NEWS COVERAGE OF HUMAN PAPILLOMAVIRUS AND CERVICAL CANCER FOR HISPANIC AUDIENCES: A MEDIA FRAMING ANALYSIS

By

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To my grandparents, whose brave move many years ago would ultimately make it possible for me to grow up in this great country and pursue my dreams
ACKNOWLEDGMENTS

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<tr>
<td>ACS</td>
<td>American Cancer Society, national health organization dedicated to eliminating cancer</td>
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<tr>
<td>CDC</td>
<td>Center for Disease Control, federal public health agency</td>
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<tr>
<td>FDA</td>
<td>Federal Drug Administration, federal agency</td>
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<tr>
<td>HBM</td>
<td>Health Belief Model, theoretical constructs that describe individuals' decision-making process when considering taking preventive health care steps or action</td>
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<tr>
<td>HPV</td>
<td>Human papillomavirus, common virus that affects millions of people</td>
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<tr>
<td>KFF</td>
<td>Kaiser Family Foundation, national non-profit organization focused on health issues</td>
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<tr>
<td>NCSL</td>
<td>National Conference of State Legislatures, bipartisan organization representing members and staff of state legislatures in the U.S.</td>
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<tr>
<td>NLIRH</td>
<td>National Latina Institute for Reproductive Health, national reproductive justice organization</td>
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<tr>
<td>STD</td>
<td>Sexually Transmitted Disease, a disease that is transmitted from one person to another through sexual contact</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually Transmitted Infection, an infection that is transmitted from one person to another through sexual contact</td>
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Hispanics have some of the highest cervical cancer-related death rates in the United States, as well as low rates of HPV screening and, among young Hispanic adults, low HPV vaccination rates. Hispanics are also high consumers of television news and often receive health information from news sources. Therefore, the purpose of this study is to identify media frames in HPV-related news stories that are disseminated to large Hispanic audiences. Since Hispanics consume news from English and/or Spanish sources, this study analyzed stories from both English- and Spanish-language networks and stations. The study used media framing analysis to identify frames in English- and Spanish-language TV news stories about HPV, cervical cancer and methods of prevention. Research questions focused on amount of coverage, appearance of frames, and presence of frames related to constructs in the Health Belief Model. Mixed methods were used, including quantitative and qualitative approaches to media framing analysis. Existing literature in this area lacks framing studies on coverage of HPV and, more specifically, Spanish-language coverage of the issue. Through a detailed analysis of a sample of online TV news videos from national and local television news sources in both languages, this study found similarities in the
framing and approach to coverage between English- and Spanish-language news sources and between local and national sources – but also identified key differences. As a result, this study provides a better picture of which media frames already may reach Hispanics in stories about HPV, cervical cancer and methods of prevention and reveals avenues for future research in this area.
CHAPTER 1
INTRODUCTION

Cervical cancer causes thousands of deaths in the United States each year. In many cases, the disease is caused by strains of a common virus known as Human papillomavirus (HPV). HPV is a sexually transmitted infection (STI) that affects millions of Americans and, if detected in time, is usually treatable without risk of cancer or symptoms. For young teens and adults, there are also vaccines available to prevent HPV infection from certain strains of the virus. Still, vaccination for HPV has been the subject of political debate and surrounded by controversy since its initial release in 2006 – and rates of vaccination in the U.S. have remained low for years. Furthermore, research shows not everyone screens for HPV regularly (Centers for Disease Control and Prevention [CDC], 2012a), many people in the U.S. have not been vaccinated (Williams et al., 2012), and some groups lack accurate knowledge about the infection, screening or methods of prevention (Gerend & Magliore, 2008).

Minority groups in the U.S., such as Hispanics and blacks, have comparatively high rates of HPV-related cervical cancer and high death rates from cervical cancer. Hispanics also have low vaccination rates for HPV when compared to other minority groups, particularly in the young adult category. This study explores media framing of this issue for Hispanic news audiences – in both English- and Spanish-language television news, which are popular sources of information for this demographic (Lopez & Gonzalez-Barrera, 2013). Media framing occurs when messages are formulated for, relayed to and received by audiences. According to media framing theory, when a person relays a message or tells a story, they make certain aspects of the story more or less salient for the receivers of the message, who also apply frames to the message...
upon receipt. Media framing analysis is the identification of those frames through close readings and thorough review and examination of media texts. This study uses media framing analysis to identify the frames present in stories about HPV, cervical cancer and methods of prevention – specifically from television news sources that reach Hispanic audiences.

Findings from this study provide a more inclusive picture of the media frames to which Hispanics may be exposed when consuming information about HPV, cervical cancer and methods of prevention. Previous research shows most Hispanics watch television news, and at least half consume news in both English and Spanish (Lopez & Gonzalez-Barrera, 2013). Therefore, this study analyzes English- and Spanish-language TV news stories posted on network and station websites. In addition to media framing theory, this study also includes the Health Belief Model as a theoretical component to this study. The Health Belief Model (HBM) consists of constructs that explain part of individuals’ thought processes when making decisions about taking preventive action in their health.

Using media framing theory and the HBM as conceptual frameworks, as well as guidance from existing literature on these topics, the presence of particular frames – or a lack thereof – in the news coverage were analyzed through a mixed methods media framing analysis of the content. The mixed methods approach of this study combines quantitative and qualitative applications of framing analysis to identify framing in mainstream news sources and Latino-targeted media. Dominant frames were compared among different types of news outlets, and findings were used to discuss implications for future research in this area.
The United States Centers for Disease Control and Prevention (CDC) estimated in 2013 that 110 million STIs affect both men and women throughout the country each year (CDC, 2013a). Of those 110 million infections, almost half are strains of HPV. The CDC also found that about 19.7 million of those 110 million STIs are new infections, with HPV accounting for about 14 million of those new infections (CDC, 2013a). In short, HPV is more common throughout the United States than any other STI (CDC, 2013b). It is a widespread infection that affects millions of people. According to the American Cancer Society (ACS), more than half of all sexually active people in the U.S. will be infected with at least one type of HPV in his or her lifetime (National Cancer Institute, 2013).

There are many types of HPV, and various strains can be transmitted in different ways, including: skin-to-skin contact, sexual intercourse, non-penetrative sexual contact, “via contact with contaminated objects or surfaces,” and from mother to child during birth (Veldhujzen et al., 2010, p. 865). Some strains can cause warts, while the more dangerous strains can also cause various types of cancer – including cancer of the tongue, throat or anus; penile cancer in men; and cervical cancer in women (CDC, 2013b). Penetrative sex is the most common mode of transmittal, especially for the more “high risk” strains of HPV (Veldhujzen et al., 2010, p. 862).

Before Pap smear testing was introduced in the 1940s, cervical cancer was one of the leading causes of cancerous death in women (National Institutes of Health [NIH], 2010). Over the past several decades, however, cervical cancer rates in the United States have dropped across the board. According to the NIH (2010), cervical cancer death rates dropped in the United States about 60% between 1955 and 1992. Still, the
disease continues to affect many people today and continues to be a common cancer affecting American women (NIH, 2010). The most recent available statistics from 2013 estimate about 12,340 new cases of invasive cervical cancer and about 4,030 deaths from cervical cancer in the U.S. each year (ACS, 2013). In other words, even though this type of cancer has been detectable for decades – and, more recently, preventable through vaccination – thousands of people throughout the country continue to die from it each year.

Groups that are most affected by HPV and cervical cancer in the U.S. include ethnic minorities. The CDC reported that Hispanic women, in particular, had the highest rates of HPV-associated cervical cancer in the country between 2004 and 2008 (CDC, 2013c). The ACS also estimates that Hispanic women are 64% more likely to develop cervical cancer than non-Hispanic white women (ACS, 2012). Overall, Hispanic women maintained the highest incidence rates of cervical cancer between 1999 and 2009 – with more cases per 100,000 population per year than any other race or ethnicity group in the United States (CDC, 2013d). The most recent data for 2010 shows black women just barely exceeded Hispanic women’s cervical cancer incidence rates for that year (CDC, 2013d). Research estimating specifically HPV-associated cervical cancer between 2004 and 2008 shows Hispanics having higher rates of HPV-associated cervical cancer than any other group (CDC, 2012b). However, it is unclear in much of the research in this area whether the category of Hispanic is always mutually exclusive from other categories such as white or black. Such variation in approaches to categorization of race and ethnicity is discussed further in this study’s review of the literature in Chapter 2.
Hispanics are also more likely to die of cervical cancer than whites, while blacks have the highest death rates overall (CDC, 2013d). According to the Henry J. Kaiser Family Foundation (KFF) (2009), U.S. cervical cancer deaths per 100,000 people in 2009 were: 2.1 for whites, 4.2 for blacks and 2.9 for Hispanics – with the white and black categories also including people of Hispanic origin. These CDC and KFF studies are just two examples of many datasets that do not differentiate white and black from Hispanic, allowing for overlap and making comparisons difficult. Therefore, these inconsistencies between studies are discussed further in Chapter 2. Still, ACS data for 2012-2014 predicted 2,100 diagnoses and 500 deaths of cervical cancer among Hispanic women each year for those years, illustrating the seriousness of this disease’s prevalence in this minority group (ACS, 2012). Issues such as a general lack of access to health care (Howell, Gurusinghe, Tabnak, & Scortino, 2009) and varying levels of acculturation (Byrd, Peterson, Chavez & Heckert, 2004) have been cited as possibly accounting for the higher rates among Hispanic women, but the exact reason is still unclear to researchers. This study explores those topics further through a review of existing literature.

Screening and Prevention

One of the most effective ways to prevent or detect cervical cancer is regular Papanicolaou testing, also known as the Pap smear or Pap test. In 2012, overall, 77.6% of women in the U.S. reported having a Pap smear in the past three years (The Henry J. Kaiser Family Foundation [KFF], 2012). Hispanic women have historically proven to be less likely than non-Hispanic white women and non-Hispanic black women to report having a Pap smear (KFF, 2008). For instance, in 2008, 16% of Hispanic
women reported they had not had a Pap test in the past three years – compared to 13.8% of non-Hispanic white women and 12.1% of non-Hispanic black women (KFF, 2008). There is also an HPV test that is recommended as a “co-test” with pap smears for women age 30 and above (CDC, 2015).

In addition to Pap smear testing and HPV testing, another line of defense against cervical cancer is HPV vaccination, which was first introduced in 2006. The United States Food and Drug Administration (FDA) licensed two vaccines to fight HPV among people ages 9 to 26 (Markowitz et al., 2007). Those vaccines include: Gardasil®, which is produced by Merck & Co., Inc.; and Cervarix®, which is produced by GlaxoSmithKline (CDC, 2012c). The vaccines are administered as three shots over the course of six months (CDC, 2103e), and they are considered by the CDC to be “a strong weapon of prevention” against cervical cancer and other related cancers (CDC, 2012c). The FDA’s Advisory Committee on Immunization Practices (ACIP) suggests the HPV vaccines are most effective if vaccination occurs before the person becomes sexually active. Therefore, vaccination is recommended between ages 11 and 12, though the FDA currently deems it safe for children as young as age 9 and adults up to 26 years of age. Vaccination of patients between the ages of 13 and 26 – who may have been older than 11 or 12 when the vaccines were introduced for girls in 2006 and later approved for males in 2009 – has become known as “catch-up” vaccination (Markowitz et al., 2007).

So far, immunization rates for teens in the U.S. have maintained a moderate pace. The 2012 National Immunization Survey (NIS) revealed that 53.8% of girls ages 13-17 had received at least the first shot of the three-part HPV vaccine series, while
33.4% had received all three shots (Stokley et al., 2013). These rates were very close to those of previous years, and CDC officials reported to mainstream news media that the lack of an increase was disappointing progress (CDC, 2013f). Still, in June 2013, researchers reported that rates of HPV infection in American teenagers ages 14 to 19 had dropped about 56% since the HPV vaccines were introduced in 2006 – an encouraging trend (Markowitz et al., 2013). Additionally, when compared to non-Hispanic whites and blacks ages 13-17, Hispanic teens were actually more likely to have received one, two or three doses of the HPV vaccine; but those rates were still low – with only 35.5% of Hispanic females ages 13-17 and 12.9% of Hispanic males in that age group having received all three doses (CDC, 2012d).

Conversely, immunization rates for adults in the catch-up category showed little movement overall. In 2010, the CDC reported 20.7% of females ages 19-26 in the U.S. had received at least one dose of the HPV vaccine (Williams et al., 2012). Hispanic females in that age group trailed all other ethnic groups, with only 15.1% reporting to have received at least one dose of the HPV vaccine (Williams et al., 2012). These statistics reveal that while Hispanic teens seem to be getting vaccinated for HPV more than teens from other groups, Hispanic adults are getting vaccinated at much lower rates than their counterparts. Those low vaccination rates have occurred despite efforts to heavily market the drugs.

**Vaccine Controversy**

Upon its initial introduction in 2006, HPV vaccination was the subject of intense advertising campaigns and the topic of heated debate in both mainstream media and new media platforms. It was also widely politicized, which some say led to the low
vaccination rates we see today (Herper, 2012; “Flogging Garadasil,” (2007); Kahan, 2013). An article in Science describes the introduction of the vaccine as problematic from the start, because Merck put the drug through the FDA’s fast-track approval process for serious cases and then tried to get state mandates for the vaccination of schoolchildren (Kahan, 2013):

These were profit-driven choices, aimed at enabling Merck to establish a dominant market position for Gardasil before GlaxoSmithKline could secure approval for its rival product, Cervarix. (Kahan, 2013, p. 54)

Kahan (2013) states it was that political nature and competitive approach to the vaccine’s release that ultimately led to its weak reception. The editorial board for Nature Biotechnology expressed similar concerns of the “marketeers” being “unleashed” too soon (“Flogging Gardasil,” 2007, p. 261) – and in Forbes, Herper (2012) points to these reasons for the public’s rejection of the vaccine:

For many on the right the issue is promiscuity. … For many on the left the issue is the big, bad drug companies. … And both sides increasingly embrace the narrative that vaccines, one of the great success stories of modern innovation, are somehow unsafe. (para. 9)

Scholars also differ in opinion on the vaccine, with some questioning its safety and considering its approval through the FDA’s fast track process unwarranted and hasty (Tomljenovic & Shaw, 2012).

That lack of confidence in the amount of data released about the vaccine’s safety also seemed to deter parents from vaccinating their children during the early years of the vaccines’ availability (Rosenthal, 2008). Anecdotally, some teens and parents have taken to social media sites like YouTube and other outlets over the years to share what they claim to be permanent disabilities and problems caused by the vaccines (Mercola, 2012), but recent studies continue to show findings that mostly support the vaccines’
safety (Anheim-Dahlstrom, 2013). An editorial in the *British Medical Journal* states: “concern about vaccine related adverse events is not a rational reason to forgo this potentially lifesaving vaccine” (Brotherton, 2013, p. 2). In other words, while there can be side effects, the vaccines have been found to be no less safe than other routine vaccinations administered to children in the United States and worldwide. However, at the time of the vaccines’ release, there was less information – which allowed for doubt and debate.

After the expedited approval and release of Gardasil®, Merck initially marketed the vaccine in 2006 in an aggressive campaign targeting young women and parents of pre-teen girls. An article in *Bloomberg* estimated “Merck spent $107.3 million on all its advertising, including $841,000 for Internet ads on the human papillomavirus” and the purchase of more than a thousand television spots in just the first quarter of 2006 (Zimm & Blum, 2006, para. 11). This was done before FDA approval of the vaccine, and the focus of the initial “Tell Someone” campaign was on the disease itself – with more of an awareness tone that encouraged sharing information about HPV and cervical cancer (Landau, 2011). It wasn’t until a few months after the FDA approved Gardasil® in mid-2006 that Merck followed up the “Tell Someone” campaign with a direct-to-consumer advertising effort emphasizing the slogan “One Less” (Landau, 2011).

Though the television advertisements from these campaigns were no longer available on Merck’s website at the time of this study, examples were found on YouTube.com. The ads from the “Tell Someone” campaign show women talking about the common virus HPV and its potential to cause cervical cancer. There is no mention of a vaccine in those ads. Instead, the actors simply discuss the virus and the cancer,
followed by a call to action for women to tell each other about the connection between these two illnesses. Landau (2011) speculates this was not only an effort to prime potential consumers of the drug before releasing direct-to-consumer ads, but also a way to expose government officials to propaganda for the vaccine before its approval and subsequent lobbying efforts.

Merck later released the “One Less” advertisements, which are also no longer available on the company’s website but are posted on YouTube. Those direct-to-consumer advertisements were clearly marketed toward young women and mothers of preteen girls. The message in those ads stressed that each girl or woman vaccinated would mean one less woman at risk for cervical cancer. This theme was also present in print and digital advertising. Eventually, the lobbying for mandates to vaccinate schoolchildren and the aggressive advertising campaigns for Gardasil® generated heated debate among voters and consumers. Reuters reported in early 2007 that Merck announced it would end lobbying for state legislation because the “media publicity had become ‘a potential distraction’” (“Merck ending lobbying,” 2007).

According to the National Conference of State Legislatures (NCSL), since 2006, 25 states have passed laws related to HPV vaccination; and, as of March 2014, 10 more states had proposed similar bills during legislative sessions (NCSL, 2014). Some of those state laws require vaccination of schoolchildren, while others fund efforts to inform the public about the vaccines (NCSL, 2014). Such legislation has kept the topic in the media spotlight over the years. The FDA approved GlaxoSmithKline’s Cervarix® in late 2009 (Burgess, 2009a), a move that also continued the presence of the topic of HPV vaccination in the news media. More recently, developments in the vaccines’ use
for preventing HPV in boys garnered attention as well. The FDA approved use of the Gardasil® vaccine for prevention of genital warts in males in 2009 (Burgess, 2009b), the CDC started officially recommending the vaccination of boys in 2011, and the American Academy of Pediatrics revised its recommendations in February 2012 for the scheduled administration of the HPV vaccines to include males (Hensley, 2012). Meanwhile, in the years since the HPV vaccines were first introduced, scholars have explored several aspects of the topic, many of which are discussed further in Chapter 2.

**Existing Literature**

Also detailed in Chapter 2, several previous studies have focused on Hispanics’ HPV screening, cervical cancer and prevention efforts (Byrd et al., 2004; Fernandez-Esquer & Cardenas-Turanzas, 2004; Flores & Bencomo, 2009; Howell, Gurusinghe, Tabnak & Sciortino, 2009; Vanslyke, et al., 2008), as well as their levels of access to such health care services (Clevenger, Dreisbach, Scandlyn & Brett, 2012; Tsui et al., 2013). Vaccine acceptability among Hispanic women and parents of Hispanic girls is another topic covered in some of the literature (Luque, Castaneda, Tyson, Vargas, Meade, 2012; Podolsky, Cremer, Atrio, Hochman, & Arslan, 2009; Sanderson et al., 2009; Sloan et al., 2010), and other studies have focused on Hispanics’ general awareness and knowledge of HPV, cervical cancer and the vaccines (Garces-Palacio & Scarinci, 2010; Kepka, Ulrich, & Coronado, 2012; Kobetz et al., 2010; Morales-Campos, Markham, Peskin, & Fernandez, 2013; Wu, Porch, McWeeney, Ohman-Strickland, & Levine, 2010). A few scholars have also looked at the issue across borders and focused on Latin American countries (Azevedo e Silva, 2008; Calvo et al., 2012). Of course, a portion of the literature has also centered on the controversial vaccine’s
acceptability more generally, particularly among parents in the U.S. (Allen et al., 2010; Gerend, Weibley & Bland, 2009; Okoronkwo, Sieswerda, Cooper, Binette & Todd, 2012; Reiter, Brewer, Gottlieb, McRee & Smith, 2009). Some communication studies have focused on message framing’s influence on the general acceptability, reception or perceived effectiveness of the drug (Bigman, Cappella, & Hornik, 2010; Gainforth & Latimer, 2011; Gerend, Shepherd, & Monday, 2008; Juraskova et al., 2012; Leader, Weiner, Kelly, Hornik, & Cappella, 2009). The results of these and other relevant studies are discussed in detail in Chapter 2 and contributed to the focus and development of research questions for this proposed study.

In summary, while there is a fairly large amount of literature on the topics of HPV, cervical cancer and the vaccines, there are also several gaps to fill – specifically in relation to Hispanics’ continued high rates of infection and low rates of screening and vaccination. This study adds to that area of research by exploring the relevant media frames to which Hispanics may be exposed when consuming information about this illness and its prevention. Understanding media framing of this topic provides some context for the issue of Hispanics’ susceptibility to this disease as well as helps guide future research and communication efforts in this area. Benefits and limitations of such research are also elaborated upon in Chapter 5.

**Media Framing**

Sociologist Erving Goffman (1974) theorized that frames constantly surround us in our social world. He said all the messages we encounter in life are made up of frameworks and that primary frameworks take some aspect of a message that would otherwise be unimportant and make it an important part of the message (Goffman,
Entman (1993) later stated that this process is about “selection and salience” (p. 52). For example, in news reporting, media framing can be described as the result of content producers’ decisions when putting together a news report or message. Through their work, reporters, videographers, editors and producers constantly make decisions about what to ask, show, include, exclude, emphasize or downplay in a particular news story. They decide which aspects of the message to make more or less salient for the audience. Sometimes salience also happens through the exclusion of certain information. The result is framing, which may or may not be an intentional process.

According to Goffman (1974) and other scholars in this area, framing also happens upon receipt of a message through an individual’s personal schemata. The concept behind the term schemata is that everyone has their own way of viewing the world and experiencing the world. Therefore, when people encounter a text, they apply framing to the message through their own perception of the message. This study analyzes and identifies the aspects of TV news stories that create salience – and observations were made to identify dominant media frames in stories about HPV, cervical cancer and methods of prevention. Chapter 2 of this study includes a more detailed explanation of media framing as a theory, while the methodological approach of media framing analysis is further discussed in Chapter 3.

**Health Belief Model**

In addition to media framing, the theoretical framework for this study includes the Health Belief Model (HBM), which was first developed in the 1950s and underwent testing and refining in the following decades (Rosenstock, 2000). According to Rosenstock (2000), the HBM is a popular theory in health communication and attempts
to predict people’s likelihood of taking action in some aspect of their own health care –
such as participating in preventive health care, screening or treatment – through the
following criteria:

- Perceived susceptibility – Whether a person believes they are susceptible to a particular illness or health condition.
- Perceived severity – Whether a person believes a particular illness or health condition is serious or can have serious consequences.
- Perceived benefits – Whether a person believes taking a specific action will benefit them by preventing or treating a given illness or health condition.
- Perceived barriers – Whether a person believes that the benefits of preventing or treating a given illness or health condition outweigh the barriers or costs.

Some versions of the HBM also consider the following additional constructs:

- Cues to action – Triggers that may encourage people to take a specific action in preventing or treating a particular illness or health condition.
- Self-efficacy – Whether a person believes that they are capable of taking action in preventing or treating a given illness or health condition.

The HBM postulates that people will be proactive in taking steps to improve their health when those criteria are met. This exploratory study attempted to interpret those constructs as potential frames and identify their presence or absence in news coverage of HPV, cervical cancer and methods of prevention. For example, “you are susceptible,” “HPV is serious,” “vaccination will help you prevent cancer” are frames that could be present in the news coverage and are related to the points in the HBM; therefore, the codebook for this study included those potential elements from the HBM. A diagram that illustrates the HBM, along with an overview of uses of the theory in existing literature and its application to this study are discussed further in the Chapters 2 and 3 of this study.
Purpose

The purpose of this study is to identify media frames present in television news stories about HPV, cervical cancer and methods of prevention in news sources that reach Hispanic audiences. Research shows 81% of Hispanics keep up with the news “a lot” or “some” (Lopez & Gonzalez-Barrera, 2013); therefore, this study will focus on news coverage of these topics because of Hispanics’ heavy exposure to news. Studies have also found that Hispanics have varying language preferences when consuming news media, showing 50% of Hispanics in the U.S. consume news in both English and Spanish, 32% consume news only in English and 18% consume news only in Spanish (Lopez & Gonzalez-Barrera, 2013). This study included both English- and Spanish-language news sources to account for those news consumption habits.

The Pew Hispanic Center also reported in 2013 that Hispanics use an average of 2.4 different media platforms for consuming news (Lopez & Gonzalez-Barrera, 2013). “Television is the most popular platform for news, but Internet is on the rise” – with 86% of Hispanic adults watching television news, 56% using the Internet for news, 56% listening to radio news, and 42% reading print newspapers (Lopez & Gonzalez-Barrera, p. 9). These statistics narrow the focus of this study to the most popular news source for this group: television.

Television is also on the list of top sources of health information for Hispanics. According to Livingston, Minushkin and Cohn (2008), 83% of Hispanic adults reported receiving information about health and health care from media sources in 2007, compared to 71% who said they had received health information from medical professionals and 70% who received information from within their social networks of
family and friends. When broken down into specific media categories, the data show 68% of Hispanics reported receiving health information in 2007 from television, higher than any other media source (Livingston et al., 2008).

**Methods**

Television and other forms of media are important sources of news and health information for Hispanic audiences. This study involved collecting TV news stories posted on national news network websites and local news station websites. According to a national survey of TV news directors, 72% said they “always” post reporter packages on the station website, 21% did so “often,” and 8% did so “sometimes” (Cremedas & Lysak, 2011). Reporter packages are edited TV news reports that consist of a combination of news video, audio, clips from interviews, and a reporter's narrative of the story. Reporter packages are a fundamental component of television news shows and air in national and local newscasts throughout the country. Cremedas & Lysak (2011) also found that 62% of news directors reported they “always” posted “print style” web-friendly versions of the station’s video stories on their websites, while 19% did so “often,” 16% did so “sometimes,” and 3% said “never.” In other words, much of the content that television networks and stations post on their websites is typically repurposed content that is also broadcast on-air. Therefore, this study used national TV network and local station websites as sources for data collection and analysis of the frames present in coverage of HPV, cervical cancer and methods of prevention. The video versions of relevant stories were collected and analyzed for media framing patterns in the content.
A media framing analysis examines texts, videos and other sources of information for the presence of themes or frames. A single news report can have one or more dominant frames throughout the content – and those frames may be more or less evident, depending on the verbiage, tone, pace, video angles, use of sound, and other latent content that can be coded through detailed observation and close analysis (Fields, 1988). Therefore, this study takes a qualitative approach to coding for frames in order to best account for those nuances inherent to TV news reporting. However, this study also incorporated quantitative content analysis to measure and compare the amount of relevant coverage and to quantify the presence of potential frames derived from the HBM constructs in the news stories in question.

Ultimately, this media framing analysis identified the dominant media frames in the relevant news videos and compared the coverage in mainstream media to that of Latino-targeted media, as well as between national and local media. The timeframe of focus for this study is from the time that the HPV vaccination was approved to include males in October 2009 through October 2014, which marks the last complete year before execution of this study. Sampling and methodology are discussed further in Chapter 3. Proposed research questions are exploratory in nature and guided by existing literature and the HBM. Those questions are listed in detail following this proposal’s review of the literature and serve as a guide for the codebook for this study. Similarities and differences found in the coverage are included in detail in Chapter 4 and implications of those findings are discussed further in Chapter 5.
Implications

Identifying media framing is important because it reveals the way media present information to audiences. Since the HBM considers a news story as a potential cue to action for individuals to make decisions about their health, identifying whether the frames in the news coverage have the potential to serve as cues to action as they are described in the HBM. Furthermore, the presence or lack of particular frames that support the HBM may help us better understand why HPV vaccination rates continue to be low across the board and, more specifically, among young Hispanic women.

Since television is an important source of news and health information for Hispanics, this study provides a more inclusive picture of the media frames to which this audience is exposed when consuming news coverage of HPV, cervical cancer and methods of prevention. The analysis of English- and Spanish-language news sources also provides some insight to the variations or similarities in media framing of those issues between platforms. Use of the HBM and existing literature as guides for coding allowed for critical analysis of the coverage and thorough interpretation of the data.

Findings add to existing literature in this area and point to potential areas of future research. The results of this study also provide guidance for future framing of messages regarding HPV, cervical cancer and methods of prevention – not necessarily at the news media level but before the message gets to the news media. Health organizations can benefit from this study in its identification of frames currently dominating coverage about HPV, as well as potentially effective media frames related to the HBM that are only moderately present in the news coverage. Interested parties may use that as guidance for framing future messages that influence the way the news
media, and other sources of information, ultimately frame the message for general audiences and Hispanic audiences, more specifically.
CHAPTER 2
LITERATURE REVIEW

This chapter provides an overview of Hispanics’ health profile in the U.S., followed by a compilation of findings from studies on Hispanics and their awareness, knowledge and views of this illness – as well as the relevant preventive health services available to them. Since the focus of this study is on news media coverage of the HPV, cervical cancer and methods of prevention, this review of the literature also includes an examination of previous studies on news coverage of the HPV vaccines – and a discussion of the two theoretical frameworks included in this study, which are media framing and the Health Belief Model (HBM). Research questions are grounded in the literature; therefore, this study produced findings that fill some of the gaps in the current literature and lead to future research on this topic.

Hispanics in the U.S.

The Hispanic population in the United States has been on the rise for decades and, at the time of this study, stood as the largest minority group in the nation. According to the U.S. Census Bureau (2013), Hispanics made up 17% of the nation’s total population in 2012 – totaling 53 million people. That is 1.1 million more than the number of Hispanics reported in 2011 – a 2.2% increase in just one year (U.S. Census Bureau, 2013). This ethnic group represented 11.6 million family households in the U.S. that year; and more than 50% of all U.S. Hispanics reported living in California, Florida and Texas (U.S. Census Bureau, 2013). The U.S. Census Bureau (2013) also reports the United States has had the second largest population of Hispanic people in the world since 2010 – second to Mexico, which is home to 112 million Hispanics. As
The Hispanic population in the U.S. continues to rise, government officials expect the group to reach 128.8 million by 2060 (U.S. Census Bureau, 2013).

This large ethnic group represents a diverse set of backgrounds. In 2010, the Pew Hispanic Center reported about 65% of Hispanics in the U.S. were of Mexican descent, while 35% were of other origins such as Puerto Rican, Cuban, Salvadoran, Dominican, Guatemalan, Colombian, Honduran, Ecuadorian and Peruvian backgrounds – among several other countries (Motel & Patten, 2012). Motel & Patten (2012) point out that Hispanics vary in terms of ties to their countries of origin. About 37% of Hispanics living in the U.S. in 2010 were “foreign-born,” while the majority were born in the U.S. and attribute their Hispanic heritage to parents, grandparents, great-grandparents or other ancestors (Motel & Patten, 2012).

It is also important to note that Hispanic is a term commonly used to describe people from Spanish-speaking countries, while the term Latino is typically used to describe people from Latin American countries – though their usage is often subject to debate. The two terms, often used interchangeably, refer to an ethnicity rather than a race. In other words, Spanish-speaking and Latin American countries are made up of whites, blacks, natives, and people of mixed races, so Hispanics may also identify themselves as part of one of those race categories when participating in research.

Then, there is the question of acculturation. As previously stated, some Hispanics may be foreign-born and recently moved to the United States, while others may trace their lineage in the U.S. a generation or two – or, in some cases, as far back as when much of the Southwest was still part of Mexico. Although language is what ultimately links all of these people under the umbrella term of Hispanic, fluency and
preference also vary within this group. The Pew Hispanic Center reports 59% of Hispanic adults in the U.S. speak English well – with just 18% of Hispanic adults consuming news media only in Spanish, 32% consuming news media only in English, and 50% consuming news media in both English and Spanish (Lopez & Gonzalez-Barrera, 2013).

Culturally, Hispanics represent almost two-dozen countries – if including Spain, Portugal and Brazil on the list – and come from all walks of life with varying levels of education, employment, and income. In short, all of these distinctions present a challenge for researchers when attempting to categorize such a diverse population with so much heterogeneity under one umbrella term. This presents limitations in existing research and varying approaches to operationalizing the terms Hispanic or Latino. For instance, as previously stated, studies about STIs and other health issues are inconsistent in defining Hispanic as a stand-alone category, and there is often ambiguity or overlap about whether participants are just Hispanic or also part of another racial or ethnic group.

**Hispanics’ Overall Health**

Hispanics’ health profile in the U.S. also reflects the group’s heterogeneity. There are many differences in health trends among Hispanics when the population is broken down by region, age, sex, education level, language preferences, acculturation, income, country of origin, and health insurance coverage. In general, the majority of Hispanics in the U.S. consider themselves to be healthy. According to the U.S. Census, in 2010, 33.8% of Hispanics considered themselves to be in “excellent” health, 32.3% said they were in “very good” health, and 25.4% said they were in “good” health –
leaving a mere 8.5% in “fair” or “poor” health (O’Hara & Caswell, 2013). Census data also show that “health status is strongly associated with age,” citing the example that children were reported to be in “excellent” health at a much higher rate than those over 65 years of age (O’Hara & Caswell).

As for access to health care, the Pew Hispanic Center found 73% of Hispanic adults had a usual health care provider in 2007, while 27% reported not having a usual health care provider (Livingston et al., 2008). Again, the data show variations within the population. Of those Hispanic adults who reported not having a usual health care provider, 69% were male and 31% were female (Livingston et al., 2008). There were also differences between age categories: 84% of Hispanic adults who did not have a usual health care provider at the time of that study were between the ages of 18 and 49 (Livingston et al., 2008). Livingston et al. (2008) also found the most commonly cited reason for not having a usual health care provider was “no need.” Furthermore, when compared to other race or ethnic groups, Hispanics are less likely to have health insurance coverage than non-Hispanic whites, non-Hispanic blacks, and Asians in the U.S. In 2012, U.S. Census data showed the rate of uninsured Hispanics in the U.S. was 29.1% – compared to 11.1% of white non-Hispanics, 19% of non-Hispanic blacks and 15.1% of Asians (DeNavas-Walt, Proctor & Smith, 2013).

Common chronic health conditions that affect the Hispanic population in the U.S. include: obesity, hypertension, diabetes, asthma, cancer and chronic bronchitis (Livingston et al., 2008). According to the National Vitals Statistics Reports for 2010, cancer was the leading cause of death for Hispanics in the U.S. that year – followed by heart disease, which was the leading cause of death for non-Hispanic whites and non-
Hispanic blacks (Heron, 2013). Other common causes of death for Hispanics include: accidents, stroke and diabetes (Heron, 2013).

Hispanics’ Sexual Health

As previously stated in Chapter 1, Hispanics have high rates of HPV-related cervical cancer and cervical cancer deaths, in comparison to other groups. The National Latina Institute for Reproductive Health (NLIRH) (2014) assures that “contrary to common myths, Latin@s (sic) and women of color do not experience higher rates of cervical cancer due to more sexual activity” (p. 1). Instead, the organization points to "increased barriers to prevention, screening, and treatment" (NLIRH, p. 1). Furthermore, Hispanic women do not have the same disproportionate infection rates when it comes to most other types of STIs, nor do they have more sexual partners than women in other groups.

Chandra, Mosher and Copen (2011) analyzed data from that National Survey of Family Growth collected between 2006 and 2008 that show 71.4% of Hispanic women ages 15-44 said they had just one male sexual partner in the 12 months prior to interview, compared to 70.3% of non-Hispanic white women and 59.5% of non-Hispanic black women. That study also reported 5.9% of Hispanic women had two sexual partners within that timeframe of 12 months, compared to 7.3% of non-Hispanic white women and 12% of black women (Chandra et al., 2011). Meanwhile, 2.4% of Hispanic women said they had three sexual partners in those 12 months, compared to 2.1% of non-Hispanic whites and 4.6% of non-Hispanic blacks (Chandra et al., 2011). Hispanic women were also the least likely group to report having four or more sexual partners in
12 months, which supports the NLIRH claims that it is not promiscuity that makes Hispanic women one of the groups most susceptible to HPV and cervical cancer.

As for STI and STD prevention, Reece et al. (2010) surveyed adolescents and adults from ages 14 to 94 and found that condom-use rates in the U.S. varied by gender, age, marital status, race and ethnicity. That study found blacks (30.9%), in general, were more likely to have used condoms during their past 10 vaginal intercourse events than Hispanics (25.4%), who were more likely to have used condoms during that time than people who identified themselves as “other” (22.9%) and whites (17.1%) (Reece et al., 2010, p. 270).

Furthermore, Hispanics’ infection rates for the most common STDs in the U.S. are generally comparable to those of other race or ethnicity groups. It is also important to note that the following data cited here for STDs only include rate information – not total numbers of cases. In other words, while these minority groups may show higher rates of infection within their groups when compared to whites, those groups may not actually have higher numbers of infections than whites. In some cases, the infection rate for a particular group may be high in comparison to other groups, while the total number of actual infections is lower in comparison. Still, the percentage of people affected within a given group shows the level of saturation of these STDs within these groups.

In 2012, the CDC collected data about three main sexually transmitted diseases (STDs) as part of its Sexually Transmitted Disease Surveillance 2012 (CDC, 2014). The terms STI and STD are used interchangeably in much of the literature included in this proposal, though the former typically refers to the exchanged infections and the
latter refers to disease resulting from the infections. The CDC (2014) report focuses on “the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea and syphilis,” with chlamydia being the most commonly reported notifiable STD in the United States (CDC, 2014, p. 1). The term “notifiable” is used to indicate a disease reported at the state levels to facilitate government efforts to monitor infection rates (CDC, 2013g).

Hispanics’ reported cases of chlamydia were relatively low when compared to other minority groups. The CDC report shows chlamydia rates in the United States were highest among black men and women that year – nearly seven times the rate for whites, who reported 179.6 cases per 100,000 population (CDC, 2014, p. 6). American Indians/Alaska Natives reported four times more cases than whites, while Native Hawaiians/Other Pacific Islanders reported three times that many. In comparison, Hispanics had 380.3 cases of chlamydia infection per 100,000 population, which was twice the rate reported for whites (CDC, 2014, p. 6). Asians were the only minority group with rates lower than those of Hispanics and whites. (CDC, 2014).

Similarly, the study also shows Hispanics had lower rates of gonorrhea infection in 2012 than most other minority groups. Gonorrhea is the second most common notifiable STD in the U.S. (CDC, 2014). The CDC’s data show blacks also had the highest infection rates when compared to other race or ethnicity groups, followed by American Indians/Alaska Natives and Native Hawaiians/Other Pacific Islanders (CDC, 2014). Similar to the rates for chlamydia, Hispanics’ and Asians’ gonorrhea infection rates trailed those of the other minority groups. Hispanics reported 1.9 times more cases than whites, while Asians reported fewer cases than whites (CDC, 2014, p. 15).
Syphilis, another notifiable STD, has risen in the overall number of reported cases in recent years (CDC, 2014). Again, blacks reported the highest number of cases when compared to other groups – six times more than whites (CDC, 2014, p. 29). Native Hawaiians/Other Pacific Islanders had three times the reported syphilis infection rate of whites, followed by Hispanics – who reported double the infection rate of whites – and American Indians/Alaska Natives, whose rates were about the same as whites (CDC, 2014, p. 29). Asians also reported lower syphilis infection rates than whites in that study (CDC, 2014). Therefore, in the case of syphilis, Hispanics' infection rates were moderate in comparison to those of other groups.

When accounting for race or ethnicity and sex, the CDC found that men of Asian, black or Hispanic descent had higher rates of gonorrhea infection in 2012 than women in those groups. Similarly, men in all race or ethnicity categories had higher rates of syphilis infection than their female counterparts in those same categories (CDC, 2014, p. 30). For example, Hispanic men reported 10.4 cases of syphilis infection per 100,000 population, while Hispanic women reported 0.8 cases per 100,000 population (CDC, 2014, p. 30).

As for other common STDs, the CDC tracks Herpes Simplex Virus infections using estimates of the number of initial doctor visits for that disease in a given year. This method is different from that of studies on other STDs, and there is less available data. In 2009, for example, the CDC’s Morbidity and Mortality Weekly Report used data from the National Health and Nutrition Examination Survey, 1988-2006 to illustrate herpes infection rates among Americans ages 20 to 29 (CDC, 2009). Overall, the percentage of people infected with herpes dropped from 17% during the years 1988-
1994 to 10% in the 2003-2006 time period (CDC, 2009). Still, rates for non-Hispanic blacks were higher than those for non-Hispanic whites and Mexican Americans (CDC, 2009). The CDC’s data for herpes in that study do not include overall numbers for Hispanics in the U.S. – only for Mexican Americans, who represented about 64.9% of the total U.S. Hispanic population in 2010 (Motel & Patten, 2012).

In summary, the abovementioned STDs – chlamydia, gonorrhea, syphilis and herpes – are not as prevalent among Hispanics as other STDs or STIs, such as HIV and HPV. According to CDC data from 2011, Human immunodeficiency virus (HIV) diagnosis rates were highest among blacks, followed by Hispanics and persons of multiple races (CDC, 2011). Native Hawaiians/other Pacific Islanders, whites, American Indians/Alaska Natives, and Asians had lower rates (CDC, 2011). HPV infection rates are also tracked differently than the abovementioned illnesses. Data collected in the National Health and Nutrition Examination Survey from 2003-2004 used different race and ethnicity categories for the females participants ages 14 to 59 – only distinguishing between non-Hispanic whites, non-Hispanic blacks, and Mexican Americans (Dunne et al., 2009). That dataset shows HPV infection rates were higher in those years for non-Hispanic black females (39.2%) than non-Hispanic white females (24.2%) and Mexican American females (24.3%) in that age group (Dunne et al., 2009). Since Mexican Americans only make up a portion of the Hispanic population in the U.S., those percentages do not provide a clear picture of the rates at which Hispanic women are infected with HPV, in general. Cervical cancer and HPV-related cervical cancer rates, however, provide a clearer picture of how this disease affects the Hispanic population – although categorization still varies between studies.
Hispanic Women and Cervical Cancer

As previously stated, cancer is one of the leading causes of death for Hispanics, in general. ACS (2012) data predicted about 53,600 new cancer cases in Hispanic men and 59,200 new cancer cases among Hispanic women in 2012 – with prostate cancer being the most commonly diagnosed cancer in men and breast cancer the most common in women (p. 2). “For all cancers combined, and for the most common cancers (prostate, female breast, colorectal, and lung) incidence and death rates are lower among Hispanics than among non-Hispanic whites” (ACS, 2012, p. 5). But Hispanics have higher incidence and death rates from other types of cancer, including: cancers of the stomach, cervix, and liver, as well as acute lymphocytic leukemia, and gallbladder cancer (ACS, 2012). For 2012, the ACS also predicted about 2,100 Hispanic women in the U.S. would be diagnosed with cervical cancer, and 500 would die from it that year (ACS, 2012, p. 11). “Overall, the cervical cancer incidence rate among Hispanic women residing in the U.S. is about 64% higher than among non-Hispanic whites” (ACS, 2012, p. 11).

Despite those disproportionate rates for Hispanics, research focusing on Hispanics and cervical cancer has emerged at a slow pace. Before HPV vaccination was introduced in 2006, social science research about HPV and cervical cancer focused primarily on potential vaccine acceptance and acceptability (Zimet, 2005; Zimet, Mays, Winston, Kee, Dickes, & Su, 2000), particularly among parents of adolescents (Davis, Dickman, Ferris, & Dias, 2004; Zimet, Perkins, Sturm, Bair, Julian, & Mays, 2005) and young adults (Boehner, Howe, Bernstein, & Rosenthal, 2003). However, Allen et al. (2010) urges caution when interpreting results from pre-vaccine
studies on acceptability, because many of the studies presented hypothetical questions
to participants about a vaccine that did not yet exist. Attitudes about HPV and potential
vaccines were also explored during this time (Kahn, Rosenthal, Hamann, & Bernstein,
2003; Hoover, Carfoli, & Moench, 2000; Zimet, Mays, Sturm, Ravert, Perkins, & Julian,
2005) but also studied in hypothetical terms. Furthermore, much of the research during
the pre-vaccine years also focused on knowledge about HPV among young adults in
general (Ramirez, Ramos, Clayton, Kanowitz, & Moscicki, 1997; Yacobi, Tennant,
Ferrante, Pal, & Roetzheim, 1999; Anderson-Ellstrom & Milsom, 2002; Applegate &
Jones, 2002; Baer, Allen, & Braun, 2000; Vail-Smith & White, 1992), adolescents in
general (Dell, Chen, Ahmad, & Stewart, 2000; Gerhardt, Pong, Kollar, Hillard, &
Rosenthal, 2000), specifically women (Pitts & Clarke, 2002; Pruitt, Parker, Peterson, Le,
Follen, & Basen-Engquist, 2005; Waller, McCaffery, Forrest, Szarewski, Cadman, &
Wardle, 2003), and specifically gay or bisexual men (Tider, Parsons, & Bimbi, 2005).
Brewer & Fazekas (2007) states most participants in pre-2007 studies about HPV and
cervical cancer had limited knowledge about the illness. At the time, little research on
these topics focused on minorities or, more specifically, Hispanic women.

The few Hispanic-related studies that were conducted before the HPV vaccines’
release mainly centered on the topic of screening through the use of Pap smears (Byrd
Comparatively high mortality rates among Hispanic women with cervical cancer have
been attributed to low screening rates (Medina, 2010), which suggests these women
tend to be diagnosed with late-stage cancer rather than receiving early detection
through regular Pap smears (Howell et al, 2009). Therefore, researchers have sought
to explain why Hispanic women, in general, have the tendency to get fewer Pap smears – or none at all – when compared to their counterparts of other ethnicities. (Byrd et al., 2004; Fernandez-Esquer & Cardenas-Turanzas, 2004; Vanslyke, et al., 2008; Howell et al., 2009; Fatone & Jandorf, 2009).

While shame or embarrassment have been cited as possible deterrents, studies conducted before and after the vaccines’ release focus more on levels of awareness, knowledge, perceived risk and accessibility – among other factors, such as age and acculturation (Byrd, Peterson, Chavez, & Heckert, 2004; Gerend & Magliore, 2008; Vanslyke et al., 2008), which will be discussed further in this study. More specifically, studies conducted after the vaccines’ introduction also focus on those factors when attempting to gauge vaccine acceptability (Constantine & Jerman, 2007; Gerend, Shepherd, & Monday, 2008; Podolsky, Cremer, Atrio, Hochman, & Arslan, 2009; Luque, Castaneda, Tyson, Vargas, & Meade, 2012; Sanderson et al., 2009; Scarinci, Garces-Palacio, & Partridge, 2007; Sloan et al., 2010; Watts et al., 2009a), a topic also addressed in this review of the literature.

**Awareness and Knowledge**

In one example of a study that focused on Hispanic women’s knowledge, beliefs and attitudes about HPV and cervical cancer, Vanslyke et al. (2008) found that the Hispanic women who participated in a series of focus groups had a general understanding that HPV is related to sexual activity and can be detected through Pap screening, but the women did not have much more specific knowledge about the infection, its cause or potential consequences. Gerend and Magloire (2008) also differentiated between knowledge and awareness – pointing out that increased
awareness of HPV as a result of the newly released vaccines and subsequent marketing did not mean knowledge had also increased among women of various races and ethnicities. In other words, the women in question may have heard of HPV, but that does not necessarily mean they knew accurate information about it.

In another example, Wu et al. (2010) surveyed Latinas and found that most had heard of HPV and knew it was an STI, but few knew details such as the link between the virus and cervical cancer. Subsequent research in this area has focused largely on knowledge of the vaccine, the virus and cervical cancer (Daley, et al., 2011; Garces-Palacio & Scarinci, 2010; Kepka, Ulrich, & Coronado, 2012; Kobetz et al., 2010; Kornfeld, Byrne, Vanderpool, Shin, & Kobetz, 2013; Morales-Campos, Markham, Peskin, & Fernandez, 2013; Stark et al., 2008). Though the approach to measurement of awareness and knowledge in each study varies, the overall consensus is that a general awareness of HPV exists across the board, but there is room for improvement when it comes to actual knowledge. For example, Guerry et al. (2011) surveyed 509 parents of teens eligible for HPV vaccination and found that most of those parents had heard of HPV but “68% said they knew nothing to a little” about the vaccine (p. 2237).

Similarly, Clevenger et al. (2012) interviewed college-age Latinas and found they also had limited knowledge of HPV, the vaccines and cervical cancer. Fatone and Jandorf (2009) argue the lack of knowledge is attributable to Hispanics’ underserved, minority status – which could mean they simply do not receive as much medical information or preventive health care as non-minorities. In general, Vanslyke et al. (2008) conclude “there is a clear need to increase public health literacy in relation to HPV” (p. 593).
Risk, Susceptibility and Shame

While awareness and knowledge play an obvious role in women’s decision-making process when considering screening for HPV or receiving the vaccine, a few studies have also factored in levels of risk and perceived susceptibility (Byrd et al., 2004; Fernandez-Esquer & Cardenas-Turanzas, 2004; Gerend & Magliore, 2008; Kepka, Coronado, Rodriguez, & Thompson, 2010). Research in this particular area has varied in approach. For instance, some studies focused on sexual history and levels of risky behavior among Hispanic women – looking for links between such behavior and HPV screening or vaccination. Fernandez-Esquer and Cardenas-Turanzas (2004), for example, researched a group of immigrant Mexican women known as “cantineras,” who work as waitresses at establishments called cantinas in Texas. According to that study, cantineras are paid to serve alcohol and drink heavily with male patrons of the bar – and some engage in risky sexual behavior such as prostitution. That study found the risky behaviors of heavy drinking and sexual activity “were not significant barriers” to the women having routine Pap smears (Fernandez-Esquer & Cardenas-Turanzas, 2004, p. 535).

Another study found that young Hispanic women who were not yet sexually active were less likely to report having a Pap smear, while more sexually active women did have Pap smears (Byrd et al., 2004). That same study also found that the women surveyed were generally aware of their own susceptibility to HPV (Byrd et al., 2004). Similarly, Garces-Palacio and Scarinci (2010) found that most respondents to their survey of Hispanic immigrant women in Alabama considered themselves susceptible to
HPV. They also found that women who had a recent Pap smear did not see themselves as susceptible.

Still, authors of those studies acknowledge that their findings are limited in that they are dependent on individuals’ honesty when answering questions about sexual history, a topic that could stir up feelings of embarrassment or shame. These feelings are also factors that are cited in the literature as possible deterrents from HPV screening or vaccination. Byrd et al. (2004) points out that some women may not want to admit to being sexually active, so they choose not to receive Pap testing. Clevenger et al. (2012) adds that the college-age Latinas interviewed in their study said they did not feel comfortable talking to their long-time physicians about reproductive health and would rather go to an anonymous clinic. That study also found “the vast majority of participants had been taught by their parents and other family members that premarital sex was wrong and a sin within Catholicism” – another potential reason for the women to feel shame in seeking HPV screening or vaccination (Clevenger et al., 2012, p. 49).

**Hispanics’ Vaccine Acceptability**

Several studies in recent years have continued to focus on the acceptability of HPV vaccination among parents, young women and teens (Constantine & Jerman, 2007; Gerend et al., 2008; Podolsky et al., 2009; Luque et al., 2012; Sanderson et al., 2009; Scarinci et al., 2007; Sloan et al., 2010; Watts et al., 2009a). In general, these studies have found that Hispanic or Latina women are generally accepting of HPV vaccination for themselves and for their children. For example, a sample of women in Texas revealed that more than 90% of those Latinas living on the Texas-Mexico border were accepting of the idea of vaccinating their children for HPV (Sanderson et al.,
Still, another study found that women were more likely to be accepting of the vaccine for themselves rather than for their sons or daughters (Sloan et al., 2010). In other words, they expressed more caution when discussing vaccination of their children, although they reported high rates of acceptability overall.

Another study found differences between Latino populations in the U.S. and those outside the country, comparing parental acceptance of HPV vaccination among U.S. Latinos to parental acceptance of the drugs in El Salvador (Podolsky et al., 2009). That international approach found that U.S. Latino parents were less accepting of the HPV vaccines than Hispanic parents in El Salvador (Podolsky et al., 2009).

**Accessibility of Prevention**

According to the ACS, “cervical cancer is one of only two cancers (colorectal is the other) that can actually be prevented through screening and the removal of precancerous lesions” (ACS, 2012, p. 11). Small samples of cells can be collected from the cervix through Pap testing or an HPV test, and test results can determine whether the precancerous cells should be removed (ACS, 2012). The ACS (2012) reports 80% of deaths from cervical cancer could be prevented with such testing and follow-up care.

As mentioned in Chapter 1, Hispanic women are less likely than non-Hispanic white women and non-Hispanic black women to report having regular Pap smears (KFF, 2008). In 2010, 74.7% of Hispanic women over age 21 reported they had a Pap test in the past three years – compared to 79.1% of non-Hispanic white women in that study (ACS, 2012, p.21). However, this is an improvement from previous decades, in which Hispanic women were even less likely to report having a recent Pap test than non-Hispanic white women (ACS, 2012).
Still, the Pap smear rates for uninsured women are lower across the board – with 53.5% of uninsured Hispanic women and 63.1% of uninsured non-Hispanic white women reporting they had a Pap smear in the past three years (ACS, 2012, p. 21). Heterogeneity within the Hispanic group is evident through differences between subgroups and their tendency to receive regular Pap testing. For reasons not explained in the literature, 80% or more of Hispanic women of Puerto Rican and Cuban descent had Pap smears within that time period, while 71.6% of Mexican women had such testing (ACS, 2012, p. 21). Again, this is an example of how the subgroups within the Hispanic ethnicity vary.

Access to preventive health care against HPV and cervical cancer also varies within the Hispanic population. Several studies have attempted to better understand the barriers that Hispanic women experience in receiving such services (Carrasquillo & Pati, 2004; Clevenger et al., 2012; De Alba & Sweningson, 2006; De Alba, Sweningson, Chandy, & Hubbell, 2004; Randolph, Freeman, & Freeman, 2002; Tsui, Singhai, Rodriguez, Gee, Glenn & Bastani, 2013; Suneja, Diaz, Roberts, & Rakowski, 2013; Wallace, Hunter, Papenfuss, Zapien, Denman, & Giuliano, 2007; Watts, Joseph, Velazquez, Gonzalez, Munro, Muzikansky, Rauh-Hain, del Carmen, 2009b). For example, Carrasquillo & Pati (2004) surveyed women ages 18-70 and found that U.S.-born women were more likely to have Pap smears or mammograms than women who had immigrated to the U.S. within the past 10 years. That study described health insurance as “the strongest predictor of screening” but also stated that uninsured recent immigrant women were less likely to receive Pap smears or mammograms than uninsured U.S.-born women (Carrasquillo & Pat, 2004, p. 947).
Watts et al. (2009b) also found connections with age and amount of time in the U.S., noting that women over 30 and who had been in the US less than 5 years were less likely to have been screened. Randolph, Freeman and Freeman (2012) focused on Mexican American women over age 40 and found similar results: older women were less likely to have a recent Pap smear, those below the poverty line were also less likely to have a recent Pap smear, and odds were higher for women who had a regular doctor for female care and for those who visited a regular clinic or hospital for female care. Randolph, Freeman & Freeman (2012) did not, however, find language preference or acculturation to be significant factors for the women in that sample.

A few studies on the topic of Hispanics and Pap smear rates have focused specifically on language barriers (De Alba & Sweningson, 2006; De Alba et al., 2004; Suneja et al., 2012). Findings in those studies include: women with high English proficiency were more likely to reporting having a recent Pap smear (De Alba et al., 2004), and women with low English proficiency were less likely to report having received a recommendation from their physician to receive a Pap smear (De Alba & Sweningson, 2006). Suneja et al. (2012), however, found “reverse associations” and determined that women who responded to their survey in Spanish were more likely to report having screened for cancer than those who responded in English – but the preferred language of participants does not indicate level of proficiency in English, so those findings simply further illustrate this ethnic group’s heterogeneity and the challenges of studying such a diverse population.

Some of the more recent studies have shifted the focus from participation in regular Pap smears to HPV vaccine uptake rates and the accessibility of the vaccines
for this population (Tsui et al., 2013; Clevenger et al., 2012). Tsui et al. (2013) studied ethnic minority girls, ages 9-18, and their physical proximity to health clinics. That study found the majority (83%) of the girls in the sample lived within 3 miles of a clinic, the average travel time for them on public transportation would be about 21 minutes, and Latinas were particularly close with about 2.2 miles to travel (Tsui et al., 2013, p. 2028). Still, Tsui et al. (2013) did not find the proximity of these clinics to affect likelihood of vaccination and, instead, found age and insurance status to be more relevant – pointing out that girls with public insurance had higher rates of vaccination than girls with private insurance. That study also notes participants may have access to a federally funded program called Vaccines for Children, which provides vaccines for free or at low cost for low-income children (Tsui et al., 2013).

Focusing on a different group of Hispanic females, Clevenger et al. (2012) interviewed Latina university students in Colorado about their access to the HPV vaccines. Since these college students are in the catch-up vaccine group of 19-26 years of age, they have different barriers such as: cost of the vaccines and lack of insurance coverage because they are adults but not yet covered by a full-time employer (Clevenger et al., 2012) – yet another example of how different subgroups within the larger Hispanic ethnic group encounter different barriers to access of this type of health care.

Still, one form of access that Hispanics have seemed to tap – in some ways more than other groups – is access to information in the media. According to Nielsen (2012)’s State of the Hispanic Consumer, “Latino usage rates of television, smart phones, social networking, online video and other forms of entertainment make Latinos
one of today’s most engaged and dynamic targets” (p. 8). Nielsen (2012) data also show “Hispanics access media from every platform available and often lead the general market as early adopters of emerging technologies” (p. 8). Hispanics also tend to keep up with news sources regularly, a point that is further discussed in Chapter 3 of this study.

**News Coverage of the HPV Vaccines**

Since 2006, scholarly research has focused a bit on analyzing news coverage of the HPV vaccines released that year through varying approaches to content analyses. At first, newspaper coverage appeared to focus on the newness of the vaccine, basic information about HPV and its link to cervical cancer, and the company that was releasing the product – but coverage lacked detailed information (Calloway, Jorgensen, Saraiya, & Tsui, 2006). Similar research on news stories in the UK found the topic saturated coverage most around dates of related news event such as a celebrity who was public about her diagnosis (Hilton, Hunt, Langan, Bedford, & Petticrew, 2010), and there were similar spikes in coverage in the U.S. around the time of particular events such as the FDA’s approval (Kelly, Leader, Mittermaier, Hornik, & Cappella, 2009).

The topic of incompleteness of information appears throughout the literature. For example, an international study comparing coverage of the vaccine by newspapers and websites in Germany and Spain found that “both media types in both countries failed to provide correct and transparent information about effectiveness – with Germany showing slightly higher proportions of correctness and transparency” (Bodemer, Muller, Okan, Garcia-Retamero, & Neumeye-Gromen, 2012, p. 3753). That lack of information also came up in studies on American news coverage (Habel, Liddon, & Stryker, 2009;
Kelly, Leader, Mittermaier, Hornik, & Cappella, 2009; Johnson, Sionean, & Scott, 2011). For example, some stories lacked information about the sexually transmitted nature of HPV or the need for continued Pap smears after receiving the vaccine (Kelly, et al., 2009). Similarly, Johnson, Sionean & Scott (2011) found less than half of the newspaper articles sampled in their study included detailed health information, and only 16% included personal accounts (p. 491).

Still, Gollust, Attanasio, Depsey, Benson & Fowler (2013) found a connection between news media exposure and HPV vaccine awareness, so there is evidence that news media inform viewers about this topic to some extent. A study focusing on Internet news sources more generally found that coverage was balanced in terms of neutrality toward the vaccine, most articles dubbed it a cervical cancer vaccine, and most articles explained the connection between HPV and cervical cancer – though coverage also lacked detail and important themes such as safety, side effects, duration of protection and the availability of catch-up vaccines for young women (Habel, Liddon, & Stryker, 2009). These studies not only show shortcomings in news coverage but also demonstrate how research in this area is lacking. Of the abovementioned studies, most analyzed newspaper and/or online coverage, while only one study included transcripts from television news reports – a hole in the literature that this study aims to help fill. Also important to note: none of these studies analyzed Spanish-language news coverage of the HPV vaccine or related topics. This supports Wilkin & Ball-Rokeach’s (2006) statement that such sources of ethnic media are “overlooked in health journalism research” (p. 300). This is another anticipated contribution by this proposed study, because television news is a source of health information for many Hispanic people.
The following related research questions are addressed in this study:

RQ1: How much coverage of HPV-related topics, such as cervical cancer and methods of prevention, exists on national English-language online TV news sites, and how does it compare to the amount of coverage in national Spanish-language online TV news sites?

RQ2: How much coverage of HPV-related topics exists on local English-language online TV news sites, and how does it compare to the amount of coverage in local Spanish-language online TV news sites?

RQ3: Collectively, how much coverage of HPV-related topics exists on national English- and Spanish-language online TV news sites, and how does it compare to the amount of coverage in local English- and Spanish-language online TV news sites?

**Media Framing Theory**

As stated in Chapter 1, this study applies two theoretical frameworks – with media framing as the core concept behind the proposed analysis and the HBM serving as a guide for better understanding implications of media frames either present or absent in the news stories selected for this study. The concept of frames or framing is an abstract one, and sociologist Erving Goffman (1974) first explained it as follows:

I assume that definitions of a situation are built up in accordance with principles of organization which govern events – at least social ones – and our subjective involvement in them; frame is the word I use to refer to such of these basic elements as I am able to identify. That is my definition of frame. My phrase ‘frame analysis’ is a slogan to refer to the examination in these terms of the organization of experience (p. 11).
Goffman’s (1974) perspective is general and applicable to various aspects of the human experience and social life. He said we encounter frames all the time, because they exist in many different types of messages relayed throughout our social world. However, for the purposes of this study, and for many studies in the area of mass communication, this concept of framing is applied specifically to mass media messages to analyze and better understand their impact and role in our society. Goffman (1974) touches a bit on the role of the press in the framing process:

> Obviously, passing events that are typical or representative don’t make news just for that reason; only extraordinary ones do, and even these are subject to the editorial violence routinely employed by gentle writers. Our understanding of the world precedes these stories, determining which ones reporters will select and how the ones that are selected will be told. … The design of these reported events is fully responsive to our demands – which are not for facts but for typifications. Their telling demonstrates conventional understandings to cope with the bizarre potentials of social life, the furthest reaches of experience. What appears, then, to be a threat to our way of making sense of the world turns out to be an ingeniously selected defense of it (p. 14).

In short, the framing process happens at many levels; and, in the case of news stories, there are many people involved in formulating those frames – even though it can be largely an unintentional process. For instance, when reporters in newsrooms throughout the country, and the world, are assigned stories or pitch their own story ideas, the framing process is already in full swing. The original source of the information has already applied frames to the message when relaying it to the journalists, who, in turn, continue framing the story for their audience. Again, the participants in this process may be intentionally applying their own spin on the story by highlighting certain aspects of the story to make them stand out more for the audience – or they may be unintentionally applying frames to the message. Regardless of the intention or consciousness involved in this process, every message is framed in some
way. This is where the abstract nature of the concept of framing comes in. Entman (1993) states:

Framing essentially involves selection and salience. To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described. Typically frames diagnose, evaluate and prescribe (p. 52).

Perhaps the simplest way to describe media framing on a journalist’s end appears in Rosenberry and Vicker (2009), in which they liken framing to the process that photographers go through when taking a photo: “The camera viewfinder can capture only a portion of a scene, so the photographer has to decide what belongs in the scene and what does not” (Rosenberry & Vicker, 2009, p. 152). Though that is a perhaps stripped-down illustration of a complex process, reporters are faced with a very similar dilemma when reporting on a news story. Depending on the medium, reporters are restricted in terms of how much time they have to cover the story, how much time they have to tell the story in a newscast, or how much space they have to write the story for the Web or print. Therefore, they must make decisions about which information, images, sounds and/or interviews to include or exclude in the story – much like a photographer makes decisions about what to show in that one photograph.

By the time the story gets to the journalist, he or she has already started to make decisions on what the story is about and how to approach coverage of the story. This application of one’s own framing on a story is known as schema or schemata, and members of the audience on the receiving end of the message each apply his or her own frames through their individual perspectives or schema (Entman, 1993). In fact, the original source of the story – whether it be a public relations person, law
enforcement, government agency, tipster, assignment manager, etc. – has already started the framing process before the reporter even gets ahold of the story. Furthermore, the story begins to undergo the framing process even earlier than this point of dissemination to the journalists, because stories or topics may lend themselves to particular frames that are commonly used in coverage of similar topics. For example, typical news stories – such as robberies, car crashes, assaults, missing people, weather stories, etc. – may already fit predetermined formulas for their reportage based on the reporter’s previous experiences with similar stories or based on how news outlets have covered similar stories in the past.

In those ways, framing can also be a cyclical process, with dominant or more commonly used frames affecting the framing of future stories. Entman (1993) further explains that “frames have at least four locations in the communication process: the communicator, the text, the receiver, and the culture” (p. 52). In other words, once the story is in the journalists’ hands, it has already been framed to a certain extent because the journalist is not just a communicator but also a receiver of the information – and so, the story will go through even more framing by the reporter and even more framing by the audience that receives the information – both at the individual and societal levels.

Entman’s (1993) concept of salience, which he defines as “making a piece of information more noticeable, meaningful, or memorable to audiences,” is particularly important in the process of media framing analysis (p. 51). Those bits of information that create salience are what make frames evident in news stories. Once frames are identified in news stories, they can be compared in qualitative and/or quantitative analyses, in an effort to better understand the news messages that are disseminated to
the public and circulating in society. The approach to media framing analysis used in this study is further discussed in Chapter 3.

**Framing the HPV Vaccines**

Framing is not only a passive process, but can also be strategized by entities that want to influence news coverage and information in general. Available literature on the HPV vaccine includes some efforts to specifically seek frames of the HPV vaccine that may affect intention to receive a vaccine or seek vaccination for one’s child. Much of the research in this area tests specifically gain versus loss frames (O’Keefe & Nan, 2012; Gainforth, Cao, & Latimer-Cheun, 2012; Gerend, Shephers, & Monday, 2008; Gainforth & Latimer, 2011), though results vary and a systematic review of such studies found there is no consensus on whether gain or loss frames are more or less effective in motivating action for HPV vaccination (O’Keefe & Nan, 2012). Other frames that have been tested include: cervical cancer prevention rather than STI prevention (Leader, Weiner, Kelly, Hornik, & Cappella, 2009; Sperber, Brewer, & Smith, 2008; Juarskova, Bari, O’Brien, & McCaffery, 2011), positive versus negative frames (Bigman, Cappella, & Hornik, 2010), and high- or low-risk framing of the vaccine (Gainforth & Latimer, 2011).

Again, these studies vary not only in results but also in research design. Though other research on Pap smears and mammograms has addressed ethnic targeting for this demographic (e.g.: Ramirez, 2013), and some scholars have gotten creative by testing approaches like a radionovela (Kepka, Coronado, Rodriguez, & Thompson, 2011) or a culturally tailored program (Percac-Lima et al., 2013) – there is an obvious lack of focus on the framing of messages about the HPV vaccine for Hispanic
audiences. In an effort to better understand the media frames to which Hispanic audiences are currently exposed, this study aimed to identify media frames present in news coverage of HPV, cervical cancer and methods of prevention in news stories that Hispanics may consume. Therefore, this study addresses the following research questions:

RQ4: What media frames exist in HPV-related coverage by national English-language online TV news sites, and how do they compare to frames in national Spanish-language online TV news stories about those topics?

RQ5: What media frames exist in HPV-related coverage by local English-language online TV news sites, and how do they compare to frames in local Spanish-language online TV news stories about those topics?

RQ6: Collectively, how does media framing in HPV-related coverage on national English- and Spanish-language online TV news sites compare to framing in local English- and Spanish-language online TV news stories about those topics?

**Health Belief Model (HBM)**

Social psychologists and public health scholars have attempted to explain the process through which people decide to take action in their health through a theory known as the Health Belief Model (HBM). The concept of the HBM was first introduced in the 1950s (Hochbaum, 1958) and has since been revisited and amended in subsequent studies (e.g.: Becker, 1974; Kirscht, 1974; Rosenstock, 1966). In summary, the HBM postulates that people take preventative action in some aspect of their health because of the following constructs: perceived susceptibility, perceived severity,
perceived benefits, perceived barriers, cues to action and self-efficacy (Champion & Skinner, 2008). Champion & Skinner (2008) provide a diagram (Figure 2-1) to illustrate the HBM (p. 49). However, earlier versions of HBM diagrams show a more circular relationship between constructs (Figure 2-2), and research applying the model has also varied over time in terms of the strength, role and relationship of each construct within the model. Nevertheless, it is one of the most commonly cited theoretical frameworks used in studies about preventive health care, such as HPV vaccination and cervical cancer screening (Allen et al, 2010).

As described in Chapter 1, the main elements of the HBM include: perceived susceptibility, which is whether a person believes they can be affected or infected by a particular illness or disease; perceived severity, which is a person’s belief that the condition in question is serious; perceived benefits, which describes whether the person expects the outcome of taking preventive action to be positive; and perceived barriers, the construct that accounts for the potential obstacles that the individual expects when considering taking action against a disease or illness. Other constructs that have been included in versions of the HBM include cues to action and self-efficacy. Cues to action are internal or outside influences – such as experienced symptoms or information on a brochure – that can “trigger” action, and self-efficacy is a person’s belief that they are capable of following through with taking the necessary preventive health step or actions in question (Champion & Skinner, 2008).

The HBM has been mentioned in much of the literature on the topics of cervical cancer screening (Burak & Meyer, 1996), HPV vaccine acceptability (Allen et al., 2010; Brewer & Fazekas, 2007); parents’ health beliefs about HPV vaccination for their
daughters (Reiter et al., 2009); cervical cancer screening among Latinas (Fernandez-
Esquer & Cardenas-Turanzas, 2004; Byrd et al., 2004; Garces-Palacio, 2010); health
information seeking behaviors of Hispanic women (Suggs et al. 2010); and Latinas’
perceptions of cervical cancer, HPV and vaccination (Morales-Campos et al., 2013).
However, studies in this area vary in terms of application of the HBM to research design
and interpretation of results, with some merely mentioning the model in passing and
others actually testing constructs from the model.

Allen et al. (2010) conducted a systematic review of such research and found
only 18% of 79 scholarly articles about HPV and HPV vaccine knowledge, attitudes,
beliefs and acceptability had an explicit theoretical framework (p. 4028). In the articles
that did apply theory, the HBM, the Theory of Reasoned Action, and social cognitive
theory were the most common (Allen et al., 2010). Juraskova, Bari, O’Brien, &
McCaffery (2011) did so and found perceived susceptibility and perceived benefits were
significant predictors for Australian women under age 27 to express intention to
vaccinate against HPV, and the most commonly reported barrier was potential harm.
As for studies that focused specifically on the HBM and Hispanics’ views on cervical
cancer prevention, information is sparse. Relevant studies that involve the HBM in
some part of the research design did so in development of instruments such as
interview guides for focus groups (Suggs et al., 2010) and questionnaires for surveys
(Morales-Campos, 2013), or used it to explore constructs from the entire model (Byrd et
al., 2004) or to test specific constructs such as perceived barriers (Fernandez-Esquer,
2004) and perceived susceptibility (Garces-Palacio, 2010). Still, most of these studies
applied the HBM to small samples of Hispanics in specific parts of the country and produced results that are informative yet not generalizable.

This study proposed we step back and look at the current state of framing in messages related to HPV, cervical cancer and methods of prevention – particularly those produced by news sources with large Hispanic audiences in the U.S. Since the HBM postulates that news stories can serve as cues to action for people making decision about their health, this study aims to identify HBM constructs that are present or absent in media framing of those stories. The following research questions were posed to provide a better picture of which HBM-related frames, if any, currently appear in English- and Spanish-language online TV news coverage:

RQ7: How often do HBM constructs appear in framing of HPV-related coverage by national English-language online TV news sites, and how does that compare to the frequency in framing in national Spanish-language online TV news stories about those topics?

RQ8: How often do HBM constructs appear in framing of HPV-related coverage by local English-language online TV news sites, and how does that compare to framing in local Spanish-language online TV news stories about those topics?

RQ9: Collectively, how often do HBM constructs appear in framing of HPV-related coverage on national English- and Spanish-language online TV news sites, and how does that compare to framing in local English- and Spanish-language online TV news stories about those topics?
Such analyses revealed many similarities and some differences in coverage between not only English- and Spanish-language sources, but also between national and local sources in general. This provides a better description of the types of frames to which Hispanic audiences may be exposed when consuming news coverage of HPV-related topics. Furthermore, the presence or absence of frames that reflect HBM constructs put findings into context and provide possible directions for future research. The specific methodological approaches to answering these questions are outlined in Chapter 3.

Figure 2-1. Health Belief Model Diagram 1 (Champion & Skinner, 2008, p. 49)
Figure 2-2. Health Belief Model Diagram 2 (Becker et al., 1977, p. 30):

INDIVIDUAL PERCEPTIONS
- Perceived Susceptibility to Disease "X"
- Perceived Seriousness (Severity) of Disease "X"

MODIFYING FACTORS
- Demographic variables (age, sex, race, ethnicity, etc.)
- Sociopsychological variables (personality, social class, peer and reference group pressure, etc.)

LIKELIHOOD OF ACTION
- Perceived benefits of preventive action
  minus
  Perceived barriers to preventive action

Cues to Action
- Mass media campaigns
- Advice from others
- Reminder postcard from physician or dentist
- Illness of family member or friend
- Newspaper or magazine article

Likelihood of Taking Recommended Preventive Health Action
CHAPTER 3
METHODS

The methodological approach for this study is a mixed methods media framing analysis with qualitative and quantitative components. As mentioned in Chapter 1, Hispanics in the U.S. report high levels of exposure to television and to news sources, in general. In a Pew Hispanic Center study, Lopez & Gonzalez-Barrera (2013) found that 81% of Hispanics keep up with the news “a lot” or “some” of the time. Since most Hispanics have at least some exposure to news, it is important to study the potentially influential content to which they are exposed. Furthermore, news sources may serve as “cues to action,” as described in versions of the HBM (Rosenstock, 2000); therefore, in an effort to better understand Hispanics’ general inaction in screening or prevention of HPV and cervical cancer, this study analyzes news sources that often reach Hispanics.

This study included a total of 505 online television news video links about HPV, related cancers, and methods of prevention. Once stories were collected through initial keyword searches, duplicates were eliminated to avoid overrepresentation of coverage. During the coding process, coders also identified “dead links” and stories that did not focus specifically on HPV, cervical cancer or methods of prevention. This careful filtering of the stories during the data collection phase of this study left a total of 353 stories for analysis. In all, coders reviewed more than 20 hours of news video posted on 31 websites, with the oldest search result appearing from November 20, 2009 and most recent from October 8, 2014. Coder training, constant comparison, peer debriefing and data collection for stories included in this study took about six months to complete. This study’s methodological approach, sampling and intercoder reliability are further detailed in this chapter.
Hispanics’ Sources of News and Health Information

According to Lopez & Gonzalez-Barrera (2013), Hispanics tend to gravitate toward television news when choosing news sources. Pew Hispanic Center research shows 86% of Hispanic adults watch television news, 56% use the Internet for news, 56% listen to radio news, and 42% read print newspapers – with overlap between categories, because Hispanics use an average of 2.4 different media platforms when consuming news (Lopez & Gonzalez-Barrera, 2013). Hispanics’ exposure to television news, coupled with their high rates of cervical cancer, narrowed the focus of this study to specifically television news coverage of HPV, cervical cancer and methods of prevention. Furthermore, because Hispanics in the U.S. represent a largely bilingual population, the sample of news stories for this study includes both English- and Spanish-language sources.

A 2012 Pew Hispanic Center survey found 61% of Hispanic adults in the U.S. said they could carry on a conversation in English “very well” or “pretty well;” and 60% said they could read a newspaper or book in English “very well” or “pretty well” (Taylor, Lopez, Martinez & Velasco, 2012). As for Spanish, 82% of Hispanics said they could carry on a conversation in Spanish “very well” or “pretty well;” and 78% said they could read a newspaper or book in Spanish “very well” or “pretty well” (Taylor et al., 2012). Taylor et al. (2012) also found these levels of language skills correlate with individuals’ generational status – with recent immigrants tending to speak more Spanish and second- or third-generation U.S.-born Hispanics speaking more English. As a result, the Hispanic audience in the U.S. consumes news in both languages. According to Lopez & Gonzalez-Barrera (2013), 50% of Hispanics in the U.S. consume news in both
English and Spanish, 32% consume news in only English, and 18% consume news in only Spanish. The television news sources used in this study include both English- and Spanish-language news sources, because of these varying language skills and preferences among people in this ethnic group.

Hispanics’ media use is also related to their consumption of health information. Most Hispanic adults in the U.S. receive health information from some type of media source (Livingston et al., 2008). Data from 2007 show 83% of Hispanics reported they received information about health and health care from media sources that year, 71% received such information from medical professionals, and 70% received it from family or friends (Livingston et al., 2008). These statistics illustrate the broad reach media outlets have to this particular audience when disseminating health information – even more so than doctors. Similar to their news source exposure, most Hispanics receive health information from television. Livingston et al. (2008) found 68% of Hispanics reported receiving health information in 2007 from television, which is a higher percentage than other media sources such as print media, radio and the Internet. In a smaller study of Latinos in the Los Angeles area, participants indicated their most important communication connections for health included: interpersonal communication (46%), geo-ethnic television (32%), books or magazines (12%), geo-ethnic newspapers (11%), leaflets and pamphlets (9%), geo-ethnic radio (8%), mainstream television (8%), Internet (7%), mainstream newspapers (2%) and mainstream radio (1%) (Wilkin & Ball-Rokeach, 2006, p. 311). Those studies further support the use of English- and Spanish-language television news coverage of HPV and cervical cancer as the appropriate form of communication for analysis in this study.
A Pew Research Center analysis of 2013 Nielsen data states that even though new media options have increased and television viewership has declined in recent years, most Americans continue to watch local television news (Mitchell, Jurkowitz, Enda, & Olmstead, 2013). The data show 71% of Americans watch local television news, 65% watch network television news, and 38% watch cable television news (Mitchell, Jurkowitz, Enda, & Olmstead, 2013). While recent studies of Hispanics’ television news preferences lump local newscasts together with national and cable news, a 2004 study showed 88% of Hispanics watched network television news, 82% watched local news, 52% read newspapers, 58% listened to the radio, and 29% used the Internet for news (Suro, 2004). Suro (2004) also identified connections between language preferences and television news preferences – finding that Hispanics who used strictly Spanish-language news sources were more likely to watch national network news on television than Hispanics who used strictly English-language news sources (Suro, 2004). In comparison, local television news has a more evenly distributed Hispanic audience in terms of language preference. Suro (2004) states: “Almost equal shares of Latinos in the three language categories — English (81%), Spanish (77%) and both (86%) — get some of their news from local television broadcasts” (p. 12). As a result, this study focuses on both national and local television news, as the literature shows they are popular sources of information for Hispanic audiences overall.

**Sampling**

For English-language television news sources, this study included stories produced by two major broadcast news networks in the U.S.: ABC (abcnews.go.com)
and CBS (www.cbsnews.com) – as well as two major cable news networks: CNN (www.cnn.com) and Fox News (www.foxnews.com). NBC was not included in this study, because the network’s website had undergone a redesign not long before the time of this study and did not allow for a search of the archives further back than 2013 during the data collection phase of this study. The exclusion of NBC and related implications or limitations for this study are further discussed in Chapter 5.

For Spanish-language national news content, this study included stories produced by the two main national Spanish-language broadcast news networks: Univision (www.univision.com) and Telemundo (msnlatino.telemundo.com). Because there was no major, independent Spanish-language equivalent to the 24-hour format of CNN and Fox News at the time of this study, a national Spanish cable news category was not created for the study. Any related implications and limitations that result from the absence of a 24-hour Spanish-language equivalent for this national cable news category are also discussed in Chapter 5.

For local news coverage, Nielsen data was used to pinpoint the stations with the broadest reach to Hispanic audiences. According to Nielsen (2013) data, there are 210 local television news markets in the U.S. The top five local television markets reaching the most Hispanic households in 2014 were: (1) Los Angeles, California; (2) New York, New York; (3) Miami, Florida; (4) Houston, Texas; and (5) Dallas-Fort Worth, Texas. At that time, those five television markets reached more than 5.3 million Hispanic households in all (Nielsen, 2013). The specific news markets, stations and respective websites included in this study are listed in Table 3-1. The list of 30 local news stations includes ABC, CBS, NBC, and FOX affiliates, as well as Univision and Telemundo
affiliates. All of the listed networks and local stations air daily newscasts on television and regularly post news content on their websites.

Typically, television newscasts in the U.S. – at both the national and local levels – are made up of news stories read by the anchors, as well as live shots and packages presented by the reporters, and Q&A sessions between anchors and/or reporters and special guests or contributors. Newscasts air at various times of day, depending on the network or station’s show lineup and schedule. Most news shows are broadcast live, while some are pre-recorded or aired on a delay. There is also variance in the way that networks and stations archive aired content, if at all – with some archiving on tapes and others using digital archives. Some archival systems at TV news stations keep a permanent record, while some are temporary. In general, access to such content can be challenging and was an important consideration included in the design of this study.

Many researchers who conduct content analyses of television news coverage make the effort to record the broadcast shows that are aired on TV over a specified period of time and create their own archive for their studies (e.g. Cleary & Adams-Bloom, 2009). This is a fairly convenient process, especially if the researchers are interested in nationally aired shows over a relatively short period of time. However, if the researchers want to record broadcasts from local television news stations in various parts of the country, for example, the task becomes a bit more complicated – and even more complicated if the researchers are interested in analyzing content from past broadcasts and/or content aired over long periods of time.

While there are websites and databases that collect some national network and local television station video archives, these resources can be expensive, limited or
difficult to access or search. In other words, TV news content is not saved in complete and easily searchable online archives like newspaper or magazine stories. Because of these hurdles, researchers conducting studies on television news content sometimes resort to simply analyzing show scripts or transcripts (e.g. Myrick, Major & Jankowski, 2014), which limits the analysis and excludes important factors that contribute to the media framing – such as the audio and video elements of the stories, as well as tone, pacing and vocal inflection. When researchers simply use broadcast transcripts in their analysis of TV news content, they are missing many of the elements that make TV news stories most salient. Supporting that point, Graber (1989) states that a thorough analysis of TV news texts requires inclusion of all of the story’s stimuli, including aural and visual elements.

This study, however, explores an alternative: archived materials on TV station websites. While a review of the literature did not reveal a study that specifically compares media framing of TV stories aired in broadcast shows with the online versions of those same stories, we do know a lot about how TV news stations produce content for the web – and it is mostly through repurposing the aired content (Chan-Olmstead & Park, 2000; Cleary & Adams-Bloom, 2009). In 2000, Chan-Olmstead and Park called TV station websites “Internet Presence Sites,” which accurately describes the purpose that the sites served at the time. Chan-Olmstead and Park (2000) predicted that stations would implement more product differentiation on the web in the future. But, in 2009, Cleary and Adams-Bloom conducted a content analysis of local TV station websites and found that 95% of the video content online appeared to be pulled directly from the broadcast content, and only 4% of the video content appeared to be extra or
unique for the web. Around that time, many news directors saw such repurposing of content for the web as a form of “convergence,” which was a popular buzzword and also commonly used to refer to collaboration between outlets of different types of media. Duhe, Mortimer and Chow (2004) surveyed local news directors and found that 88% said their stations were practicing some form of convergence.

Along similar lines, Cremedas and Lysak (2011) asked news directors about the kind of content their stations produced for the web. They found that the vast majority said they either “always” or “often” post reporter packages on the web, and most also said they either “always” or “often” post web-friendly text versions of broadcast stories on the web (Cremedas and Lysak, 2011). This is not surprising, because the average full-time web staff at local TV stations of all market sizes in the U.S. is only about two people (Papper, 2014). The RTDNA / Hofstra University annual survey of local news directors also reported in 2014 that about 76% of news directors say their general newsroom staffers are all responsible for contributing to the station websites (Papper, 2014). Similarly, in a case study of a medium-market local TV station, Adornato (2014) found that reporters typically opted to rewrite their own broadcast stories into web versions because they did not want to hand over control to the web staffers. In other words, research has shown that the same people producing broadcast stories for TV news stations are also producing the web stories – and, usually, they are simply repurposing the material from one medium to the other.

Therefore, online TV news archives on local station websites can be useful resources for researchers who want to access aired content that would otherwise be inaccessible or difficult to obtain. For example, reporter packages are edited video
news stories made up of the following elements: recorded scripts in which reporters narrate the story, video clips cut from interviews, audio and video from the field, and graphics to identify details, people or places. According to Cremedas & Lysak (2011), 72% of news directors at local stations throughout the country said they “always” post reporter packages on their station websites, 21% said they posted such content “often,” and 8% said they did so “sometimes.” These packages are not only posted on stations’ websites, but also often transformed into written versions for the websites. Cremedas & Lysak (2011) state 62% of news directors reported they “always” post “print-style” web-friendly versions of their stations’ video stories on the web, 19% said they did so “often,” while 16% said “sometimes” and 3% said “never.” Such repurposing of content indicates that the networks’ and local stations’ websites, while not a complete archive of aired video, are good resources for collecting content that mirrors what is aired on the respective television newscasts.

This study’s focus on local TV news website content is also supported by literature in the area of Hispanics’ Internet and mobile media use. For example, Internet use, in general, is on the rise among Hispanics. Lopez & Gonzalez-Barrera found 78% of Hispanic adults go online “at least occasionally” (p. 7). As a news source, the Internet is also becoming more popular among people of this demographic group. In 2006, 37% of Hispanics said they used the Internet for news, but that increased to 56% in 2013 (Lopez & Gonzalez-Barrera, 2013). Therefore, this study focused on television news stories posted on network and station websites.

Each TV news website included in this study includes a search function. The following keywords were used to collect the stories for this study’s sample: “HPV,”
“Human papillomavirus,” “cervical cancer,” “pap smear,” “Gardasil,” and “Cervarix” – as well as their Spanish translations “virus del papiloma humano,” “VPH,” “cancer cervical,” “cancer del cuello uterino,” “cancer cervicouterino,” and “prueba de Papanicolaou.” Only search results that contained video content were included in this study. As previously mentioned, sometimes web stories on TV news network or station websites are made up of only text. This study’s focus on video content presents limitations. Similarly, TV network and station web stories are not a complete archive of aired content. In other words, not every story that airs on the network or station’s shows makes it to the website. Therefore, limitations related to the use of online television news stories are discussed in detail in Chapter 5 of this study. As for the timeframe of interest for this study, searches went as far back as October 2009, which is the year the FDA approved HPV vaccination to include males (Burgess, 2009b), through October 2014, which was the last complete year prior to the execution of this study.

Keyword searches generated a total of 574 links to online TV news stories. In the English-language national broadcast category, search results included: 61 links to stories from ABC News and 39 from CBS News. In the English-language national cable category, search results included: 31 links to stories from CNN and 175 from Fox News. In the Spanish-language national broadcast category, search results included: 29 links to stories from Univision and 27 from Telemundo. For local English-language broadcast news sites, search results included: 8 links to stories from KCBS, 14 from KNBC, 1 from KABC, and 4 from KTTV in the Los Angeles market; 30 links to stories from WCBS, 6 from WNBC, 5 from WABC, and 4 from WNYW in the New York City market; 4 links to stories from WFOR, 5 from WTVJ, 6 from WPLG, and 0 from WSVN in the Miami
market; 0 links to stories from KTRK, 11 from KHOU, 6 from KPRC, and 9 from KRIV in the Houston market; and 3 links to stories from KDFW, 15 from KXAS, 23 from WFAA, and 19 from KTVT in the Dallas market. For local Spanish-language broadcast news sites, search results included: 6 links to stories from KMEX and 3 from KVEA in the Los Angeles market; 6 links to stories from WXTV and 3 from WNJU in the New York City market; 3 links to stories from WLTV and 2 from WSCV in the Miami market; 4 links to stories from KXLN and 2 from KTMD in the Houston market; and 8 links to stories from KUVN and 2 from KXTX in the Dallas market.

Because of the specified five-year timeframe outlined for this study, October 2009 through October 2014, only networks and stations that clearly included stories dating as far back as 2009 were included in this study. This criterion resulted in elimination of five stations that did not meet that requirement for inclusion in the study: KCBS in Los Angeles, WCBS in New York, WPLG in Miami, KPRC in Houston and KTVT in Dallas. The remaining 505 video links in the sample were each assigned nonrecurring Item ID numbers and analyzed for this study. Search results for national network websites are listed in Table 3-2. Search results for local station websites are listed in Table 3-3.

**Mixed Methods Approach**

Once collected, the 505 video links from the abovementioned network and station websites were analyzed through a mixed methods approach combining quantitative and qualitative methods of content analysis. In summary, the use of mixed methods in this study provides both the rigor of quantitative statistical analysis and the richness of in-depth qualitative analysis. As Johnson, Onwuegbuzie & Turner (2007)
state, mixed methods research “often will provide the most informative, complete, balanced, and useful research results” (p. 129). The units of analysis for this study were the videos themselves from start to finish. Text content included in the links were not part of the analysis for this study. In an effort to best answer each of the research questions, this proposed study is organized into three sections: Amount of Coverage, Qualitative Media Framing Analysis, and HBM Constructs As Frames. Methodological approaches for each section are described below, as well as the procedures used for coder training for the quantitative and qualitative components of this study. Intercoder reliability measures and criteria for this study are also discussed below.

**RQ1-RQ3: Amount of Coverage**

The first set of proposed research questions, RQ1 - RQ3, is descriptive in nature and calls for a tally of news stories relevant to the topics of HPV, cervical cancer and methods of prevention. As part of the analysis, individual networks and local stations were organized into the following categories: “English National,” “Spanish National,” “English Local,” “Spanish Local,” “All National,” and “All Local.” The English National category was also split into two subcategories: “National English Broadcast” and “National English Cable.” In order to identify statistically significant differences in the amount of coverage between sets of categories, SPSS statistical software was used in this study. For amount of coverage, this study not only accounted for the number of stories per category, but also the length of each video in question. To test for significant differences in the proportion of stories per category, McNemar’s Chi-Square statistical tests were conducted. To test for significant differences in the mean, or average, video
lengths between categories, independent sample T-tests were conducted. Results for these statistical tests are detailed in Chapter 4 of this study.

**RQ4-RQ6: Qualitative Media Framing Analysis**

The second set of research questions, RQ4 - RQ6, required an inductive approach to identifying media frames through a qualitative media framing analysis. As a form of qualitative content analysis, media framing analysis allows for a close reading of the content, identification of main and underlying themes, assessment of tone, and analysis of the presence or absence of particular frames. A strength of this type of analysis is the richness and depth of data that can be extracted from the units of analysis without restricting the researcher to a set of predetermined frames. Qualitative media framing analysis also allows for coding of latent content that is difficult to quantify. As described in Chapter 2, framing theory focuses on the way news messages are presented when delivered to an audience. The themes, tone and emphasis in a news story can all contribute to the framing of a news message. One of the main arguments behind the theory, as it applies to news media, includes:

“The underlying implication of the frame concept is that a story has more than one way of being told and that editorial decisions affect the way reality is transferred from its actual occurrence to its symbolic representation in the news” (Ben-Porath, 2009).

Therefore, understanding how the news media frame a particular story when disseminating information is important in ultimately understanding how people, in turn, perceive that story, event or issue through their own framing process.

Since television news content is made up of audio and visual elements, crafting such content requires the journalist to use information gathering, script writing, video and sound recording, narrating, and storytelling skills when producing the story. In
other words, there is a lot that goes into the production of what typically fills just a few minutes of airtime for a single news story. There are also many more elements that go into the production of an entire newscast; therefore, analyzing such content requires a highly organized and strategized approach. Fields (1988) said “unitizing” or identifying the unit of analysis is the first step in analyzing TV news content and largely depends on the goal of the research. This study focused on the online TV news videos from start to finish as the units of analysis. For data collection, this study included use of a coding sheet (Appendix A) and codebook (Appendix B) to guide the framing analysis and collect coders’ observations as they analyzed the news stories.

**Coder Training and Intercoder Reliability**

Coders used an electronic version of the coding sheet via the online survey platform Qualtrics, which produced transferrable data sheets for further analysis on SPSS statistical software. The codebook underwent thorough pretesting and related edits before data collection began. Two bilingual coders trained in media framing analysis participated in coder training and peer-debriefing sessions based on part of the Glaser (1965) constant comparative method. Throughout this process, coders collaborated in discussing identification of manifest content, latent content and underlying themes in small test samples from the population of stories. As recommended by Glaser (1965), coders compared incidences of particular frames, for example, with other stories where those same frames or related themes appeared. The constant comparative method encourages such collaboration because “the teammate can help bring out points missed, add points he has run across on his own coding and data collection and cross-check points” (Glaser, 1965, p. 440). Coder differences were
discussed and resolved during peer debriefing sessions. This process was repeated several times to ensure the strongest possible intercoder reliability for the variables in this study.

It is important to note that the coding sheet developed for this study includes quantitative and qualitative elements for the framing analysis. First, the sheet has general questions about the content of the news story; for example, coders identified whether the video included a reporter package or other type of story format (e.g. VO or Q&A) and pointed to other attributes of the story, such as inclusion of a human element or whether there is an implied target audience. This aspect of the coding sheet is quantitative in nature, because the presence or absence of certain elements were recorded as nominal data. Such recording of nominal data was tested for intercoder reliability using pairwise agreement and Krippendorff alpha measures. Percentage of pairwise agreement simply shows the percentage of cases in which the coders agreed, while Krippendorff alpha is a tougher statistic because it also accounts for chance.

As recommended in Lacy & Riffe (1996), an intercoder reliability sample of 84 stories from the original population of 505 was tested for this study. Due to the exploratory nature of this study and the level of difficulty involved in coding video news stories – as opposed to simply analyzing text – the lowest accepted levels of intercoder reliability for codebook items related to RQ1-RQ6 in this study were 86.2% pairwise agreement and 0.706 Krippendorff alpha – though most of the items were above 90% pairwise agreement and above 0.8 Krippendorff, which is the more desirable recommended criteria for content analysis studies (Krippendorff, 2004). Only one item from the codebook did not meet these minimum requirements. Coders agreed that
identifying the “package producer,” as listed in Appendix A and Appendix B, was consistently unclear in the stories and too difficult to code. Therefore, that item was eliminated from this study. Implications of the elimination of that item are further discussed in Chapter 5. Intercoder reliability data for items related to RQ1-RQ6 are itemized in Table 3-4.

Still, this mixed methods study can be described as what some consider “qualitative dominant” (Johnson, Onwuegbuzie & Turner, 2007), so an important part of the coding sheet for this study was the open-ended portion for qualitative framing observations and notes. As described in Zhang & Wildemuth (2009), “this process uses inductive reasoning, by which themes and categories emerge from the data through the researcher’s careful examination and constant comparison” (p. 309). As stated, coders used careful analysis of the video content and collaborated in discussing observations. In addition to the stories analyzed for the intercoder reliability sample, the remaining 421 links to video news stories were divided among the coders. Coders wrote detailed notes about their observations for each story. That compilation of notes was later analyzed for recurring themes and overlap. Coders discussed the frames that emerged from this qualitative analysis and organized the findings with their respective Item ID numbers to reference as examples. This careful process revealed dominant themes throughout the content in the various categories of news media included in this study. Results from this qualitative part of the analysis are discussed in detail in Chapter 4.

**RQ7-RQ9: HBM Constructs as Frames**

Finally, while this study is largely exploratory in nature, previous research and the HBM also served as a guide for the third set of research questions, RQ7 - RQ9. These
questions call for a deductive approach to quantitative content analysis of the presence or absence of the following HBM-related frames: susceptibility, severity, benefits, barriers, cues to action and self-efficacy. Those frame labels were drawn from the described constructs in seminal HBM articles (e.g. Hochbaum, 1958; Becker, 1974; Kirscht, 1974; Rosenstock, 1966). Coders identified whether media framing of the stories in question included frames relevant to any of those HBM constructs. This part of the analyses was also included and discussed in coder training and peer-debriefing sessions.

Percentage of pairwise agreement and Krippendorff’s alpha tests were also used to test intercoder reliability for each of these frames. Since a thorough review of the literature shows this is the first study of its kind to treat HBM constructs as potential media frames, the lowest accepted intercoder reliability measures for these codebook items were 84.5% pairwise agreement and 0.684 Krippendorff alpha. While “there are no magical numbers,” Krippendorff (2004) recommends a lowest accepted alpha of 0.667 (p. 241). Intercoder reliability measures for the “severity,” “barriers” and “self-efficacy” frames proved too low to produce reliable results, despite repeated attempts at coder training and pre-testing; therefore, those frames were ultimately eliminated from this study. Intercoder reliability data for those items are itemized in Table 3-5. For the final analysis of the HBM-related frames, Pearson’s Ch-square tests were used to identify relationships between the appearance of the frames and specific categories of news outlets. Results of the statistical tests are detailed in Chapter 4.
Table 3-1. Local stations by market, language, call letters and website address

<table>
<thead>
<tr>
<th>Market</th>
<th>Language</th>
<th>Call Letters</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>English</td>
<td>KCBS</td>
<td>(losangeles.cbslocal.com)</td>
</tr>
<tr>
<td></td>
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<td>KNBC</td>
<td>(<a href="http://www.nbclosangeles.com">www.nbclosangeles.com</a>)</td>
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<td></td>
<td></td>
<td>KABC</td>
<td>(abclocal.go.com/kabc/index)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>KTTV</td>
<td>(<a href="http://www.myfoxia.com">www.myfoxia.com</a>)</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>KMEX</td>
<td>(losangeles.univision.com)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>KVEA</td>
<td>(<a href="http://www.telemundo52.com">www.telemundo52.com</a>)</td>
</tr>
<tr>
<td>New York</td>
<td>English</td>
<td>WCBS</td>
<td>(newyork.cbslocal.com)</td>
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<td></td>
<td></td>
<td>WNBC</td>
<td>(<a href="http://www.nbcnewyork.com">www.nbcnewyork.com</a>)</td>
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<td></td>
<td></td>
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</tr>
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<td></td>
<td></td>
<td>WNJU</td>
<td>(<a href="http://www.telemundo47.com">www.telemundo47.com</a>)</td>
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<td>WTVJ</td>
<td>(<a href="http://www.nbcmiami.com">www.nbcmiami.com</a>)</td>
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<td></td>
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<td>(dfw.cbslocal.com)</td>
</tr>
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<td>Spanish</td>
<td>KUVN</td>
<td>(dallas.univision.com)</td>
</tr>
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<td></td>
<td>KXTX</td>
<td>(<a href="http://www.telemundodallas.com">www.telemundodallas.com</a>)</td>
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Table 3-2. Search results for national networks

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<th>English National</th>
<th>No. of Stories</th>
<th>Spanish National</th>
<th>No. of Stories</th>
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<td>CBS</td>
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<td>Telemundo</td>
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<td>CNN</td>
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<td>Fox News</td>
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### Table 3-3. Search results for local stations

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<th>Market</th>
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<th>No. of Stories</th>
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<th>No. of Stories</th>
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<td>KNBC 14</td>
<td>KMEX 6</td>
<td>KVEA 3</td>
</tr>
<tr>
<td></td>
<td>KABC 1</td>
<td>KTTV 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York City</td>
<td>WCBS 30</td>
<td>WNBC 6</td>
<td>WXTV 6</td>
<td>WNJU 3</td>
</tr>
<tr>
<td></td>
<td>WABC 5</td>
<td>WNYW 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miami</td>
<td>WFOR 4</td>
<td>WTVJ 5</td>
<td>WLTV 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WPLG 6</td>
<td>WSVN 0</td>
<td>WSCV 2</td>
<td></td>
</tr>
<tr>
<td>Houston</td>
<td>KTRK 0</td>
<td>KHOU 11</td>
<td>KXLN 4</td>
<td>KTMD 2</td>
</tr>
<tr>
<td></td>
<td>KPRC 6</td>
<td>KRIV 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dallas</td>
<td>KDFW 3</td>
<td>KVAS 15</td>
<td>KUVM 8</td>
<td>KXTX 2</td>
</tr>
<tr>
<td></td>
<td>WFAA 23</td>
<td>KTVT 19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 3-4. Intercoder reliability results for RQ1-RQ6 coded items

<table>
<thead>
<tr>
<th>Item</th>
<th>Percent Agreement</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>100%</td>
<td>1</td>
</tr>
<tr>
<td>Market</td>
<td>90%</td>
<td>0.706</td>
</tr>
<tr>
<td>DMA</td>
<td>91.6%</td>
<td>0.879</td>
</tr>
<tr>
<td>State</td>
<td>91.6%</td>
<td>0.805</td>
</tr>
<tr>
<td>Video Content</td>
<td>86.2%</td>
<td>0.715</td>
</tr>
<tr>
<td>PKG Format</td>
<td>94%</td>
<td>0.818</td>
</tr>
<tr>
<td>(PKG Producer)*</td>
<td>(79.7%)</td>
<td>(0.393)</td>
</tr>
<tr>
<td>Scope</td>
<td>91.6%</td>
<td>0.712</td>
</tr>
<tr>
<td>Soundbites</td>
<td>97%</td>
<td>0.906</td>
</tr>
<tr>
<td>Images</td>
<td>91%</td>
<td>0.807</td>
</tr>
<tr>
<td>Groups</td>
<td>87%</td>
<td>0.724</td>
</tr>
</tbody>
</table>

*Items in parenthesis did not meet minimum requirements for inclusion in this study.
<table>
<thead>
<tr>
<th>Item</th>
<th>Percent Agreement</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Susceptibility</td>
<td>85.7%</td>
<td>0.711</td>
</tr>
<tr>
<td>(Severity)*</td>
<td>(82.1%)</td>
<td>(0.461)</td>
</tr>
<tr>
<td>Benefits</td>
<td>90.4%</td>
<td>0.718</td>
</tr>
<tr>
<td>(Barriers)*</td>
<td>(82.1%)</td>
<td>(0.644)</td>
</tr>
<tr>
<td>Cue to Action</td>
<td>84.5%</td>
<td>0.684</td>
</tr>
<tr>
<td>(Self Efficacy)*</td>
<td>(82.1%)</td>
<td>(0.589)</td>
</tr>
</tbody>
</table>

*Items in parenthesis did not meet minimum requirements for inclusion in this study.
Descriptive statistics for the news videos analyzed in this study show 64.3% (n=227) of the stories were posted on national English-language news network websites, and 9.6% (n=34) were posted on national Spanish-language broadcast news network websites. Table 4-1 illustrates this data per category. The “National English” category consisted of two subcategories: “National English Broadcast” and “National English Cable.” The National English Broadcast subcategory consisted of the two traditional broadcast news networks included in this study, ABC and CBS. The National English Cable subcategory consisted of the two 24-hour cable news networks included in this study, CNN and Fox News. As shown in Table 4-2, 33.9% (n=77) of the National English stories analyzed in this study were from the National English Broadcast subcategory, while 66.1% (n=150) were from the National English Cable subcategory. As for local news stories included in the study, 20.7% (n=73) were posted on local English-language news station websites, and 5.4% (n=19) were posted on local Spanish-language news station websites. Table 4-3 lists the total number of stories per national network and local station included in this study. Results from statistical tests for comparisons between these categories are detailed below, as they relate to each research question.

Furthermore, of the 1,211 minutes (~20 hours) of news video analyzed for this study, videos ranged between 18 seconds long to about 22 minutes long. The average video length for this study was about 3 minutes and 25 seconds long. Further analysis of story lengths showed 71% (n=861 minutes) were posted on national English-
language news websites, and 7% (n=~85 minutes) were posted on national Spanish-language news websites. Within the National English category, 26.9% (n=~232 minutes) were posted on national English-language broadcast news network websites, and 72.8% (n=~627 minutes) were posted on national English-language cable news network websites. As for local news stories included in the study, 17.1% (n=~208 minutes) were posted on local English-language news station websites, and 4.9% (n=~58 minutes) were posted on local Spanish-language news station websites. Table 4-4 illustrates the amount of coverage in minutes and seconds for each category. Table 4-5 illustrates the amount of coverage in minutes and seconds for each of the National English subcategories. Table 4-6 illustrates the amount of coverage in minutes and seconds for each individual national network and local station included in this study. Statistical results from comparisons between categories and respective research questions are further discussed below.

**RQ1:** How much coverage of HPV-related topics, such as cervical cancer and methods of prevention, exists on national English-language online TV news sites, and how does it compare to the amount of coverage in national Spanish-language online TV news sites?

Based on the abovementioned descriptive statistics, the data show national English-language sources had more online videos about HPV, cervical cancer and methods of prevention than the national Spanish-language sources analyzed in this study. Accounting for chance and further supporting this finding, McNemar’s Chi-square tests showed a statistically significant difference in the proportions of stories
between the National English and National Spanish categories; $X^2 (1, N=353) = 142.716, p<0.001$. Table 4-7 further details the cross-tabulation data for that test.

However, as previously stated, it is important to consider that the National English category includes two subcategories: National English Broadcast and National English Cable. The National Spanish category, which includes Univision and Telemundo, is more comparable in terms of production style and broadcast schedule to the National English Broadcast subcategory, which includes ABC and CBS; therefore, an additional McNemar’s Chi-square test was conducted without the 24-hour cable news networks, CNN and Fox News. That test showed a significant difference was also found between the National English Broadcast subcategory, which consisted of just ABC and CBS, and the National Spanish category; $X^2 (1, N=353) = 16.658, p<0.001$. In other words, with or without CNN and Fox News, the national English-language sources included in this study had significantly more videos about HPV-related issues on their websites than the national Spanish-language sources. Table 4-8 further details the cross-tabulation data for that test.

Further exploring the amount of coverage, this study also compared average video lengths in total number of minutes and seconds. Independent sample T-tests showed statistically significant differences between average story lengths from the National English ($M=3:47, SD=2:38$) and National Spanish ($M=2:30, SD=2:15$) categories; $t(259)=2.69, p=0.008$. In other words, the data show the average story length for national English-language news videos analyzed in this study was significantly longer than the average story length for national Spanish-language stories. Table 4-9 further illustrates those results.
An additional independent sample T-test was also conducted to see if the inclusion of the 24-hour cable news networks, CNN and Fox News, skewed these results. The data for that additional test showed no significant difference between the National English Broadcast (M=3:00, SD=2:38) and National Spanish (M=2:30, SD=2:15) categories; t(109)=0.967, p=0.335. As a result, this study found the average story length for the English-language broadcast news videos included in this study were not significantly different from the national Spanish-language broadcast news videos – when the 24-hour networks, CNN and Fox News, were excluded from the data.

In conclusion, results for RQ1 show the number of online TV news stories about HPV and related cancers was significantly higher for the National English category when compared to the National Spanish category – regardless of inclusion or exclusion of the National English Cable subcategory. Furthermore, while this study can conclude that the number of videos made available on these news websites differed, this study can also conclude that the amount of “airtime” per story was similar for English- and Spanish-language broadcast news outlets – but longer for cable news outlets.

**RQ2: How much coverage of HPV-related topics exists on local English-language online TV news sites, and how does it compare to the amount of coverage in local Spanish-language online TV news sites?**

The data collected for this study show local English-language news stations collectively had more stories about HPV-related issues posted on their websites than the local Spanish-language stations. Further supporting that finding, a McNemar’s Chi-square test showed a statistically significant difference in amount of stories between the Local English and Local Spanish categories; \( X^2 (1, N=353) = 31.696, p<0.001 \). Table
4-10 details the cross-tabulation data for that test. However, one limitation of this measure is that there are more local English-language stations than local Spanish-language stations in the television news markets in question. Therefore, the mean number of videos collected from each station was compared between language categories using an independent samples T-test. As detailed in Table 4-11, the analysis also showed a statistically significant difference between the mean number of stories per station in the Local English (M=5.54, SD=4.59) and Local Spanish categories (M=2.50, SD=1.69); t(17)=2.159, p=0.046. In summary, the average number of HPV-related stories posted on local English-language TV news websites during the timeframe of this study was higher than that of the local Spanish-language stations, and the statistical data support that observation.

Conversely, for story length, independent samples T-tests showed no statistically significant differences between average story lengths from the Local English (M=2:51,SD=2:21) and Local Spanish (M=3:01, SD=1:44) categories; t(90)=0.282, p=0.779. In other words, for RQ2, we can deduce that even though the local English-language news stations included in this study had significantly more online videos about HPV, cervical cancer and methods of prevention, the average story length was not significantly different when compared to that of local Spanish-language stations.

**RQ3:** Collectively, how much coverage of HPV-related topics exists on national English- and Spanish-language online TV news sites, and how does it compare to the amount of coverage in local English- and Spanish-language online TV news sites?
When comparing the amount of HPV-related stories on each of the TV news websites included in this study, the descriptive statistics show an obvious difference between the national news networks and local stations. More specifically, Fox News stands out as an outlier with a much larger number of stories than any other network or station included in this study. Not surprisingly, a McNemar’s Chi-square test showed a statistically significant difference in the proportion of stories per category between the All National and All Local categories; $X^2 (1, N=353) = 80.91$, $p<0.001$. Table 4-12 further details results from that test. However, the cable networks, CNN and Fox News, were again removed for a subsequent test between just the national broadcast networks and local TV stations. The results of that subsequent test showed no significant difference between the amount of stories produced by national broadcast networks and local TV stations; $X^2 (1, N=353) = 1.778$, $p=0.182$. Therefore, this study found that the amount of coverage at the national level was only higher when CNN and Fox News were included in the mix. Without the cable news networks, the national networks had about a comparable amount of HPV-related coverage online as the local stations.

For story length, as shown in Table 4-13, independent sample T-tests showed statistically significant differences between average story lengths from the All National ($M=3:37, SD=2:38$) and All Local ($M=2:53, SD=2:14$) categories; $t(185)=2.54$, $p=0.012$. In all, the data show the average story length for the national news videos analyzed in this study was significantly longer than the average story length for the local news videos. However, when the cable networks were removed, another independent sample T-test showed no significant differences between average story lengths from the national broadcast networks ($M=2:51, SD=2:32$) and the local TV stations ($M=2:53,$
SD=2:14) categories; t(201)=0.119, p=0.905. In other words, it is clear that CNN and Fox News have longer stories than ABC and CBS, likely because of the cable networks’ 24-hour format; therefore, the second test results showing no significant differences was deemed more appropriate for interpretation in this study. In summary, we can conclude for RQ3 that the amount of coverage in online video news stories on HPV-related issues by national broadcast networks was comparable to that of local TV stations in this study – while the cable news networks had more coverage, in terms of both number of stories and length of stories.

RQ4-RQ6: Media Framing of the Coverage

As described in Chapter 3, in a qualitative media framing analysis, coders typically use an inductive approach to identifying frames in the content. In an effort to answer RQ4-RQ6 in this study, coders carefully analyzed the videos with an open-ended coding process, which provided rich information about latent content in the messages – such as the tone, camera angles, writing style, focus, pace, or delivery that the journalists used in executing the stories. The purpose of this second set of research questions, RQ4-RQ6, is to identify those frames and compare between the categories of interest: National English and National Spanish; Local English and Local Spanish; and All National versus All Local.

While RQ4-RQ6 are primarily qualitative in nature and largely center on an open-ended qualitative media framing analysis, coders also accounted for various aspects of the stories’ content that were coded quantitatively for descriptive purposes, including: scope, images, voices and formatting. For scope, this study found that 5.1% (n=18) of the stories analyzed were produced with a local angle, 6.2% (n=22) with a state angle,
0.3% (n=1) with a regional angle, 83% (n=293) with a national angle, and 4.5% (n=16) with an international angle. These descriptive statistics show the news coverage of HPV-related issues, across all categories in this study, was largely focused on a national angle to the story. Table 4-14 further illustrates that data.

Images used in the news videos also varied. This study found that 93.5% (n=330) of the online TV news videos analyzed in this study showed images of women, and 83.6% (n=295) showed images of men. In comparison, images of children appeared less often, in just 24.1% (n=85) of these stories about HPV-related issues. Doctors and other medical professionals appeared in 69.1% (n=244) of the stories, while government officials and politicians appeared in only 13.9% (n=49). Coders also found 41.1% (n=145) of the videos analyzed in this study included images of the HPV vaccines, needles, vials or specimens, and 35.1% (n=124) included images of medical facilities or laboratories. Furthermore, 40.2% (n=142) of the videos in this study included fullscreen graphics, while only 6.8% (n=24) included camera shots of documents or paperwork – and only 2% (n=7) of the news stories included clips from vaccine advertisements.

Coders also accounted for interviews or soundbites present in the videos. This category of data, labeled “voices,” showed 25.5% (n=90) of the stories coded included soundbites from a human element, which is a common term used in journalism to refer to a person or people affected by the topic of a story. The analysis also showed 62.6% (n=221) included soundbites from a medical professional, 19% (n=67) included soundbites from government officials or politicians, and 0% (n=0) included soundbites from drug company representatives.
When considering the framing of stories that a national network or local station posts online, it is also important to consider the formatting of the video content presented, because not all television news is produced or presented the same way. For this study, only video content was analyzed, so any text or supplemental content posted on the television news websites was not included in the analysis. Still, when focusing solely on video content, there is variety in the way that news video is produced and presented. Coders in this study identified several aspects of video formatting, including whether anchors appeared in the videos, as well as reporters or medical correspondents – and whether the video was presented as a news “package” or in other formats, such as a Q-and-A interview or discussion.

This study found that of the 353 stories analyzed in the final sample, 72.8% (n=257) included an anchor on screen, 50.7% (n=179) included Q-and-A interviews or discussions, 49.3% (n=174) included a medical correspondent on screen, 41.6% (n=147) included fullscreen graphics (FS), 34.6% (n=122) included a reporter package or PKG, 30.9% (n=109) included VO video, 22.9% (n=81) included a reporter on screen, 15.6% (n=55) included edited SOTs or soundbites, and 0.8% (n=3) included raw or unedited video. In addition to the various aspects of the presentation of these videos, this study identified specific media frames that were revealed through qualitative analysis of the videos. Those frames are detailed below.
RQ4: What media frames exist in HPV-related coverage by national English-language online TV news sites, and how do they compare to frames in national Spanish-language online TV news stories about those topics?

**English National Broadcast**

**Controversy frame.** Much of the national English-language broadcast news coverage included in this study, from the ABC and CBS News websites, focused on the controversial aspects of the issues of HPV, cervical cancer and methods of prevention. Coders in this study identified this framing as the “controversy frame.” Perhaps the most prevalent of the frames that appeared in this category, the controversy frame manifested itself in the coverage from various angles. One angle that appeared often with this framing focus on controversy was the question of the safety of the HPV vaccines and potentially serious side effects. For example, CBS News posted a video on September 14, 2011, titled “Can HPV vaccine cause mental retardation?” The story featured then-presidential hopeful Michele Bachmann, who claimed that the mother of a young girl came to her with a story about the severe side effects that her daughter suffered after receiving the HPV vaccine.

This is an example of how politicians managed to steer much of the news coverage on this topic by either pushing for legislation to mandate the vaccines or, on the other end of the spectrum, calling for public outcry against the vaccines. In the abovementioned CBS News story, a medical correspondent refuted Bachmann’s claims and said: “it is important to separate the politics from the science” (CBS News, 2011). Still, the controversy frame in the national broadcast content was not solely focused on the political aspects. The controversy frame also appeared in stories that focused on
changes to recommendations for women and their frequency of pap smears. For example, in a video posted by ABC News on October 20, 2011, with the headline “New guidelines for pap smears,” a news anchor and medical contributor discussed the changes and alluded to the possibility of insurance companies no longer covering annual pap tests, which the anchor said “may make some women angry” (ABC News, 2011a). In stories that contained this framing, doctors often expressed their opposition to new guidelines that called for less frequent cervical cancer screening – a stance that further created a sense of controversy surrounding the topic.

Confusion frame. While the constantly changing recommendations for women’s preventive health care schedules appeared in the coverage with the controversy frame, another frame also appeared often in these stories: the “confusion frame.” Coders identified the confusion frame as one of the most dominant frames in the national English-language broadcast news category for this study. The confusion frame appeared often in stories about the changing recommendations for how often women should get pap tests; in stories about whether children should be vaccinated against HPV; and in stories about the difference between HPV tests and pap tests. The abovementioned ABC News story also serves as an example of the presence of the confusion frame. In that story, the medical contributor said: “Women have been – this has been engrained from the day they get their [first] period, ‘you need to get the pap every year.’ We’ve done a great job of sending that message, but now we have to backtrack” (ABC News, 2011). Coders also identified a sub-frame within the confusion frame: the “talk to your doctor” sub-frame. Several stories included directives for
viewers to discuss these health topics with their own doctors before making final decisions. Coders identified this as the “talk to your doctor” sub-frame.

**Pro-Vaccine frame.** While the controversy and confusion frames consistently appeared throughout the coverage by ABC and CBS, a “pro-vaccine frame” also appeared often. For example, in a CBS News video posted online October 1, 2012, with the headline “HPV vaccine found to be safe in new study,” a reporter package focused on results of research that included 200,000 girls who received the vaccine with only minor side effects reported (CBS News, 2012). The story featured a teenage girl as a human element and discussed how her mother made sure she received the vaccine and was protected from this common virus that could cause cancer. The framing of this story included a strong pro-vaccine frame.

Common angles for this frame focused on low vaccination rates, the need for more people to get the vaccines, and the benefits to males also getting the vaccines that were originally marketed for females. In an ABC News video posted October 25, 2011 with the headline “HPV vaccine for boys recommended,” for example, an anchor and medical correspondent discussed new recommendations that boys receive the vaccine. The doctor in that story emphasized the benefits to males protecting against HPV, not only to protect women from cervical cancer, but also to protect themselves from other types of cancer like oral cancer. The doctor said: “If you can prevent some of those cancers, it’s going to be a real public health plus” (ABC News, 2011). This also serves as another angle in which the pro-vaccine frame appeared was the apparent support of the medical community.
Doctors who appeared in several of the videos for this category clearly supported the HPV vaccine and passionately advocated for the vaccination of children. In that same ABC News story, the doctor shared that he had his own sons vaccinate after waiting a couple years to learn more about the vaccine after its initial release. In such cases, the “pro-vaccine” frame not only appeared often in the coverage, but also at times dominated over the controversy and confusion frames. Even when the controversy and/or confusion frames appeared in these stories, the pro-vaccine frame would often outshine the two and stand out as the prevailing or more sensible point of view. There was also an emphasis on the effectiveness of the vaccine surpassing original expectations for its uses. Examples include: stories that discussed the vaccine potentially preventing HPV-related heart disease in older women, the vaccine being effective for longer periods of time than originally anticipated, and the vaccine being effective even in just a single dose rather than the recommended three.

**Prevalence frame.** As mentioned in Chapter 1 of this study, HPV is a common virus in the U.S. That point came up often in the national English-language broadcast news stories analyzed in this study. Coders identified the theme of HPV as common with the label “prevalence frame.” The prevalence frame appeared in stories that included emphasis on awareness of the illness and the common occurrence of infection. This frame appeared often in coverage of actor Michael Douglas’s June 2013 announcement that his throat cancer may have been caused by HPV. This announcement sparked nationwide news coverage that often included the prevalence frame. For example, in a CBS News video posted June 4, 2013, with the headline “Michael Douglas links his cancer to HPV: Could it be true?” the story emphasizes the
prevalence of HPV and how easy it is to contract the virus (CBS News, 2013). This focus on a celebrity with a possible HPV-related cancer further added to the prevalence frame by sending a message that HPV is so common, even celebrities get it.

**Severity frame.** Along with the prevalence frame, a focus on the severity of HPV and related cancers appeared in the ABC and CBS news coverage posted on their respective websites. Coders dubbed this the “severity frame.” As discussed earlier in this study, severity is one of the original HBM constructs. Coders found in the qualitative analysis portion of this study that the severity frame materialized through particularly subtle hints or themes throughout the videos. For example, coders found the severity frame to be an underlying theme in stories that included the following messages:

- HPV causes cancer
- HPV and cancer are scary
- Cervical cancer kills
- HPV causes other illnesses like heart disease and throat cancer
- HPV also seriously affects men, not just women

This emphasis on the severity of HPV and related cancers was not as obvious as one might expect, because related comments or images were sprinkled throughout the coverage through brief mentions or implied references to serious conditions – nuances that could be collectively interpreted as “this is serious.” Still, the severity frame appeared often in the national English-language news stories that were included in this study. Sometimes this frame of severity was made more apparent through the inclusion of a human element in the story, which was often a person or persons affected by HPV or related cancers. The Michael Douglas coverage is also an example of this use of a human element that essentially put a face to the issue.
**Early detection frame.** A frame that appeared mostly in connection with the severity frame was the “early detection frame.” Coders found that stories in this category often emphasized the importance of detecting HPV-related cancers early in order to prevent them from spreading and leading to death. For example, an ABC News video posted January 26, 2011 with the headline “Who’s at risk for cervical cancer?” featured a doctor who explained the importance of routine screening and vaccination. The doctor said: “With what we say is combined cervical cancer screening and HPV vaccination, we can effectively reduce the risk of cervical cancer for the majority of women in the United States” (ABC News, 2011b). Coincidentally, this early detection frame also appeared when the severity of cervical cancer was downplayed as a slow-spreading, treatable illness. Viewers were also often directed to consult with their physicians when making decisions. Coders again identified this as the “talk to your doctor” sub-frame.

**U.S.-centric frame.** As whole, the videos in question from the ABC and CBS websites focused almost entirely on HPV and cervical cancer in the U.S. Coders identified this national focus as the “U.S.-centric frame.” Only a few stories in the sample analyzed for this study mentioned other countries or acknowledged this topic as an international issue. For example, in an ABC News video posted September 13, 2011, with the headline “Laura Bush discusses women’s health initiative,” the issue of HPV and cervical in Latin America and Africa came up in discussion of the former first lady’s project to screen for and vaccinate against HPV in countries outside the U.S. (ABC News, 2011c). Similarly, coders found only one story in this category of National English Broadcast mentioned cervical cancer as a problem affecting minorities in the
U.S. That story, a CBS News video posted on May 12, 2014, with the headline “Cervical cancer rates show dramatic increase in U.S.,” CBS This Morning co-hosts and a doctor discuss a perceived spike in cervical cancer rates throughout the country (CBS News, 2014). One of the co-hosts pointed out that the study mentioned high rates among black women and asked the doctor to elaborate on that point. Still, the vast majority of video analyzed in this category just referenced the virus and related cancers as an important issue affecting the general population.

**English National Cable**

**Politics frame.** The English-language cable news coverage analyzed for this study was overwhelmingly dominated by a political focus. Coders labeled this the “politics frame.” Videos with this highly political framing mostly centered on a statewide mandate in Texas that was approved by Governor Rick Perry, who later received backlash and criticism from foes like Michele Bachman, who made bold claims that the HPV vaccines caused mental disabilities in young teenage girls. During a Republican presidential candidates’ debate, Bachman criticized Perry for being influenced by the drug company Merck and for imposing the mandate throughout the state. CNN and Fox News focused much of the stories that included this politics frame on the debate between Perry and Bachman, and some of the stories focused on government’s role in public health concerns more generally.

**Controversy frame.** As expected, there was some overlap in the framing of stories on this topic. CNN and Fox News not only focused on the political conflict surrounding the HPV vaccines, but also emphasized some of the controversy and questions about teen sex that were stirred up by discussion of a vaccine against a
sexually transmitted infection. For example, in a CNN video posted September 13, 2013, with the headline “The science behind HPV vaccine,” a medical correspondent and anchor discussed the controversy surrounding the safety of the vaccine and parents' worries that the vaccine may be viewed by their children as a free pass to have sex (CNN, 2013 September 13). One of the anchors said: “It’s part of the cultural war – that some conservatives think that by giving a young girl this vaccination, it encourages her to have premarital sex.” The medical correspondent responded with: “Personally, as a mother of four daughters, that argument doesn’t fly with me.”

Like the national English-language broadcast news coverage, this subcategory of national news coverage included the “controversy frame.” A key difference between the content from the English-language broadcast news organizations and their cable news counterparts was the specific controversies that received the most attention. As previously stated, ABC and CBS focused on controversy surrounding the safety of the vaccine, while CNN and Fox News did the same but also focused more on the political aspects of the issue and the topic of government overreach; for example, the previously mentioned back-and-forth between Bachmann and Perry. Like the broadcast networks, CNN and Fox News also framed stories about new guidelines for pap tests as controversial.

**Safety frame with sub-frames.** Stemming from the controversy frame, but many times appearing on its own, was the “safety frame.” The safety frame included two sub-frames: (1) “safe vaccine” and (2) “dangerous vaccine.” In the abovementioned CNN (2013) story, for instance, the medical correspondent and anchors clarified that there is no scientific evidence of possible serious side effects associated with the
vaccine. Conversely, even within the same story, the potential dangers of the vaccine were also mentioned. For example, in that same CNN video, the medical correspondent explained that even though there are no official cases of the vaccine causing harm, there are parents who claim their children suffered severe side effects like paralysis. Mental disabilities, seizures, and other serious ailments were also mentioned in stories that included this dangerous vaccine sub-frame.

**Confusion frame.** Much like the ABC and CBS coverage, the CNN and Fox News coverage also included the “confusion frame “– but the confusion was less about the pap test guidelines and more about the HPV vaccine. For example, in a Fox News video posted October 31, 2011 with the headline “Boys urged to get HPV vaccine,” two guests appeared on camera for a debate about the HPV vaccine. One of the guests was from Center of Excellence in Women’s Health, and the other guest was from Vanderbilt University. The first commentator argued that we do not have enough information about the HPV vaccines to merit vaccinating boys, specifically because the antibodies used in the vaccine may wear off faster than in girls. The anchor responded with the idea that maybe boys would practice unsafe sex under the impression that they were protected by the vaccine, but instead lost the antibodies -- or failed to receive the second and third doses of the vaccine series. The second commentator responded with evidence from research on the effects of Hepatitis B vaccination on teenagers’ sexual behavior. He said: “There was no evidence of that” (Fox News, 2011). This depiction of a debate and general lack of consensus among medical professionals on this topic further enhanced the confusion frame in the Fox News coverage, in particular.
Prevalence frame. Another frame that appeared in both English-language broadcast news coverage and cable news coverage included in this study was the “prevalence frame.” Coders in this study noted a difference between the coverage from the two categories, though. The prevalence frame in the CNN and Fox News videos included not only references to the fact that HPV is common, but also to the fact that it is common for the virus to cause various cancers like cervical and throat cancers. In other words, there was an element of the severity frame in the CNN and Fox News coverage that was more enveloped by the prevalence frame than the stories from ABC and CBS, which included the two as more clearly distinguishable frames.

Prevention frame. Though HPV and related cancers were framed as highly prevalent in the CNN and Fox News videos analyzed for this study, the illnesses were also framed as easily preventable. Coders identified this as the “prevention frame.” Similar to the “early detection frame” found in the ABC and CBS coverage, the prevention frame found in the CNN and Fox News coverage appeared in discussions about the benefits of pap tests and the treatability of HPV. However, a key difference between the early detection frame and the prevention frame was the emphasis on timing. The ABC and CBS News stories focused more on catching the virus early, while the CNN and Fox News stories focused on the methods prevention themselves. For example, in a Fox News video posted August 23, 2013 with the headline “Study: Brushing your teeth can lower cancer risk,” an anchor and a medical contributor discussed a study that showed brushing teeth can prevent HPV and oral cancers. The doctor said: “Now we’re finding out that brushing your teeth and keeping a real good dental hygiene can prevent this kind of HPV contamination. Even if you get it, by
brushing your teeth, you can get rid of it and reduce the risk of cancer. It’s big news” (Fox News, 2013a). This emphasis on methods of prevention appeared often in this category of news coverage in this study.

**U.S.-centric frame.** The CNN and Fox News videos analyzed for this study also focused primarily on HPV and related cancers as they relate to the population within the U.S. One story by Fox News focused on HPV in Africa, while another story mentioned the fact that Hispanic teens had high vaccination rates at the time. That video, posted April 5, 2013 with the headline “Latino teens take lead in HPV vaccination,” was produced for Fox News Latino and posted on the general Fox News website (Fox News, 2013b). Therefore, it is obvious that the story was produced specifically for a Hispanic audience. This distinction presents an interesting point that the only Hispanic-related story in this category of National English coverage came from a targeted perspective and not intended for the general audience.

**National Spanish**

**Prevention frame with sub-frames.** For the national Spanish-language news category in this study, coders analyzed videos from the Univision and Telemundo websites. One of the more prominent frames in this category of coverage was the “prevention frame.” As previously stated, the national English-language cable new sources, CNN and Fox News, included this prevention frame in their coverage. Univision and Telemundo took a similar approach in focusing on methods of prevention and the importance of screening, but a common theme throughout the videos was the emphasis on the importance of people taking care of themselves. Coders identified this as a “take care” sub-frame. Perhaps this is related to the Spanish language itself, as
the word “cuidar” means to “take care of” or “to look after.” In the Spanish language, in general, this word “cuidar” appears often in discussions of health. For example, people say things like “es importante cuidarse,” which translates to “it is important to take care of yourself.” In the English language, we tend to use other words or phrases when discussing health matters, like: “get a checkup,” “screening is important,” “prevention is key,” etc. The Spanish-language videos’ repetition of the message “take care of yourself” gave the stories a slightly different framing from the prevention frame found in the English-language stories. Similarly, some stories had a theme of “take care of your children.” There was also a strong emphasis on saving one’s own life in these stories.

Another sub-frame present in the prevention frame found in the Univision and Telemundo stories was the “pro-vaccine frame.” This clearly positive portrayal of the HPV vaccines appeared throughout much of the coverage – with an emphasis on the health benefits and contribution to taking care of oneself. In the Univision stories, more specifically, this pro-vaccine stance often came from resident medical correspondent Dr. Juan Rivera. In a Univision video posted April 8, 2013 with the headline “Efectos de la venta libre de la pastilla del dia despues,” or in translation “Effects of the open sale of the morning after pill,” the anchor asked Dr. Juan Rivera if the availability if the morning after pill might prompt teens to be more promiscuous. In response, Rivera said: “I think this is the same as what happened when we introduced the HPV vaccine. The important point here is that people need to educate themselves about the pill, which has nothing to do with STD prevention. People still need to protect themselves from those types of illnesses. … I think sometimes politics and religion influence decisions about
health too often” (Univision, 2013a). That topic of religion came up often in the coverage within this category of National Spanish news and is further discussed below.

The pro-vaccine frame often appeared as a counter argument in stories about the potential dangers of the vaccine. However, unlike the national English-language news coverage, the pro-vaccine frame was not prominent enough to stand alone as its own frame in the national Spanish-language coverage. Coders found the frame to be more of a sub-frame in this category, with a strong connection to the prevention frame and take care sub-frame.

**Severity frame.** Much like the national English-language videos, the national Spanish-language news content analyzed in this study included a “severity frame.” HPV, cervical cancer and other related cancers were often framed as serious, dangerous and potentially deadly in both the national English- and national Spanish-language coverage. However, the national Spanish-language videos had one obvious distinction that is important to note. Some of these stories from the Univision and Telemundo websites included intense background music, an element that clearly added to the overall intensity and portrayed severity of the issue (e.g. Univision, 2011a; Univision, 2011b; Univision, 2014). This use of music presented an element of drama that was much less evident in the national English-language coverage.

**Controversy frame.** Inclusion of the “controversy frame” was another similarity found in the national Spanish-language news coverage. The HPV vaccine was occasionally framed as controversial in this category of coverage, and the focus of that angle was similar to that of the national English-language stories. This portion of the overall sample presented a bit of a mixed bag in terms of slant, though. Some of the
Univision and Telemundo stories discussed the controversy from a pro-vaccine standpoint, while others focused on the negative aspects of the vaccines. In an example of a depiction of the vaccine as scary, Telemundo posted a story August 25, 2014 with the headline “100 niñas enferman tras recibir vacuna contra virus papilloma” or translation “100 girls sick after receiving HPV vaccine (Telemundo, 2014). In that video, the anchor introduces the story as an “emergency in a hospital in Colombia” and shows video of chaos – parents running in the streets with their limp daughters in their arms and ambulances.

However, the controversial aspects of the vaccine emphasized in this category of news were not purely centered on potential side effects or safety. In the national Spanish-language stories, the controversy frame also sometimes appeared with a strong emphasis on parents’ rights and teen sex. For example, a Univision video posted November 9, 2011 with the headline “Vacuna controversial en California” or translation “Controversial vaccine in California” focuses on parents’ concerns about a statewide law allowing children to receive the vaccine without parental consent (Univision, 2011c). The reporter package featured a couple of parents with their thoughts on the vaccine, a state agency spokesperson, and a Catholic priest.

**Morality frame.** Coders found some overlap between frames in the national Spanish-language news videos included in this study. One example of such overlap is the prominence of a “morality frame” in the coverage. The morality frame is related to the controversy frame, in that the two often appeared in the same stories. However, the morality frame was so strong and evident in the national Spanish-language stories that coders agreed it should stand alone as its own frame. For example, the topic of
monogamy came up in the national Spanish-language stories but did not appear in the English-language stories. On a few occasions, doctors mentioned being “fiel” or “faithful” as one way to avoid contracting HPV. Some of the national Spanish-language coverage also framed sex as a difficult topic for discussion in Hispanic households.

In the abovementioned Univision (2011) story, for instance, the reporter included the opinion of a Catholic priest in the coverage of the controversy surrounding a state mandate to vaccinate young teenage girls. Such a focus on religion was absent in the national English-language coverage, and the issue of morality was not as explicitly stated as in the national Spanish-language stories. There was also an element of shame or embarrassment associated with the morality frame in this category. This came up often in the national Spanish-language stories about Michael Douglas and his announcement about throat cancer. One video featuring a panel of entertainment news commentators framed the story as embarrassing for Douglas’s wife Catherine Zeta Jones (Univision, 2013b). The Douglas story was framed as scandalous and shocking in those stories, as well.

**Hispanics and Latin America frame.** Not surprisingly, the national Spanish language videos analyzed in this study included more emphasis on Hispanics in the U.S. and Latin America than the national English language coverage. Mentions of infection rates and cervical cancer rates amongLatinas were often included in the coverage. Similarly, mentions of Latin American countries were also included whenever relevant, even when simply discussing new research. In one story, results from a research study came from Costa Rica, and the anchors made it a point to include that information.
RQ5: What media frames exist in HPV-related coverage by local English-language online TV news sites, and how do they compare to frames in local Spanish-language online TV news stories about those topics?

Local English

**Pro-Vaccine frame.** Videos posted on local English-language news station websites from five news markets were analyzed for this study. In that coverage, there was a strong presence of the “pro-vaccine” frame discussed earlier in this chapter. This category of coverage often included emphasis on the HPV vaccines as safe methods of prevention. For example, in a KNBC Los Angeles video posted October 17, 2012 with the headline “Study finds HPV vaccine safe,” a reporter package features a teen who received the vaccine and says she felt comfortable that it was the right decision for her health (KNBC, 2012). The local English-language news stories also emphasized the effectiveness of the vaccine when discussing its safety.

For example, in a KHOU Houston video posted on September 15, 2011 with the headline “Expert from Texas Children’s Hospital says HPV vaccine is safe,” two anchors discussed the vaccine with a doctor who said: “This is a vaccine that we know prevents multiple types of cancer. Who wouldn’t want to prevent cancer in their children?” (KHOU, 2011). In comparison to the national English-language coverage, the pro-vaccine frame in the local stories was very similar. Both categories included a focus on the need for more people to get vaccinated, as well as a focus on vocal support from doctors who said the vaccine was a good idea.

**Prevalence frame.** Also similar to the national English-language news coverage analyzed in this study, the local coverage included the “prevalence frame.” Several
stories in this category included mentions of how common HPV was and how it can affect anyone – even men, celebrities and public officials. For example, in New York City, a city council member announced she was diagnosed with HPV (WABC, 2014). The local nature of those stories proved unique to this category, because local stations cover local news – making this finding not surprising but still important to note as a clear difference in the overall framing of the coverage.

**Severity frame.** Many of the local English-language news videos included in this study included some element of the “severity frame” that was also found in the national coverage. Related messages included:

- HPV causes cancer
- HPV and cancer are dangerous
- HPV also causes throat cancer
- HPV also causes heart disease
- Cancer hurts families

A key difference in the local English-language news stories that included the severity frame was the heavy focus on throat cancer and heart disease. When compared to the national English-language news stories analyzed in this study, the local stories seemed to cover HPV’s link to throat cancer and heart disease more. Another angle that stood out in the local videos was the effects of cancer on families. In general, the local news stations seemed to add a personal touch to stories on this topic more often than the national networks. For example, in a KXAS Dallas-Ft. Worth video posted July 9, 2012 with the headline “A lifetime of memories in one summer,” a reporter package focuses on children coping with their mother’s terminal cervical cancer (KXAS, 2012). This is just one example of several local stories that included a personal story or experience related to the topic. In fact, many times, any stories posted on the national English-
language websites that included a human element were actually stories produced by local affiliates. As a result, this study found that local stations were better about putting a face to the issue of HPV and cervical cancer than the national stations.

**Early detection frame.** Much like the national English-language news coverage, the coverage in this local news category included the “early detection frame” in many of the stories. As stated earlier in this chapter, the early detection frame focused on the treatability of HPV and related cancers if caught early – thus emphasizing the importance of frequent screening. This framing also included a “talk to your doctor” sub-frame, which is also similar to the national coverage. Furthermore, coders also found a “prevention sub-frame” in these stories, with some stories focusing on the preventability of HPV and related cancers. Still, there was some gray area here, because the prevention sub-frame also appeared in stories with the “pro-vaccine frame.” This serves as yet another example of how there can be overlap between frames within the coverage.

**Controversy and politics frames.** More similarities were found between the local English-language news videos and the national English-language news videos that were included in this study. For instance, the controversy and politics frames also appeared in the local news stories. The same related themes and discussions were included in these stories, especially in news stories out of Texas where the Perry-Bachman conflict originated.

**Taboo frame.** In an unanticipated similarity to the national Spanish-language news coverage, some of the local English language stories analyzed in this study included framing that alluded to shame or embarrassment in discussions of HPV and
related cancers. For this category, coders identified the framing as the “taboo frame,” because the topic was referred to as taboo in some of the stories. The abovementioned WABC story about the New York City council member included such references, for instance. However, there is an important difference between this approach to framing in the local English-language stories as compared to the national Spanish-language stories. The national Spanish-language stories framed the shame or embarrassment associated with sex, HPV and related cancers as a moral issue, while the local English-language news stories framed those aspects of the stories as a typically taboo topic or touchy subject but not necessarily a personal or moral dilemma.

**Expense frame.** A few of the local English-language news videos included in this study mentioned the related expenses to the HPV vaccine and screening tests. Coders identified this as the “expense frame.” While this framing only appeared in a few of the local English-language stories, it was a unique angle that the national networks did not emphasize as much. There was, however, another connection between the local English-language stories and the national Spanish-language stories. Stories in both categories discussed recent health care law changes and potential coverage for the vaccines under those new laws.

**U.S.-centric frame.** Only one of the local English-language news videos in this sample discussed the fact that cervical cancer is an international issue. Similarly, just one other story discussed the fact that minorities are not screened for HPV and cervical cancer often enough. As previously mentioned in this chapter, a small number of stories at the national level also covered these topics. This finding further illustrates the presence of a “U.S.-centric frame” in the coverage. This finding is also an example of
how the absence of information can result in the presence of a frame. Also interesting, the local English-language coverage was a bit different from the national coverage in that it included a WFAA Houston story about a local screening event that was free for people in the area to attend (WFAA, 2012).

**Local Spanish**

**Morality frame.** Similar to the national Spanish-language news coverage, the local Spanish language videos analyzed for this study included the “morality frame.” Coders found that the coverage often mentioned moral issues related to the ways people may contract HPV and related cancers. Coders also found that these discussions, specifically about sex and sexual activity, appeared to be more explicit and direct than the English-language coverage. For example, in a KUVN Dallas-Ft. Worth video posted August 6, 2013 with the headline “Los beneficios del sexo oral” or translation “The benefits of oral sex,” the topic is referred to as “taboo” and as a “hot topic” but good for one’s health. In this video from a local morning show, a doctor and anchor discussed the importance of practicing safe sex, the benefits of sex for lowering stress, and the possibility that oral sex prevents preeclampsia in pregnant women (KUVN, 2013).

**Prevalence frame.** Again, the “prevalence frame” appeared in yet another category. This framing in the local Spanish-language news videos especially appeared often in stories about throat cancer, men and actor Michael Douglas. Coders also found some overlap between this frame and the “Hispanic frame” discussed below. In one example, a story illustrated the prevalence of HPV and cervical cancer by including information about Hispanic women and high infection rates.
**Prevention frame.** Much of the coverage from the local Spanish-language stories also included “prevention” frames. Messages with this framing found in the coverage included:

- Vaccine is good
- Vaccine is safe
- Boys should be vaccinated, too
- Parents should vaccinate their children
- Screening and vaccinating is important

The presence of this prevention frame with a “pro-vaccine” sub-frame in this category was similar to the framing in the national Spanish-language stories.

**Controversy frame.** Consistent with the framing in all other categories in this study, the local Spanish-language videos followed suit and included the “controversy frame.” The focus on controversy in this category centered on the political aspects of the issue and the topic of government overreach when imposing mandates. There was also a distinct emphasis on parents’ rights in relation to those topics.

**Scary vaccine frame.** Similar to the drama and intensity found in the national Spanish-language videos, with use of background music and other effects to create a sense of suspense, the local Spanish-language videos analyzed in this study included an element of drama in stories about the potential risks associated with the HPV vaccines. Coders identified an evident frame throughout these stories as the “scary vaccine frame.”

**Hispanics and Latin America frame.** In another similarity to the national Spanish-language category, the local Spanish language stories sometimes included the “Hispanics and Latin America frame.” This aspect of the stories’ framing appeared to be much like the framing in the national category. Not only did the stories include
references to Hispanic women having high rates of cervical cancer or the issue being relevant to Latin American countries, as was evident in the national Spanish-language stories – but, as a whole, the Spanish-language stories included this framing just by nature of having Hispanic people interviewed in their stories. Just the presence of Hispanic voices throughout the coverage was enough to make the presence of a “Hispanics and Latin America frame” evident.

RQ6: Collectively, how does media framing in HPV-related coverage on national English- and Spanish-language online TV news sites compare to framing in local English- and Spanish-language online TV news stories about those topics?

In summary, the most obvious dominant frame across all categories was the controversy frame. The controversy frame appeared in the National English, National Spanish, Local English and Local Spanish categories. Between the All National and All Local categories, there was a lot of overlap – particularly within the language categories. In fact, coders found that many of the same themes crossed over from the local coverage to the national coverage and vice versa. However, as mentioned above, there were shared frames across language categories, as well. In general, to address RQ6, this study found that while each category had its own unique frames, the coverage between national and local seemed to share many of the same frames.

RQ7-RQ9: Exploring HBM Constructs as Frames

As described in Chapter 3, this study also included a quantitative component to analyzing media frames. RQ7-RQ9 call for comparison of the presence of HBM-related frames in the news stories in question. Of the HBM’s six constructs – severity, susceptibility, benefits, barriers, cue to action and self efficacy – coders were only able
to achieve acceptable levels of intercoder reliability for three of those constructs when identifying them as clear frames in the coverage. As mentioned in Chapter 3, coders faced this challenge despite several rounds of coder training, peer debriefing, discussion and recoding of smaller test samples of the stories. As a result, constructs that did not produce acceptable intercoder reliability scores were eliminated from this study.

The three remaining frames analyzed for the quantitative portion of this study included: susceptibility, benefits and cue to action. According to descriptive statistics for the entire sample of video news stories analyzed in this study, 47.3% (n=167) of the stories included the “susceptibility frame,” 32.6% (n=115) included the “benefits frame,” and 58.1% (n=205) included the “cue to action frame.” Comparisons between the various categories outlined for this study are detailed below.

**RQ7: How often do HBM constructs appear in framing of HPV-related coverage by national English-language online TV news sites, and how does that compare to the frequency in framing in national Spanish-language online TV news stories about those topics?**

In the national English-language news videos analyzed for this study, coders found 49.8% (n=113) included the “susceptibility frame,” 33% (n = 75) included the “benefits frame,” and 57.3% (n= 130) included the “cue to action frame.” In the national Spanish-language news videos analyzed for this study, coders found 38.2% (n=13) included the “susceptibility frame,” 26.5% (n = 9) included the “benefits frame,” and 44.1% (n= 15) included the “cue to action frame.” In general, the percentages of stories that included these HBM-related frames in each of these two categories were relatively
low. More specifically, the reported percentages were slightly lower for the national Spanish-language networks than the national English-language networks. However, Pearson’s Chi-square tests showed no statistically significant association between the appearance of the susceptibility frame and the National English and National Spanish categories; $X^2 (1, N=353) = 1.578$, $p=0.209$. Similar results were found for the benefits frame, with no significant relationship between these variables; $X^2 (1, N=353) = 0.585$, $p=0.444$. Likewise, the statistical analysis also did not produce significant results for cue to action frame; $X^2 (1, N=353) = 2.071$, $p=0.150$. As a result, this study found no statistically significant relationship between the presence of HBM-related frames in the online TV news videos and the national English- and national Spanish-language categories analyzed in this study.

**RQ8: How often do HBM constructs appear in framing of HPV-related coverage by local English-language online TV news sites, and how does that compare to framing in local Spanish-language online TV news stories about those topics?**

Of the local English-language news videos analyzed in this study, coders found 43.8% (n= 32) included the “susceptibility frame,” 30.1% (n = 22) included the “benefits frame,” and 63% (n= 46) included the “cue to action frame.” In the local Spanish-language news videos analyzed for this study, coders found 47.4% (n=9) included the “susceptibility frame,” 47.4% (n = 9) included the “benefits frame,” and 73.7% (n= 14) included the “cue to action frame.” In general, the percentages of stories that included these HBM-related frames in each of these two categories were moderate. More specifically, the reported percentages were slightly higher across the board for the local Spanish-language TV stations than the local English-language TV stations. However,
Pearson’s Chi-square tests showed no statistically significant association between the appearance of the susceptibility frame and the Local English and Local Spanish categories; $X^2 (1, N=353) = 0.076, p=0.783$. Similar results were found for the benefits frame, with no significant relationship between these variables; $X^2 (1, N=353) = 2.004, p=0.157$. Likewise, the statistical analysis also did not produce significant results for cue to action frame; $X^2 (1, N=353) = 0.757, p=0.384$. As a result, this study found no statistically significant relationship between the presence of HBM-related frames in the online TV news videos and the local English- and local Spanish-language categories analyzed in this study.

RQ9: Collectively, how often do HBM constructs appear in framing of HPV-related coverage on national English- and Spanish-language online TV news sites, and how does that compare to framing in local English- and Spanish-language online TV news stories about those topics?

In the All National category outlined for analysis in this study, coders found 48.3% (n=126) included the “susceptibility frame,” 32.2% (n = 84) included the “benefits frame,” and 55.6% (n= 145) included the “cue to action frame.” In the All Local category outlined for analysis in this study, coders found 44.6% (n=41) included the “susceptibility frame,” 33.7% (n = 31) included the “benefits frame,” and 65.2% (n= 60) included the “cue to action frame.” Review of this descriptive data shows no obvious differences in the percentage of appearance of these HBM-related frames between these categories of the coverage. Supporting that finding, a Pearson’s Chi-square test showed no significant relationship between the appearance of the susceptibility frame and All National and All Local categories; $X^2 (1, N=353) = 0.376, p=0.540$. No significant
relationship was found for the benefits frame in the local and national coverage, either; \( X^2 (1, N=353) = 0.071, p=0.791 \). Furthermore, the statistical analysis also did not show significance for cue to action within these categories; \( X^2 (1, N=353) = 2.608, p=0.106 \). Implications of these apparent similarities in the coverage are further discussed in Chapter 5.
Table 4-1. Number of videos analyzed per category

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<tr>
<th>Category</th>
<th>No. of Videos</th>
<th>Percent</th>
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<tr>
<td>National English*</td>
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<tr>
<td>National Spanish</td>
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<td>Local English</td>
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*National English includes two subcategories: National English Broadcast and National English Cable

Table 4-2. Number of videos analyzed per National English subcategory

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Table 4-3. Number of videos analyzed per network / station

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<td>Houston</td>
<td>KHOU</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>KRIV</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>KXLN</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Dallas-Ft. Worth</td>
<td>WFAA</td>
<td>12</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>KDFW</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>KXAS</td>
<td>13</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>KUVN</td>
<td>6</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>353</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4-4. Total length of stories per category

<table>
<thead>
<tr>
<th>Category</th>
<th>Length of Videos (mmm:ss)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>National English*</td>
<td>861:02</td>
<td>71</td>
</tr>
<tr>
<td>National Spanish</td>
<td>85:13</td>
<td>7</td>
</tr>
<tr>
<td>Local English</td>
<td>207:27</td>
<td>17.1</td>
</tr>
<tr>
<td>Local Spanish</td>
<td>57:30</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>1211:13</td>
<td>100</td>
</tr>
</tbody>
</table>

*National English includes two subcategories: National English Broadcast and National English Cable
Table 4-5. Total length of stories per National English subcategory

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Length of Videos (mmm:ss)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>National English Broadcast</td>
<td>231:51</td>
<td>26.9</td>
</tr>
<tr>
<td>National English Cable</td>
<td>627:37</td>
<td>66.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>861:02</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4-6. Total length of stories per network / station

<table>
<thead>
<tr>
<th>Market</th>
<th>Network / Station</th>
<th>Length of Videos (mmm:ss)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>ABC</td>
<td>130:34</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td>CBS</td>
<td>101:16</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td>CNN</td>
<td>87:47</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>Fox News</td>
<td>539:50</td>
<td>44.6</td>
</tr>
<tr>
<td></td>
<td>Univision</td>
<td>73:26</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>Telemundo</td>
<td>11:47</td>
<td>1</td>
</tr>
<tr>
<td>Local Los Angeles</td>
<td>KNBC</td>
<td>33:28</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>KABC</td>
<td>2:19</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>KMEX</td>
<td>6:51</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>KVEA</td>
<td>3:54</td>
<td>0.3</td>
</tr>
<tr>
<td>New York City</td>
<td>WNYW</td>
<td>8:39</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>WNBC</td>
<td>5:19</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>WABC</td>
<td>19:48</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>WXTV</td>
<td>0:38</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>WNJU</td>
<td>9:27</td>
<td>0.8</td>
</tr>
<tr>
<td>Miami</td>
<td>WFOR</td>
<td>2:09</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>WTVJ</td>
<td>7:47</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>WLTV</td>
<td>3:45</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>WSCV</td>
<td>3:08</td>
<td>0.3</td>
</tr>
<tr>
<td>Houston</td>
<td>KHOU</td>
<td>16:31</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>KRIV</td>
<td>19:06</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>KXLN</td>
<td>6:13</td>
<td>0.5</td>
</tr>
<tr>
<td>Dallas-Ft. Worth</td>
<td>WFAA</td>
<td>48:42</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>KDFW</td>
<td>6:21</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>KXSAS</td>
<td>28:44</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>KUKN</td>
<td>27:22</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1211:13</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>
Table 4-7. Results of McNemar’s Chi-square test for National English versus National Spanish story counts

<table>
<thead>
<tr>
<th></th>
<th>Other</th>
<th>National Spanish</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>92</td>
<td>34</td>
<td>126</td>
</tr>
<tr>
<td>National English</td>
<td>227</td>
<td>0</td>
<td>227</td>
</tr>
<tr>
<td>Total</td>
<td>319</td>
<td>34</td>
<td>353</td>
</tr>
</tbody>
</table>

Note. $X^2 = 142.716^*$, df=1  
*$p<0.001$

Table 4-8. Results of McNemar’s Chi-square test for National English Broadcast versus National Spanish story counts

<table>
<thead>
<tr>
<th></th>
<th>Other</th>
<th>National Spanish</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>242</td>
<td>34</td>
<td>276</td>
</tr>
<tr>
<td>National English Broadcast</td>
<td>77</td>
<td>0</td>
<td>77</td>
</tr>
<tr>
<td>Total</td>
<td>319</td>
<td>34</td>
<td>353</td>
</tr>
</tbody>
</table>

Note. $X^2 = 16.658^*$, df=1  
*$p<0.001$

Table 4-9. Results of T-test for mean story length between National English versus National Spanish

<table>
<thead>
<tr>
<th></th>
<th>National English</th>
<th>National Spanish</th>
<th>95% CI</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story Length</td>
<td>3:47 2:38</td>
<td>2:30 2:15</td>
<td>0:20,2:13</td>
<td>2.685</td>
<td>259</td>
</tr>
</tbody>
</table>

*$p=0.008$

Table 4-10. Results of McNemar’s Chi-square test for Local English versus Local Spanish story counts

<table>
<thead>
<tr>
<th></th>
<th>Other</th>
<th>Local Spanish</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>261</td>
<td>19</td>
<td>280</td>
</tr>
<tr>
<td>Local English</td>
<td>73</td>
<td>0</td>
<td>73</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>19</td>
<td>353</td>
</tr>
</tbody>
</table>

Note. $X^2 = 31.696^*$, df=1  
*$p<0.001$

Table 4-11. Results of T-test for mean story count between National English versus National Spanish

<table>
<thead>
<tr>
<th></th>
<th>National English</th>
<th>National Spanish</th>
<th>95% CI</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story Count</td>
<td>5.54 4.59</td>
<td>2.5 1.69</td>
<td>0.06, 6.01</td>
<td>2.159</td>
<td>16.493**</td>
</tr>
</tbody>
</table>

*$p=0.046$  
**Per Levene’s test for equality of variances, degrees of freedom reduced from 19 to 16.493**
Table 4-12. Results of McNemar’s Chi-square test for All National versus All Local story counts

<table>
<thead>
<tr>
<th></th>
<th>Other</th>
<th>All Local</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>0</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>All National</td>
<td>261</td>
<td>0</td>
<td>261</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>92</td>
<td>353</td>
</tr>
</tbody>
</table>

Note. $X^2 = 80.91^*$, df=1
* $p<0.001$

Table 4-13. Results of T-test for mean story length between All National versus All Local

<table>
<thead>
<tr>
<th>Story Length</th>
<th>All National</th>
<th>All Local</th>
<th>95% CI</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* $p=0.012$
** Per Levene’s test for equality of variances, degrees of freedom reduced from 351 to 185.376

Table 4-14. Descriptive statistics for Scope

<table>
<thead>
<tr>
<th>Scope</th>
<th>No. of Stories</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>18</td>
<td>5.1</td>
</tr>
<tr>
<td>State</td>
<td>22</td>
<td>6.2</td>
</tr>
<tr>
<td>Regional</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>National</td>
<td>293</td>
<td>83</td>
</tr>
<tr>
<td>International</td>
<td>16</td>
<td>4.5</td>
</tr>
<tr>
<td>Unidentifiable</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>353</td>
<td>100</td>
</tr>
</tbody>
</table>
CHAPTER 5
DISCUSSION

The results of this exploratory study present several informative findings that add to the literature about health communication and Hispanic audiences. With a blend of methodologies for analyzing the news videos included in this study, the analyses revealed several similarities and differences in the media framing of HPV, cervical cancer and methods of prevention in news sources that may reach Hispanic audiences. This study also points to several opportunities for future research in this area and provides useful information for organizations or entities interested in influencing media frames of health messages before they reach the news outlets, which in turn frame the stories for their audiences. Conclusions drawn from these results and their implications are further discussed in this chapter, as well as the many potential avenues for future research on this topic.

Conclusions and Implications

First, as a key example of this study’s contribution to the literature, it is important to note the focus on online TV news videos rather than newspaper content or just television scripts. Matthes (2009), for example, conducted a content analysis of media framing articles in mass communication journals and found that 53% of those studies analyzed newspaper stories, while only 13% analyzed television news content and 2% analyzed online news, among other forms of media. Those numbers illustrate a key reason why this study is important. There is a clear need for more media framing research on television news content and online news content – even if the archiving of such content is messy, spotty and harder to sample than newspaper archives. Despite the inconveniences or challenges of analyzing television and online video texts,
especially when attempting to analyze coverage from the past, it is important to study the framing of these messages because they reach millions of people on a daily basis.

There is also a need for more media framing research of Hispanic-targeted media, specifically in the area of health communication. As Chapter 2 of this study describes, there are clear gaps in research that analyze media framing in this type of media content that Hispanics tend to consume. As previously stated in this study, Hispanics are a growing population, and at least half of the current Hispanic population in the U.S. consume information from both English- and Spanish-language news sources. HPV and cervical cancer are serious issues for Hispanic women; and despite the HPV vaccines’ continued presence in the news and heavy advertising from the vaccines’ manufacturers, there is a lack of research about media framing of HPV in news content that reaches Hispanic audiences. Along those lines, this study and its focus on English- and Spanish-language news sources make a strong contribution to the literature in that area.

From an applied research perspective, health-related companies and organizations that may want to communicate with Hispanic audiences about HPV and cervical cancer may benefit from the findings of this study and apply the findings to framing future messages for this audience. From a theoretical perspective, we now better understand media framing of HPV-related messages in Spanish-language news and how it compares to that of mainstream media. We also gained a better understanding of how the framing compares between news outlets at the local and national levels. For example, in terms of the amount of coverage of HPV-related topics – even when CNN and Fox News were excluded – the English-language networks and
stations had more related videos posted online than the Spanish-language networks and stations. The lower numbers of videos collected from the Spanish-language sources may be attributed to inherent limitations associated with the archival nature of the overall population of content sampled for this study. Those limitations are further discussed later in this chapter and prevent this study from making conclusions about the amount of coverage that actually aired on those television networks and stations. However, this study concludes that English-language sources provided more HPV-related information on their respective websites than the Spanish-language sources. With online videos becoming more and more popular among audiences, and specifically among Hispanics, this may be a potential area for improvement for Spanish-language news sources – or for outside organizations looking to fill that gap. Perhaps this indicates a need for more Spanish-language online TV news content about HPV and related cancers. Future research may also explore whether this is also true for all content aired on television. For example, researchers might collect future content live as it airs on television to gather a more complete sample and conduct a similar analysis to complement these findings with more generalizable data.

This study also found that the amount of coverage of HPV-related issues was similar across the board in terms of story length, with the exception of the 24-hour cable news networks. This finding is important, because it shows that only 24-hour cable news networks broke the mold in posting longer videos on their websites. Perhaps future research on this topic may explore coverage by CNN’s Spanish-language network CNN En Espanol to see if this finding holds true for that network – and perhaps that of Fusion, a new bilingual television network targeting Hispanics, as well. This
finding may also prompt future research comparing the effectiveness of shorter versus longer health-related video news messages through experiments or focus groups involving Hispanic audiences. In other words, this finding raises the question: Does the length of health-related news video content matter in terms of effectiveness as a potential cue to action?

Furthermore, this study unveiled useful information about the types of stories and images that Hispanic audiences may be exposed to when viewing news videos about HPV, cervical cancer and methods of prevention. For example, the vast majority of videos analyzed in this study had a national angle – even the stories produced by local stations. This finding was further supported by results from the qualitative component of this study, which found the framing of HPV-related issues as US-centric throughout the coverage. In other words, the topics of HPV, cervical cancer and methods of prevention were consistently covered as national issues and rarely covered as international issues or as personal issues for specific groups like minorities. Similarly, very few stories in the sample of videos analyzed in this study included a human element. The term “human element” is often used in journalism to describe a person or people who are affected by a particular topic, event or issue. When reporters include human elements and people’s personal stories in news reports, they create salience for the viewers. This study found a general lack of people with whom the viewers could relate in the stories. Perhaps that broad and impersonal approach creates a disconnect between the viewers and the messages. Perhaps that disconnect contributes to Hispanics’ general inaction to vaccinate against HPV and screen for related cancers. While this study does not
answer these questions, future research may further explore these possibilities and test various news stories with Hispanic audiences.

For example, researchers may show Hispanic audiences videos with a minority focus and without a monitory focus, or with a human element and without a human element, in an experiment or focus group setting to see if there are differences in responses and reported intentions of taking preventive action against HPV. Results from such a study would provide a clearer picture of the types of news videos that would best serve as cues to action for Hispanics to seek preventive health care such as HPV vaccination or pap testing, for example. Journalists who focus on health as their “beat,” or those who serve as medical correspondents, may find such information useful in guiding their approach to coverage with the ultimate goal of viewer benefit. Additionally, outside organizations that aim to pre-frame messages for news outlets may also find such information useful in planning the marketing of health information to this segment of the population.

This study also found doctors and other medical professionals or experts were shown on camera and quoted often, while drug company representatives did not appear in the coverage at all. This finding aligns with previous research discussed in Chapter 2 that shows Hispanics tend to prefer receiving health information from their doctors. Future research may explore this further to see if that holds true for information from a doctor who appears in a video – or if that preference really only applies to doctors who the patients see in person. Furthermore, for an issue that primarily centers on the question of vaccinating children, the news coverage analyzed in this study showed few images of children – and instead showed women in almost every video, as well as often
showing men. In all, the inclusion and exclusion of certain images from the stories ultimately affects the way the story is framed for the viewers. This study found the HPV-related topics may have been depicted as an adult problem, based on the images included in the videos. This study cannot conclude whether that focus has any relation to low vaccination rates, because rates are low for children and adults across the board.

Still, the findings from the qualitative portion of this study provided the richest and perhaps most telling information. For instance, the controversy frame appeared across all categories of market size and language included in this study. As a result, this study concludes that viewers of these online sources of TV news may have received a strong message of controversy when exposed to information about HPV, cervical cancer and methods of prevention. This emphasis on controversy may have served as a red flag for viewers of these videos, and Hispanic audiences more specifically. In other words, if viewers were exposed to a strong controversy frame when consuming information about HPV-related topics, then we must consider a connection between exposure to that frame and low vaccination rates. After all, viewers may interpret controversy framing as evidence that the jury is still out on the effectiveness, safety or recommendations related to a particular preventive health care step such as receiving the HPV vaccines or related testing; and, therefore, they might hesitate to take action. Though also outside the scope of this study, this is yet another avenue for future research to test stories with strong controversy frames versus stories without that framing and attempt to gauge whether that affects intention to vaccinate or take other related action.

Perhaps one of the most notable frames that revealed itself in the content was the severity frame – particularly because coders had such a hard time achieving
intercoder reliability for that frame in the quantitative section of this study but easily uncovered the frame in the qualitative analysis. This finding further supports this study’s focus on qualitative analysis of media framing of the relevant coverage. The open-ended, qualitative assessment of the videos allowed for a much less restrictive coding scheme than the quantitative variables included in this study. When researchers allowed for the frames to emerge from the text or video, it happened in a much more organic process than the more rigid process of selecting “yes” or “no” on a coding sheet for quantitative analysis. Therefore, as a result of this study, we now know which frames appeared in online TV news coverage of HPV, cervical cancer and methods of prevention; and, because previous research shows online TV news stories are typically representative of the content aired on TV, we can safely assume that those frames also appeared on TV. In other words, this study is important because it tells us which frames were disseminated not only to the people who accessed these online TV news videos via the websites, but also the millions of viewers who likely watched HPV-related stories on live television.

Future quantitative research may code for those frames to further explore potential differences between categories or in other types of media content. Future research may also explore the effects of those frames on people’s intentions to take preventive action against HPV and related cancers. As for the HBM constructs as potential frames, this study found no statistically significant relationship between the appearance of three possible HBM frames – susceptibility, benefits and cue to action – and the different categories of news organizations. Still, this study can draw important conclusions from that lack of association. First, because the percentages of the
appearance of those three frames lingered around the mid-range, we can conclude that the online TV news videos analyzed in this study only included the HBM-related frames in moderate numbers. Furthermore, the lack of statistically significant relationships shows that the HBM-related frames appear at about the same rates throughout the coverage across all categories. Given the function of the HBM in explaining people’s considerations before taking action, these findings may show there is room for improvement in framing the news coverage of HPV, cervical cancer and methods of prevention. In other words, the data from this study show there is the potential for stronger messages about people’s susceptibility to HPV and related cancers, the benefits of taking action against HPV and related cancers, and cues to action. Future research should also test news stories that clearly include HBM constructs as frames and compare viewers’ reactions and reported intentions to take action against HPV.

With that in mind, it is important to consider the similarities between the HBM-related frames in the quantitative component to this study and the frames that emerged from the qualitative analysis. For instance, the prevalence frame appeared in the qualitative observations across all categories of coverage in this study – often present in stories with messages about how common HPV and cervical cancer are in the U.S. Prevalence of an illness may be viewed as contributing to people’s susceptibility to an illness. So, the two frames, prevalence and susceptibility, are likely related and may both represent the part of the HBM that states people must believe they are susceptible to a particular disease or ailment in order to take action against it. The difference, in this case, is one frame emerged from the literature and previous research in this area, while the other emerged from the content itself. This finding further supports the merits
of mixed methods research of media framing. The approaches can complement each other and reveal useful information that may guide future research. This study serves as an example of the appropriateness of mixed methods research for media framing studies on health care messages in news content. Future research should continue to implement mixed methods to produce well-rounded and comprehensive results.

**Limitations**

While the findings from this study provide useful information for filling some of the gaps in the literature on this topic, as well as potential directions for future research, there are limitations to the scope of this project that must be noted. For example, this study found differences in the amount of coverage available to Hispanic audiences on these TV news websites, but the data do not represent the amount of coverage aired on television. Discussed in detail in Chapter 3, the challenges of sampling video news content produced by national networks and local stations limit the conclusions that may be drawn from rigid statistical tests. Furthermore, the sample in this study was limited to only the available sources that fit the criteria for inclusion in this study. For example, NBC News had undergone a website redesign shortly before the execution of this study. At the time of this study, the archives of that site only went back a few months. Therefore, the network’s site was excluded from this study. Similarly, a handful of local TV news stations – one from each news market – did not have online archives dating as far back as 2009. Therefore, those stations were also eliminated from this study.

Coders also found several links generated by the search results that were considered “dead links” or inactive. Some videos never loaded, and some links just led to dead ends. The exclusion of those websites and problematic story links limits the
inferences we can make from the quantitative data related to the specific amount of news stories per category. Still, these are similar challenges that a viewer would have if searching for information about a topic on these websites. It is also evidence of the ever-changing environment of the Internet. As networks and stations redesign their websites and clean out servers, digital archives become spotty. Still, that should not deter researchers from analyzing the texts that are available, because studying this type of media content is important – given its extensive reach and influence on large audiences.

Coders in this study also faced challenges with achieving intercoder reliability, specifically in the quantitative framing analysis component of this study that looked at the proposed HBM-related frames. Three of the frames – severity, barriers and self efficacy – had high pairwise agreement but low alpha values. A possible reason for this could be that the frames did not appear often enough to outweigh occasional coder disagreements. Because coders did not achieve acceptable levels of intercoder reliability for those three frames, they were eliminated from the study. One of the remaining frames, cue to action, only reached an alpha value of 0.0684, which is less than ideal but still satisfies the minimum of 0.0667 considered acceptable for an exploratory study of this nature (Krippendorff, 2004).

Other Avenues for Research

In conclusion, based on these findings, future research on media framing of HPV, cervical cancer and methods of prevention in health communication sources that reach Hispanic audiences can benefit from the results of this study. For example, as previously stated, the frames identified in the qualitative analysis of this study can be
used for future studies that take a quantitative approach. It is also possible to analyze those frames for connections to the HBM and develop a more refined coding scheme for quantitative analysis of the HBM constructs as frames. Perhaps a coding scale can be developed for each frame, rather than a simple “yes” or “no” identification of the presence of the frames. Outside the scope of this study, but still important to explore, is the amount of reused content between national networks and local affiliates. Future studies may flag stories that appear to be shared content between categories and focus on the effects of such content sharing on framing of those stories. Other avenues for future research include similar analyses of other types of news media such as newspaper articles, magazine articles and social media sites in both English and Spanish. Studies of that nature would be important, because Hispanic audiences consume health information from a variety of sources, not just TV news. For example, such studies may reveal that framing of HPV-related topics in coverage from those different types of news media also varies, which would ultimately provide a more complete picture of the media frames to which Hispanic audiences are exposed.

The conclusions made from this particular study can also be used to guide experimental or focus group research. For example, as stated earlier in this chapter, the findings from this study may guide the production of mock news stories to test with subjects and collect information about their reactions to the stories with different frames. Because this study tells us the media frames that already appear in online TV news coverage of HPV, cervical cancer and methods of prevention – and the frames that do not appear in the coverage – future studies with experimental or focus group methodologies can further explore the topic and test various frames to test the effects of
those frames. In other words, knowing which media frames people are exposed to helps us better understand the information that they potentially have, but testing specific media frames with those audiences takes it a step further and helps us understand what people do with that information.

Furthermore, coders in this study collected additional data that can be used for future research. For example, coders collected information about the states in which the stories were produced and can be used to compare that data with an already-compiled list of states with HPV vaccine-related legislation. This study also collected data that can be used to map spikes in coverage over a timeline of five years to identify specific news events that affected the amount of stories posted around certain dates. From the qualitative analysis, coders also noted that images of Catherine Zeta Jones appeared in almost all of the stories about Michael Douglas and his throat cancer – even when she was not specifically mentioned in the stories and even though Douglas never indicated from whom he contracted the HPV. This raises potential questions about depictions of women in news coverage of sexually transmitted diseases or infections compared to depictions of men in stories on those topics. It also raises questions about a potential “blame frame” that may manifest itself in video news content through the images alone.

In summary, there is much more to explore in the area of media framing of HPV-related topics and Hispanic audiences – and to news audiences in general. As the questions of HPV vaccination, routine pap smears and other HPV-related cancers continue to be covered in the media, there will continue to be new content and frames that potentially reach Hispanic audiences. This study laid down some of the
groundwork for media framing research not only about HPV and related cancers, but also other preventive health care topics as well. It also paves the way for future research on media framing of preventive health care topics for Hispanic audiences more specifically, as this diverse demographic consumes such a varied array of news media in two different languages.
APPENDIX A
CODEBOOK

1. Coder Name – Select coder name from list
   a. Coder 1
   b. Coder 2

2. Item ID# - Record the assigned non-recurring identification number for story reviewed (e.g. 1, 2, 3... 500).

3. Story link – Record the direct link to the story.

4. Headline – Record headline of the story. If the headline includes a subhead or more than one line, please include that information.

5. Date – Record date story was posted online in “mm/dd/yyyy” format

6. Length of Video – Record length of video in “XX:XX” format

7. TV station call letters or network name – Record the local TV station call letters or network name of the story source. For example, CBS, Fox News or Univision would be network names, and WPLG, KHOU and KSAT are local station call letters.

8. Language – Circle whether the story is in English or Spanish.
   a. English
   b. Spanish

9. Market Category – Circle whether the story is from a local market source or national network source. Local stations consist of affiliates from one of the five cities in the study. National networks include: ABC, CBS, CNN, FOX News, Telemundo, and Univision
   a. Local
   b. National

10. DMA – Identify the city name / DMA (Designated Market Area) from the list provided, if the story is from one of the local stations included in this study. If the story is from a national broadcast or cable network, circle one of those options. CBS and ABC are national broadcast, while CNN and Fox News are national cable networks.

11. State – Identify the state in which the DMA is located. Select “National” for national networks.

12. Video Content – Circle all aspects that are present in the video.
   a. Anchor – An anchor appears on screen in the video.
b. Reporter – A reporter appears on screen in the video.
c. Medical Correspondent – A person referred to as a “medical correspondent,” “medical contributor,” “health reporter” or similar title. The person may also have the title of “doctor” and appears in the story in the role of reporter or expert contributor.
d. VO – VO (Voice Over) is edited video with an anchor or reporter’s voice speaking off camera.
e. SOT – A SOT (Sound on Tape), or soundbite, is an edited video/audio clip from an interview – usually a sentence or two from an interviewee. The anchor or reporter does not speak over these clips.
f. PKG – A PKG (Package), or edited news story, includes reporter narration, video, sound bites, and/or natural sound. An anchor and/or reporter may appear on screen to introduce the PKG.
g. FS – An FS (Full Screen) is a graphic element that fills the screen and contains text and possible still photos. Sometimes these resemble powerpoint slides.
h. Q&A – A Q&A is an on-camera interview or debate discussing questions and answers between two or more people present in the video.
i. Raw video – Raw video are unedited video clips, may be submitted from a viewer or presented as supporting video.

13. If the video is a reporter package, describe the format – Circle if any of the below features are present in the video:
   i. Straight news – Basic news story that does not go into much extra detail or depth.
   ii. Feature – An in-depth story that highlights specific points of an issue or focuses on a human element to personalize the story.
   iii. Investigative report – Goes into more detail than a straight news story and is more serious in tone and scope than a feature story. A reporter in an investigative story uses new gathering skills to uncover information that would not otherwise be readily accessible to the viewers.
   iv. Part of sweeps series – Is this video part of a sweep series. Sweeps periods are in February, May, July, and November. These videos can be a feature or an investigative report.
   v. Other – If unsure of the format or story does not fall into any of the above formats list here.
   vi. Video is not a reporter package

14. If the story includes a reporter package aired on a national network, who produced the story? – Select the option that best describes the producer of the story.
   a. National Network Reporter – The reporter’s title indicates that they work for the national network (eg: CBS correspondent, CNN reporter, etc.).
   b. Local Affiliate Reporter – The reporter’s title indicates that they work for the local news affiliate.
c. Can’t tell  
d. Not a reporter package or not aired on a national network

15. Describe the scope of the story –
   a. Local angle – Is the story specific to one of the five cities in this study?  
   b. State angle – Is the story focused on a particular state?  
   c. Regional angle – Is the story focused on a particular region of the country?  
   d. National angle – Does the story focus on a national perspective?  
   e. International angle – Does the story focus on an international perspective?  
   f. Not identifiable – Is it hard to tell what the scope of the story is?  
   g. Other – Does the story focus on a person, town, community or possibly a more general world view?

16. Identify any soundbites or interviews present in the video – If any sound bites are present in the video, circle what elements the story uses:
   a. Human element  
      i. Describe (ie: parent, child, teen, cancer patient, etc.)  
   b. Medical professional – Does the story use sound bites from a medical professional?  
   c. Government official or politician – Does the story use sound bites from a government official?  
   d. Drug company representative – Does the story use sound bites from a drug company representative?  
   e. Cannot identify – State if it cannot be determined what element the sound bite is representing.  
   f. No soundbites – State if there are no sounds bites present in the video.  
   g. Other: State if there is a sound bite and the element does not represent any of the above categories.

17. Identify any images that appear in the video – Circle if any of the below images appear in the video:
   a. Vaccine / Vaccine Logo / Samples or Vials / Specimens / Blood Vials / Needles / Shots – Does the video show a medicine vial, prescription, or someone getting the vaccine shot?  
   b. Children – Does the video show children?  
   c. Women – Does the video show women?  
   d. Men – Does the video show men?  
   e. Doctors / Nurses / Other Medical Professionals – Does the video show doctors, nurses or other medical professionals? They can either be identified by their clothing or actions in a medical setting – or by their title when introduced in the story.  
   f. Government proceedings – Does the video show any government meetings, votes, and/or discussions?  
   g. Documents – Does the video show any documents, hard copies, etc.?  

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h. Clips from advertisements – Does the video show any advertisements related to HPV?

i. Medical Facility / Lab / Lab Equipment – Does the video show any medical facilities (i.e. doctor’s office, hospital, lab, etc…)?

j. FS Graphics – Does the story have any full screen graphics?

k. No Images, aside from reporter or anchor on screen

18. Describe the main subject of the video – Identify the main subject of the story. This is the primary or main issue or event that the story concerns.

19. Which groups are mentioned in the story? Select all that apply.
   a. Women
   b. Men
   c. Girls
   d. Boys
   e. Teens
   f. Parents
   g. Hispanics
   h. African Americans
   i. Other

20. HBM (Health Belief Model) Frames – Indicate whether each HBM frame is present in the story (Yes / No)
   a. Susceptibility – Does the story discuss the prevalence of HPV and related cancers? Select Yes, if the story mentions anything about the illness being common or easy to contract.
   b. Severity – Does the story mention that HPV can turn into cancer? Does the story discuss the dangers of HPV and related cancers? Does the story mention death? Select Yes, if the story includes framing that makes the illness sound severe. (For example, mentions of cancer or possible death can make HPV sound severe.)
   c. Benefits – Does the story address the benefits to receiving pap smears or HPV vaccines? Select Yes, if the story includes framing that there are benefits to taking action against HPV and related cancers.
   d. Barriers – Does the story discuss barriers to receiving pap smears or the vaccine? For example, does the story mention cost, availability of the vaccine, age limits, potential side effects deterring people, etc.? Select Yes, if the story includes a barrier frame.
   e. Cues to Action – Does the story encourage the viewer to take a step toward preventing HPV or cervical cancer? Does the story provide information on where to receive more information or preventive care? Does the story encourage talking with your doctor? Select Yes, if the story includes a cue to action for the viewer.
   f. Self-Efficacy – Does the story discuss how easy it is to get vaccinated? Does the story mention that the viewer has the power to prevent infection
or cancer? Does the story make it sound like it is easy to take action against HPV and related cancers? Select Yes, if there is a frame of self efficacy present in the story.

21. Open-ended framing observations (Describe themes, tone, emphasis, etc. that may contribute to the overall framing of the story). Consider elements like closeness or distance of camera angles to the subjects, use of background sounds or music, pacing of the story, etc.:
APPENDIX B
CODING SHEET

1. Coder Name –
   a. Coder 1
   b. Coder 2

2. Item ID# ______________________

3. Story link – ______________________________________________________

4. Headline – ______________________________________________________

5. Date – __________________

6. Length of Video – __________

7. TV station call letters or network name – _____________________________

8. Language –
   a. English
   b. Spanish

9. Market Category –
   a. Local
   b. National

10. DMA –
   a. Los Angeles
   b. New York
   c. Miami-Ft. Lauderdale
   d. Houston
   e. Dallas-Ft. Worth
   f. National Broadcast Network
   g. National Cable Network

11. State –
   a. California
   b. New York
   c. Florida
   d. Texas
e. Other
f. National
12. Video Content –
   a. Anchor
   b. Reporter
   c. Medical Correspondent
   d. VO
   e. SOT
   f. PKG
   g. FS
   h. Q&A
   i. Raw video

13. If the video is a reporter package, describe the format:
   i. Straight news
   ii. Feature
   iii. Investigative report
   iv. Part of sweeps series
   v. Other
   vi. Video is not a reporter package

14. If the story includes a reporter package aired on a national network, who produced the story?
   a. National Network Reporter
   b. Local Affiliate Reporter
   c. Can't tell
   d. Not a reporter package or not aired on a national network

15. Describe the scope of the story:
   a. Local angle
   b. State angle
   c. Regional angle
   d. National angle
   e. International angle
   f. Not identifiable
   g. Other

16. Identify any soundbites or interviews present in the video:
   a. Human element
      i. Describe:__________________________________________
   b. Medical professional
   c. Government official or politician
   d. Drug company representative
   e. Cannot identify
   f. No soundbites
   g. Other:________________________________________________

17. Identify any images that appear in the video: (Select all that apply)
a. Vaccine / Vaccine Logo / Samples or Vials / Specimens / Blood Vials / Needles / Shots
b. Children
c. Women
d. Men
e. Doctors / Nurses / Other Medical Professionals
f. Government proceedings
g. Documents –
h. Clips from advertisements
i. Medical Facility / Lab / Lab Equipment
j. FS Graphics
k. No Images, aside from reporter or anchor on screen

18. Describe the main subject of the video –
_________________________________________________________________
_________________________________________________________________

19. Which groups are mentioned in the story? Select all that apply.
   a. Women
   b. Men
   c. Girls
   d. Boys
e. Teens
   f. Parents
g. Hispanics
   h. African Americans
   i. Other

20. Does the story include a SUSCEPTIBILITY frame?
   a. Yes
   b. No

21. Does the story include a SEVERITY frame?
   a. Yes
   b. No

22. Does the story include a BENEFITS frame?
   a. Yes
   b. No

23. Does the story include a BARRIERS frame?
   a. Yes
   b. No

24. Does the story include a CUE TO ACTION frame?
25. Does the story include a SELF-EFFICACY frame?
   a. Yes
   b. No

26. Open-ended, qualitative framing observations (Describe themes, tone, emphasis, etc.)

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

________________________________________________________________
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BIOGRAPHICAL SKETCH

A granddaughter of Cuban immigrants, Erica Rodriguez Kight was born in Philadelphia, Pennsylvania, and grew up in Miami, Florida. Erica earned a Bachelor of Arts in English literature from the Florida State University College of Liberal Arts and Sciences in 2005, with a minor in journalism from Florida A&M University School of Journalism and Graphic Communication. While in college, she wrote for the independent student newspaper FSView & Florida Flambeau and served as news editor her senior year. Erica also interned for The Miami Herald and later worked as a newspaper reporter for the Bradenton Herald after graduation.

In 2008, Erica graduated with distinction from the University of Florida College of Journalism and Mass Communications with a Master of Arts in mass communication and a focus in broadcast journalism. While in graduate school, she had also worked as a nightside assignment editor at WCJB TV20 News in Gainesville, Florida, where she later worked as a TV reporter and Sunday evening anchor. During her time as a journalist, Erica received several awards from organizations such as the North Central Florida Chapter of the Society of Professional Journalists, Florida Associated Press Broadcasters, and the Florida Emergency Preparedness Association. Erica eventually returned to the University of Florida in 2010 to teach as an adjunct lecturer in the University of Florida College of Journalism and Mass Communications. That is when Erica discovered her love for teaching and decided to pursue a Doctor of Philosophy in mass communication.

During her time at the University of Florida, Erica taught telecommunication courses for the University of Florida College of Journalism and Mass Communications and business communication workshops for the Warrington College of Business Center.
for Management Communication. In 2015, Erica received her Ph.D. and accepted a Lecturer position with the University of Central Florida Nicholson School of Communication. Erica currently lives in Orlando, Florida, with her husband, son, and two rescue dogs. She enjoys traveling, cooking, and spending time with her family.