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# Filipino American Mothers' Knowledge about Male HPV Vaccination and Intent to Vaccinate their Sons

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**Filipino American Mothers' Knowledge about Male HPV Vaccination and Intent to  
Vaccinate their Sons**

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### **Abstract**

Information about the attitude and intent of Filipino-American mothers on HPV vaccination for their adolescent son is unavailable and unidentified. In this systematic review, three unique studies within different cultural backgrounds and demographic locations were analyzed. Data were collected from the following populations: Puerto Ricans, Ugandans, Caribbean Americans and African Americans. All studies were cross-sectional and integrated questionnaires which distinguished parents' knowledge and attitude toward HPV vaccinations along with additional information such as socio-economic status, educational attainment, occupation, etc. In the study performed in Puerto Rico, 200 parents of 9-17 years old were given a self-administered questionnaire, and the results showed that over 62% have heard about the vaccination for males and 71% are willing to get their sons vaccinated. More than 41% of parents with unvaccinated sons revealed that the primary reason they did not get them vaccinated was because they were unaware that boys were allowed to get the vaccine. In the Uganda study consisting of 1,508 parents, 83% of them believed that HPV vaccinations are very important for sons. Interestingly, in the third study in Caribbean Americans and African Americans, over 68% of parents were interested in their sons receiving the vaccine but only 1 in 2 thought that their sons actually needed it. The self-administered surveys posed a concern for validity for all studies. From these studies, we hope to further more research on the Filipino-American community in Daly City, California to assess mother' prior knowledge of HPV and to learn how they feel about vaccinating their adolescent sons. Targeted HPV-specific education by providers could lead to high vaccine uptake in all types of populations.

## **I. Introduction**

The Human papillomavirus (HPV) vaccine protects boys and men from most cases of genital warts and cancers of the anus, penis, and mouth and throat, but as of 2016 only 50% of boys have started the HPV vaccine series in the United States of which no information or data are provided for the Filipino-American community. HPV is the most common sexually transmitted infection (STI) in adults and can be transmitted through genital contact including vaginal, anal, and oral sex. Because the symptoms are asymptomatic, HPV can be spread easily and can be left untreated for years. According to the Center of Disease Control (CDC), there currently is no HPV test recommended for men. Because HPV has always been targeted towards girls, it would be interesting to see how the idea of focusing on boys will be received.

It is ascribed to cause effectively 100% of cervical cancer cases, 88% of anal cancer cases, 78% of vaginal carcinomas, and 51% of penile carcinomas worldwide (Plummer et al., 2016). With these exceptionally high rates across the globe, there are research gaps and lack of policies enforcing HPV vaccinations. The CDC reports that after the vaccine was introduced in 2006, there was a decrease of 56% in HPV in girls within the last four years. It was not until 2011 that routine HPV vaccination was recommended for males, 5 years after the recommendation for females in 2006. The Advisory Committee Practices (ACIP) suggests HPV vaccination for male and female adolescents at 11–12 y old, with catch-up vaccination recommended for unvaccinated females 13–26 y old, males 13–21 y old, and men who are immunocompromised or have sex with men through 26 y old (Lindley et al., 2016). The CDC recommends for those younger than 26 years of age to receive the vaccine, Gardasil and Gardasil 9, to prevent the four common HPV types, two that cause most genital warts and two that cause cancers, including anal and oropharynx cancer especially in males.

To fully understand the scope of HPV and the HPV vaccination and to understand why parents are not vaccinating their children especially their adolescent sons, a multifaceted approach would be beneficial and effective. Educating the public about HPV and the available vaccines are vital in initiating the vaccine series and maintaining healthy populations in the most optimal way possible. Integrating parents and legal guardians into the conversation about the potential risks and harms of HPV is important because they are the front line to their children's health needs. Additionally, political issues play an essential role where powerful decision making and political will is necessary for immunization calendar updates, integration of policies into national health plans, and social mobilization measures (Hardt et al., 2016). In California, under the SB 277, HPV vaccinations are not included into the list of ten federally recommended vaccines. Political and legal elements can help promote HPV vaccinations in children as a preventative measure of certain cancers.

In this report, three studies from distinct populations and geographic locations will be carefully analyzed specifically to the methods, study findings, and limitations. These studies derive from the populations including Puerto Ricans, Ugandans, Caribbean Americans, and African Americans. From these, I can better understand the differences and similarities within each culture in relationship to knowledge of HPV and intent and willingness to vaccinate thereafter. Elements stemming from these studies such as sample population size and methodology will help create the foundation for assessing a new target population in the Filipino-American community in Daly City. Culture and ethics will play an integral role in better understanding how Filipino-American mothers perceive HPV and how their attitudes will affect their decision in vaccinating their adolescent sons.

Filipinos have often been a subgroup of Asians in most studies. There are very little

information or data available that is specific to them. While Filipinos have been lumped into the Asian category along with the Chinese, Vietnamese, Cambodians, Malaysians, and Japanese just to name a few, it is difficult to address their more specific health concerns or even their attitudes about making health care decisions such as getting vaccinations. What is often overlooked is that Filipinos come from a rich and diverse historically intermixed culture of not just Asian influence but of Spanish descent as well. An assimilation of cultures epitomizes what Filipino culture personifies. By incorporating and recognizing this cultural background and then the migration into the United States and how all of sudden perceptions may or may have not changed into the American ideologies and beliefs, it is critical to take into account all of these elements when assessing Filipino-American mothers' attitudes toward HPV and HPV vaccinations.

## **II. Background**

In a study done in Puerto Rico at a Federal Qualified Clinic, a self-administered questionnaire was given to 200 parents of sons ranging from 9-17 years old. This cross-sectional study recruited participants over a four month span through flyer announcements. Eligibility criteria for this particular study were being over the age of 21 and only one parent of at least one young male between 9-17 years of age. Participants were given oral consent and a sheet containing study aims, procedures, and its benefits and risks. Parents were then given reading material about HPV and the vaccine after submitting the questionnaires. 54 questions were included and were designed to obtain information from each participant about their knowledge, attitudes, willingness, and barriers concerning the HPV vaccine. According to the study, the questionnaire was translated into Spanish, modified and culturally adapted for the Hispanic population in Puerto Rico from the "HPV Immunization in Sons (HIS) Study:

Baseline Parent Survey.” It was estimated to take about 30 minutes to complete the questionnaire. The University of Puerto Rico, Medical Sciences Campus of the Institutional Review Board approved the study protocol beforehand (Colón-López et al., 2016).

Of the overall participants, 65.3% were Puerto Rico born and 88.5% were females with a mean age of 37.7 plus or minus 7.2 years. There was a reported 57.4% educational attainment of high school or less and 48.8% familiar annual income was \$5,000 or less. The sons of the parents who participated had a mean age of 12.5 plus or minus 2.6 years. More than 78% of the parents reported that their sons had visited a health care provider in the last year. With this background information, the questionnaire revealed that about a third of the participants reported that their sons had initiated the HPV vaccine regimen. More than 62% of them have heard about the vaccine for males before, however, interestingly only 34.3% have received provider recommendations to get son HPV vaccine. Parents showed a strong willingness to vaccinate their sons within the next year (24.8%), if there was no charge (71.3%), and even if there was to be a small deductible of about \$10 (54.6%) (Colón-López et al., 2016).

A noteworthy remark in the study was that given 94% of the young male patients participating at the Federal Qualified Health Clinic, they are covered by the government health insurance program, Mi Salud where the HPV vaccine is not only accessible but to the vast majority it will not cost anything. The primary reason why parent have no vaccinated their sons was that they did not know boys were allowed to get the vaccine (41.6%). Almost all of the participants considered that a physician or a health care provider should educate parents of young males with information about the HPV vaccine. They believe that a beneficial mode of delivering the message about the vaccine would be through television programs (84.9%) (Colón-López et al., 2016).

Limitations outlined in this study included: an underrepresented population due to collecting data at a low-income neighborhood, lack of gathering information about HPV vaccine completion, a small population size, majority of the participants included mothers leaving out fathers, and self-reporting bias (Colón-López et al., 2016). Based on the ecological model, the study touched on multiple levels which includes interpersonal, organizational, and community. On the interpersonal level, family was integrated as parents took part of the questionnaire regarding their sons' health. Since their sons are minors, parents are ultimately the decision makers, and it is important for them to be educated about all aspects of health especially vaccines that are cancer preventatives. The University of Puerto Rico, Medical Sciences was the organizational component to the ecological model represented the healthcare system under which the study was based upon. Data was essentially collected from the Federal Qualified Clinic of which addressed these concerns. Lastly, as mentioned in the study the community level could provide channels of education through media such as television programs, social network, and conferences.

This study provided a substantial amount of information regarding views on HPV and HPV vaccination from parents on their sons. It was the first study identifying factors associated to HPV vaccine initiation among Hispanic/Latino young males in Puerto Rico (Colón-López et al., 2016). It created a foundation for future studies regarding the same or similar populations in a different geographic location.

The second study was focused on African American and Caribbean American adolescent boys and their parents' attitudes and perceptions of HPV. Like the first study discussed, a cross-sectional survey was administered in a general adolescent medicine clinic where the boys aged 13-19 had their parents recruited by an adolescent provider during routine

health check-ups. Following verbal informed consent, a self-administered survey was distributed to both the son and parent. In total, after accounting for those who declined to participate and incomplete data from surveys, 35 parents and 101 adolescent boys were analyzed. Most of the boys were either African American (65.3%) or Caribbean American (28.7%). Over half of the sample (52.2%) were between the ages of 13-17 and the rest (47.5%) are older than 18 years of age. Almost 83% of the parents who participated were women with 79.4% having a high school degree or higher (Shao et al., 2015).

The results indicated that about 70% of the adolescents were sexually active and about 98.6% reported having sexual encounters with the opposite sex. When asked about condom use, 76.4% reported using them consistently. A low rate of 27% participants reported that they did know most cervical cancers in females and rectal cancer in males were caused by HPV. More than half of adolescent males (65%) were interested in receiving the HPV vaccine. When it came down to the parents' perception, 68.8% were interested in their sons receiving the vaccine but only half thought that they actually needed it (Shao et al., 2015).

The study expressed how “the disparity in vaccine uptake across the United States is affected by policy, perceived norms in vaccination, clinical encounters, parental decisions, cultural barriers, and lack of awareness among many variables” that influence vaccine uptake (Shao et al., 2015). This is an important statement as the researchers in this study point out the multiple factors affecting the increase or decrease in HPV vaccination especially in boys where the stigma has initially been placed on females. The idea of boys receiving the vaccine at time are not well perceived, however, taking into consideration the variables mentioned in this study is critical in promoting the vaccination uptake in both girls and boys.

The limitations that this study presented was that the parents who participated may have

more positive views toward vaccination than those who refused to take part, sample size was small for both the adolescent sons and parents, 25 survey answers were not considered because of lack of information, self-reporting questions validity of study, and data was collected at a single urban adolescent clinic resulting in limitations by sociodemographic composition of the sample (Shao et al., 2015). The problem has been addressed on the individual and interpersonal levels on the ecological model as both parents and sons had the opportunity to participate in the study providing insight on two sides of the field. Additionally, it has touched on the organizational level where data was collected from a general adolescent medicine clinic. This study has captured an effective method and can be improved with recruiting more participants in multiple clinics as opposed to concentrating on a single one. It notes that discrepancy between reported vaccine intent and actual vaccination may represent missed opportunities or cultural barriers that should be explored.

In the final study, parents' knowledge, risk perception and willingness to allow young males to receive HPV vaccines in Uganda is explored. Like the two studies previously mentioned, a cross-sectional study design was implemented. A total of 4 districts were observed of which the two, Ibanda and Nakasongola, where HPV vaccination in girls were done in 2008 and 2009. The other two, Mbarara and Luwero, did not have any and from those two districts parents were included for comparison purposes. In the study population, recruitment occurred during the process of recruiting a corresponding sample of 10–23 year old 1,600 in-school boys into a related study. Parents were selected by researchers who worked with the secondary schools which had students commuting from home every day. The study utilized a “pre-coded self-administered questionnaire that was developed and used to collect data from parents on their socio-demographic characteristics, knowledge about HPV and HPV

vaccine, perception about their sons' risk of HPV infection, and willingness to allow probable HPV vaccination of boys in future" (Muhwezi et al., 2014). Unlike the other two studies mentioned above, this particular one integrated religious affiliation.

Oral and written consent were obtained. If a parent was semi-illiterate or illiterate, a research assistant would guide them and oversee the questionnaire as it was being filled out. Each questionnaire was translated according to district and dialect. Feasibility visits to assess the appropriateness of the proposed study sites were done in order to maintain face validity. A pre-test phase was conducted to allow assessment of the adequacy of the research tool, likely data analysis techniques and recognition of suitable strategies to recruit study participants (Muhwezi et al., 2014).

The results indicated that 38% of parents were very likely to ask health workers to give their son the HPV vaccine in future exhibit showed more willingness to allow their son to receive HPV vaccination in future. Recommendation of parents of HPV vaccines to sons of their friends and relatives was 91.6%.the study argues that vaccinating boys could be a feasible complement to HPV vaccination of girls to avoid stigmatizing females as a source of STIs, develop social acceptability of HPV vaccines, eliminate HPV, protect boys from HPV infection, decrease HPV transmission, strengthen herd immunity, and prevent other HPV associated diseases. HPV vaccination of males could be a crucial public health strategy as well as a complement to HPV vaccination of females since HPV vaccines are known to be efficacious in men as well. Men are not only a pivotal vector in the transmission of the virus but they too can develop genital warts and anogenital cancers as a result of HPV infection (Muhwezi et al., 2014).

The study addressed the interpersonal, organizational, and community levels of the ecological model. On the interpersonal level, parents were asked questions regarding their sons'

health. Particularly in this study, parents who showed more acceptability were likely to ask health workers to give their son HPV vaccines in future. This is important because this relationship goes hand in hand in the uptake of the vaccine. Organizational and community levels intertwine as the Ministry of Health in Uganda in collaboration with the Program for Appropriate Technology for Health (PATH) supported by Bill and Melina Gates vaccinated about 10,000 girls with the bivalent HPV vaccine. By doing this, perceptions and attitudes of vaccination of boys can be compared. This study has been able to capture an effective method to combat the problem. Each questionnaire was specific to the population according to district and dialect spoken. It also included all eligible participants despite the literacy level. As mentioned in the study, for future attempts to vaccinate males against HPV in Uganda and other comparable countries there must be a sole focus on the connection between HPV infection, men's health in general and sexual health in particular (Muhwezi et al., 2014).

### **III. Scope of the Project**

The goal of this project was to develop research skills to determine mothers' knowledge about male HPV and assess intent to vaccinate their sons in the Filipino-American community. The aim was for mothers to understand and become knowledgeable at identifying the benefits of having their sons vaccinated. The objective was for mothers to become aware of HPV and HPV vaccination for their sons and to increase the rates of vaccination to further reduce the risk of certain cancers associated with HPV. The study protocol will need to be approved by the Institutional Review Board (IRB) of the University of California, San Francisco (UCSF). Under the direct supervision of Dr. Peter Chin-Hong, professor of Infectious Diseases, this study will potentially include an estimated 100 participants or more of which are all Filipino-American mothers with a son between the ages of 9-16. This will be a cross-sectional study with 27

question survey (see Appendix B) which will include demographic information such as race/ethnicity, age, educational level, occupation, household income, language primarily spoken at home, country of birth, and type of health insurance; knowledge about HPV and HPV-related disease; and acceptability of HPV Vaccine for sons(s).

Data will be collected at community gathering spaces such as plazas containing Filipino grocery stores, eateries, remittance centers, dental clinic, and hair salons in Daly City, California by 2-3 researchers. This plaza has well-known places like “Seafood City”, “Atlas,” “Jollibee,” “Valeros, “Magnolia Ice Cream” to Filipinos and also has surrounding neighborhoods populated with Filipino communities. Each participant will first be given a written consent form (see Appendix A), and it will be explained briefly.

Filipinos comprise of the second largest Asian ethnic group in the nation at 3.4 million people. They make up 33.3% of the total population in Daly City, California alone (Fagan, 2012). The Philippines is the major source country, amounting to more than 30% of U.S. foreign-educated nurses (Aiken, 2007). Another key component mentioned was how Filipinos make up a large majority of the nursing profession. This is important to keep in mind because having a medical background could affect the results from the survey posing a potential bias. In a study where the Asian American Health Coalition of Greater Houston, Inc (AAHC), a health promotion agency conducted a 6-ethnic and gender-specific focus groups to increase understanding of their knowledge and perceptions regarding cervical cancer, cervical cancer screening, HPV, and sources of health information. Filipinos comprised part of the 6 ethnic groups. From the study, 90% of female and 100% of male Filipino participants reported that they have heard of cervical cancer, cervical cancer screening, or HPV. This knowledge could be reflective of the high number of Filipinos in the health profession such as nurses (Gor et al.,

2011).

Having prior knowledge of the demographics of the target population, Filipino-American mothers in this case, in the location where the study will be performed is important. Daly City is dense with Filipino people and by diverging into location; it would be potentially much easier to collect data. With the large population of Filipinos in the nation, it is surprising why not very many studies have been published or observed regarding Filipino health as a whole and not as a subgroup to the Asian population. Generalizing findings from studies that have already been completed to all Asian Americans or aggregating Asian Americans into one group may misrepresent the differences in disease prevalence among different subgroups (Bhimla et al., 2016).

Another essential element to realizing Filipino health is its ties to culture and religion. In one study, an author stated, “A Filipino person may view illness as inevitable, as the will of God, and may follow the advice of an authoritarian person or head of the family” (McAdam et al., 2005). This statement provokes a powerful message of how generally Filipinos perceive health. They believe in the idea of “bahala na” meaning “whatever happens, happens.” In addition, they also tend to go along with the demands of a more authoritative or respectable person or persons to maintain harmony and avoid conflict. In Filipino American culture, family plays a significant role in all decisions including health and health needs. This could affect data collection from the mothers because at times, they would rather consult with another family member usually their spouse or even their own parents when making health decisions for their children.

From the ecological model, this project will operate on the interpersonal and community levels. On the interpersonal level, a family member, mothers in this case will be completing surveys based on their knowledge of HPV and their intent to vaccinate their sons. The mother

poses a great influence on their son's health including deciding whether or not to vaccinate. On the community level, social relationships will take place within nearby neighborhoods in community gathering places. These settings can also influence the interaction and conversation between community members have on health outlooks and attitudes shared and discussed.

In order to achieve a large sample population, data must be collected within six months to a year depending on when and willingness of mothers to participate. As mentioned in the three studies in Puerto Ricans, Ugandans, African Americans, and Caribbean Americans, researchers mentioned in their limitations their small sample population. The Filipino American mother study must also consider incomplete surveys which could affect the results. Since the surveys will be self-reported, there will be a questionable validity to the responses. Once UCSF has approved the IRB, data will commence immediately. There will be no funding for this project and there is nothing to disclose.

#### **IV. Public/Population Health Impact: Findings and Significance**

The public health impact will be effective for Filipino health and for future research concerning it. Because Filipinos are often diluted into the Asian category, it is difficult to make out clearly what is truly affecting just them. This will also be the stepping stone for other Asian ethnicities to be dismantled from general Asian studies and then will be able to distinguish differences in disease prevalence among the different subgroups. Filipinos make up a large majority of the population in the United States, and it is important to account for issues around health. This project will be significant because it will discuss issues of HPV knowledge, HPV vaccinations in boys which lack research in a variety of populations, and Filipino health.

Since UCSF has not approved IRB study protocol, there are no major findings as of yet. Judging by the three studies carefully examined and analyzed, there should be positive results.

Since HPV can be a sensitive topic, it might be difficult to approach mothers about completing the survey. The next step after the IRB approves the study protocol would be data collection. Collecting from a single community gathering center might pose similar views so an additional site could be beneficial. The surveys will be self-reported and could potentially pose a bias and could present doubt in validity.

UCSF will not be presenting any funding for this project. Recommendations for development of a program grant proposal could be considered. Since this is an original study, a grant could be beneficial. Filipino health does require more research on the association of risk and protective factors with measures of morbidity and/or mortality and related social determinants. There are very little information published about Filipino health as a whole entity rather published as a minimal part of one often times overlooked or disregarded. Community group interviews could be recommended but might pose a bias as mothers might lean towards the same answers as their peers and not be completely honest.

## **V. Conclusion**

HPV is the most common sexually transmitted infection. Between the ages of 15-24 years old, initial infection usually occurs affecting 80% of the population. HPV is thought to cause 95% of anal cancers, 75% of oropharyngeal cancers, 75% of vaginal cancers, 70% of vulvar cancers, and 60% of penile cancers. In 2006, the US FDA approved a vaccine including Gardasil, Cervarix, and Gardasil 9. The initial push for these vaccines were aimed specially toward girls in 2006, however it was not until 2011 that boys were recommended to receive the three step vaccine as a preventative as well.

In the three studies analyzed, the one performed in Puerto Rico showed that over 62% have heard about the vaccination for males and 71% are willing to get their sons vaccinated.

More than 41% of parents with unvaccinated sons revealed that the primary reason they did not get them vaccinated was because they were unaware that boys were allowed to get the vaccine. In the Uganda study consisting of 1,508 parents, 83% of them believed that HVP vaccinations are very important for sons. Interestingly, in the third study in Caribbean Americans and African Americans, over 68% of parents were interested in their sons receiving the vaccine but only 1 in 2 though that their sons actually needed it

Gathering information on established studies will help facilitate and provide a foundation for the study on Filipino mothers and their knowledge of HPV and intent to vaccinate their adolescent sons. This population and geographic location both differ from the others mentioned above. It will be interesting to see how the results will turn out taking into account a variety of factors such as occupation and educational attainment level. Nonetheless, it is not only important to understand HPV and HPV vaccinations but to understand that cultural differences can affect the attitudes and willingness for young children to receive the vaccine. Because Filipinos are lumped into a general Asian category and not into its own, it is difficult to truly understand their health care needs and overall detriments of health.

Generalizing findings from studies that have already been completed to all Asian Americans or aggregating Asian Americans into one group may misrepresent the differences in disease prevalence among different subgroups.

The revolutionary progress in understanding the role of HPV in cancer and the development of effective and safe vaccines can decrease the HPV associated cancer burden only if vaccination rates for girls and boys improve significantly worldwide. More education and more research must be invested in order to increase vaccination and screening to prevent the loss of many lives from cancers that are preventable. Targeting both girls and boys will lead

to a reduction in HPV transmission rates and a growth in herd immunity which will ultimately prevent both cervical cancer and other HPV-associated malignancies in the future.

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## **Appendix A**

### **UNIVERSITY OF CALIFORNIA, SAN FRANCISCO CONSENT TO BE IN RESEARCH**

**Study Title: Mothers' knowledge about male HPV and assess intention to vaccinate their sons in the Filipino-American community**

This is a research study, and you do not have to take part. The researcher Krista Navarra, USF MPH Candidate 2016, will explain this study to you. If you have any questions, you may ask the researcher.

You are being asked to take part in this study because you have a son between the ages of 9-16.

In this study, the researchers are doing a survey to learn more about Filipino mothers' intention to vaccinate their sons. About 100 people will participate in this study.

#### **What will happen if I take part in this study?**

If you agree to be in this study, you will complete a survey. The survey asks about demographics information, knowledge of HPV and HPV related diseases and acceptability of HPV vaccines for sons. It will take you about 10-15 minutes to complete the survey.

#### **Are there any risks to me or my privacy?**

Some of the survey questions may make you feel uncomfortable. You are free to skip any question.

We will do our best to protect the information we collect from you. Information that identifies you will be kept secure. The survey itself will not include details that directly identify you, such as your name or address. Please do not put this information on your survey. The completed surveys will be kept secure and separate from information that identifies you. Only a small number of researchers will have direct access to completed surveys. If this study is published or presented at scientific meetings, names and other information that might identify you will not be used.

#### **Are there benefits?**

There is no benefit to you. The survey results will be used for research.

#### **Can I say "No"?**

Yes, you do not have to complete a survey.

**Are there any payments or costs?**

You will not be paid for completing the survey. There are no costs to you.

**Who can answer my questions about the study?**

You can talk with the study researcher about any questions, concerns, or complaints you have about this study. Contact the study researcher, Krista Navarra at (909) 714-2788.

If you wish to ask questions about the study or your rights as a research participant to someone other than the researchers or if you wish to voice any problems or concerns you may have about the study, please call the office of the Institutional Review Board at 415-476-1814.

**CONSENT**

**PARTICIPATION IN RESEARCH IS VOLUNTARY.**

You have been given copies of this consent form to keep.

You will be asked to sign a separate form authorizing access, use, creation, or disclosure of health information about you.

If you wish to be in this study, please sign below.

_____	_____
Date	Participant's Signature for Consent
_____	_____
Date	Person Obtaining Consent

## Appendix B

### SURVEY

*Requirements: Mother with son(s) age 9-16*

#### **Demographic Information:**

1. Race/Ethnicity:
2. Age:
3. Educational Level: < high school, some high school, high school graduate/GED, some college, college graduate, > college
4. Occupation:
5. Household Income: < 10,000 10,000-39,000 40,000- 59,000 60,000-80,000 80,000-100,000, >100,000
6. Language Primarily Spoken at Home:
7. Country of birth:
8. Type of health insurance:

#### **Knowledge about HPV and HPV-related disease:**

(strongly agree, agree, somewhat agree, neutral, somewhat disagree, disagree, strongly disagree)

9. HPV can be transmitted by having sex:
10. HPV is common:
11. HPV always causes symptoms:
12. HPV causes genital warts:
13. HPV can cause cervical cancer in women:
14. HPV can cause penile or anal cancer in men:
15. There is a vaccine against HPV available for girls/women:
16. There is a vaccine against HPV available for boys/men:

HPV is the most commonly sexually transmitted infection. Most people are infected with the virus. There are many types of this virus, some are associated with cancer and other with benign conditions in men and women. Most people are able to clear the virus but persistent infection with the certain types can lead to cancer. There is a vaccine licensed for both girls and boys to help prevent HPV infection and therefore cancer.

#### **Acceptability of HPV Vaccine for sons(s):**

(strongly agree, agree, somewhat agree, neutral, somewhat disagree, disagree, strongly disagree)

17. I intend to vaccinate my son against HPV
18. I would vaccinate my son to protect him against HPV:
19. I would vaccinate my son to protect him against genital warts:
20. I would vaccinate my son to protect him against anogenital cancer (penile cancer and anal cancer):
21. I would vaccinate my son to protect women against cervical cancer:
22. I would vaccinate my son against HPV if it was recommended by the physician:
23. I would vaccinate my son against HPV if it was recommended by national health organizations:
24. I would vaccinate my son if vaccination was endorsed by my religious community:

**Extra Questions:**

25. Do you have any daughters?
26. If yes, what age?
27. Vaccinated against HPV?

HPV: Virus del papiloma humano  
Genital Warts: Verrugas genitales

## Appendix C

### Reflection

#### 1. Competencies addressed:

- Assess, monitor, and review the health status of populations and their related determinants of health and illness.
  
- Demonstrate the ability to utilize the proper statistical and epidemiologic tools to assess community needs and program outcomes.
  
- Identify and prioritize the key dimensions of a public health problem by critically assessing public health literature utilizing both quantitative and qualitative sources.
  
- Apply theoretical constructs of social change, health behavior and social justice in planning community interventions.
  
- Articulate the relationship between health care delivery and financing, public health systems, and public policy.
  
- Apply evidence-based principles to the process of program planning, development, budgeting, management, and evaluation in public health organizations and initiatives.
  
- Demonstrate leadership abilities as collaborators and coordinators of evidence based public health projects.
  
- Identify and apply ethical, moral, and legal principles in all aspects of public health practice.
  
- Develop public health programs and strategies responsive to the diverse cultural values and traditions of the communities being served.
  
- Effectively communicate public health messages to a variety of audiences from professionals to the general public.
  
- Advance the mission and core values of the University of San Francisco.

#### 2. Overall reflection of fieldwork experience.

This research project initially changed my perception of HPV and HPV vaccinations because like many others, I thought it was only meant for girls. I never know that boys can receive the vaccine and that it is recommended that they actually do initiate the 3 step vaccine. Primary care providers should educate their patients and patients' legal

guardian about the vaccine and the benefit for it. I gained a better insight on Filipino culture as well especially when it comes to health. I have experienced it firsthand, but the feelings become all too familiar when I read it in studies. I also learned that data collection is very difficult especially when the topic is very sensitive. Discussing something personal and sexually related might deter the population from participating. Finding a site suitable for the study was difficult for me. I first tried to do a pilot study at the “Mabuhay Clinic” in downtown San Francisco but was unsuccessful due to the lack of support from the institution and the students running it. As a fellow Filipino, my initial thoughts in going to the clinic was that I was going to be welcomed with open arms. I was wrong. No one in the clinic was helpful. I felt like an outsider of my own culture. Another problem that ultimately affected my project was the IRB. With an original study such as this one, three months is not enough time to get an IRB approved, data collect, and analyze the data. If I had the opportunity to start at least a year in advance, I would have data to actually present.

I referenced multiple classes when doing this project especially communicating Health Behaviors and Social Change, Essential Tools for Public Health Change, and Public Health Systems Leadership and Administration.