

The Social Determinants of HPV Vaccine Uptake and Attitudes

Perceived Risk & Trust among College Students

BACKGROUND

- HPV is the most common STD
- 75-80% lifetime risk; about 20 million currently infected
- 99% of cervical cancer due to HPV
 - Over 100 strains of HPV, about 70% due to HPV strains 16 & 18
- Cervical cancer 2nd most common cancer among women
 - But, about 80% of HPV infections do not lead to cervical cancer
- HPV can also lead to cancers of the anus, penis, vulva, vagina, & mouth & warts of the hands, feet, & genitals
- Blacks, Latinas, & low-income higher prevalence of HPV, cervical cancer, & cervical cancer mortality
- 54% initiation rate among adolescents
 - Women, blacks, Latinas, low-income, urban, & publically insured more likely to initiate 3-shot series
- 33% completion rate among adolescents
 - Women, whites, suburban, privately insured & high-income more likely to complete 3-shot series

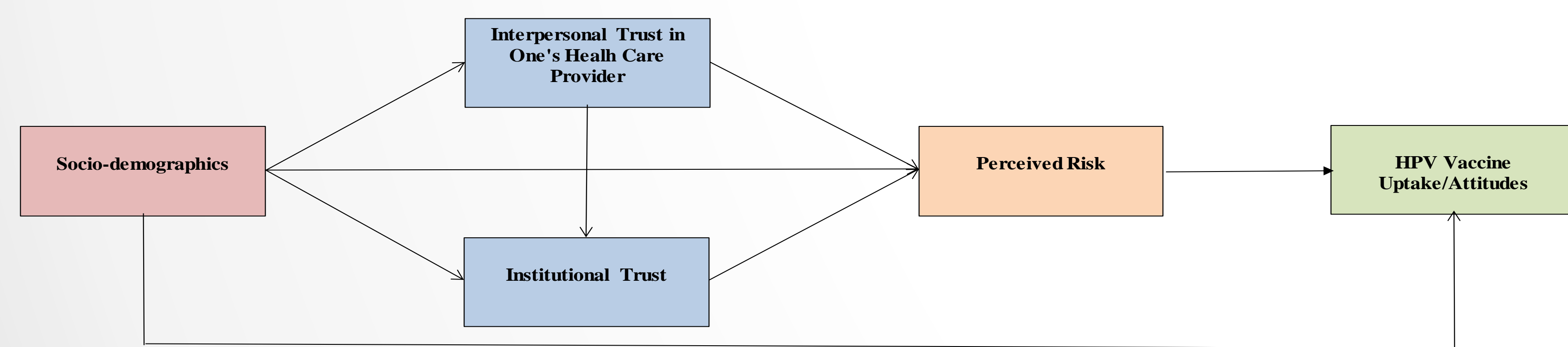
METHODS

- Paper & pencil survey of 836 college students
- Large, Midwestern university
- Between November 2012 & January 2013
- 26 undergraduate classes
- About 62% response rate
- Structural Equation Modeling (SEM)

RESEARCH QUESTIONS

- 1) What factors are associated with college students receiving the HPV vaccine (uptake)?
- 2) Among those who have not received the vaccine, what are the factors that are associated with two attitudes toward the HPV vaccine (intentions & acceptance)?

THEORETICAL MODEL



DESCRIPTIVE STATISTICS

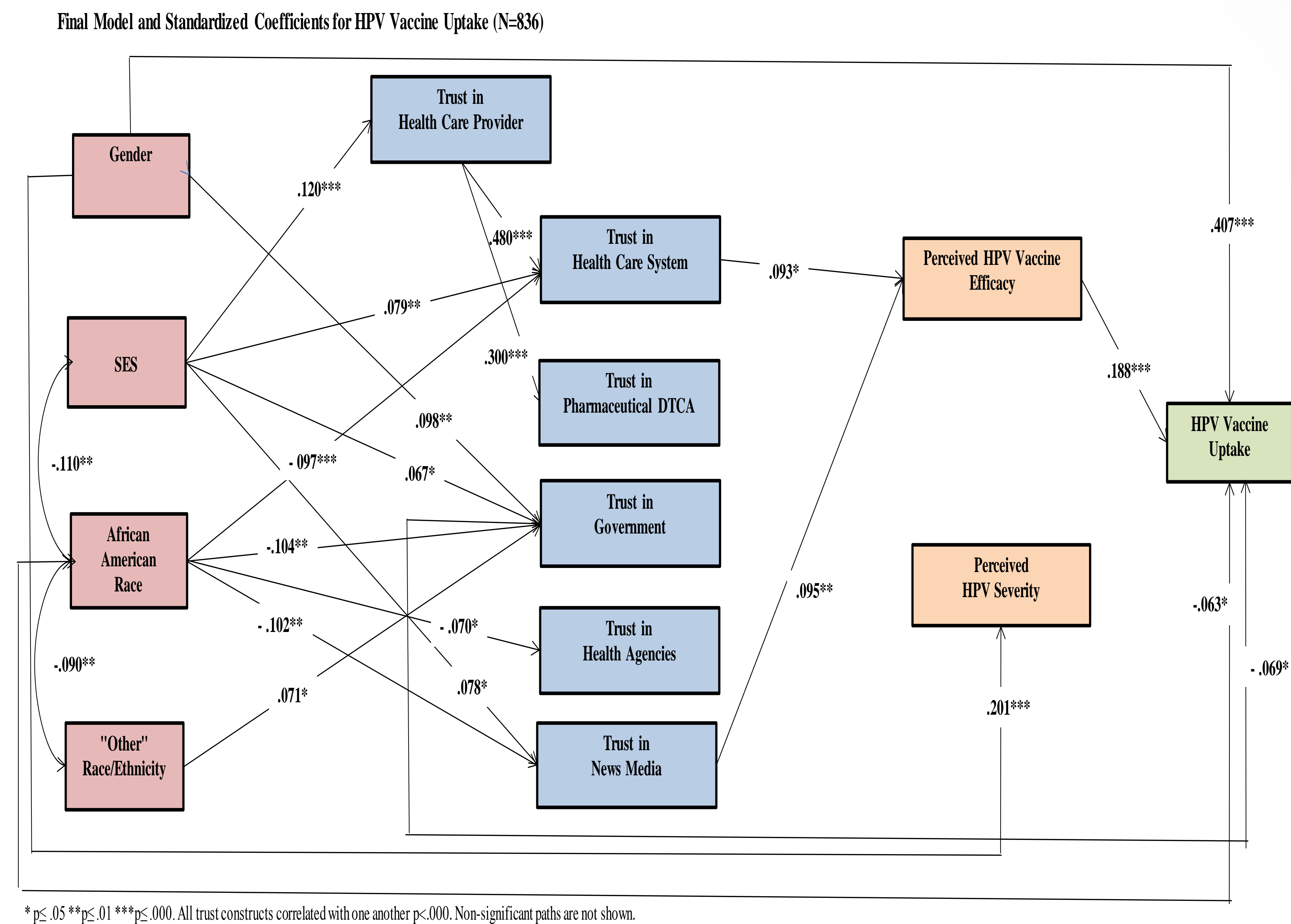
Construct	Mean (SD) or N (%)	Items, Alpha	Range
Socio-demographics			
Gender	589 (70.5)	--	1=female
African American	81 (9.7)	--	1=African American
"Other" Race/Ethnicity	65 (7.8)	--	1="Other" Race/Ethnicity
White	690 (82.5)	--	1=White
SES	2.60 (.564)	--	1=low SES to 3=high SES
Trust			
Health Care Provider	4.19 (.891)	10 items, $\alpha=.923$	1=strongly disagree to 6=strongly agree
Health Care System	3.57 (.762)	9 items, $\alpha=.842$	1=strongly disagree to 6=strongly agree
Pharmaceutical DTCA	2.89 (.907)	7 items, $\alpha=.918$	1=strongly disagree to 6=strongly agree
Federal Government	2.73 (.794)	1 item	1=never to 5=always
Health Agencies	3.41 (.733)	2 items, $r=.783$	1=never to 5=always
News Media	2.96 (.644)	3 items, $\alpha=.762$	1=never to 5=always
Perceived Risk			
Susceptibility ²	1.40 (.473)	3 items, $\alpha=.807$	1=not at all to 3=extremely
Efficacy	2.15 (.437)	3 items, $\alpha=.707$	1=not at all to 3=extremely
Severity	2.63 (.322)	3 items, $\alpha=.431$	1=not at all to 3=extremely
HPV Vaccine Uptake/Attitudes			
Uptake	1.11 (1.38)	--	0-3 doses
Intentions	1.93 (.769)	--	1=definitely won't to 4=definitely will
Acceptance	1.88 (.670)	--	1=not at all willing to 3=extremely willing

	Black (n=81)	"Other" (n=65)	White (n=690)	Low SES (n=298)	High SES (n=538)	Women (n=589)	Men (n=216)
Non-Initiators 0 doses 57% (N=480)	62% (50)	55% (36)	57% (394)	55% (163)	59% (317)	45% (264)	87% (116)
Initiators 1-2 doses 10% (N=86)	14% (11)	6% (4)	10% (71)	11% (34)	10% (52)	11% (66)	20% (28)
Completers 3 doses 32% (N=270)	25% (20)	38% (25)	33% (225)	34% (101)	31% (169)	44% (259)	4% (5)

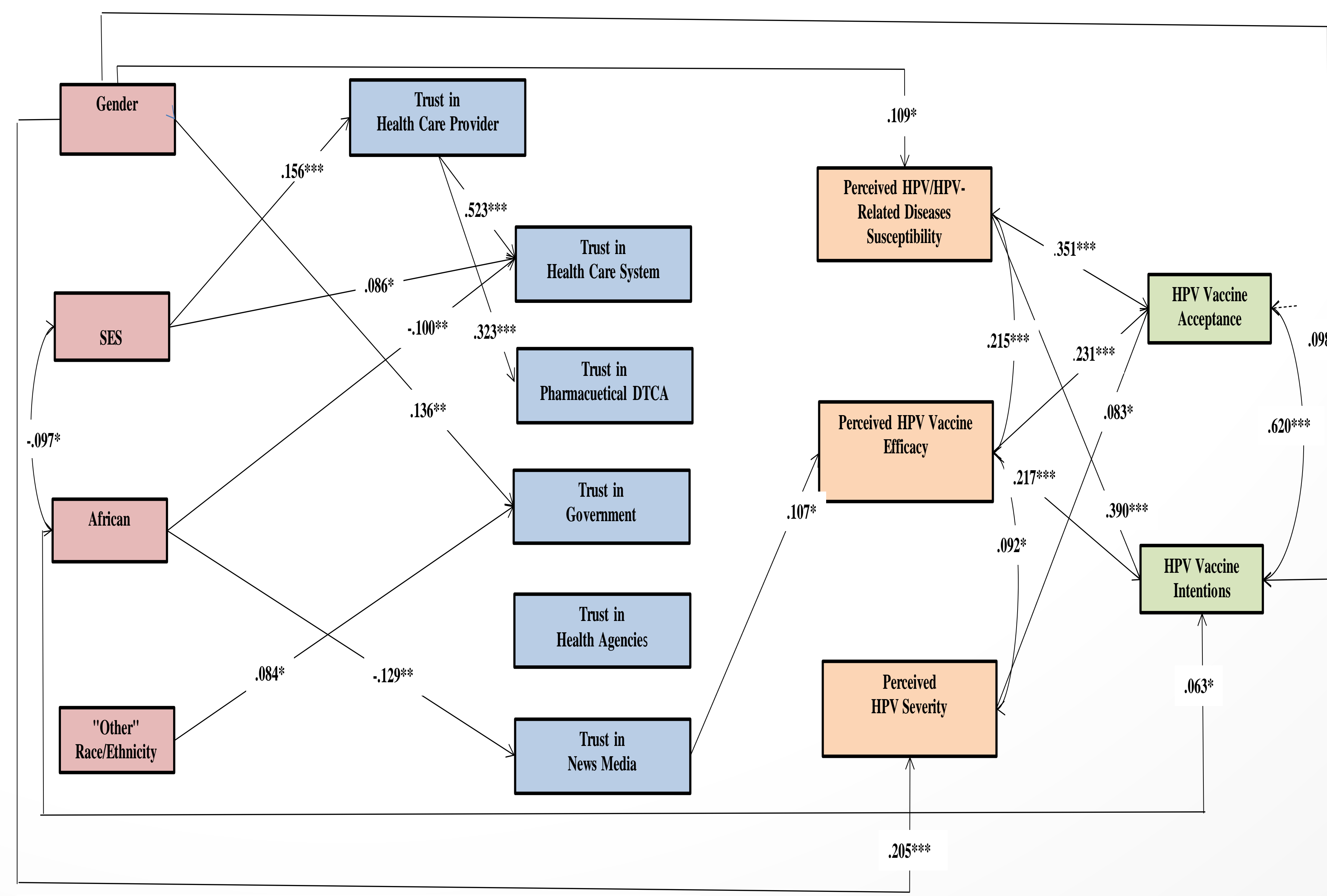
	Black (n=50)	"Other" (n=36)	White (n=394)	Low SES (n=163)	High SES (n=317)	Female (n=264)	Male (n=216)
HPV Vaccine Acceptance 1.88 (.670)	1.96 (.669)	1.94 (.630)	1.86 (.674)	1.93 (.672)	1.85 (.669)	1.95 (.696)	1.80 (.629)
HPV Vaccine Intentions 1.93 (.769)	2.18 (.825)	2.06 (.791)	1.88 (.754)	1.93 (.738)	1.92 (.786)	2.02 (.794)	1.81 (.721)

²For all types of trust, higher values indicate more trust. ³Only those who did not complete the 3-shot HPV vaccine series (n=566) answered the questions: perceived HPV/HPV-related disease susceptibility, HPV vaccine acceptance, and HPV vaccine intentions.

RESULTS: The HPV Vaccine Decision-Making Process



Final Model and Standardized Coefficients for HPV Vaccine Attitudes (N=480)

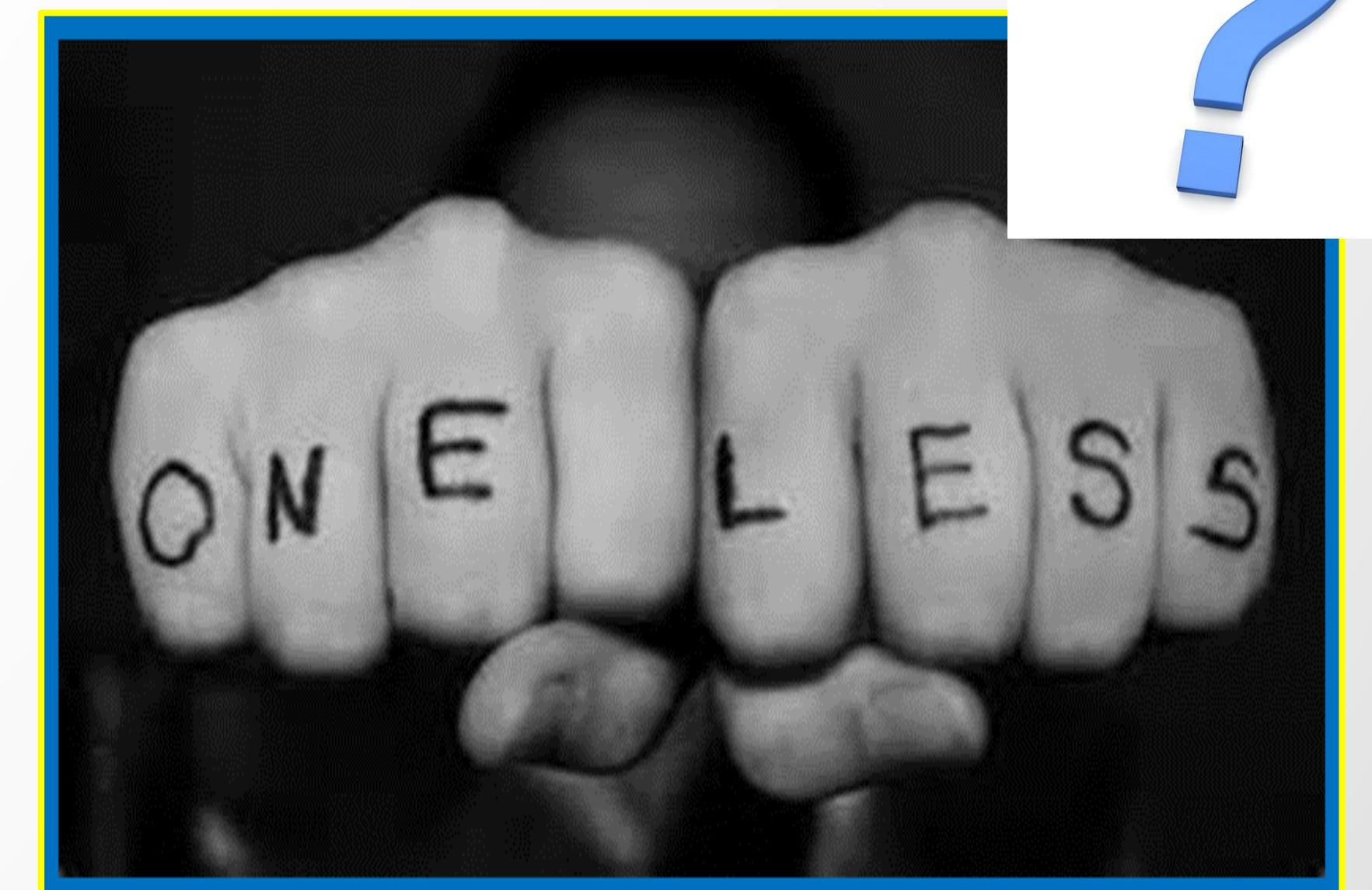


SUMMARY OF FINDINGS

- Health beliefs predict HPV vaccine uptake/attitudes
 - Perceived susceptibility & efficacy affect HPV vaccine uptake & attitudes more so than does perceived severity
- There are multiple pathways from race, class, & gender to uptake/attitudes
 - Direct, through trust, & indirect through perceived risk
- Gender affects uptake & attitudes in multiple ways
 - Trust has direct & indirect (through perceived risk) effects on uptake & attitudes
 - Health care provider trust important, but so are other types of trust not directly related to delivery of health care
 - News media trust has indirect relationship with uptake, intentions, & acceptance (through perceived HPV vaccine efficacy)

DISCUSSION

Move beyond individual-level explanations & consider the social context in which individuals make decisions about their health



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