

INFLUENCE OF POLITICAL AFFILIATION, DISTRUST OF GOVERNMENT AND  
PHARMACEUTICAL COMPANIES ON HPV VACCINATION INTENTIONS  
AND UPTAKE

ALYSSA ANDREA MARTINEZ

Master's Program in Public Health

APPROVED:

---

Julia Lechuga, Ph.D., Chair

---

Jeannie Concha, Ph.D.

---

Gabriel Frietze, Ph.D.

---

Margie Padilla, PharmD.

---

Stephen L. Crites, Jr., Ph.D  
Dean of the Graduate School

Copyright ©

by

Alyssa Andrea Martinez

2021

PREVIEW

## **Dedication**

This thesis is wholeheartedly dedicated to my parents, who have been my source of inspiration and strength throughout this process. All of the “You can do this mija”s are what got me through the moments that felt impossible. You both were right, I did it! To my big sister Ale, thank you for doing this first and making it look so easy. You are my biggest role model, and I couldn’t have done this without your help.

I also dedicate this thesis to my sweet Nini and Uncle Honey. Although both of you didn’t have the chance to physically be here to witness this accomplishment, I felt your spirits looking over me every step of the way.

INFLUENCE OF POLITICAL AFFILIATION, DISTRUST OF GOVERNMENT AND  
PHARMACEUTICAL COMPANIES ON HPV VACCINATION INTENTIONS  
AND UPTAKE

by

ALYSSA ANDREA MARTINEZ, B.S., CHES

THESIS

Presented to the faculty of the Graduate School of  
The University of Texas at El Paso  
in Partial Fulfillment  
of the Requirements  
for the Degree of

MASTER OF PUBLIC HEALTH

Department of Public Health

THE UNIVERSITY OF TEXAS AT EL PASO

December 2021

## **Acknowledgement**

I would like to express my deepest appreciation to my committee chair and mentor, Dr. Julia Lechuga, whose expertise in the field, kind heart, and dedication to her students guided this thesis entirely. Without her guidance and persistent help, this thesis would not have been possible.

I would also like to thank my committee members, Dr. Jeannie Concha, Dr. Gabriel Frietze, and Dr. Margie Padilla, whose work demonstrates their dedication to serving the El Paso community. Thank you for your guidance, suggestions, and patience throughout this process. Working closely with you all has been one of the biggest highlights of my graduate school adventure.

In addition, thank you to Dr. Eva Moya, who gave me the opportunity to work closely with her and her team of experts to conduct research on HPV. Anyone who knows Dr. Moya both personally and from afar is in awe of her dedication to the community she serves, her grace, and making it all look so easy.

## Abstract

**Background and Significance:** The Human Papillomavirus (HPV) is the most common sexually transmitted infection (STI) in the United States. Currently, approximately 79 million people in the United States are infected with HPV. The CDC estimates that there are nearly 31,500 cases of cancers caused by HPV each year in the United States. Cervical cancer is the most common HPV-related cancer and almost all cervical cancers are caused by a few strains of HPV. Research suggests that Latinx women residing in the U.S.-Mexico border may be at increased risk of contracting HPV types that cause cervical cancer. Although there is no treatment for HPV, there is a primary form of prevention, an HPV vaccine. The United States has one of the most liberal vaccination policies allowing for religious and other forms of exemptions. These exemptions are set in place to reduce perceptions of government intrusion on individual autonomy. Attitudes about the role of the government in regulating individual freedoms for immunization measures are closely linked to political affiliation. **Objective:** The purpose of the study is to determine the moderating influence of political affiliation and the mediating influence of distrust of government and pharmaceutical companies on the established association between perceived benefits and severity and vaccination intentions and uptake. **Methods:** The HPV VAKS survey is a cross-sectional survey that will collect demographic information such as age, sex, ethnicity, sexual activity, number of children, and whether their children or themselves have received the HPV vaccine. Knowledge, culture, religion, political affiliation, and familism will also be measured through the survey to assess how they contribute to vaccine uptake among the El Paso community. Factors that may contribute to vaccine acceptance such as trust in the government, health care providers, and other resources will be measured. **Results:** Results indicate that endorsement of a conservative political affiliation and greater distrust of government and pharmaceutical companies is associated with reduced

likelihood of vaccination. Distrust did not mediate the relationship between political affiliation and vaccination likelihood. On the other hand, perceived benefits of vaccination and severity of contracting HPV is positively associated with vaccination. Political affiliation did not moderate the association between perceived benefits and severity and vaccination likelihood.

**Conclusion:** Results have implications for the development of vaccination promotion public health interventions including tailored interventions designed to reduce distrust and to inform Latinx communities about the benefits of vaccination and negative consequences associated with HPV.

*Key words: Human Papillomavirus, Cervical Cancer, HPV Vaccine, Vaccine Intentions, Health Belief Model, Political Affiliation, Distrust in Government*

*Word Count:392*

## Table of Contents

Dedication .....	iii
Acknowledgement .....	v
Abstract .....	vi
List of Tables .....	x
List of Figures .....	xi
Introduction.....	1
Cervical Cancer Among Latinx Women.....	1
The HPV Vaccine .....	5
Background and Significance .....	6
The Health Belief Model .....	6
Public Controversy and HPV Vaccination State Mandates in the United States .....	11
Political Affiliation, Distrust of government and Pharmaceutical Companies, and HPV Vaccine Attitudes .....	14
Political Affiliation and its Role in Controversy .....	14
Distrust of Government and Pharmaceutical Companies .....	16
Vaccine Hesitancy .....	19
Highly Publicized Autism-vaccination Link Eroded Trust in Vaccines.....	21
Vaccine Hesitancy Among U.S. Ethnic Minorities .....	22
Study Aim .....	24
Study Purpose .....	25
Hypotheses:.....	25
Methods.....	26
Participants.....	26
Procedure .....	26
Measures .....	27
Statistical Analyses .....	29
Results.....	32
Discussion.....	35
Summary of Results.....	35



Implications for Future Research.....	36
Strengths and Limitations .....	37
Conclusion .....	41
IRB Approval.....	42
MPH Program Foundational Competencies .....	43
MPH Program Hispanic and Border Health Concentration Competencies .....	45
References.....	46
Vita.....	62

PREVIEW

## **List of Tables**

Table 1. Demographic Characteristics.....	45
Table 2. Bivariate Correlations.....	46
Table 3. Path Analysis Direct and Indirect Effects.....	47
Table 4. Total, Direct, and Indirect Effects of Mistrust on Vaccination Likelihood .....	48
Table 5. Influence of Political Affiliation, Severity, and their Interaction on Likelihood of Vaccinating Children against HPV.....	49
Table 6. Influence of Political Affiliation, Benefits, and their Interaction on Likelihood of Vaccinating Children against HPV.....	50

## List of Figures

Figure 1. Mediation Model.....	43
Figure 2. Moderation Model .....	44

PREVIEW

## **Introduction**

The number of Latinx individuals living in the United States reached 60.6 million in 2019, a new record high (Noe-Bustamante et al., 2020). Latinx individuals now make up 18% of the United States population compared to 16% in 2010. Over the last 9 years, Latinx individuals have accounted for more than half (52%) of the population growth in the United States. Moreover, Texas ranks number 1 among the 3 states with the biggest increase in the Latinx population between 2010 and 2019 (2 million increase) (Noe-Bustamante et al., 2020). According to the 2019 census, El Paso's Latinx population is 82.9%. Despite comprising a sizable segment of the U.S. population, Latinx are disproportionately affected by health disparities in many domains, including reproductive health. Specifically, Latinx women are disproportionately affected by high cervical cancer rates compared to non-Latinx white women.

### **Cervical Cancer Among Latinx Women**

U.S. Latinx women experience a higher cervical cancer incidence compared to non-Latinx white women. According to the CDC, the incidence rate of cervical cancer among Latinx women is higher (8.9/100,000) compared to their non-Latinx white counterparts (7.3/100,000) (CDC, 2020). Unfortunately, U.S. Latinx women also experience higher cervical cancer morbidity and mortality. The cervical cancer mortality rate in Latinx women is 2.6/100,000 compared to Non-Latinx white women which is 2.1/100,000. In 2015, the American Cancer Society predicted that approximately 2,000 Latinx women living in the United States would be diagnosed with cervical cancer. Of those 2,000, 600 were expected to die from cervical cancer. Health disparities in cancer morbidity and mortality are attributed to reduced screening and

screening at a later course of the disease among Latinx women compared to non-Latinx white women (American Cancer Society, 2020).

As stated above, despite having one of the highest incidence rates of cervical cancer, Latinx women undergo significantly fewer cervical cancer preventative screenings (American Cancer Society, 2020). Additionally, screening rates vary by other sociodemographic factors such as country of birth. For example, Latinx foreign born immigrant women who have been living in the United States for less than 10 years are less likely to have been screened in the last 3 years compared to those who have been in the United States for 10 or more years. Furthermore, Latinx women who have no insurance, or a public form of insurance, are less likely to screen for cervical cancer and are less likely to return for a follow-up after an abnormal exam result (American Cancer Society, 2020).

## **Human Papillomavirus as the Primary Precursor of Cervical Abnormalities**

The Human Papillomavirus (HPV) is the most common sexually transmitted infection (STI) in the United States (CDC, 2019). Currently, approximately 79 million people in the United States are infected with HPV. HPV is most prevalent in teens and young adults in their early 20's and is most commonly transmitted through vaginal or anal sex (CDC, 2019). There are over 100 types of HPV and certain strains cause genital warts and cancers of the vulva, vagina, penis, or anus. Strains of HPV can also cause cancer in the back of the throat, and in the tongue and tonsils (oropharyngeal cancer). The most common symptoms of HPV include warts in the genitals or surrounding skin (Mayo Clinic, 2020). The CDC (2018) estimates that there are nearly 31,500 cases of cancers caused by HPV each year in the United States. However, cervical cancer is the most common HPV-related cancer and almost all cervical cancers are caused by a few strains of HPV (American Cancer Society, 2020). In particular, HPV types 16 and 18 cause 70% of cervical cancers and pre-cancerous cervical lesions (WHO, 2019).

Cervical cancer is most commonly diagnosed in women aged 35 to 44 years old, with the average being 50 years old. It is uncommon for cervical cancer to develop in women who are younger than 20 years old. Benard et al (2012) conducted a study which used two federal surveillance systems to quantify the burden of cervical cancer among women 40 years old and younger. Researchers found that 78% of cervical cancers were diagnosed among women ages 30-39, 21% among women 20-29, and 1% in women younger than 20 years old. According to the American Cancer Society (2021), it is predicted that about 14,480 new cases of invasive cervical cancer will be diagnosed in 2021. Of those women diagnosed, about 4,290 will die from cervical cancer.

Research suggests that Latinx women residing in the U.S.-Mexico border may be at increased risk of contracting HPV types that cause cervical cancer. Healthy Paso Del Norte reported that El Paso's rate of cervical cancer is 9.8/100,000, which is higher than the Texas rate (9.2/100,000) and the U.S. rate (7.6/100,000) (Healthy Paso De Norte, 2020). A study conducted along the U.S.-Mexico border to determine the prevalence and distribution of HPV subtypes among 585 women ages 21-65 years old, indicated that HPV subtype prevalence was 53.2% with the most high-risk common subtype 16, occurring in 3.08% of study participants (Shokar et al., 2020). Additionally, among the 53.2%, 48% had multiple HPV infections at the time of screening. The high prevalence of HPV infections among Latinx women residing along the U.S.-Mexico border underscores the need for cervical cancer prevention interventions in this area (Shokar et al., 2020). Although there is no treatment for HPV, there is a primary form of prevention, an HPV vaccine.