

HPV Vaccine Conversations in Pediatric Clinics: What Analyses of Recorded Conversations Can Teach Us

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Disclosure

- The study described in this session was funded by Merck

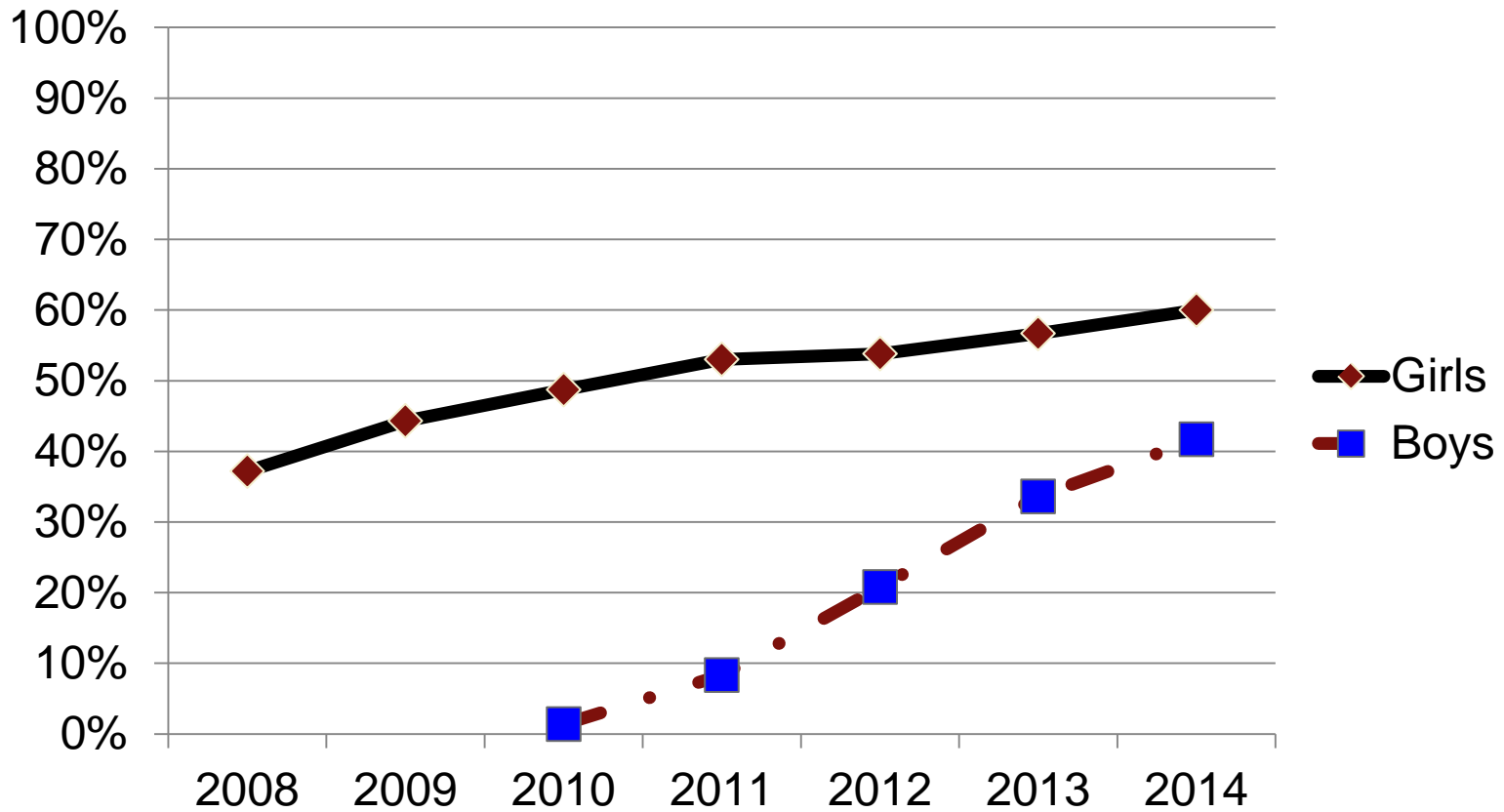


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Background



Trends in HPV Vaccine Initiation Rates for 13-17 year old girls & boys*



*CDC. National Immunization Surveys. *MMWR* 2009-2015



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Understanding Non-Vaccination for HPV



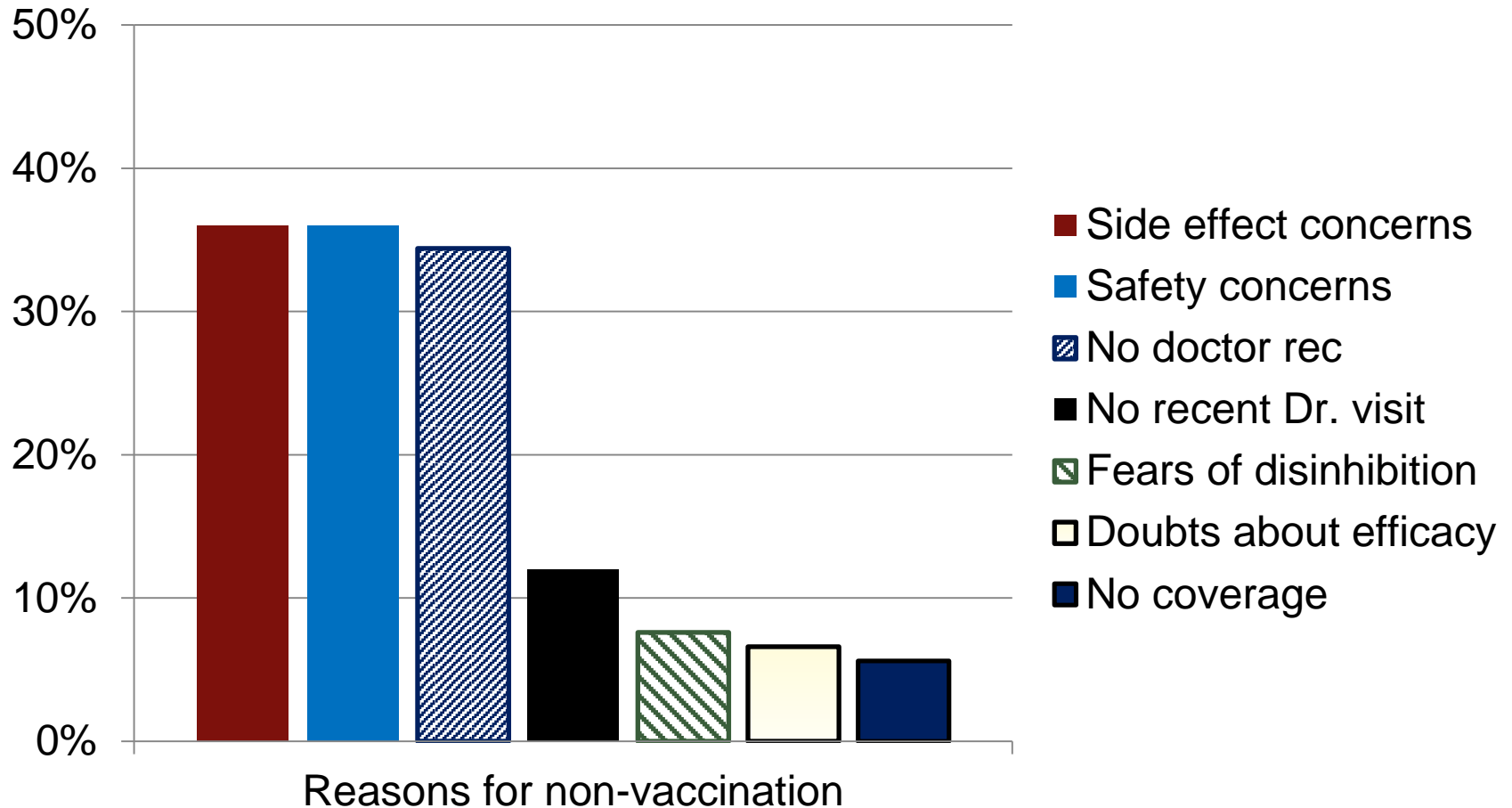
Parents of girls*:

- 501 mothers of 14-17 year old girls surveyed in 2010
- U.S. national sample
 - 50% reported non-vaccination of daughter
- These parents were asked to indicate reasons for non-vaccination

*Kester et al. *Mat Child Health Journal* 2013



Parental reasons for non-vaccination of daughters*



*Kester et al. *Mat Child Health Journal* 2013



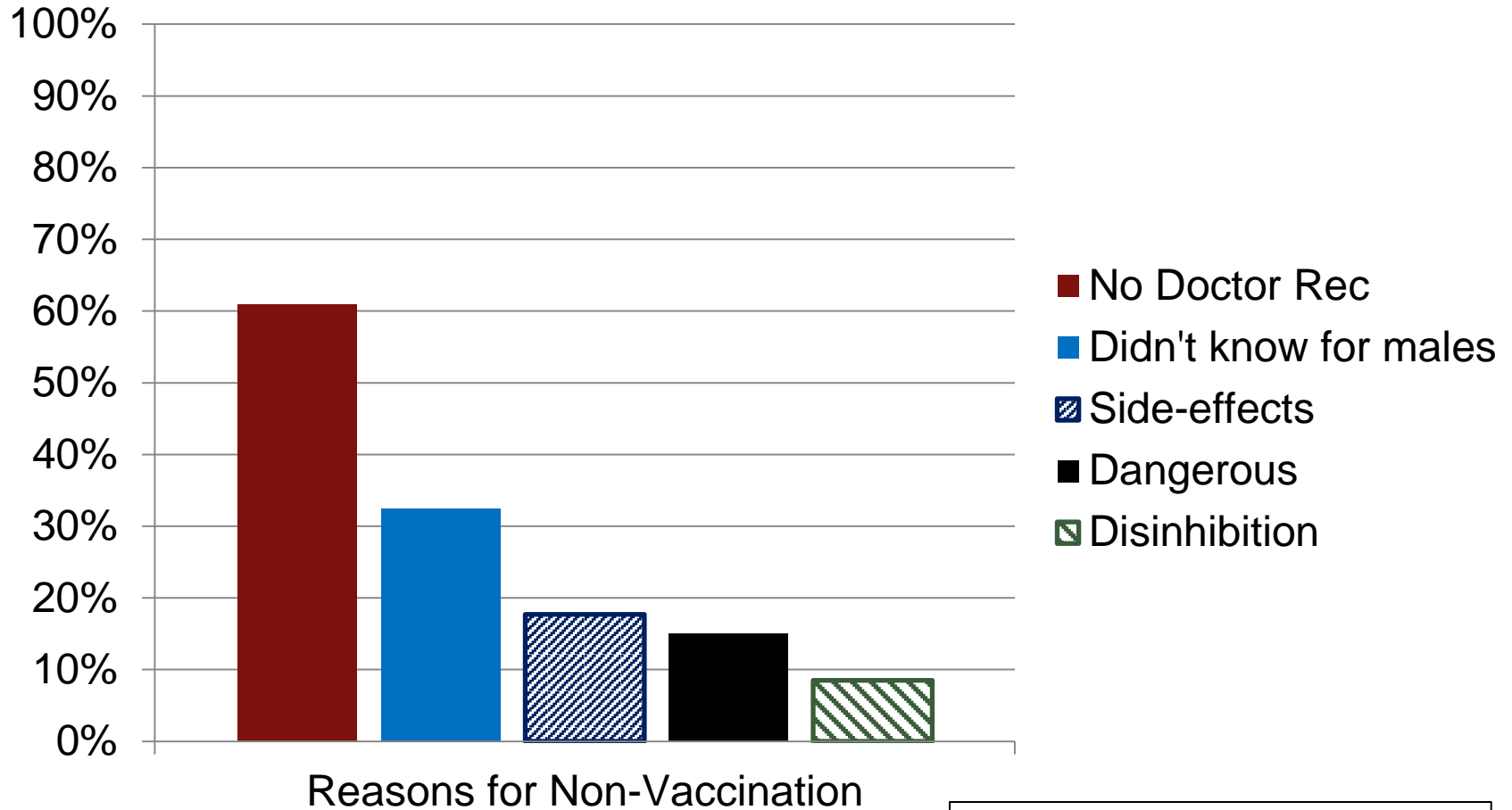
Parents of boys*:

- 779 parents of 11-17 year old boys surveyed in 2012
- U.S. national sample
 - 71% (n=555) reported non-vaccination of son
- These parents were asked to indicate reasons for non-vaccination

*Donahue et al. *Vaccine* 2014



Parental reasons for non-vaccination of sons*



*Donahue et al. *Vaccine* 2014



Not recommended by provider

- This is a real problem
- HCPs generally support HPV vaccination
- But also report barriers*
 - Cost of stocking vaccine
 - Concerns about reimbursement
 - Questions about safety
 - Lack of knowledge about HPV & vaccine

*Malo et al. *Mat Child Health Journal* 2013



Not recommended by provider

- Non-recommendation has been a particular problem with male vaccination*
- More comfort with vaccinating older vs. younger adolescents**
 - Suggests tendency to put off HPV vaccine until after the recommended ages of 11-12

*Post et al. *Fam Med* 2013.

**Weiss et al. *J Adolesc Health* 2010;
Vadaparampil et al. *Vaccine*. 2013.



Not recommended by provider

- Multiple studies show that adolescents/parents who received a recommendation for HPV vaccine had a much, much greater odds of getting vaccinated*

*Ylitalo et al. *Am J Public Health* 2013.
Donahue et al. *Prev Med Reports* 2015.



Providers Report of Communication Practices

On-line survey with Peds & FP

Developed measure of recommendation
quality (high/low)

- Strength of endorsement
- Timeliness (by 11-12)
- Consistency (routine vs. not risk-based)
- Urgency (same day vs. delay)



Provider Experience

- MDs anticipate parental hesitancy & that parents perceive low importance of vaccine for child (50%)
- 30% MDs anticipate uncomfortable conversation about vaccine



What do MDs report doing?

- 27% do not strongly recommend
- 59% use risk-based approach
- 51% recommend same-day vaccine
- Quality lower if MD uncomfortable or anticipates parental hesitancy
- Quality higher with presumptive approach vs. info provision or soliciting questions



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**PEDIATRICIAN COMMUNICATION
ABOUT HPV VACCINATION: AN
ANALYSIS OF RECORDED
CONVERSATIONS**



Study Team

- Gregory Zimet - IU
- Lynne Sturm - IU
- Kelly Donahue - IU
- Monica Kasting - IU
- Noel T. Brewer - UNC
- Amit Kulkarni - Merck



Study Objectives

- 1) Characterize physician HPV vaccine recommendation style
 - strength of endorsement
 - Presentation of mixed messages about HPV vaccine
- 2) Examine parental agreement to same-day HPV vaccination as response to physician style



Study Objectives

- 3) Describe physician consistency in HPV vaccine recommendation style across their patient panel
- 4) Investigate how HPV vaccine recommendations present within the broader context of the vaccine platform



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METHODS



Procedures

- Study conducted by Verilogue, a dialogue research company, between 1/2013 & 6/2013
- 20 of 23 pediatricians initially included
- Focused on well-visits
- Entire patient visit audiotaped
- Neither pediatricians nor parents/patients were aware of the HPV focus of the study
- Focused on non-HPV-vaccinated male patients, 11-18 years of age and female patients, 11-12 years of age
- Digital recordings anonymized and transcribed



Physician Panel

- Recruited & maintained by Verilogue
- 19 pediatricians included in this analysis
- Recruited from across the U.S., but predominantly Midwest and South
- Experienced pediatricians (90% in practice for at least 11 years)
- All private practice settings
- Each pediatrician provided 1-9 audio recordings of patients



Outcome measurement

- Parental agreement to same-day vaccination based on conversation analysis
- No medical documentation available



Data Analysis

- Each audio recording and transcript evaluated qualitatively for discourse characteristics and common themes
- Quantitative analyses examined predictors of agreement to same-day vaccination by the caregiver (Logistic regression)



Derived Measures

Measure	Definition
Presumptive Approach	Statement that patient was due for and/or would received the vaccine
Strength of Recommendation	Weak, Moderate, Strong, Absent
Offer of Delay	Pediatricians state that parent could choose to vaccinate later or recommended delay
Provides Information about HPV	Physician provides information about HPV disease/vaccination
Physician mentions vaccinating own child	
Order of HPV vaccine in list of vaccines	Compared to Tdap & Meningococcal
Consistency	Consistency of communication style across patients



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Results



Patient Sample

- 75 patients audio-recorded
 - 34 girls; 41 boys
 - All 11-12 years of age (subsample)
 - 73.3% non-Hispanic White
 - 22 (29.3%) agreed to same-day HPV vaccination
- Insurance status
 - 51% PPO
 - 21% Medicaid
 - 16% Private
 - 11% HMO
 - 1 uninsured



Presumptive Approach - Examples

- “Got a couple of shots today. The ones you’re getting are an Adacil, Menactra and the HPV.”
- “We’ve got tetanus, meningitis, the HPV. And we can get that going for you.”



Strength of Recommendation - Examples

- Weak: “It is recommended...”
- Moderate: “I recommend...”
- Strong: “I strongly recommend...”



Doctor Offers Delayed Vaccination - Examples

- “I know the nurse wrote down all these different vaccines. You obviously do not have to do all of them (laugh). Uh, the HPV which is the Gardasil, you absolutely do not need to do at this age...there is no urgency...”
- “I don’t, it’s up to you. You can do it this year or you can wait”



Doctor Provides Information - Examples

- “You and I as males can get cancer of the head or neck. And it causes uh warts around the genital area..”
- “They do now recommend Gardasil for boys. It’s approved from the FDA from 9 all the way up to 28”
- “HPV causes colon cancer”



Doctor Discloses Vaccination of Own Child - Example

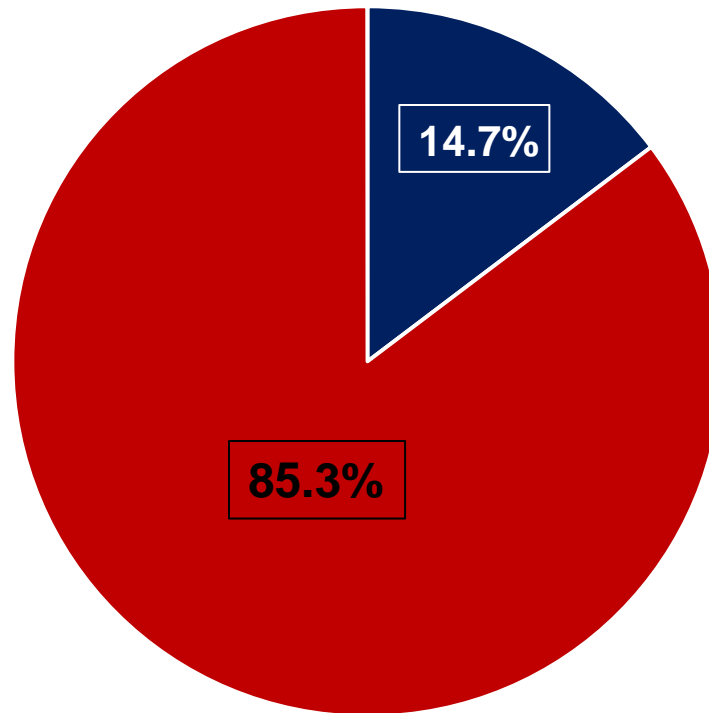
- “Doctors ain’t supposed to say this, but for what it’s worth, my two teenage boys have gotten it.”



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Presumptive Approach

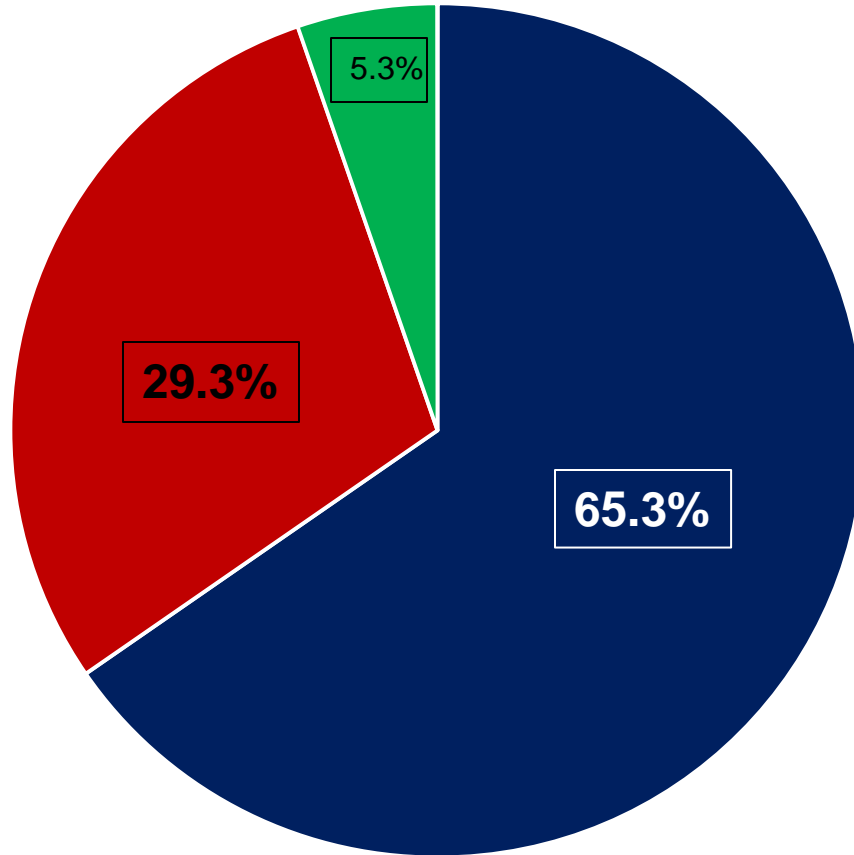
N = 75 Conversations



■ Presumptive ■ Non-Presumptive



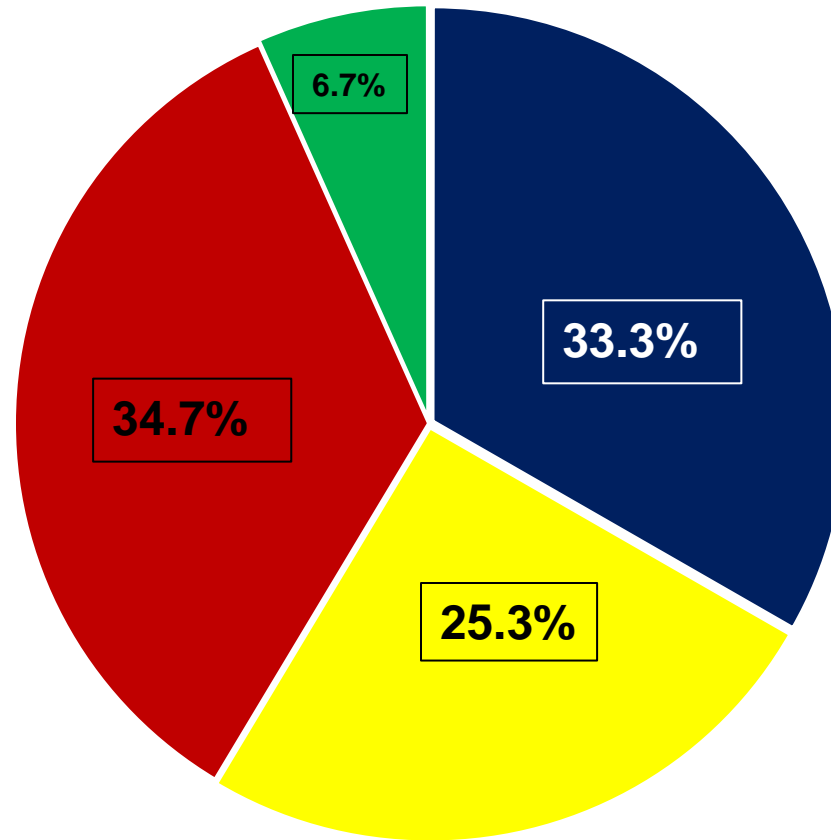
Recommends Delay



■ Mentions Delay ■ No-Delay ■ Unclear



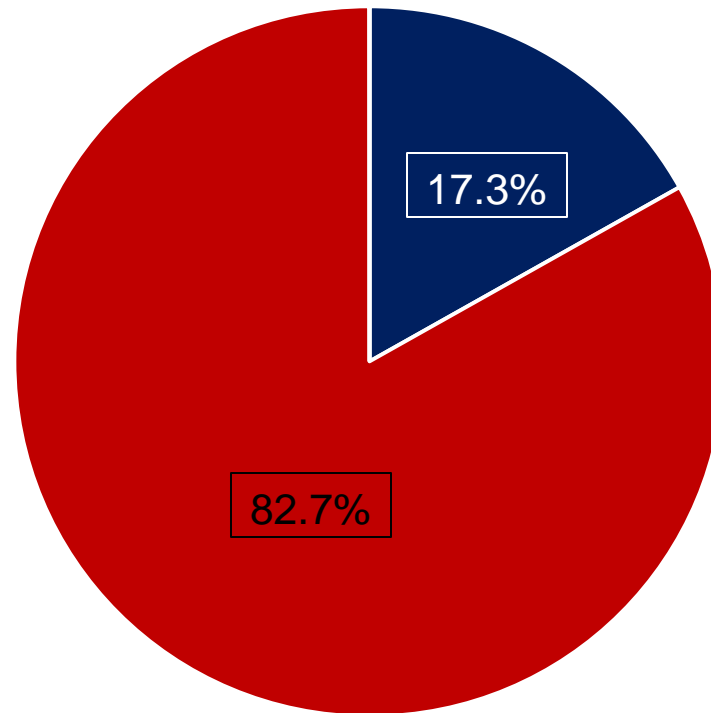
Strength of Recommendation



■ None ■ Weak ■ Moderate ■ Strong



Discloses about Own Child



■ Discloses ■ Does Not Disclose ■ ■



Order of Vaccine Presentation

- 9 of 75: HPV is first vaccine mentioned
- 51 of 75: HPV last in list of 2 or more vaccines or only named vaccine
 - “..a couple vaccines and then there’s Gardasil”
- 11 of 75: HPV not discussed with other vaccines
- 4 of 75: caregiver raised issue



Consistency of Communication

- Consistency measure
 - 18 MDs with 2 to 9 encounters
 - Compared 100% to lesser consistency (0 to 80%)
- Presumptive style:
 - 10/18 consistently do not use presumptive style at all
 - 8/18 vary 50-83%



Consistency of Communication

- Offer delay
 - 5/18 consistently never or always offer delay
 - Only 3 never mentioned possible delay
 - Most (13/18) varied in offer/not offer of delay



Consistency of Communication

- Information provision about HPV/vaccine
 - 7/18 always provide
 - Remainder vary: offer to 42% to 86% of encounters
- Information about link between HPV & cancer
 - 9/18 mention in >50% of encounters



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Qualitative Impressions



Mixed Message

- Overall impression is mixed message: recommending but offer of delay until child is older:
 - “So Joe would need the tetanus booster & then meningitis...he’s a bit young for the HPV but I do recommend that for boys now. You can read about it. I think at some point he [pause] HPV. It’s kind of hard to explain...”



Treated HPV Differently From Other Vaccines

- TDaP, Menactra, Hep A
 - Required by school, routine
 - Information provision is brief (guards against X)
- HPV
 - Optional, matter of parental choice
 - May trigger one-sided discourse



One-Sided Discourse

- Monologue
- List of information and sometimes misinformation
- Sometimes linked with MD model that parents must be gradually introduced to the idea of HPV vaccine over time
 - e.g., provide information & reading material at this visit; vaccinate in future



“Gardasil is the one to discuss...”

There's many different strains of this virus. It's for the most part, it's sexually transmitted. It doesn't have to be but usually is. Um, most people get like 90% plus of people at some point in their lives get it. There's many strains. Most of the time you get it you don't even know you've got it and it's gone. But there are some strains that stay in the body and in women go on and cause cancer of the cervix. There's a vaccine out that is against the most common strains that cause cancer. Um, there's three doses spread out over six months. We've been giving it for 10, 12 years, haven't had any problems. The problem with the shot it doesn't work if you already have the virus. So that's why I start talking about it when the kids are 10, 11, year old because I know, since she doesn't have to have it now, but I would certainly recommend it sometime in the next few years that she do have, that she does get it.



Monologue Attempt to Persuade?

- I told a dad a few months back, uh, with a 17 year old boy who I was doing his college physical before he left for college. It would be his last visit here. But anyway, and I said to him just what I said to you, I just want to let you know that the cervical cancer vaccine just got approved for boys. And he looks at me & he says the last time I checked my boy doesn't have a cervix & I said yeah I realize that. Do you have any girls? And he said yeah I have a 12 year old daughter & I said I'll tell you what, let's don't do any of the girls, just do all the boys. It will work great. So the point being boys basically get little or no disease from it okay?... the boys, I mean they do have a slightly increased chance of genital warts, of penile cancer, or cancer of their anus or rectum, very rare, rare diseases...there's an itsy bitsy benefit for the boys...the main benefit of giving it to the boys is that if they don't get it they can't give it to the girls. So you know the bottom line to me almost with this is again, the boys don't get much benefit from the vaccine. Are you going to do it to protect the community as a whole? You know and that's sort of the issue. Again at this age you don't have to worry about it obviously-



Offers to Delay

I know the nurse wrote down all these different vaccines. You obviously do not have to do all of them (laugh). Uh, the HPV which is the Gardasil, you absolutely do not need to do at this age...there is no urgency in a 12 year old to do it (laugh)

Boys are half the problem; you don't need to worry 'til she gets a boyfriend; it's transmitted both ways



Presumptive Style Treats All Alike

- Presumptive style applies to all vaccines
 - “Today she is getting...”
 - “Today he is due for...”
 - “You know you get some shots today..”
 - “So the shots we have for you today...”
 - “Let’s get those started for you. Gardasil is 3 doses, you get one today...”



Logistic Regression

- When HCP mentions delaying HPV vaccination...
 - There's a 71 times reduced odds of caregiver agreement to same-day vaccination: OR=.014 [95%CI=.003 - .071]
 - Delay = 14.3% Acceptance; No Delay = 85.7%
- When HCP makes a presumptive recommendation...
 - There's a 9.5 times greater odds of agreement to same-day vaccination: OR=9.52 [95%CI=2.23-40.73]
 - Presumptive = 63.6% Acceptance; Non-Presumptive = 36.4%
- No other factors predicted same-day vaccination
 - Strength of recommendation
 - Vaccinating own children



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DISCUSSION



Self-fulfilling prophecy?

- MDs often seem to anticipate parental hesitancy/refusal
 - Current communication behaviors seem to ensure that parent will not feel comfortable with same day vaccination
- Anticipation of hesitancy may stem from MD ambivalence about on-time vaccination



Recommendations to HCPs

- Put HPV in the middle
 - HPV is typically mentioned last
 - Instead, say, “Tdap, HPV vaccine, and Meningococcal vaccine”
 - This approach will help to prevent provider hesitation before mentioning HPV



Recommendations to HCPs

Recommend for same day visit, don't just offer:

“I recommend 3 vaccines today: Tdap to prevent pertussis, the first dose of HPV vaccine, which prevents cancers, and meningococcal vaccine to prevent meningitis. I strongly recommend all three. What questions do you have?”



With Questioning/Hesitant Parents

- Don't assume questions and hesitancy mean vaccine refusal
- Use motivational interviewing strategies
 - Elicitation of underlying concerns, without judging or trivializing
 - Asking permission to discuss & share information
 - Adopting a long view of parent/patient engagement



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Video Examples



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Three Cs Quality Improvement Study Team Members



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