



Barriers to human papillomavirus vaccine series completion in an insured population: results from a pilot study

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Background

HPV vaccines are **safe and highly effective**

Suboptimal HPV vaccine uptake in the United States:

- 60.4% for ≥ 1 dose
- 43.4% for completion of the 3-dose series

Barriers to compliance include multiple-dose requirement

Background

Pilot study goal:

Describe challenges experienced by individuals who initiate HPV vaccination, but do not complete all recommended doses

- Parents of children aged 11-17 years
- Adults aged 18-31 years

Methods: Study setting

Kaiser Permanente Washington (KPWA)

- Large integrated health care system
- Clinical practice guidelines follow the current Centers for Disease Control and Prevention–Advisory Committee on Immunization Practices (CDC-ACIP) recommendations

Methods: Study population

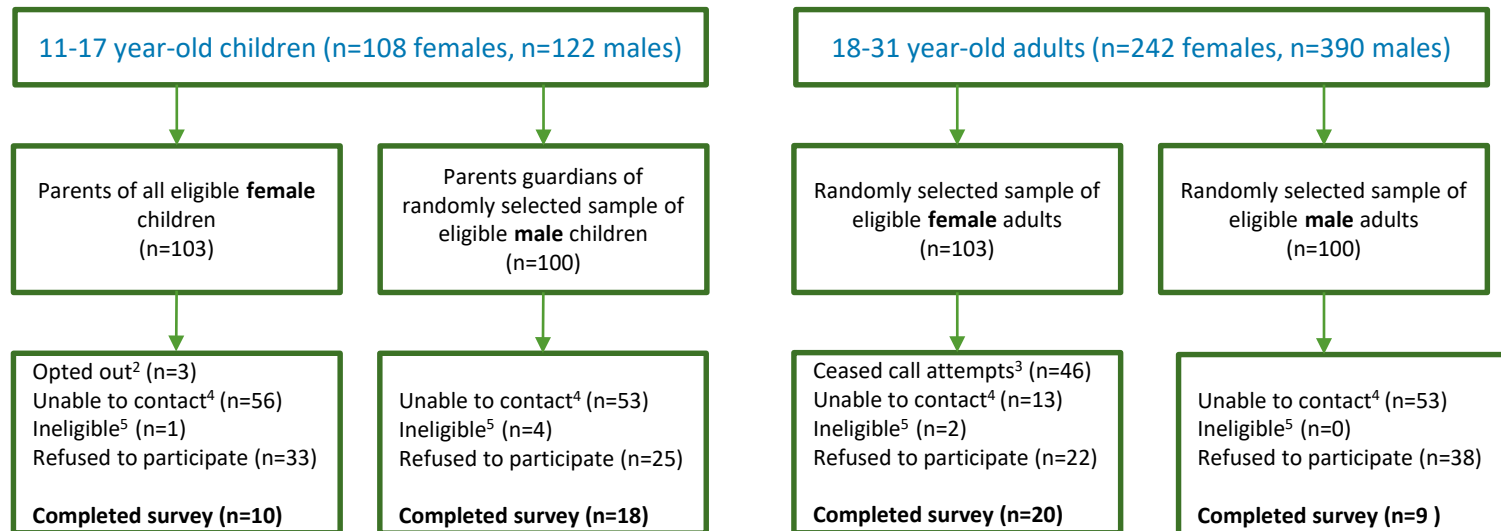
Eligibility criteria:

- paneled or assigned to a KPWA Medical Center for primary care
- immunization with only one dose of HPV vaccine between the ages of 9-26 years
- King County, Washington residents

Methods: Study population

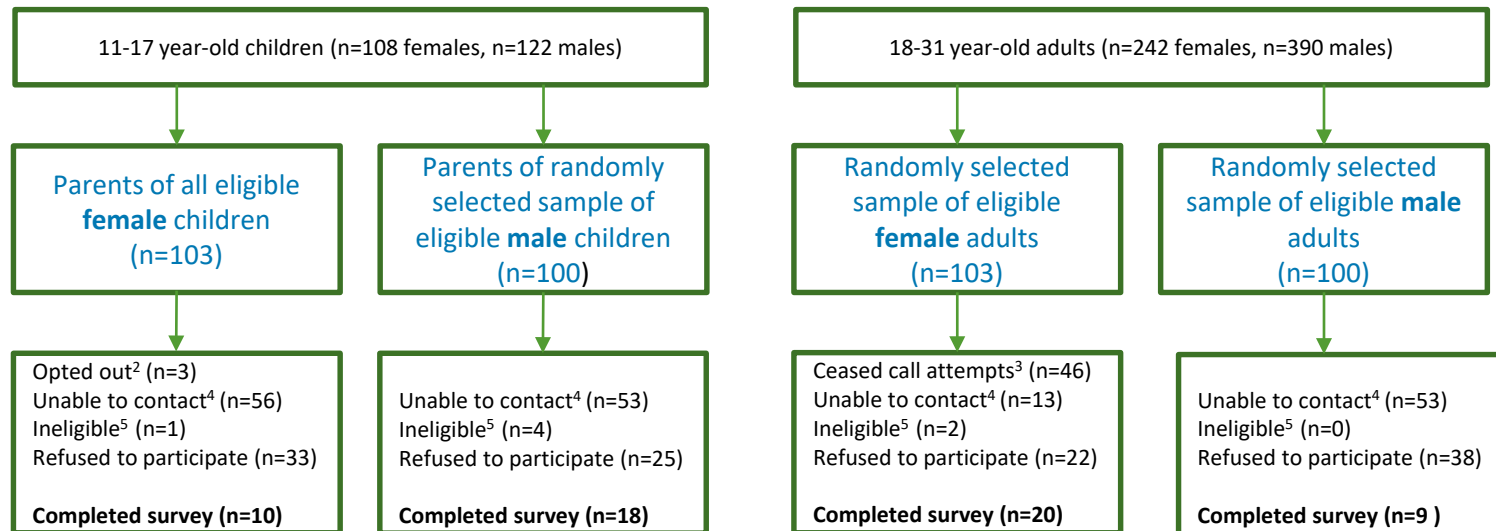
Eligible cohort comprised two groups of potential participants:

- **parents of 11-17 year-old girls and boys**
- **18-31 year-old women and men**



Methods: Study sampling and approach

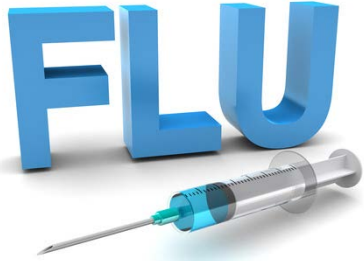
- Sampled 103 parents of girls, 100 parents of boys, 103 women, and 100 men
- Mailed invitations to participate in a brief survey
- Trained interviewer followed up to consent participants and administer survey by phone



Methods: Survey instrument measures

- Receipt of HPV vaccine
- Number of doses received
- Open-ended description of one or more reasons for not completing the series

Results: Characteristics of eligible population – other immunizations



	Eligible 11-17 year-olds		Eligible 18-31 year-olds	
	Girls	Boys	Women	Men
	(n=108)	(n=122)	(n=242)	(n=390)
	n(%)	n(%)	n(%)	n(%)
Flu vaccine in previous 12 months	15 (14.2)	23 (19.3)	64 (27.1)	74 (19.0)

Results: Characteristics of eligible population – other immunizations

Meningococcal vaccine

	Eligible 11-17 year-olds		Eligible 18-31 year-olds	
	Girls (n=108) n(%)	Boys (n=122) n(%)	Women (n=242) n(%)	Men (n=390) n(%)
Meningococcal vaccine (≥1 dose)	103 (97.2)	115 (96.6)	78 (33.1)	327 (83.8)
≥ 2 doses *	4/26 (15.4)	5/34 (14.7)	28/50 (56.0)	159/245 (64.9)

* Restricted to individuals aged 16 years and older who initiated meningococcal vaccination prior to age 16.

Results: Survey participation

406 mailed invitations:

- 30% (n=121) actively refused to participate in survey
- 43% (n=175) were not able to be contacted by phone

Survey participants:

- parents of girls (n=10)
- parents of boys (n=18)
- women (n=20)
- men (n=9)

Results: Parent-reported reasons for non-compliance with additional HPV vaccine doses

Reported Reason	Parents of 11-17 year-olds			
	Girls (n=10)		Boys (n=18)	
	n	%	n	%
Believed all doses had been received	2	18.2	1	5.3
Not aware of need for more doses	1	9.1	8	42.2
Concerns about HPV vaccine or vaccines in general	3	27.3	3	15.8
Inconvenient to return for more doses	1	9.1	4	21.1

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Results: Self-reported reasons for non-compliance with additional HPV vaccine doses

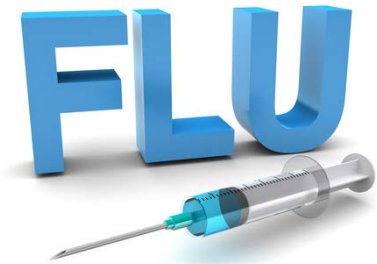
Reported Reason	18-31 year-olds			
	Women (n=20)		Men (n=9)	
	n	%	n	%
Believed all doses had been received	4	16.7	0	0
Not aware of need for more doses	7	29.1	1	11.1
Inconvenient to return for more doses	5	20.8	4	44.4
Didn't know	2	8.3	3	33.3

Results: Self-reported reasons for non-compliance with additional HPV vaccine doses

Reported Reason	18-31 year-olds			
	Women (n=20)		Men (n=9)	
	24 responses		9 responses	
	n	%	n	%
Believed all doses had been received	4	16.7	0	0
Not aware of need for more doses	7	29.1	1	11.1
Inconvenient to return for more doses	5	20.8	4	44.4
Didn't know	2	8.3	3	33.3

Conclusions

- Compliance with other immunizations was low among the eligible study population



Meningococcal
vaccine

- Very small study

Conclusions

Suggestion of sex differences within age strata in reported barriers to HPV vaccine series completion among survey participants

Larger study is needed

Conclusions

In a population that is not exhibiting HPV vaccine hesitancy, **evidence for the clinical efficacy of a single dose** would resolve series completion issues

In the meantime, if these findings are confirmed, **we may have other opportunities for improvement...**

Conclusions

Develop strategies to:

1. improve communication around dosing requirements,
2. provide patient reminders, and
3. increase opportunistic vaccination

Evaluate impact on facilitating HPV vaccine series completion

THANK YOU

Collaborators

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