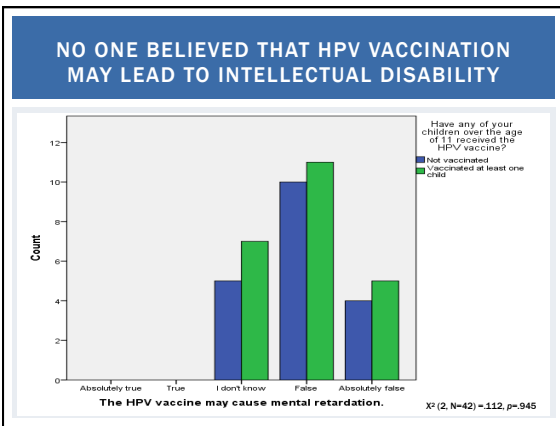
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### INFLAMMATORY INFORMATION

*I don't remember if she said that [the vaccine] was linked to autism or mental retardation, but something weird. And Michele Bachmann chimed in and **honestly at that point I turned the radio off because that's showing my bias, but I can't listen to such Inflammatory Information.** Now if the surgeon general came out and said, 'You know, there's some concern,' I'd probably listen. But from that kind of quarter, I'm less likely to listen.*

-Age 53, Mother of 16- & 12-yr old unvaccinated daughters

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### WHAT DID MATTER: VACCINE SAFETY

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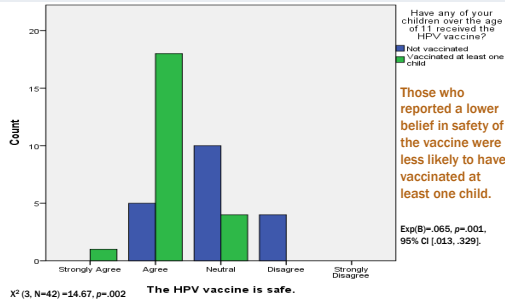
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### LOWER BELIEF IN SAFETY OF VACCINE, LOWER LIKELIHOOD TO HAVE VACCINATED




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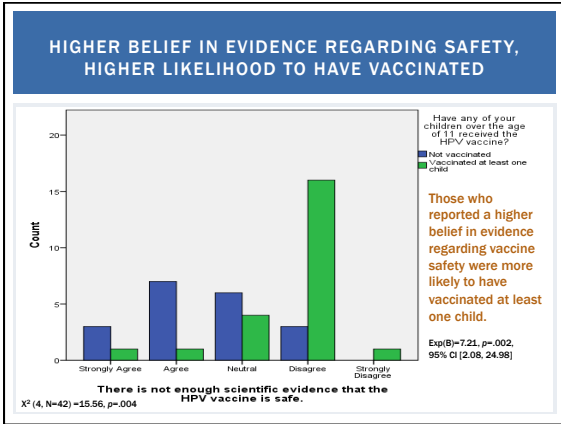
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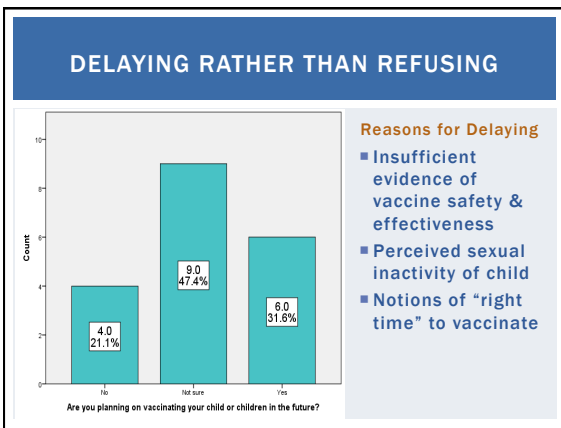
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### DELAYING TO WAIT FOR MORE RESEARCH

*I plan to have both children have this vaccine; however, I would like to wait another few years even though my daughter is 12. I would actually like to wait until ever there is a little more research behind it. There will be a bigger pool of people who have taken it, and I'm sure all parents say this, but I'm 100% certain she's not sexually active. I think my doctor said the same thing. She has three daughters and I think she was waiting a little bit--instead of twelve--until about 14 to 16.*

-Age 46, Mother of unvaccinated 12-yr old daughter & 9-yr old son

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**DELAYING TO SEE EVIDENCE OF LONG-TERM EFFECTIVENESS**

*See, I don't think there's enough research to tell us how effective it is, and I don't think there's enough research to tell us—well, here's my problem. You vaccinate a girl, and she's twelve and she's not sexually active, and then she goes off to college thinking she's ok. She has partners and then she's followed or whatever. **But if you're done at twelve, the research I saw didn't even show all the way through college. So there's not enough evidence and there's not enough evidential partners to tell me jack crap.***

-Age 53, Mother of 12-yr old unvaccinated daughter

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**DELAYING UNTIL READY TO BE SEXUALLY ACTIVE**

*Well, at first [the doctor] said, 'Let's just wait a few years until we see that this is a good vaccine.' **Then the most recent visit, the sixteen-year visit, basically [the doctor] said that it would probably make more sense to wait until she was either ready to be sexually active or off to college.** They don't know yet what the drop off is going to be in the effectiveness over time.*

I: Have you talked to your daughter directly about it?

*She's been in the room with me and the doctor while this conversation is going on. **I have told her when you get ready to have sex you have to have these shots first.***

-Age 55, Mother of 16-yr old unvaccinated daughter

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**DISCUSSION & IMPLICATIONS**

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**DISCUSSION**

- For many parents, the decision to have their child receive the HPV vaccine may not be a matter of if, but when.
  - Parents delaying to have more evidence of effectiveness and safety of vaccine before vaccinating
  - Decision to delay supported by parents' perception of child's sexual (in)activity
  - Providers play a key role in parents' decision to delay vaccination
- Limitations of the study
  - Small sample size and thus not generalizable to the population.
  - Exploratory findings need to be tested in a larger, more diverse sample.
  - Perspectives of providers & adolescents not included.

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**IMPLICATIONS**

- Public health campaigns may need to be tailored to directly address parents' concerns regarding safety and long-term effectiveness of vaccine.
- Providers may need further training to ensure they are communicating the full risks and benefits of delaying vaccination.
- Further research is needed to examine:
  - Impact of provider communication on age of initiation and completion of HPV vaccination across different patient populations
  - Impact of vaccination delay on overall effectiveness of vaccine from public health perspective
  - Impact of social attitudes regarding adolescent sexuality on timing of HPV vaccination

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