



Ogilvy Public Relations Worldwide

HUMAN PAPILLOMAVIRUS CREATIVE MATERIALS TESTING

Target Audience Focus Group Research

Final Report

*Prepared by Ogilvy Public Relations Worldwide and the Centers for Disease
Control and Prevention*

April 2005

TABLE OF CONTENTS

I.	Introduction	4-6
	A. Purpose of the Research, 6	
II.	Methodology	7-17
	A. Site Selection and Audience Segmentation, 7	
	1. Gender, 7	
	2. Age Range, 7	
	3. Race/Ethnicity, 7	
	B. Participant Recruitment, 8	
	C. Screener and Moderator’s Guide Development, 9	
	D. Materials Tested, 9	
	1. Brochure Content, 9	
	2. Brochure and Poster Designs, 10	
	3. Poster with Content, 11	
	4. Identity Images, 12	
	E. Conduct of Focus Groups, 13	
	F. Discussion Topics, 14	
	1. Awareness of HPV, 14	
	2. Reactions to Brochure Information, 14	
	3. Reactions to Poster and Brochure Designs, 14	
	4. Reactions to Identity Images, 15	
	5. Reactions to Female-oriented Materials, 15	
	G. Criteria for Evaluating Message Effectiveness, 15	
	H. Analysis Approach, 16	
III.	Key Findings	17-47
	A. Participants, 17	
	B. Overall Awareness of HPV, 17	
	C. Reactions to Brochure, 18	
	I. Reactions to Brochure Format and Style, 18	
	II. Reactions to Content, 19	
	1. Audience Confusion, 20	
	i. Seriousness of HPV, 20	
	ii. Risk Factors for Genital HPV, 20	
	iii. HPV Transmission, 21	
	iv. Low-Risk vs. High-Risk, 21	
	v. HPV vs. Other STIs, 22	
	vi. Relationship Between HPV and Cervical Cancer, 22	
	vii. Pap Test vs. HPV Test, 23	
	viii. Racial Disparities in Cervical Cancer Incidence, 24	

2. Feelings of Discomfort, 24	
i. Ineffectiveness of Condoms for HPV Prevention, 24	
ii. Asymptomatic Nature of HPV, 26	
iii. Gender Disparities in Diagnostic Technologies for HPV, 26	
3. Stigma, 26	
i. HPV as an STI, 26	
ii. Cervical Cancer Link to a STI, 27	
iii. Unequal Burden of Diagnosis on Women, 28	
iv. “No Blame, No Shame” about Genital HPV, 28	
v. HPV as a Common Public Health Issue, 29	
4. Apparent Contradictions, 30	
i. Gaps in Science, 30	
ii. Known Prevalence of HPV despite Lack of Diagnostic Tests, 30	
iii. There Is No Cure vs. HPV Goes Away on its Own, 31	
iv. Role of Hygiene and Circumcision, 31	
5. Missing Information, 31	
i. Insufficient Information for Men, 31	
ii. Vertical Transmission of HPV, 32	
6. Terminology, 32	
i. Virus vs. Infection, 32	
ii. Confusing Spanish Words, 33	
iii. Preferred Spanish Reference for HPV, 33	
D. Reactions to Brochure and Poster Designs, 33	
1. Individual Design, 34	
2. Group Design, 37	
3. Couple Design, 38	
4. Poster with Copy, 40	
E. Reactions to Identity Images, 40	
1. Identity Image A: “HPV: Its About ME: Know it’s the most common sexually transmitted infection”, 41	
2. Identity Image D: “HPV. Common Infection. Common Reality.”, 42	
3. Identity Image C: “HPV & Cervical Cancer. Know the Intimate Relationship”, 43	
4. Identity Image B: “HPV: You & Me. Know the Intimate Relationship”, 43	
F. Trusted Sources for Message Delivery, 44	
G. Perceived Relevance of Materials to Men and Women, 45	
H. Reported Behavioral Intentions, 46	
IV. Study Limitations	47-79
A. Generalizing Findings to the Larger Population, 47	
B. Testing in Select Geographic Locations, 48	
C. Time Limitations, 48	
D. Research Bias, 49	
V. Recommendations	49-57
A. Identity Image, 50	
B. Brochure Content, 50	

- C. Brochure and Poster Design, 54
- D. Poster Content Volume, 55
- E. Partner Dissemination of HPV Posters and Brochures, 55
- F. Future Research and Materials Development Considerations, 56

Appendices

Available on web site as separate documents

Appendix A1: Recruitment Questionnaire - African-American and Caucasian
Appendix A2: Recruitment Questionnaire - Hispanic

Appendix B1: Moderator's Guide - African-American and Caucasian
Appendix B2: Moderator's Guide - Hispanic

Appendix C1: Informed Consent - English
Appendix C2: Informed Consent - Spanish

Appendix D1: Participant Responses
Appendix D2: Hispanic Participant Comments (Translated)

Appendix E1: Ranking Sheet Handout- English
Appendix E2: Ranking Sheet Handout- Spanish

Appendix F1: Brochure A, English
Appendix F2: Brochure B, English
Appendix F3: Brochure A, Spanish
Appendix F4: Brochure B, Spanish

Appendix G1: Group Design - Brochure, English
Appendix G2: Group Design - Poster, English
Appendix G3: Individual Design - Brochure, English
Appendix G4: Individual Design - Poster, English
Appendix G5: Couple Design - Brochure, English
Appendix G6: Couple Design - Poster, English
Appendix G7: Group Design - Brochure, Spanish
Appendix G8: Group Design - Poster, Spanish
Appendix G9: Individual Design - Brochure, Spanish
Appendix G10: Individual Design - Poster, Spanish
Appendix G11: Couple Design - Brochure, Spanish
Appendix G12: Couple Design - Poster, Spanish

Appendix H1: Poster with content, English
Appendix H2: Poster with content, Spanish

Appendix I1: Identity Images, English
Appendix I2: Identity Images, Spanish

I. Introduction

Genital human papillomavirus (HPV) is estimated to have the highest incidence of any sexually transmitted infection (STI) in the United States (U.S.), and high-risk genital HPV types are known to act as carcinogens in the development of cervical cancers. In early 2001, Congress mandated that the Secretary of Health and Human Services prepare and distribute educational materials for healthcare providers and the public that include information on HPV. Such materials are to address the following: a) modes of transmission; b) consequences of infection, including the link between HPV and cervical cancer; c) the available scientific evidence on the effectiveness of condoms in preventing infection with HPV; and d) the importance of regular Pap smears, and other diagnostics for early intervention and prevention of cervical cancer.

In response to this mandate, CDC's Division of Sexually Transmitted Disease Prevention (DSTDP) initiated development of a health communication intervention to achieve the goals of the mandate. To inform their communications efforts, DSTDP first conducted qualitative research with the general public as well as qualitative and quantitative research with patients and providers. DSTDP then tasked Ogilvy Public Relations Worldwide (Ogilvy PR) with the development and testing of messages and materials to raise genital HPV awareness and education among key general public, healthcare provider, and patient audiences.

As an initial step toward developing HPV awareness and education messages, Ogilvy PR staff reviewed the formative research on STI and HPV communications provided by CDC. This research included findings from a series of 35 focus groups conducted with members of the general public (African-American, Caucasian, and Hispanic men and women ages 25 to 45) to learn about consumer knowledge and communication preferences for STIs in general, with a special focus on HPV.¹ It also included preliminary findings from a number of studies conducted by the CDC's Behavioral Interventions and Research Branch (BIRB) and published studies on information preferences for HPV communications.^{1,2,3,4,5,6} In addition, Ogilvy PR examined CDC's research on health care providers' HPV-related knowledge and patient communication practices.¹ Key findings from this research review were used to inform CDC communication goals and to shape the creative approaches and concepts that Ogilvy PR prepared for testing. They are briefly summarized below.

CDC research with HPV-positive patients and with members of the general public revealed very low awareness of and knowledge about HPV; their awareness of HPV was lower than for other common STIs.^{1,2,3,4} Members of general public focus groups voiced the need for education about STIs, including causes, symptoms, and consequences.¹ With respect to HPV, these participants expressed a desire for information to help understand what HPV is; its transmission routes; ways to protect themselves; the role of Pap testing in monitoring a HPV diagnosis; the effect of HPV on future pregnancies; and risk of cervical cancer.¹ At the same time, however, participants felt that messages needed to "be realistic" about people engaging in sexual activity.^{1,3,9} When describing emotions that they felt in response to a hypothetical or real diagnosis of HPV, women across the studies tended to express feelings of shame, embarrassment, worry, anxiety, and stigma.^{2,3,4,6}

In terms of communication approach, focus group participants in one CDC study about STDs, expressed a preference for STI themes and messages using serious tones, in clear, simple language; and most believed that statistics about STIs are important for demonstrating the idea that all sexually active people are at risk and STIs do not discriminate. They also felt that messages should incorporate the theme that STIs are more common than most people realize, and felt that information about the prevalence of a STI in their communities would increase their perceived susceptibility to STIs and their desire to take precautionary actions.¹ An analysis of findings across CDC's formative research projects also concluded that women prefer information on high risk HPV in the form of brochures that can be read in a private location, as opposed to more in-depth written material.⁹ A review of complementary research conducted with health care providers suggests that providers are not up-to-date on HPV-related knowledge or treatment and management practices, that they are not comfortable addressing HPV as a STI with their patients, and that they need materials they can give patients about HPV and also guides for counseling patients on the topic.⁸

This research guided the development and testing of HPV concepts during the first phase of research. Conducted in November and December 2004, the first phase of primary research entailed a series of 14 focus groups with several general population audience segments (e.g., African-American, Caucasian, and Hispanic men and women ages 18 to 29 and 30 to 45) to gauge awareness and knowledge of HPV and to test a range of potential HPV communication approaches, including concepts for headlines, visual identities, and images.

In addition to the prior CDC research and the phase I focus group results, the direction of the general population message and materials testing was guided by feedback CDC received at its January 19, 2005 HPV partner kick-off meeting. Participants included 18 leaders representing nonprofit organizations promoting women's and minority health, social and reproductive health, and cancer prevention and control, as well as pharmaceutical companies interested in taking an active role in raising HPV awareness.

Specifically, participants encouraged CDC to explore alternative identity images to the concept that received the highest ratings during the initial round of focus groups: "HPV: It's About ME. Know it's the most common STD." Participants suggested that the term "STD" should be avoided due to the fact that it is scientifically inaccurate to imply that HPV is a disease, and out of concern that the term could stigmatize cervical cancer by association with a STD. Participants also discouraged the concept's depiction of a person's raised arms to emphasize the letter "V" in HPV. In response, CDC revised the original identity image's tagline to reference "sexually transmitted infection," instead of "STD." It also tested three alternative identity images without the "V" concept and mention of sexual transmission.

Other partner-guided considerations to the general population messages and materials prior to the Phase 2 testing included: changing the HPV reference to "genital HPV;" a re-definition of sex as "all types of intimate contact," including hand-to-genital contact and oral sex; a more detailed description of genital warts; clarification that the HPV test is used as a primary screening tool in women 30 years of age and older; clarification that there currently are no "approved" HPV tests for men; an explanation of how condoms are effective in reducing one's risk for HPV and preventing other sexually transmitted infections; mention of the fact that HPV vaccines are under

development; and the incorporation of Latina-specific cervical cancer data into the Spanish-language materials.

CDC also revised its strategy for testing messages and materials among the Asian American and Native American populations in response to concerns that partners representing these audiences need to be more directly involved in the message development and testing process to ensure that the cultural, linguistic, and unique informational needs of these hard-to-reach populations are adequately met. Instead of testing the general population messages and materials with these populations, CDC will conduct exploratory focus groups with them and subsequently develop and test separate messages and materials addressing their needs and preferences, with support from key partners.

The current study reports on the second phase of research, which consisted of a series of 15 focus groups with the general population to test initial messages and materials, including brochures, posters, and visual identities. This phase of research, conducted in February 2005, focused specifically on female and male individuals 18 to 29 who are sexually active or considering becoming sexually active, including persons who are Caucasian, African American, and Hispanic.

A. Purpose of the Research

The purpose of this research was to test preliminary English and Spanish-language messages and materials about HPV, including two versions of brochure content, three sets of poster/brochure designs, one poster with proposed copy (text) inserted, and four identity images. The Spanish-language materials were modified slightly from the English-language versions to address unique cultural concerns that had emerged during the Phase I research with Hispanic groups.

A focus group methodology was used to facilitate the assessment of existing HPV awareness and to explore reactions to the materials. The messages and materials tested in these focus groups were designed to: heighten awareness and knowledge of HPV as a public health issue, including its connection to cervical cancer; inform audiences about HPV while avoiding or minimizing audience fear and confusion and the stigmatization of HPV and cervical cancer; and motivate individuals to query and access HPV-related information from their healthcare provider(s) and other credible sources.

Utilizing the phase I research results, Ogilvy PR then developed messages and materials that incorporated simple, easy-to-understand language and visuals that would convey factual and concise HPV information; treat HPV as a serious, but not scary, issue; recognize the highly emotional/personal nature of HPV, while addressing it as a public health issue; and demonstrate sensitivity to the stigma associated with sexually transmitted infections (STIs), as well as the possible consequences of stigmatizing HPV and cervical cancer, which could negatively impact the current success of cervical cancer screening strategies and the eventual acceptance of a HPV vaccine. The messages and materials tested during the second phase of research were designed to promote healthy and responsible sexual behavior. This report presents the findings from these focus groups.

II. Methodology

Ogilvy PR contracted with Erlich Transcultural Consultants (ETC), a cross-cultural marketing research firm, to conduct a total of 15 focus groups in February 2005 with three key segments of the general public (African Americans, Caucasians, and Hispanics). The groups were segmented by gender, race/ethnicity, language (English and Spanish), and geography. All participants were between the ages of 18 and 29.

A. Site Selection and Audience Segmentation

Fifteen focus groups were conducted in February 2005 with the general public. These groups were held in five geographically dispersed locations, selected on the basis of high cervical cancer incidence rates as well as census data indicating a high concentration of the population identifying as African American, Caucasian, and Hispanic. Ogilvy PR selected focus group locations that represent geographically dispersed regions of the country (South, Appalachia, Northeast, Midwest, West Coast). Groups were held in Atlanta, Georgia; Charleston, West Virginia; St. Louis, Missouri; New York, New York; and Los Angeles, California.

In determining the specific audience segments to include in this study, numerous factors were considered, including cervical cancer incidence by race/ethnicity; age; income; education level; current or anticipated sexual activity; and guidance from CDC staff. To allow for possible audience differences, the research design segmented the groups by the following variables:

1. Gender

Separate focus groups were held with men and women to create a more comfortable environment for participants to discuss the potentially sensitive topic of a sexually transmitted infection. In light of HPV's disproportionate impact on the health of women, nine of the groups were conducted with women, while six were conducted with men.

2. Age Range

The 18-to-29 age range was selected because men and women of these ages and younger are becoming sexually active and beginning to develop sexual health habits. These habits, including women's decisions to get regular Pap tests, make this audience segment an important target for messages about HPV. Prevalence of HPV infection also is especially common among sexually active women in this age range, with prevalence decreasing among older women.

3. Race/Ethnicity

African Americans, Caucasians, and Hispanics were selected because they represent the largest racial and ethnic population segments in the U.S. The groups were segmented by race and ethnicity to account for cultural differences related to sexual health norms, attitudes, and behaviors. A total of five groups were conducted for each racial and ethnic group. Groups were also segmented by language, with the African-American and Caucasian groups conducted in English, and the Hispanic groups conducted in Spanish.

Table 1 outlines the locations where the groups were held; the race/ethnicity and gender of participants in each location; and the number of groups in each location.

Table 1: Audience Segmentation

Location	Number of Groups by Audience Segment
Atlanta, GA	1 African-American male 1 African-American female 1 Caucasian female
Charleston, WV	1 Caucasian male 1 African-American female 1 Caucasian female
New York, NY	1 African-American male 1 Hispanic male 1 Hispanic female
St. Louis, MO	1 African-American female 1 Caucasian male 1 Caucasian female
Los Angeles, CA	2 Hispanic female 1 Hispanic male

B. Participant Recruitment

Participants were recruited by ETC’s affiliated, professional focus group facility and fieldwork firms. Participants were recruited based on the following inclusion criteria:

- Potential participants were only considered if they:
 - Lived in the metropolitan area of the selected location
 - Were between the ages of 18 and 29
 - Were of the designated race/ethnicity
 - Reported being or planning to become sexually active
 - Had lower socioeconomic status (SES) for their area (between \$18,620 annual household income for one person and \$56,780 for seven or more people in the household)
 - Had less than a college education ¹
 - Fluent in Spanish (Hispanic participants only)
- Potential participants were excluded from participation if they had never been sexually active and did not plan to be in the future. They were also excluded if they or their spouse had ever been:
 - Employed in a healthcare setting
 - Employed by a health department or community health agency

- Employed by an organization promoting awareness of health issues, including sexually transmitted diseases
- Employed in marketing, advertising, public relations, or the media
- A student in the healthcare field
- A participant in a focus group during the prior three months

Recruiters were provided with a recruitment questionnaire (referred to as a screener), outlining inclusion and exclusion criteria to facilitate the identification of appropriate participants. The screener was translated into Spanish by ETC personnel for Hispanic participant recruitment. *A copy of the screener can be found in Appendix A.* The focus group facilities were instructed to recruit 12 participants for each group to ensure that nine would be available to participate.

Participation in the focus groups was confirmed by a letter and telephone call. Potential participants were told they would receive a monetary incentive for participating in the focus groups. The incentives matched the competitive market price of \$75.00 at each site.

C. Screener and Moderator's Guide Development

Ogilvy PR developed a screener and moderator's guide in consultation with CDC and ETC.

CDC approved the final versions of the screener instrument and moderator's guide prior to the testing. The draft guide was pilot tested during the first focus group to ensure there was sufficient time to cover all topics and questions, and to identify questions that were confusing to participants. The final version of the guide, which incorporated revisions from the first focus group, was used in all subsequent focus groups. While the original focus group discussion guide included a section for testing materials designed specifically for female audiences, this section was dropped during the initial Atlanta focus group and for all subsequent groups due to lack of time. *A copy of the final focus group moderator's guide is provided in Appendix B.*

D. Materials Tested

1. Brochure Content

Two versions of brochure content were tested in both English and Spanish. Both versions of content provided basic information about genital HPV, including its different types, modes of transmission and testing, using a factual tone. They differed primarily with respect to level of detail and format. Brochure A presented information about HPV more broadly in sections delineated by bold headings. Brochure B utilized a simple-language approach and divided the information into smaller sections presented in a question-and-answer format. Brochure A provided a longer discussion of the ineffectiveness of condoms in preventing genital HPV, while Brochure B briefly touched upon this issue, and reinforced the importance of using condoms to prevent other sexually transmitted infections and pregnancy. Brochure A also presented content about there being “no shame, no blame” in having HPV more prominently than Brochure B.

While the Spanish-language brochures primarily contained the same information as the English-language versions, there were a few differences. To address specific concerns uncovered during

the Phase I research with Hispanic participants, the Spanish-language brochures included information about hygiene and referred to genitals as “private parts.” Brochures A and B also provided information about the higher rates of cervical cancer and lower rates of screening among Hispanic women, in response to CDC partner feedback that the materials must include targeted data on disease burden to make it relevant to the Hispanic population.

2. Brochure and Poster Designs

Three sets of designs (corresponding to both a poster and a brochure) were tested in both the English and Spanish languages. The designs did not include any copy (text) except the main and sub-headlines. The designs were labeled according to their primary image, and are described below.

The Group design depicted an image of a multi-cultural group of two men and two women smiling and laughing. The headline read, “Many people don’t know about genital HPV. Most don’t know they have it. Learn about this common infection.” The colors included shades of purple and brown. The inside of the brochure included a photo of a female doctor speaking with a female patient.

Rationale from the Phase 1 Concept-testing: The Group design was tested because participants in the initial concept-testing groups consistently reported that the depiction of both men and women in the visual image emphasizes the importance of HPV as an issue for both genders. They liked that the people appear happy and relaxed as they socialize with their friends, perhaps unaware that they may have HPV. Many also felt that they could relate to the people in the image because they had been in similar social situations. A small number of participants thought the photo portrayed a social situation that could potentially lead to a sexual encounter. The headline included in the Group design was adapted from the original concept, “Many people don’t know about HPV. Most don’t know they have it. Learn about HPV, the most common STD.” The term, “STD” was replaced with “common infection” to address CDC and partner concerns about scientific accuracy. Participants in the concept-testing groups favored this headline approach because it suggests that both women and men are affected by HPV and it encourages both genders to learn more about it. The headline’s emphasis on how common the virus is – and the fact that few people ever know they have it – was a source of comfort to participants who were hearing about HPV for the first time. In addition, an image depicting a patient consulting with a healthcare provider was included in the brochure, since participants in Phase I consistently mentioned that this emphasized the social acceptability and importance of discussing HPV.

The Individual design included headshots of a multi-racial and ethnic mix of two men and three women. The headline read, “Fact: At least 50% of sexually active people will get genital HPV. Talk to your health care provider about how this common virus can affect your health.” The primary color was a muted green. The inside of the brochure included a photo of a female healthcare provider.

Rationale from the Phase 1 Concept-testing: Participants in the initial round of focus groups reported that they liked images depicting people with different racial and ethnic backgrounds, and felt they were an effective way to present HPV as an issue that affects everyone. Since

the Individual visual image tested in the initial focus groups only depicted women — and many respondents felt this implied that men do not need to be concerned about HPV — the design was revised to include both genders for the Phase II research. The headline included in the Individual design was adapted from the original concept, “Fact: 4 out of 5 sexually active women will get HPV. Fact: HPV is the leading cause of cervical cancer.” The statistic within this factual approach was quite compelling to both female and male participants. However, due to the original headline’s focus on women, some participants were concerned that men may disregard the message and not realize that they are equally at risk of and responsible for the transmission of HPV. Since CDC contends that at least 50 percent of sexually active women and men will get HPV, the headline was revised accordingly. The second line also was modified to eliminate the reference to cervical cancer, which only directly affects women. The new line encourages individuals to speak with their healthcare providers about HPV, as this call-to-action was well received among the concept-testing focus group participants. In addition, the image of a health care provider was included inside the brochure since some participants in Phase I research said that the medical image helped to reinforce the importance of the topic of HPV, and they perceived medical professionals to be highly credible sources of HPV information.

The Couple design emphasized an image of a couple – from the shoulders down – standing on a beach, holding hands. The headline read, “Genital HPV. If you’ve ever been sexually active, here’s what you need to know.” The color was a soft orange. The inside of the brochure layout included a photo of a smiling female healthcare provider.

Rationale from the Phase 1 Concept-testing: Participants in the initial round of focus groups strongly favored a visual image that depicted an intimate relationship. They felt that the suggestion of a sexual relationship would resonate especially well among men and women in married or monogamous relationships. The headline included in the Couple design was adapted from the original concept, “Fact: HPV is the most common STD.” This revision was made to allow CDC to test a concept that avoids using the term “STD,” but suggests that HPV is sexually transmitted in a less overt way by explaining that “sexually active” people are at risk of it. The original headline appealed to participants because it emphasizes the common nature of HPV, while explaining that everyone who has ever been sexually active is at risk of contracting it. Several participants felt that this factual approach would be particularly effective in reaching individuals who are in monogamous relationships and therefore do not believe they are at risk of acquiring any STIs.

For the Spanish-language versions of all three designs, images were substituted to depict Hispanic men and women.

3. Poster with Content

One example of a poster design also was tested with actual text to help CDC determine the appropriate format and amount of content to include in the poster. The poster contained three short columns of information, a Web site address, telephone number, and a space for the HPV identity image.

4. Identity Images

Four identity images were tested in both English and Spanish. They are described below.

Identity Image A included the tagline, “HPV: It’s About ME. Know it’s the most common sexually transmitted infection.” The image presented the letters “H” and “P” in capital letters and depicted “V” with a silhouette of a figure from the waist up with raised arms.

Rationale from the Phase 1 Concept-testing: This tested concept is a modified version of the original identity image: raised arms: “HPV, It’s About ME: Know it’s the most common STD,” which was most frequently selected as the “overall favorite” and “a top-three overall” choice among all participants in the concept-testing focus groups. Ogilvy PR replaced the original concept’s term, “STD” with the phrase, “sexually transmitted infection,” to address CDC and partner concerns that “STD” is not a scientifically accurate description of HPV. The original identity image concept was favored due to its eye-catching design and emphasis on the common nature of HPV – which some individuals contended makes the virus sound less frightening. Participants also found the concept appealing because it clearly explains that HPV is sexually transmitted – an important piece of information for individuals who are not familiar with the term “HPV.” Others were drawn to and related well with the concept’s personal tone, which is reflected by the words, “It’s About ME.” In addition, some individuals perceived the raised arms, which formed the shape of “V,” to be an uplifting and empowering symbol of “victory over HPV” or “I know about HPV, so I’m free.”

Identity Image B contained the tagline, “HPV: You and Me. Know the Intimate Relationship.” The image depicted an outline of two figures facing one another, entwined with a heart.

Rationale from the Phase 1 Concept-testing: This tested concept is a modified version of the original identity image: heart entwined outline of male and female: “HPV and Cervical Cancer: Know the Intimate Relationship,” which was the second most frequently selected “overall favorite” and “a top-three overall” preference among the concept-testing focus group participants. The original concept’s reference to cervical cancer was eliminated in light of findings suggesting that cervical cancer references do not resonate well with men. However, the concept’s original visual element was retained since many focus group participants favored its depiction of both men and women.

Identity Image C included the words, “HPV & Cervical Cancer. Know the Intimate Relationship.” Its image depicted an outline of two figures facing one another, entwined with a heart.

Rationale from the Phase 1 Concept-testing: This tested concept is a slightly modified version of Identity Image B, described above. CDC opted to test this image to determine whether focus group participants would prefer a concept that makes the link between HPV and cervical cancer more prominent.

Identity Image D included the headline, “HPV: Common Infection. Common Reality.” The image depicted the letters HPV in capital letters with a bold typeface and line connecting the H and P.

Rationale from the Phase 1 Concept-testing: This tested concept is a modified version of the original identity image: type treatment: “HPV Common Infection. Common Concern. Learn the link between HPV and Cervical Cancer,” which was the third most frequently selected “overall favorite” and “a top-three overall” preference among the concept-testing focus group participants. This concept generally was favored because its tagline and visual image emphasize HPV’s extremely common nature in a simple, yet attention-getting way. However, since many participants expressed concern that men may disregard the cervical cancer reference and assume that HPV does not affect them, Ogilvy PR removed the cervical cancer-focused tagline so the concept will appeal to the broader target audience of both men and women, while retaining the “common” theme that was favored across all groups. Also, “common concern” was changed to “common reality” in light of CDC and partner concerns about accuracy, since HPV is in fact *not* a concern for most individuals infected with it; rather, it is a reality of being a sexually active adult.

For all of the Spanish-language identity images, HPV was presented as “VPH” — the proper Spanish-translation of HPV.

E. Conduct of Focus Groups

Each focus group was conducted by a professional moderator. All African-American groups were led by same-ethnicity moderators, as were the female Hispanic groups. In order to conserve resources (e.g., travel expenses and moderator premiums), and with the approval of Ogilvy PR and CDC, the Caucasian female groups were conducted by a female African-American moderator; and both the Caucasian male and Hispanic male groups were conducted by a bilingual, Caucasian male moderator. Previous experience with focus group research had indicated that participants in these segments would be comfortable with these differences in moderator race and ethnicity. A simultaneous interpreter was provided at the Hispanic groups for the benefit of the observers. Each group was audio taped and transcribed; transcripts of the Spanish-language groups were generated from tapes of the simultaneous interpretations.

All of the focus groups were conducted in professional focus group facilities. When participants arrived, they were directed to a dedicated waiting area and served light refreshments. They also were also asked to review and sign a consent form prior to the start of each group. The consent form confirmed information provided during the recruitment process, notifying participants about the focus group topic; that the group would be observed and audio taped; participants’ rights; and assurance that responses would remain confidential and accessible only to the study team. *A copy of the informed consent form is provided in Appendix C.*

To encourage early-arrival at the groups, an early-bird raffle was held prior to each group. The names of all participants arriving at the facility more than 15 minutes prior to the start of the groups were entered into a drawing. The winner of the drawing received an additional \$25.00.

Each professional focus group facility was equipped with a one-way mirror between the focus group and observation areas, observer viewing rooms, a client waiting area, and state-of-the-art recording equipment. At least one representative from Ogilvy PR and CDC attended each focus group to evaluate the session.

After providing a brief overview of the focus group process and inviting participants to introduce themselves, the moderators presented the discussion topics by posing questions from the focus group guide. As participants responded to various pre-determined questions, the moderators posed additional questions to explore participants' responses and reactions in order to obtain as much detail as time allowed.

Near the end of each group, the moderator informed the participants that he/she was going to check with the observers to determine whether they needed clarification on any aspect of the discussion or had additional questions. Once the moderator returned, he or she presented the observers' final questions. The moderator thanked participants for their time, offered them a CDC fact sheet (English or Spanish) with information about HPV and additional resources (e.g. 1-800-CDC-Info), and provided them with departure instructions for obtaining their incentive payment from the facility staff.

F. Discussion Topics

The moderator's guide was designed to explore participant responses to the range of materials described above, after briefly assessing their knowledge and awareness of HPV.

1. Awareness of HPV

Participants were asked if they had heard of HPV, if they had any prior knowledge of HPV and where their knowledge originated.

2. Reactions to Brochure Information

As noted above, participants were given two versions of brochure content, which differed in format, tone, and some information. The two versions were named A and B, and presented in alternating order across the groups to minimize bias. Participants were asked to highlight the information they found useful in yellow; the information they found confusing in pink; and the information they found useful, but also confusing, in both yellow and pink (creating orange). *A spreadsheet containing the results of this highlighting exercise is provided in Appendix D.* After the reading and highlighting exercise, both Brochure A and Brochure B were discussed at length. Following this discussion, participants were asked which version they preferred overall.

3. Reactions to Poster and Brochure Designs

Participants were presented with three sets of designs for posters and accompanying brochures. The designs were named Individual, Group, and Couple because they featured photos of individuals, a group, or a couple. The designs were presented on large boards around the room as well as on color handouts available on the table, and discussed simultaneously. Each design included distinct headlines and subheads, but no text or other substantive content.

Participants were asked to complete a ranking sheet to evaluate the designs before the discussion. On the sheet, participants were instructed to do two different things: 1) rank the designs relative to each other in order of their preference; and 2) for each design individually, check off as many or as few of the attributes listed that they felt applied to that particular design. The following attributes were listed on the ranking sheet: eye-

catching; well-organized; attractive; informative; would read this; relevant to me; like pictures; like colors; like headline; and uncomfortable, with a note asking them to explain any discomfort. *The ranking sheet is provided in Appendix E.*

An example of a poster was presented with test copy inserted in order to gauge participants' reactions to the copy length. The Individual design was employed for this exercise.

4. Reactions to Identity Images

Participants assessed four identity images with supporting taglines on handouts and larger boards that were placed around the room. To minimize bias, the images were presented in alternating order for each group. Participants were asked to complete a ranking sheet to evaluate various elements and qualities of the images prior to discussion. As with the designs, participants were instructed to do two things: 1) rank the identity images relative to each other in order of their preference; and 2) for each identity image individually, check off as many or as few of the attributes listed on the ranking sheet that they felt applied to that particular image. The ranking sheet listed the following attributes: eye-catching; attractive; informative; relevant to me; like picture; like the phrase; and uncomfortable, with a note asking them to explain any discomfort. *The ranking sheet is provided in Appendix E.*

5. Reactions to Female-oriented Materials

Female-targeted materials, including a poster design and fact sheet, were prepared and initially included in the focus group discussion guide. However, as previously mentioned, there was insufficient time to address these elements in the current round of focus groups. As a result, the female-specific materials were eliminated from the study.

G. Criteria for Evaluating Message Effectiveness

The effectiveness of general population messages was evaluated based on a set of criteria, derived from CDC's established objectives for the general public awareness effort. As indicated in Ogilvy PR's creative brief (dated 11/19/05), the message objectives were to:

- Heighten awareness of HPV as a public health issue including its connection to cervical cancer and the importance of Pap tests;
- Avoid or minimize audience confusion, fear, and stigmatization of HPV and cervical cancer while informing audiences about HPV; and
- Motivate individuals to query and access sexual health information from their healthcare provider and from independent sources (e.g., Internet).

Evaluation Criteria

Messages were considered "effective" if they met the following criteria established by CDC:

As a result of the message(s):

1. Target audience understands the commonness of HPV, including its link to cervical cancer and the importance of Pap tests for women. Note: audience must understand that:
 - HPV is a public health issue (very common) that affects both men and women;

- All adults who have ever been sexually active are at risk for HPV
 - HPV is usually harmless;
 - Condoms are not recommended for the primary prevention for HPV, but they may reduce the risk of HPV-associated conditions (genital warts and cervical cancer)
 - HPV is NOT cervical cancer; and
 - All women who have ever been sexually active are at risk for cervical cancer and should get screened (Pap test).
2. Target audience reports feeling:
- Confident, glad to have information, and/or well-informed;
 - That they would not feel alone, afraid, or to blame if they were told they had HPV; and
 - That this information would not hinder them from seeking cervical cancer screening (in the case of female audiences), or suggest that women who get screened for or diagnosed with cervical cancer (or abnormal Pap) have been promiscuous.
3. Target audience reports feeling motivated to seek more information about HPV and Pap tests.

H. Analysis Approach

Focus group research provides a rich opportunity to explore the knowledge, attitudes, beliefs, and behaviors of representative target audience members in detail, and to observe the effect of group dynamics on participants' perceptions and reactions to information and concepts presented in groups. The methodology draws on techniques used in anthropology and ethnographic fieldwork, as well as psychology and counseling. As an observational method, focus group research yields qualitative findings that cannot be statistically analyzed. However, experienced researchers use a variety of documentation and assessment methods to summarize findings. For this effort, the focus groups were audio taped and transcribed. In addition, at least one observer at each focus group took extensive notes. The findings presented within this report represent the outcome of several steps, including:

- Debriefings with observers who attended each focus group to share and compare observations about and interpretation of the dynamic and discussion content of each focus group;
- Systematic review of each transcript by two to three people – independently from one another – to identify common themes and unusual perceptions and comments relevant to each topic;
- Separate compilation of participants' written remarks and rankings, where such written exercises were conducted in the groups. To prepare this summary, we examined the rankings of preferences among the various options presented in the groups (e.g., the three design options, four identity images, etc), as well as the number of participants who selected specific

attributes on the rating sheets for each tested element. *A set of tables presenting these findings is provided in Appendix D; and*

- Subsequent discussion about areas of agreement and conflict with respect to the themes and perceptions, followed by additional review of the transcripts and tables until general consensus was achieved. This "notes-based" analysis is a commonly accepted and literature-supported process for qualitative research assessment. Final recommendations were also examined in light of the available literature on HPV knowledge, attitudes, and beliefs.

III. Key Findings

A. Participants

A total of 134 individuals between the ages of 18 and 29 participated in the 15 focus groups. Of these, just over half were single (56%) or did not have children (53%). Most participants reported that they currently were sexually active (70%). Twenty percent of participants said they were not currently sexually active, but had been in the past. Ten percent reported they were not sexually active, but planned to be in the future. About three-quarters of the participants had income levels below \$31,340 (for a household of three people).

B. Overall Awareness of HPV

Across all groups, HPV awareness was extremely low. Although there were a couple people in most groups who said they had heard of HPV, virtually no one knew anything substantive about it. Some people appeared to have previously heard or read accurate facts about HPV, such as how common the virus is; that it is a STI; it is related to genital warts; and it is linked to cervical cancer. For example, among the very few who had heard of HPV, comments included:

- *“I’ve heard that it’s something that never goes away. You don’t get rid of it.” (Hispanic, female, New York)*
- *“It’s a sexually transmitted disease and something you don’t want to get.” (African-American female, St. Louis)*
- *“Just that it was a sexually transmitted disease or virus.” (Caucasian female, Atlanta)*
- *“I actually know somebody who has it.” (Caucasian male, St. Louis)*
- *“I’ve only heard of it. I don’t really know what it is.” (Caucasian male, St. Louis)*

In the African-American and Caucasian groups, fewer men than women were familiar with HPV. The men who had heard of HPV recognized it by name but were less likely to know anything about it than the women.

Low HPV awareness was more pronounced in the Hispanic groups than in the African-American and Caucasian male and female groups. Although a few Hispanic women in one group said they had heard of HPV, fewer Hispanic women than African-American and Caucasian women seemed to know anything about it. There was virtually no awareness of HPV among Hispanic men, even though many seemed to have some general, though very limited, awareness of STIs, including HIV/AIDS.

Of the people who had heard of HPV, many reported that they received their information from a local health department or a clinic. Others said that they had heard about HPV through friends or television. One African-American woman in the St. Louis group had taken a sexual health class and was much more knowledgeable about the subject than the rest of the focus group participants.

C. Reactions to Brochure

As described above, participants were presented with two versions of brochure copy that addressed key HPV topics, including transmission, natural history (including high- and low-risk types), prevalence, consequences, screening, prevention, and treatment of HPV and its associated diseases. Overall, Brochure B was selected as the preferred brochure almost three times as often as Brochure A (95 compared to 33 participants). *[Note: Six individuals did not express a brochure content preference].* Participants reported that they found Brochure B to be better organized and easier to read and follow, particularly due to the question-and-answer format. Participants also reported that they found this version to be more evenly targeted to both men and women and, because they found the information relevant, they appreciated receiving it. In contrast, many participants felt that Brochure A bounced from topic to topic, was repetitious and wordy, and was primarily intended for female audiences. *See Appendices F1-4 for both versions of brochure copy tested within the groups.*

I. Reactions to Brochure Format and Style

Brochure B was the overwhelming favorite across all audience segments, selected as the preferred version approximately three times as often as Brochure A. Participants favored this version because it was easier to read, better organized, and more informative than Brochure A. In particular, participants commented positively on the question-and-answer format, which helped make the content easier to follow and comprehend.

- *“This one was more comfortable to read because it has questions that you would like to ask, and it has a lot of questions that you would like to know about, and it gives you the answers.” (Hispanic male, New York)*
- *“The other version [Brochure B] was just much easier to follow. It was clear and to the point.” (Caucasian female, Charleston)*
- *“Much better than A. The question and answer broke it up a lot. I was able to get a lot more out of it.” (Caucasian male, St. Louis)*

Among the 33 participants who selected Version A as their preferred brochure, the following elements were cited as reasons why:

- A highlight of key points on the introductory panel of the brochure;
- Use of headings rather than a question-and-answer format; and
- Use of a writing style that appears targeted to a younger audience.

However, none of these elements were mentioned in more than one focus group. Moreover, most of the participants who selected Brochure A as their preferred approach were in focus groups in which it was introduced as the second brochure option. This suggests that these selections may partially be influenced by order bias as the participants may have preferred version A because they were more familiar and comfortable with the information by the time they saw it the second time.

Overall, the majority of participants found version A to be repetitive, difficult to read and understand, attempting to cover too many topics, and more focused on reaching a female audience than men.

- *“A has more confusing words than B, and B is easier to read.” (Hispanic female, New York)*
- *“It’s too vague. It doesn’t explain exactly what it is.” (Caucasian male, St. Louis)*
- *“It’s repetitive. The information and main points bounced around too much.” (Caucasian female, Charleston)*
- *“Break it down a little simpler for the common reader.” (African-American female, New York)*

To a lesser extent, some negative comments related to repetition and lack of detail were echoed in reference to Brochure B as well. These were primarily voiced by a few African-American women. Some participants suggested that the introduction from Brochure A about HPV be added to Brochure B.

- *“It still needs more details. Sounds sugar-coated.” (African-American female, Atlanta)*
- *“It all says the same thing over and over again.” (African-American female, Charleston)*
- *“I think if they were to take the beginning of A where it goes into the statistics and exactly what HPV is and put it into the Brochure B, the brochure will be like a perfect brochure.” (African-American female, Atlanta)*

II. Reactions to Brochure Content

While each version of brochure content received specific positive and negative feedback from participants, many of the audience reactions were common to both versions, relating more to the information itself than to how the material was presented. Following is a review of participant reactions to the brochure content by topic, based on an assessment of the comments expressed during the focus group discussions, as well as an analysis of the highlighting exercise, in which participants indicated the brochure content that they found to be either confusing, useful, or both. See Appendix D for data tables indicating content marked as useful, confusing, or both.

1. Audience Confusion

Some content areas generated confusion regardless of which version of the brochure they appeared in. In some cases, participant confusion was a reflection of the fact that the current science on HPV is inconclusive and does not offer clear-cut answers.

i. Seriousness of HPV. Many men – and to a lesser degree, some women – felt uncertain about whether or not they should be concerned about HPV, given the infrequency of serious health consequences; the lack of an effective means for sexually active adults to prevent it; and the fact that there is no way for men to know whether they have it. The uncertainty that women expressed often was tied to the fact that the association between HPV and cancer made them believe that HPV is a serious concern, yet both versions of the brochure discouraged them from getting screened specifically for the virus.

- *“They are telling you it is an STD, but at the same time, they are saying it doesn’t cause health problems.” (Caucasian male, Charleston)*
- *“There’s a lot of other STDs you should be worried about. Most people in their life are going to get it and it’s going to go away. They are not even going to know about it.” (Caucasian male, St. Louis)*
- *“How is it possible that...it said a lot of people have it and don’t know they have it. You get it, but it’s like it’s not really harmful to you, but it’s...” (African-American male, New York)*

Additionally, a few participants were unclear about whether HPV was fatal, particularly when they associated it with cancer and HIV.

- *“They say it’s no big deal, then it can lead to cancer, then it tells you over 50% of [sexually active people] will get it, and then it tells you no big deal. I don’t think it’s very clear.” (Caucasian female, St. Louis)*
- *“I am confused, if it is a disease, how am I not going to worry? If it can lead to cancer, how would it go away by itself?” (Hispanic female, Los Angeles)*
- *“You can die from HIV, but...we don’t know if you can die from HPV or not.” (African-American female, Charleston)*

ii. Risk Factors for Genital HPV. In all focus groups, participants found the information about risk factors for genital HPV to be confusing. People tended to think that the risk factors actually were causes of genital HPV, which generated a great deal of confusion and anxiety about how HPV could be both a sexually transmitted infection and also caused by other behaviors, such as smoking or poor eating habits. Some participants were concerned, for example, that an individual can contract genital HPV simply because they have poor nutrition, even if they have never had any sexual contact. In both brochures, risk factors were referred to as, “factors that have been linked to genital HPV,” in an effort to avoid using the more scientific term, “risk factor.” It is possible that this alternate label may have generated some of the confusion, although experience suggests that “risk factors” may not have been clearly understood either.

- *“I don’t understand how it is transmitted by smoking, and the nutritional deficit thing, I don’t understand.” (Hispanic female, New York)*
- *“If it is sexually transmitted, how does smoking or poor nutrition cause you to get it? Smoking has nothing to do with my genital area.” (Caucasian male, Charleston)*

iii. HPV Transmission. This misinterpretation of the risk factors often led to significant confusion about transmission in general. African-American men, in particular, asked a number of questions about transmission, such as whether HPV can be transmitted through casual contact, and whether treatment of HPV or its symptoms affects one’s risk of transmission. One Hispanic man in Los Angeles asked whether it can be transmitted in ways other than sex, such as in public restrooms.

- *“Is it a hundred percent transmitted by sexual contact or can it be transmitted by another way, maybe in a public bathroom?” (Hispanic male, Los Angeles)*
- *“So how [is it] transmitted? Like between two people, like I’m saying, through sweat?” (African-American male, Atlanta)*
- *“Is it a disease...where you might share a cigarette with someone or something, or just you that ate the wrong food [and] you catch it?” (African-American male, New York)*
- *“How does it start? Can it start in your body, or do you have to get it from somebody else?” (Caucasian female, St. Louis)*
- *“It’s like, are we born with this particular disease from birth and maybe later in life it comes out once in a while?” (African-American male, New York)*

iv. Low-Risk vs. High-Risk. Many participants reported that they found the information about high-risk and low-risk HPV important and preferred Brochure B's description of it. Overall, participants consistently expressed confusion about the differences between the two types. Some Caucasian women in Atlanta did not feel that any risk for a STI could be considered a "low risk."

- *"I think it's kind of weird where it says that there's high-risk and low-risk, because I feel if you're getting some type of STD, I think it's a high risk by itself." (Caucasian female, Atlanta)*
- *"How do you know that you have one or the other [high-risk or low-risk]?" (African-American female, Atlanta)*
- *"What they say right here is that the low type is not a cell change, but the high is, what's the difference? It could cause cancer to a woman but not to a man? What's the differences between a female, what's the situation?" (African-American male, New York)*
- *"How do you know when you got high or low-risk, when you get cancer it's high-risk in a woman? That's how you find out? Or will the doctor check it out?" (African-American male, New York)*

v. HPV vs. Other STIs. Another area of confusion centered around whether HPV and HIV/AIDS are similar or somehow related to each other, due to the similarity in the acronyms and the fact that both are sexually transmitted viruses. Some participants reported that they thought HPV was HIV or another form of HIV, creating confusion over the potential seriousness of HPV. This perception is consistent with feedback from earlier concept-testing focus groups.

- *"Yeah, and genital warts, I don't care what it is, you tell me HPV, I ain't trying to hear you, you know what I'm saying, and I'll admit, me as a person not knowing what it is, and you say it's HPV, I'm like what is that...sounds like HIV to me." (African-American male, New York)*
- *"Nobody really likes to see the HPV. [Moderator: Why, what does it remind you of?] You know, that HIV." (African-American male, Atlanta)*

In addition, a small number of African-American women expressed confusion about the difference between HPV and herpes simplex virus. Confusion seemed to stem from the fact that both herpes and HPV can cause warts or sores. One African-American woman who understood the difference between the two explained that HPV is analogous to herpes in that neither can be cured, but both can go away and come back on their own.

- *"That it leads to cancer and warts and stuff like that. It kind of left me confused because warts in HPV is kind of similar to herpes too." (African-American female, Atlanta)*

- *“You see them commercials for the genital herpes, there’s no cure, but it goes away, but it comes back, it’s one of those kinds of diseases.” (African-American female, Charleston)*

vi. Relationship Between HPV and Cervical Cancer. While participants largely understood that HPV is not the same condition as cervical cancer, some participants expressed difficulty understanding how they are related to each other and how one can lead to the other. Caucasian and African-American men and Hispanic women all asked for clarification of how HPV and cervical cancer are connected.

- *“Yes, I would put it’s not cancer, [but] it gets confusing.” (Hispanic female, Los Angeles)*

Hispanic women and African-American and Caucasian men also asked about the percentage of individuals with HPV who later develop cervical cancer. When the moderator in some Caucasian male focus asked the participants to guess the percentage of people who develop cancer, based on the information provided within the brochure copy, the participants responded that it was probably very low.

- *“The scariest word in the whole thing was ‘cancer,’ and they don’t give you how many people actually get cancer from it. They made it sound like not too many, but they didn’t give any evidence or any support. Was it maybe like one-third of one percent that actually get cancer from this disease? Or is it 33 percent? It doesn’t sound like it’s anywhere close to 33. It sounds like under one percent.” (Caucasian male, St. Louis)*

After reading the Spanish-language version of Brochure B, Hispanic women in Los Angeles expressed confusion about how HPV can disappear on its own but cancer cannot. In addition, some women wanted clarification on the fact that HPV can lead to other diseases, but other diseases cannot cause HPV.

- *“[It says that] there are diseases that cause HPV or are related to HPV, but I think that they mean HPV can cause certain diseases.” (Hispanic female, Los Angeles)*

Some Hispanic women also expressed confusion about the fact that while HPV has no cure, there is treatment for cervical cancer, if it is caught early.

- *“There’s some things that are contradictory I think. It says...there’s no cure for HPV, but the symptoms can be...treated.... And it’s possible to cure this if it’s detected at early stages and if you continue treatment as indicated...that confuses me a little because it says there’s no cure, and here it says that it’s possible to treat it.” (Hispanic female, Los Angeles)*

vii. Pap Test vs. HPV Test. Several African-American, Caucasian, and Hispanic women expressed uncertainty about the relationship between the Pap and HPV tests. Participants were

unsure whether Pap tests check for HPV, and about whether or not testing is needed, since many HPV infections clear on their own.

- *“So they can tell you if you have HPV when you get your Pap smear?” (Hispanic female, Los Angeles)*
- *“Yes, of course we know that through the Pap test is how you can determine that you have HPV.” (Hispanic female, New York)*
- *“Do I need to make sure my healthcare provider is testing for this so I do not get cervical cancer?” (Caucasian female, Atlanta)*
- *“It’s saying it’s not necessary to submit to any tests, but then it says it is important to have the test. So, it’s telling you at first that it’s not necessary for you to test, but yet it is necessary. They should eliminate ‘it is not necessary.’” (Hispanic female, New York)*

viii. Racial Disparities in Cervical Cancer Incidence. While most of the Hispanic participants understood that cervical cancer incidence is higher among Hispanic women and acknowledged that they are less likely to receive regular Pap tests or check-ups, some interpreted the content to mean that they also have a greater incidence of HPV than the general population.

After reading Brochure A, a few Hispanic women were offended by the statement about higher incidence rates among Hispanic women, because they perceived it to suggest that Hispanic women have more sex partners. In addition, a few Hispanic women in New York misinterpreted the higher incidence rate to mean that Hispanic women have a genetic predisposition to HPV. These women requested clarification on why Hispanic women have a higher risk of cervical cancer.

- *“Why are Hispanic women at a higher risk than others?” (Hispanic female, Los Angeles)*
- *“So we as Hispanics, when we go to the doctors...we are lazy and sometimes we’re shy, we’re embarrassed.” (Hispanic female, Los Angeles)*

Hispanic men and women both reported that Brochure B was far more respectful to Hispanic women, in part because it provided reasons for the higher incidence of cervical cancer among Hispanic women. However, many Hispanic female participants still wanted a greater explanation of why their rates are higher.

- *“The other one [Brochure A] is saying Latina women because they don’t go. Here it is saying that Latinas, giving a reason why they don’t go to the doctor. It is more respectful towards Latinas.” (Hispanic male, New York)*

- *“They need to explain more why Hispanic women get it more.” (Hispanic female, Los Angeles)*

2. Feelings of Discomfort

A key goal of the materials tested in these focus groups was to avoid or minimize feelings of discomfort about HPV, cervical cancer, and Pap testing. Some information that appeared to prompt reactions of discomfort may be unavoidable because it reflects science that either is inconclusive or yields findings that are unsettling or unexpected.

i. Ineffectiveness of Condoms for HPV Prevention. Most participants, particularly Hispanic women, Hispanic men in Los Angeles, and Caucasian men, expressed feelings of discomfort in response to statements about the ineffectiveness of condoms for HPV prevention. One Hispanic woman exhibited disbelief. These participants often expressed a feeling of hopelessness that there is no proven method for preventing HPV short of abstinence, which was not perceived to be a viable option. Some Hispanic women felt that information about condom ineffectiveness should not be included in the materials since it could discourage condom use in general.

- *“I imagine that they shouldn’t say that even if you use [a condom], it won’t work; they should say something more positive like...use it regardless, because it is the only salvation we have.” (Hispanic female, Los Angeles)*
- *“If the condoms do not prevent it, they have to say, I mean, what can you use to prevent it?” (Hispanic male, New York)*
- *“They say even if you wear a condom you can still get it. What else can we do?” (Caucasian male, St. Louis)*

Even those participants who did not directly express discomfort often expressed feelings of surprise and named condom ineffectiveness as a key message they took away from reading the brochure copy.

- *“Even with [a condom], you have the ability to contract this and many people are under the thought that with condoms, you can prevent everything, everything is fine and you can do whatever. But what this is saying is that even with a condom, you still can get an infection.” (Hispanic male, New York)*

Some men wanted definitive guidance about whether or not condoms are a recommended strategy for prevention. While they reported feeling confused, other comments expressed during the discussion suggest that they understood that condoms do not prevent HPV, and were expressing a need for clarification as part of an overall response of general hopelessness/surprise that “not even condoms” can prevent HPV. The participants were left wondering how to reconcile this new information with existing beliefs that condoms should be used to prevent HIV and other STIs.

- *“At one point it says ‘condoms have not proven to prevent HPV,’ but on the back it will talk about low risk with using them. I mean I don’t even know if it prevents it. It kind of twists your mind a little bit.” (Caucasian male, Charleston)*
- *“It says abstinence is the best way, but condoms are not recommended as primary strategy. So that was kind of confusing.” (Caucasian male, St. Louis)*

ii. Asymptomatic Nature of HPV. In the concept-testing focus groups conducted previously, many participants were upset to learn that HPV has no symptoms, so one may not be aware of having it and could transmit it unknowingly. In this round of focus groups, the fact that HPV has no symptoms generated some concern among African-American women. Those who were concerned seemed to express feelings of anxiety after reading the first brochure, regardless of whether it was version A or B. While the initial reaction from African-American women appeared to reflect concern and fear, after greater discussion, most women became more frustrated than nervous about the lack of symptoms.

- *“[What’s shocking to me is] the amount of people don’t know that they have it. It’s like a disease that is passed on and been passed on. (African-American female, Atlanta)*
- *“It’s good information, but it’s scary also that you could have had it and you wouldn’t have known it.” (African-American female, Charleston)*
- *“I feel it was kind of scary because you have no symptoms, and you never know you even had it, or have it, so it was kind of scary to me.” (African-American female, Charleston)*
- *“I felt like she said, scared....You don’t know who got this or not and you don’t know whether you got it or not... You don’t know if you have it because it goes away on it’s own, so if you don’t know you have it.” (African-American female, St. Louis)*

iii. Gender Disparities in Diagnostic Technologies for HPV. Both male and female participants expressed concern and frustration when they learned there is no approved HPV test for men.

- *“B just tells a man there is nothing he can do. Tells a woman the things she can do. She can get tested, but it just tells you there is nothing we can do.” (Caucasian male, Charleston)*
- *“It’s really scary for the men because there’s really no test available to check if they have it.” (Caucasian female, Charleston)*

3. Stigma

Another important goal of this round of focus group testing was to gauge any perceived associations of stigma with HPV and cervical cancer that may have unintentionally been introduced by the materials. CDC’s exploratory research, as well as other published research,

has suggested that the sexually transmitted nature of HPV could stigmatize both HPV and cervical cancer, which could negatively impact current and future prevention strategies for cervical cancer.^{1,2,3,4,5,6,7}

However, participants in the current materials testing focus groups did not appear to assign significant stigma to the issues of HPV, cervical cancer, or Pap testing. This likely was due to the fear- and stigma-reducing context that was provided for the key messages within the materials.

However, some participant reactions to the tested materials generated comments about stigma and feelings of blame or shame that were associated with sexuality and STIs in general. These sentiments were voiced in response to specific elements of the brochure copy, as well as in reference to participants' general views of STIs. Following is a discussion of various content elements that seemed to arouse these stigma-associated feelings shame and blame.

i. HPV as a STI. Hispanic men and women, Caucasian women in Atlanta, and African-American men in New York felt that a diagnosis of HPV – or any STI – would facilitate accusations and suspicions of infidelity within a relationship. This sentiment was particularly strong among Hispanics, who said it was extremely difficult for them to conceive of a STI diagnosis in the context of a monogamous relationship unless there had been infidelity. It is important to note that these comments reflected participants' existing beliefs and concerns about a hypothetical STI diagnosis, rather than feelings or concerns that were induced by the brochure copy (text) itself. Nonetheless, it is important to note the perspective from which some audiences may interpret this content.

- *“If I know how you get this thing, I’m thinking she got it from another man, if she tests positive for HPV.” (African-American male, New York)*
- *“It has to be one or the other, the man or the woman that has been unfaithful.” (Hispanic female, Los Angeles)*
- *“Discussing HPV with your partner would probably result in an argument.” (Caucasian female, Atlanta)*

It may be possible that the mere identification of HPV as a STI evokes or reinforces existing stigmatizing attitudes and beliefs, or that this association may preclude some audiences from accepting educational materials about HPV. For example, a small number of Hispanic women in one focus group commented that they would be uncomfortable picking up a brochure that addressed a sexual topic in public. Others, however, disagreed and reported they would not feel embarrassed to access information about HPV if it was made available in a doctor's office or other clinical setting.

ii. Cervical Cancer Link to a STI. Although some participants suggested that they might feel stigmatized if diagnosed with HPV or another STI, participants by and large did not appear to attach this stigma to women who either have cervical cancer or receive an abnormal Pap test. There were a few exceptions to this finding among one Caucasian male group in St. Louis and one African-American male group in New York. When asked directly what kind of woman they

think would get cervical cancer, a few Caucasian men in St. Louis reported that it might be women who were not careful when selecting their sex partners. One man mistakenly thought poor hygiene could lead to a STI.

- *“Maybe women who don’t take very good care of themselves, maybe hygienically.” (Caucasian male, St. Louis)*
- *“Perhaps he means that openly having sex with people who themselves may not be clean.” (Caucasian male, St. Louis)*

One African-American man in New York also mentioned that he would be concerned if he learned his girlfriend had cervical cancer because it would imply that he had HPV. The phrasing of his comment may suggest that this information would be shocking or upsetting to him.

- *“The way you find out you have it is if the girl has it, that’s how it comes back to you, she got cancer of the cervix, I got HPV, man, that look on your face.” (African-American male, New York)*

By and large, the female participants did not express any perceived stigma associated with cervical cancer or Pap testing as a result of learning about HPV. The exception to this finding was among a small number of Hispanic women in New York who believed that women with cervical cancer were likely to have had a greater number of sex partners, and as a result were offended by statements about the higher rate of cervical cancer among Hispanic women. Women did not express being any less likely to get a Pap test as a result of learning about the cervical cancer-HPV association. In fact, women in all audience segments consistently reported that the materials motivated them to get regular Pap testing.

iii. Unequal Burden of Diagnosis on Women. For some, the fact that HPV testing only is available for women generated assumptions that only women carry and spread HPV. This led Hispanic women in two of the three focus groups to feel significant insecurity and concern that it makes them primary targets for blame. These comments were made in reference to the general issue of there being no HPV test for men, not in relation to a specific version of the brochure.

- *“It is still a little, sort of blaming the woman more. It has more information for the men, but at the end of the brochure, it is still almost the woman’s fault.” (Hispanic male, New York)*
- *“Men could be the one carrying it, not just us.” (Hispanic female, Los Angeles)*
- *“Since they talk so much about women, it would give some people the impression that the women, you get it from the women.” (African-American female, St. Louis)*

- *“That means that a woman can contract it from a man and that man can say, well, since I don’t have anything you have the problem. You’re the one that gave it to me.” (Hispanic female, New York)*
- *“The man has that machismo and he blames the woman and they just wash their hands of the whole thing. Of course, they could be the ones carrying it and not just us.” (Hispanic female, Los Angeles)*

While some content appeared to elicit associations of blame and shame, other content seemed to mitigate and even eliminate these negative associations.

iv. “No Blame, No Shame” About Genital HPV. Given many people’s concerns about stigma associated with a STI diagnosis and resulting accusations of infidelity, all of the audience segments reported that they liked the emphasis placed on the “No Blame, No Shame” message, and commented that, in general, this content adequately deflected much of the potential stigma that they or their partners would feel about HPV. One African-American woman in St. Louis, for example, explained that the “No Shame, No Blame” section made her feel that HPV was something as innocent as a cold sore.

- *“It’s a cold sore or something, you know. That’s what it sound like....Like you get a cold sore, and it goes away, and you don’t know where it came from, but it just popped up one day. And you don’t know who you got it from.” (African-American female, St. Louis)*
- *“You don’t necessarily know who you got it from, so you don’t have to be concerned about if your partner is cheating.” (Caucasian female, Atlanta)*
- *“It just seems like it’s just random. You can get it or you may not....It almost seems like you can’t really prevent it. It’s either going to happen or it’s not. Kind of luck of the draw.” (Caucasian male, St. Louis)*
- *“Even if you have it, it might not show up for years, so don’t kick your man to the curb because he probably had it in high school.” (African-American female, Charleston)*

Hispanic men and women preferred the wording of the “No Shame, No Blame” section of Brochure A, which they identified as being more destigmatizing than the corresponding section in Brochure B. This section was highlighted in a box in version A, but was less prominent in version B. Many participants also said that Brochure A did a better job of encouraging them to discuss HPV with their partners with guidance on broaching the issue.

- *“In A, it explains to you how to talk to your partner.” (Hispanic female, Los Angeles)*

v. HPV as a Common Public Health Issue. In addition to the “No Shame, No Blame” section in the Spanish Brochure A, part of its destigmatizing appeal among Hispanic participants related to its focus on HPV as a “community” issue rather than a personal issue. This was particularly

true for some Hispanic women, who stated that they would not be embarrassed or ashamed of HPV because it is so common. By framing HPV as a community issue and providing encouragement and guidance for individuals to discuss the issue with their partners, Version A of the Spanish brochure was perceived to be more helpful and supportive.

- *“I like pamphlet A because it’s referring to the entire community and not just one person who has a lot of partners, but that it’s a problem at a community level and not just an individual.” (Hispanic female, Los Angeles)*
- *“What I liked about A a lot is that it’s discussed, coming back to the community and not just sexually, people that are sexually active.... A because it involves everyone... it doesn’t point you out or make you feel guilty.” (Hispanic female, Los Angeles)*
- *“It’s not shameful. It’s a common thing. It doesn’t mean that you are loose because you have HPV.” (Hispanic female, Los Angeles)*

Similarly, some African-American and Caucasian participants found the information emphasizing HPV’s common nature to be destigmatizing because it suggests that anyone who is sexually active can get it. Participants in at least one focus group in each of the African-American and Caucasian audience segments voiced the sentiment that information about HPV being very common is reassuring or alleviates their fear of the virus.

- *“It just makes it seem like it’s okay to have it because everybody has [it], it’s a common disease.” (African-American female, St. Louis)*
- *“It was common. It’s nothing really to worry about, but it’s common so I should kind of know because it would infect me possibly.” (Caucasian male, St. Louis)*

While information about how common HPV is generally helped to destigmatize the issue and make it seem less threatening, there were some exceptions to this response. Specifically, statements about HPV being so common in Brochure A led some Hispanic women to fear that they could have it.

- *“It makes me nervous because it says many people have it. About 50% I think it says that people have it. And I’m afraid. I say wow, I have to check myself because you never know.” (Hispanic female, New York)*

It may be argued, however, that personal relevancy and a certain degree of anxiety are necessary to motivate behavior change, in this case, the pursuit of regular cervical cancer screening for women. While some women found the language in Version B harsh and direct at times, they also acknowledged that a wake-up call was what they needed to prompt action.

- *“B is harder on me, it will motivate me more to go to the doctor.” (Hispanic female, Los Angeles)*

- *“This one would make me that much more apt to get a Pap smear.” (Caucasian female, St. Louis)*

4. Apparent Contradictions

Some participants identified specific facts or pieces of information as contradictory. In many cases, these contradictions reflect the fact that the current state of HPV science is inconclusive on particular topics and does not offer many clear-cut answers.

i. Gaps in Science. Some participants were skeptical or frustrated by the fact that current HPV science is not definitive.

- *“All the studies and stuff they had, you would think they would know something about it and they know absolutely nothing.” (Caucasian male, Charleston)*
- *“I don’t understand why they are talking about HPV when they don’t know exactly what it is and what it causes. Just tell us about cancer instead. Just tell women to get a Pap smear regularly.” (Caucasian male, St. Louis)*

ii. Known Prevalence of HPV despite Lack of Diagnostic Tests. Some participants expressed skepticism about how HPV has been identified as the most common STI in the U.S., given the lack of an approved HPV test for men.

- *“How can they know it is the most common sexually transmitted infection in the U.S.? How do they know it’s the most common if there’s no test for it?” (African-American female, Charleston)*

iii. There Is No Cure vs. HPV Goes Away On Its Own. Caucasian men and women, and some Hispanic women, identified statements in version A about HPV having no cure as being incompatible with information in version B, stating that HPV often goes away on its own. Some participants interpreted the version A statement, “there is no cure for genital HPV” to mean that an individual’s case of HPV would never go away once it was contracted. This generated some confusion and led some participants to question which of the two statements is true, and which is incorrect. The participants’ confusion may partially have been a result of the way the information was worded and presented. At the same time, however, it also was a reflection of the fact that many participants had a great deal of difficulty reconciling how an infection can be both incurable and transient at the same time

- *“It kind of contradicts itself. In the first paragraph it says how it can go away on its own. Then down here it says there’s no cure. So does it go away on its own, or is it curable?” (Caucasian male, St. Louis)*
- *“The only thing that confused me is that it says there is no cure for HPV. I thought it went away on its own.” (Caucasian female, Charleston)*

- *“One of the other things that surprised me was that in the other, the one before, it said there was no cure.... It didn’t say that it goes away completely, but here it says it can go away on its own. It goes away.” (Hispanic female, Los Angeles)*
- *“I read both and now I am doubtful. Does it disappear or not? Or am I always going to have it because one already told me there was no cure so I already thought it would just be there all the time.” (Hispanic female, Los Angeles)*

iv. Role of Hygiene and Circumcision. In the Spanish-language version of Brochure B, there was some confusion among Hispanics about the role of hygiene and HPV infection. In particular, some participants did not understand how hygiene could be unrelated to HPV exposure if a male’s lack of circumcision increased one’s risk of HPV.

- *“It says that it is more common if you are with a man who is not circumcised, but at the same time it says that it has nothing to do with hygiene, I don’t understand.” (Hispanic female, Los Angeles)*
- *“The infection can be given when you are not hygienic.” (Hispanic male, New York)*

5. Missing Information

At times, participants requested additional information about the following HPV topics.

i. Insufficient Information for Men. While both male and female participants in all of the audience segments reacted positively to what they perceived as Brochure B’s greater amount of information for male readers, male participants tended to want information that they knew was designed for them. Without a special emphasis on the relevance or importance of information for men, male participants tended to perceive that HPV is primarily an issue of concern for women – a finding consistent with the earlier concept-testing focus groups. Additionally, participants noted a need for gender-specific information to be presented separately within the brochure. Some Hispanic women believed that including information specifically for men would encourage partners to read the information together and help facilitate communication about the issue.

- *“Both pamphlets jump from men to women, sometimes in the same paragraph, sometimes in the same sentence. It should be one side of it should be dedicated to men and one should be dedicated to women.” (African-American male, New York)*
- *“It really doesn’t have information about the men, there is information for women. It’s more directed toward women.” (Hispanic male, Los Angeles)*
- *“ [Brochure B is] a lot more clear as opposed to being thrown together what men have to look for and worry about, and what women have to look for and worry about.” (Caucasian male, St. Louis)*

ii. Vertical Transmission of HPV. A few African-American women and one Hispanic man in New York said they wanted information about how HPV affects the health of an unborn child. This theme was not prominent, however.

- *“If the woman becomes pregnant, is the baby going to have that virus for the rest of its life?” (Hispanic male, New York)*
- *“Can it be passed to your child?” (African-American female, St. Louis)*

6. Terminology

Participants expressed preferences for specific words and terms in the brochure content, or identified certain terms as needing clarification. These preferences are described below.

i. Virus vs. Infection. The vast majority of participants in both the English- and Spanish-speaking focus groups preferred use of the term “virus,” rather than “infection.” They believed that there may be no treatment for a virus, whereas an infection can be cured through treatment. Participants also perceived virus to sound more serious and attention-getting than infection.

- *“I would say infections are curable. Infections, you get yourself some antibiotics and you’re cool. A virus...you can’t get rid of.” (African-American female, St. Louis)*
- *“People want to know about a virus more. They are more interested in knowing about a virus.” (Hispanic male, Los Angeles)*
- *“[Virus] would be more likely to catch someone’s attention. If they’re just glancing over something ...they would be more likely to read it if it said virus.” (Caucasian female, Charleston)*
- *“When I see infection, I think it can be treated with an antibiotic.” (Caucasian female, Charleston)*

ii. Confusing Spanish Words. Various terms within the Spanish-language brochures caused confusion among Hispanic participants. Some of these words were common to both versions, while others were specific to version A or B. The following words were consistently cited as requiring clarification in both brochures:

- Vinculados (linked)
- Caucasicas (Caucasians)
- Protuberancias (growths)

The following words were noted as causing confusion in Spanish Brochure A:

- Sistema Inmunologico (immune system)
- Proclives (monogamous)

- Circuncidar (circumcision)
- ADN del HPV (HPV DNA test)
- Propaga (contagious)
- Monogamica (monogamous)

The following terms from Spanish Brochure B consistently were cited as requiring clarification:

- Denominan (are called)
- Hombres sin circuncidar (men without circumcision)
- Indoloras (painless)
- Anormalidades (abnormalities)

iii. Preferred Spanish Reference for HPV. Although several participants in one Los Angeles Hispanic female group preferred, “HPV,” the majority of Hispanic focus group participants overall stated that the Spanish translation, “VPH,” should be utilized for the Spanish-language materials.

- *“For Hispanic people, VPH.” (Hispanic female, Los Angeles)*
- *“Because that’s how it is in Spanish, this is how the initials would be in Spanish.” (Hispanic female, Los Angeles)*
- *“I think it needs to be understandable for us. I don’t think it matters, the order.” (Hispanic female, Los Angeles)*

E. Reactions to Brochure and Poster Designs

Three separate sets of brochure and poster designs were tested. For the purpose of identification, they were presented as Couple, Group, and Individual, based on the dominant images utilized in the design. Across all groups, the three designs were presented at the same time and subsequently discussed one by one, after participants had completed ranking sheets. *A complete set of the brochure and poster designs tested in the groups can be found in Appendices G1-12. Preference tallies are provided in Appendix D.*

The Individual design was the preferred design by the majority of participants, with 57 participants across all groups ranking it as their favorite, compared to only 27 votes for the Couple design and 38 votes for the Group design across all segments. This was largely due to the concept’s images and the headline. Most participants responded favorably to the inclusion of photos representing a diversity of gender, race, and ethnicity, commenting that they related well to the images. They also liked the concept of the individual since HPV is a concern for everyone. In addition, participants thought that the serious tone reflected by the images was appropriate for information about a sexually transmitted virus. For the headline, participants across all groups remarked that the “50%” statistic as well as the use of the word “Fact” was extremely compelling. There were some mixed reviews regarding the design’s muted green

color. However, it generally was considered to be eye-catching and acceptable by the participants.

The Group design ranked second among the three designs, according to the number of participants who ranked it as their first or second choice in their ranking sheets. In particular, Hispanics seemed to like the design and were more evenly split between this design and others when voting for their favorite. Overall, the image of the group of people received mixed reviews. While some participants appreciated the message that the people in the photo could have HPV and not realize it, others felt that the Group image was too light-hearted for materials about a serious health issue. The headline generally caught participants' attention. However, it was not rated as highly in the ranking sheets as the Individual headline. There were many positive comments about the color scheme of this design, especially among the African-American men and women, and among the Hispanic women.

The Couple design was ranked as the least favorite among the three options (according to ranking sheets), eliciting some strong negative reactions from participants. While participants generally liked the colors, the image and headline did not capture their attention or seem as relevant to them as the other designs. However, the Caucasian and Hispanic males favored this design more than the other groups. Some individuals felt that the image of the couple seemed to denote that even people in monogamous relationships can get HPV, though others saw it as an issue only for those in relationships. This perception resonated well with individuals who were currently in relationships, but generally was rejected by those who were single. The headless aspect of the photo also received mixed reviews, as some participants liked it because they thought it related to people across races, genders, and sexual orientation, while others perceived it to be too impersonal.

Participant reactions to each design are discussed in detail below.

1. Individual Design

As mentioned above, the Individual design was the overwhelming favorite among participants across all of the groups. In particular, African-American males and Caucasian females favored this design. On the participant ranking sheets, this design rated particularly high on traits, such as “eye-catching,” “well-organized,” “informative,” “liked headline,” and “would read.”

Headline

“Fact: At least 50% of sexually active people will get genital HPV. Talk to your health care provider about how this common virus can affect your health.”

One of the primary strengths of the Individual design was the headline. Many participants commented on the power and impact of the “50%” statistic, noting that it captured their attention and made them think about the prevalence of HPV. For some participants, the mention of 50 percent indicated that research had been conducted, making the information valid and worthy of their attention. Similarly, the word “Fact” prompted many participants to pay attention to and trust the information presented. The “Fact” and “50%” statements, while not scary, were believed to provide a necessary level of credibility and seriousness.

- *“They say 50% of sexually active people will get HPV. That got my attention.” (African-American male, Atlanta)*
- *“The first thing you see is facts. People like facts. If you are saying something about facts, I am listening.” (African-American male, Atlanta)*
- *“I liked it because 50% is just an alarming number.” (Hispanic female, Los Angeles)*
- *“50% shows that some big studies [have been done] on it.” (Caucasian female, St. Louis)*

Image

Most participants reacted positively to the images in the Individual design. In particular, they appreciated the diversity of races and genders represented in the pictures, and felt they could relate to the concept since it suggested that anyone is at risk for HPV. They also liked the montage of individual images because it reinforced the idea that every individual needs to be aware of HPV. Lastly, the serious tone depicted by the people in the photos was perceived to be appropriate for the subject of HPV.

Some African Americans, Hispanic males, and Caucasian females thought that the photos could depict even greater diversity. They suggested including Asian and other racial/ethnic representation, in addition to the audience segments shown.

- *“They look like people that you might know. You can relate to the pictures.” (African-American male, Atlanta)*
- *“It could be me. It could be her. It could be anybody.” (African-American female, Charleston)*
- *“It doesn’t individualize. It is men and women, and it is very informative.” (Hispanic female, New York)*
- *“The pictures are reinforcing that this can be something for anyone – because of the varied people in the poster.” (Caucasian female, St. Louis)*

When asked about the importance of including an image of a healthcare provider in the brochure, most participants reacted favorably and responded that it is appropriate for these types of materials. However, most participants did not comment on the inclusion of the image without probing. African-American males tended to comment more on the words referring to the healthcare provider than the picture. In addition, some Caucasian males preferred the photo to include a provider talking to both a man and a woman.

- *“Healthcare provider – It is important to talk to your doctor and get some information on it.” (African-American male, Atlanta)*

- *“You see a doctor and right away, you think it is a warning.” (Hispanic male, Los Angeles)*

One African-American woman in Charleston expressed frustration with the inclusion of a photo of a healthcare provider. She thought it was a scare tactic to pressure people to see the doctor, and assumed that a doctor’s visit really was not necessary, based on what she understood from the HPV information that had been provided.

- *“I think that this whole thing is trying to say go to the doctor, and that’s why I don’t like it, ‘cause it is trying to scare people into going to the doctor, and it shouldn’t do that.” (African-American female, Charleston)*

Color

The Individual design’s color scheme generally was well received. Most participants thought that the green color was a unique, eye-catching, and appropriate feature. However, some participants thought the color was unattractive. Several Hispanic participants felt that the green should be contrasted with a second, complementary color. African-American men and women in particular suggested using brighter colors. Several participants commented that the color reminded them of a hospital. While some individuals perceived this to be a negative trait, others found it to be positive since the materials convey health messages.

- *“The colors are brighter compared to the others.” (Hispanic male, Los Angeles)*
- *“I like the green. It’s very stimulating, very energetic.” (Caucasian female, St. Louis)*
- *“You don’t see too many green pamphlets [anywhere] so it stands out.” (African-American male, Atlanta)*
- *“I think the green is monotonous.” (Hispanic female, Los Angeles)*
- *“The color is sterile and scary.” (Caucasian female, Atlanta)*

2. Group Design

The Group design came in second place as the participants’ favorite design overall. On the ranking sheets, participants reported that this design was eye-catching, informative, well organized, and that they would read it. As mentioned above, the Group design’s headline was not as well received as that of the Individual design, but many participants commented on it favorably.

Headline

“Many people don’t know about genital HPV. Most don’t know they have it. Learn about this common infection.”

Many male participants across all groups and African-American females in St. Louis favored the information that was provided within the Group design. These participants perceived the message about having HPV and not knowing it to be especially compelling, juxtaposed with the image of people smiling and laughing. Many participants found this contrast to be meaningful and interesting.

- *“People don’t know. No one knows they have it is a shocking headline.” (African-American male, New York)*
- *“It’s important that everyone knows, not just you, and if you are informed, you can inform your friends. I think it is important that everyone would be aware in this regard, informed.” (Hispanic male, Los Angeles)*
- *“It’s telling me that I don’t know, and I am curious.” (Caucasian male, Charleston)*
- *“I liked the headline. It is eye-catching. Even before reading the brochure, the [people] can look at it and know it’s a common infection from the title.” (Caucasian female, Charleston)*

Image

The focus group participants had both positive and negative feelings about the central image within this design. In particular, African-Americans and Caucasian males thought it was powerful to combine a visual of happy people with the message that many people are unaware of HPV. Others, however, were uncomfortable thinking about a group of people having fun while being unaware of HPV. They thought the light-hearted image was not appropriate for a serious health concern like HPV.

- *“You look at them and go, ‘This is a disease. Why are they laughing?’” (African-American female, Atlanta)*
- *“I think they may be happy because they don’t know they have it yet.” (Caucasian male, Charleston)*

There were some notable differences across the focus groups. Some Caucasian female participants did not like and ultimately dismissed the image because they thought it represented people who have multiple sex partners, which they said they couldn’t relate to because they were in monogamous relationships. A few Caucasian women also felt uncomfortable with the degree to which the people depicted in the image were touching one another. Hispanic women, however, related positively to the social implications of the photo. Hispanic men felt that the group image was inclusive, suggesting that not only they, but also their friends, need to know about HPV. They also believed that the photo appropriately reflected the social lives of Hispanics, which captured their attention. Some African-American men commented that there should be more diversity within the group photograph.

- *“They seem like Latino people, and it attracts your attention. It looks like they are going out to a nightclub and that attracts my attention more.” (Hispanic male, New York)*
- *“It says a lot of people don’t know and I thought, ‘Well, I am one of them. I am just now finding out.’” (Hispanic female, Los Angeles)*

The inclusion of a healthcare provider image within the brochure design did not impact the participants in either a positive or a negative way. However, some participants noted that the patient depicted within the brochure looked frightened or depressed.

Color

As with the primary image, the color of the Group design evoked strong responses on both sides. Many African-American men and women across all of the groups responded favorably to the colors and layout of this design. However, of all the male groups, the Caucasian males were the only participants who commented on this aspect of the Group design in great detail, and they generally did not like the color.

- *“It didn’t catch my attention – the colors and how the graphics were put together.” (African-American female, Atlanta)*
- *“It’s beautiful [but] I can’t take it seriously. They are just making me laugh because they are laughing.” (African-American female, Atlanta)*
- *“It is really appealing, the colors, the picture.” (Hispanic female, Los Angeles)*

3. Couple Design

Although many participants across all of the groups provided positive feedback about the Couple design, it received the least number of votes as the best overall design. African-American males and Hispanic women, in particular, did not select this design as their favorite. The rating sheets reflect that participants generally thought the design was eye-catching; liked the images and colors; and would read it. However, this design received low scores for organization, quality of information, and attractiveness, with the exception of some Hispanic focus group participants, who gave it a higher attractiveness rating.

Headline

“Genital HPV. If you’ve ever been sexually active, here’s what you need to know.”

The headline for the Couple design received some positive remarks, but generally was not considered to be as informative as the other headlines.

- *“Doesn’t give much information.” (African-American male, Los Angeles)*

Many participants reacted positively to the message that anyone who is or has been sexually active could have HPV. Participants also responded that the term “genital HPV” effectively

captured their attention. The headline was especially appealing to participants who were currently in relationships, who acknowledged that even they could be at risk.

- *“I like the poster when it says, ‘If you had relations at some time.’ It is saying that even though you may have relations with one person, this is what you need to know, that you can have this [disease].” (Hispanic female, New York)*
- *“It was eye-catching. I like the title. ‘Genital HPV’ stands out. It does relate to me. I’d read it right off the bat.” (Caucasian male, St. Louis)*
- *“As a couple, you have to read it together. This would appeal to me because of the title.” (Hispanic female, Los Angeles)*

The statistics presented within this design also were appealing to some participants, particularly the New York Hispanic men and women and St. Louis Caucasian men.

Image

While participants seemed to understand the core themes reflected by the image of the Couple design, their reactions to it varied. People who were in relationships appreciated the image of the couple, responding that it made HPV relevant to those who are monogamous, with the underlying message that you still can get HPV even if you’ve only been with one person. Others derived the same interpretation of the image, but felt that it was excluding those who are single, which presents a problem since one does not have to be in a relationship to get HPV.

- *“I liked the picture. It was saying that you don’t have to be messing around to have it. You can be in a relationship.” (Caucasian male, Charleston)*

The depiction of the couple from the shoulders and below also received mixed responses. Some participants liked that there was no “face put on the disease,” emphasizing that anyone can get HPV. Others reported they could not relate to the image. In some cases, participants thought the image depicted a same-sex couple and therefore assumed that the design sought to imply that HPV only is relevant to same-sex couples.

- *“The head’s cut off. It’s, like, disengaged. I don’t care about it anymore.” (African-American male, New York)*
- *“You know, how their heads are cut off. It could be anybody.” (African-American female, Charleston)*

Some participants commented that the design resembled STI-related posters that they had seen before, and therefore it had no impact on or appeal to them. Some participants – mostly females – thought the image depicted a vacation or other consumer product-related advertisement.

Color

Overall, the focus group participants responded favorably to the color of the Couple design, even if they did not select the design as their top choice.

4. Poster with Copy

Participants were shown an example of a poster design with inserted copy (text) to elicit feedback on the length of the content. Overall, participants felt that the copy either was the right amount of information or too much information. Most responded that they would only be able to read all of the text if they were sitting in a doctor's office or on public transportation. However, they would not stop to read it if they were going somewhere. Many participants across all of the groups suggested shortening the copy and bulleting or bolding the most critical HPV information to make it more prominent. Many participants responded that they liked the poster copy's inclusion of a telephone number and Web site for obtaining additional HPV information. *See Appendices H1-2 for the poster containing the copy that was tested in the groups.*

- *“For me it depends on where [it is], but if it's in the doctor's office and I'm waiting to be seen, I don't have anything but time to read it.” (African-American female, St. Louis)*

- *“It's a lot of words to be on a poster.” (African-American female, Atlanta)*

F. Reactions to Identity Images

Four identity images were presented to participants in a varied order across the focus groups. For identification purposes, following are the corresponding letters and names of each tested identity image:

- A: “HPV: It's About ME. Know it's the most common sexually transmitted infection”
- B: “HPV: You and Me. Know the Intimate Relationship”
- C: “HPV & Cervical Cancer. Know the Intimate Relationship”
- D: “HPV. Common Infection. Common Reality”

The identity images tested among the Hispanic groups were produced in Spanish. *A complete set of the identity images that were tested in the groups are provided in Appendices II-2. Tallies of the participant ranking preferences are provided in Appendix D.*

Identity images A and D tied as the favorite concepts across all groups, with each receiving a total of 47 first-choice votes overall in the ranking sheets, compared to only 18 overall first-choice votes for identity image B, and 20 first-choice votes for identity image C. The participant ratings of identity image traits show that identity image A was perceived to be “eye-catching,” “attractive,” “informative,” and “relevant to me.” Identity image D also was perceived to be eye-catching and informative, and many participants liked the tagline. Among audience segments, Hispanic men and women and Caucasian females preferred identity image A, while African-American females and Caucasian males preferred identity image D. African-American males generally were divided between the two options.

The primary strength of identity image A was its emphasis on the individual. Participants consistently responded that the concept related to them as individuals and was more personalized

than the alternative options. The supporting tagline generally was perceived to be informative. While many participants felt that the design was eye-catching, some found it to be childish and distracting.

For identity image D, participants overall were extremely positive about the use of the word “common,” and thought the design was bold and compelling. On the other hand, other participants considered this feature to be too simplistic.

With respect to identity images C and B, participants did not respond well to the heart design. Participants noted that identity image B was too “cute” and focused only on romantic relationships. They also did not like the wording and grammar of the text.

Identity image C received mixed reactions. The mention of cervical cancer was the biggest issue that surfaced. Some participants found that it captured their attention and appreciated the supporting tagline, which highlighted the link between HPV and cervical cancer. Others felt that the cervical cancer focus would alienate men and/or lead them to believe that the information does not pertain to them.

1. Identity Image A: “HPV: It’s about ME. Know it’s the most common sexually transmitted infection”

As mentioned above, image A was tied with image D as the favorite identity image across all segments. In particular, participants liked that it was eye-catching, informative, and concise. Overall, the emphasis on the individual person was favorably received, and most reported that it captured their attention because it was personalized. Hispanic women in particular liked the picture of the figure with its arms raised.

- *“It’s about you as a person, you the reader, not women or men.” (African-American male, New York)*
- *“The guy with his arms up, it sticks out a little more to me.” (Caucasian male, St. Louis)*
- *“Because it is the most common STD, it’s all about me, it’s something you need to know for yourself rather than, you know, just anybody. It’s eye-catching.” (Caucasian female, St. Louis)*

Others, however, thought that the graphic was too celebratory for a message about a sexually transmitted virus, or thought that it seemed “corny” or “cheesy.” In addition, some participants – particularly women – were uncomfortable with the direct emphasis on an individual because they felt that HPV is an issue affecting everyone.

- *“This happy person ‘It’s all about me,’ it just turned me off. I don’t think the icon is appropriate for this.” (Caucasian female, St. Louis)*

- *“It really dogged a lot of points for me with the ‘It’s about me.’ It should be more of a group awareness thing. You should know that it is not about you, it could affect other people.” (Caucasian male, St. Louis)*

With respect to the text, many participants felt the message communicated everything they needed to know about HPV, particularly that it is common and sexually transmitted. The use of the word “common” was extremely well received, and participants noted that they found it a potential source of comfort for people who are diagnosed with HPV since it explains that so many people have the virus.

2. Identity Image D: “HPV. Common Infection. Common Reality.”

Image D was tied with image A for favorite identity image across all of the focus groups. With the exception of Caucasian women, the focus group participants responded very favorably to the identity image’s supporting tagline, within their ranking sheets. They thought the design was striking and eye-catching with the bold lettering. Although the participants did not rank the identity image highly for being attractive, they gave it high marks for being informative. As with image A, the use of the word “common” was well received, and helped reduce potential stigma for participants around contracting HPV since many other people have it as well. It should be noted that some participants did find the word common objectionable within the context of identity image D, because it may make people feel they don’t have to be concerned about HPV since it is so prevalent. In addition, African-Americans responded positively to the word “reality.”

- *“I like it because...it is just bold. The best way to describe it.” (Caucasian male, Charleston)*
- *“It gives information. It tells you it is an infection. It tells you what it is and that it is common; you aren’t abnormal for having it, it’s not one in a million.” (African-American male, Atlanta)*
- *“I like it because it is direct and it is a common infection and it’s a reality.” (Hispanic female, Los Angeles)*
- *“If it says ‘common’ it’s not going to alarm me, it’s not going to stick [with] me long, I am not going to give much thought to it.” (African-American male, Atlanta)*

Some participants, however, found the simple design to be uninformative. In addition, a few individuals had trouble distinguishing HPV from HIV in the design, and noted that they thought it said HIV when they first saw it. Other participants said the identity image reminded them of identity images for commercial products or local organizations, such as the St. Louis health department.

- *“It seems like it is HIV, then I looked back and read HPV.” (African-American female, St. Louis)*

3. Identity Image C: “HPV & Cervical Cancer. Know the Intimate Relationship”

Participants across all of the groups ranked identity image C highly for being eye-catching and informative, and said they liked the phrase.

- *“I like the headliner, HPV and cervical cancer. You know one is going to lead to the other so you are going to want to learn about it.” (Caucasian male, Charleston)*
- *“Because it says the word ‘cancer’ it gets my attention.” (Hispanic female, Los Angeles)*

However, many participants did not feel it was attractive, and only some Hispanic women said it was relevant to them. As mentioned above, the main point of discussion about image C related to the mention of cervical cancer. Many of the women liked the link between HPV and cervical cancer as the emphasis of the image. Some men and women, however, were worried that the cervical cancer mention would lead men to think HPV does not concern them. Some participants also noted that they were uncomfortable seeing the word, “cancer.”

- *“I like it because the women know it is linked to cancer right there.” (African-American female, Atlanta)*
- *“As a guy I didn’t care as much for this one because it says HPV and cervical cancer. It doesn’t get a guy’s attention at all.” (Caucasian male, Charleston)*

Many participants did not respond favorably to the graphic of the two people and the heart. A few Caucasian and African-American women commented that sex does not always occur in the context of a relationship, and were frustrated with the linkage of the two figures in the image.

- *“It looks kind of cheesy, because...there is a heart. You know they are in love but they have HPV. It’s an intimate relationship with HPV.” (Caucasian female, St. Louis)*
- *“I don’t really like the hearts because not everyone associates sex with love.” (Caucasian female, Atlanta)*
- *“Why would a guy look at that?” (Caucasian female, St. Louis)*

4. Identity Image B: “HPV: You and Me. Know the Intimate Relationship”

On their ranking sheets, participants responded well to the phrase in image B, particularly among the African-American and Hispanic groups. Both the Caucasian and Hispanic participants thought the graphic was eye-catching. However, several Hispanic women noted that the identity image made them feel uncomfortable.

- *“[It] was showing the relationship and it’s telling you to know that you are involved with it and one of you has it. You know it’s me and you and we’re in this together.” (African-American female, St. Louis)*

- *I liked that it says you and I, me and my partner, and I liked the phrase get to know your intimate relationship.” (Hispanic female, New York)*

Many participants across the groups liked the identity image of the heart and couple and the overall concept of an intimate relationship. Others commented that the concept of the identity image was flawed because many sexual encounters do not involve relationships.

- *“The ‘you and me,’ know your relationship. I also liked the picture of the couple and the heart and everything.” (Caucasian male, St. Louis)*

Many participants also objected to the wording used in the image, noting strange grammar or simply not liking the phrase.

- *“I don’t like the grammar. I don’t like how it was worded.” (African-American female, Atlanta)*
- *“I don’t like the intimate relationship.” (Caucasian female, Atlanta)*
- *“I don’t like B and C because of the hearts, and ‘HPV: you and me,’ that sounds really corny.” (Caucasian female, Atlanta)*
- *“It sounds like sexual relations and it doesn’t inspire you in any way.” (Hispanic female, Los Angeles)*

G. Trusted Sources for Message Delivery

Most of the focus group participants perceived the most trusted sources of HPV information to be public health and other government agencies, healthcare providers, hospitals, and clinics. While several individuals readily mentioned CDC as a viable disseminator of HPV messages and materials, others, mostly Hispanics, were unfamiliar with the Federal agency. Many felt that CDC would be a credible source of public health information, once they understood the agency’s mission.

- *“CDC because they’re the Center for Disease Control, and they normally know about diseases even before it goes out to the public, so they know about stuff in advance and they’re already working on cures and stuff in advance for certain diseases...” (African-American male, New York)*
- *“They [CDC] are the ones that know most about it, which really isn’t much, but they know the most about it.” (Caucasian male, Charleston)*
- *“If it’s sponsored by government or by a medical society, you should have trust.” (Caucasian male, St. Louis)*

- *“I think it should be the CDC, the health departments, and people like that that should get the information out.” (African-American female, St. Louis)*
- *“Probably with me the doctors office. I have more direct contact with the doctor.” (African-American male, Atlanta)*

It is important to note, however, that some participants – particularly Hispanic men in New York and Los Angeles – indicated significant distrust of government.

- *“They are not interested in that. Maybe the clinic, a health clinic, they would be more interested. The government is more interested in money.” (Hispanic male, Los Angeles)*
- *“I don’t trust the government. When AIDS came out, they were knowing a little after it came out after so many years. That is an old disease.” (Hispanic male, New York)*

Similarly, faith-based organizations generally were not perceived to be a credible channel for delivering sexual health information.

- *“Well I don’t think it would be a church because the thing with the church is going to be abstention, so they are not going to do that.” (Hispanic male, Los Angeles)*
- *“Doesn’t really make sense – there are religions out there that don’t believe in having sex before marriage.” (Caucasian male, Charleston)*

H. Perceived Relevance of Materials to Men and Women

Most of the discussion about the relevance of materials to male and female audiences occurred within the context of discussing the two versions of brochure copy. As described above, both male and female participants identified Brochure B as containing more information for both men and women, whereas they felt version A was directed more toward women exclusively.

Participants expressed a preference for the materials to appeal to both men and women, rather than having separate materials tailored for each gender. Overall, female participants tended to feel that the materials already were targeting them, and therefore they did not require additional female-specific materials. Men across the audience segments reported that the information about Pap testing and cervical cancer led them to believe that the materials were intended for a female audience.

- *“It focuses more on the woman because it keeps mentioning about the Pap test.” (Hispanic male, New York)*
- *“[This version is directed] more toward women because it is about HPV, but it is more about cervical cancer.” (Hispanic female, Los Angeles)*

Some Hispanic men requested additional information about the health consequences of HPV in men.

- *“It causes the cervical cancer in women...for women, but men, what about men? It doesn’t have consequences for us.” (Hispanic male, Los Angeles)*

I. Reported Behavioral Intentions

Through the course of discussing the brochure content and towards the end of each focus group discussion, participants were asked what they might do, if anything, with the information they had received about HPV. A number of anticipated actions were expressed, such as talking with their doctors about HPV; alerting their friends to the virus; and in the case of women, getting regular gynecological exams. Their responses reflected an appropriate level of concern, as opposed to a sense of alarm. Overall, the vast majority of focus group participants understood the key “calls-to-action” that CDC presented within the materials and were receptive to these messages.

- *“I would say something to my doctor. I would just ask him something about [HPV] the next time I went in.” (Caucasian female, St. Louis)*
- *“Tell your female friend. Tell her to get a check up.” (African-American male, Atlanta)*
- *“I would just stay regular on my Pap tests and be concerned if that came back not regular.” (Caucasian female, St. Louis)*
- *“Ask the doctor when you have your Pap smear, ask them about this disease and how to go about finding out if you have it or not.” (Hispanic female, Los Angeles)*
- *“For me, I think that to the Latino women, they should go to the doctor with more frequency to get that Pap test, but the majority of the Latinas don’t go because of a lack of resources and not to have so many sexual relations with so many people.” (Hispanic male, New York)*

Many male and female participants responded that the newfound information would prompt them to discuss HPV with their partners.

- *“I’m gonna tell my partner, ‘look, I heard about a disease that you can have it and you don’t even know you have it.’” (Hispanic female, New York)*
- *“I’m gonna go home and have a talk. Go on the phone and have a lot of talks with everybody.” (African-American female, St. Louis)*
- *“Well, I [will] go and tell my husband about it.” (Hispanic female, Los Angeles)*

In some instances, female participants indicated that they would ask their doctor to perform a HPV test, in addition to the Pap test.

- *“I have to make a decision to go and to have a test for the HPV.” (Hispanic female, New York)*
- *“[I would] ask the OB, what kind of test do you have for HPV?” (African-American female, St. Louis)*

A few male participants commented that the information would encourage them to be more cautious about having sexual relations.

- *“It’s going to make me slow down, man, with these women.” (African-American male, Atlanta)*
- *“I’d start screening my sex partners.” (Caucasian male, St. Louis)*

However, some men felt somewhat helpless, with little to do in response to this new information. They were frustrated by a lack of definitive guidance about steps for men to take to prevent, detect, or treat HPV.

- *“It just tells a man there is nothing he can do. Tells a woman the things she can do. She can get tested, but it just tells you there is nothing we can do. It doesn’t even tell you that you should check yourself and what to look for and what they do know.” (Caucasian male, Charleston)*

Some African-American participants expressed a somewhat fatalistic attitude toward the HPV information they had just received, perceiving there to be few positive actions they could take.

- *“If it affects me and there is no cure, there is nothing I can do.” (African-American female, Atlanta)*
- *“There’s nothing you can do, except making people more aware.” (African-American female, St. Louis)*

IV. Study Limitations

Focus group methodology offers rich opportunities to garner and assess participant reactions to draft concepts and images, as well as to take note of the words they choose to express their thoughts about particular issues. The research detailed in this report provides insight into the target audiences’ awareness of HPV and their reactions to potential messages and materials for disseminating HPV information. Limitations of the study are described below.

A. Generalizing Findings to the Larger Population

The qualitative nature of focus groups and the limited number of participants in each group mean that the findings may not be statistically significant and representative of a larger target audience. However, because the participants were recruited on the basis of their similarities to the target audiences for HPV awareness communication, the findings of even this small sample are of considerable value for assessing likely target audience perceptions and attitudes about HPV among key audiences in general.

The focus group recruitment criteria for this study were selected to assure representation of women and men who are currently sexually active or planning to become sexually active; within the age range of 18-29; African-American, Caucasian, and Hispanic; and both English-speaking and Spanish-speaking. Other audiences may have perceptions and attitudes that vary from those of the study participants. *(Note: Subsequent research will convene groups with additional target audiences, such as Native Americans and Asian Americans.)*

Another possible limitation of the study findings is the lack of testing with HPV patients. Due to privacy concerns, we did not screen participants based on HPV status, and did not discuss their health status during the groups. Therefore, we are unable to assess whether HPV-positive people may react differently to the materials. The materials may have a different impact in terms of reducing or increasing stigma for HPV patients than for others. However, we cannot attempt to assess their potential reactions within the scope of the current research.

B. Testing in Select Geographic Locations

Five focus group locations were selected from among the geographic areas with both high rates of cervical cancer incidence and sufficient populations of the target audiences to facilitate recruitment. Responses from and perceptions of participants in these locations may differ from those of individuals in other communities where groups were not conducted, in ways that cannot be determined.

Charleston, West Virginia was selected as a focus group location because it is a largely rural area located in Appalachia. Because the majority of resident within this region are Caucasian, however, it was difficult to recruit appropriate participants for the African-American female focus group. Through the course of our research, we discovered that the African-American community in this area is very tightly-knit. As a result, several of the participants in the Charleston African-American female group knew each other prior to the focus group. This changed the dynamic of the group and led some of the participants to take the topic of discussion less seriously, which may have affected those particular focus group results.

C. Time Limitations

An unusually large number of materials was tested in these focus groups. This limited the time available to encourage in-depth dialogue and to accommodate the customary exploration of participants' reasons for choosing or rejecting various approaches to content, designs, and

identity images. In addition, the initial focus group guide included discussion of female-specific materials, which had to be eliminated from this phase of research due to time constraints.

Time and funding constraints also limited the project's ability to explore the potential advantages of developing materials targeted to smaller, more specific audience segments. For example, additional resources and time may have allowed the project to assess whether audiences that vary by racial and ethnic group, age, or relationship status have different information needs or prefer types of materials beyond the poster and brochure.

D. Research Bias

When testing similar content in a variety of formats (e.g., brochure, poster, headline), it is important to consider that reading the information in a certain order may have an impact on participant reactions to it. To the extent possible, procedures were implemented to reduce bias by alternating the order of the materials that were tested for each component tested (e.g., brochure content, designs, identity images). Across all of the focus groups, participants read the brochure content first, then viewed poster and brochure designs, and concluded with an assessment of the identity images. We felt it was necessary to have the participants review the brochure content first to ensure that they would not be too fatigued to focus on such a large amount of information later in the groups. We also felt it was important to provide participants with a basic understanding of HPV first, so they could make appropriate and balanced judgments of the materials (e.g., headlines, tone, feel).

It is not possible to determine whether participants would have reacted differently to the designs, headlines, and identity images if they had not already read the brochure content. Their HPV knowledge base was significantly greater after reading the brochure content. Because of this, it is difficult to determine how audiences with no prior knowledge of HPV would react to the posters, headlines, and brochure covers, which may be the only HPV materials that many members of the target audience ever will encounter.

V. Recommendations

Overall, the materials-testing focus groups – as well as CDC's prior concept-testing and formative research – confirmed that HPV awareness is very low among women and virtually nonexistent among men within the general population. This reinforces the need for enhanced HPV educational outreach that is supported by the development and dissemination of audience-targeted messages and materials. Based on the focus group findings, following are recommendations to help CDC and its program partners ensure that the forthcoming HPV messages and materials are informative, appealing, and easy-to-understand among the target population of African-American, Caucasian, and Hispanic women and men, ages 18-29. To the extent that it is possible – in light of the complex issues surrounding HPV and the information required by the Congressional mandate – these messages and materials will be designed to promote HPV information-seeking among the general population without raising unnecessary fear and stigma of the sexually transmitted virus.

It is important to note that in spite of these recommendations, some elements of confusion are likely to remain due to the absence of scientific validation and simple clinical or practical answers to several issues including: viable methods of preventing HPV transmission for adults who choose to be sexually active; HPV transmission, progression, clearance and detection; and the lack of a currently approved test for detecting HPV in men, among many others.

A. Identity Image

Recommended Approach: Identity Image D: “HPV. Common Infection. Common Reality”

The majority of participants from all of the groups were divided between preferring identity image A: “HPV: It’s about ME. Know it’s the most common sexually transmitted infection” and identity image D: “HPV. Common Infection. Common Reality.” The participant rankings of identity image traits show that identity image A was perceived to be more eye-catching, attractive, informative, and “relevant to me,” than identity image D. Participant comments expressed during the focus groups reinforced these findings. As such, Ogilvy PR’s initial recommendation was for CDC to use a revised version of identity image A that eliminated the depiction of raised arms forming the letter “V,” which some participants felt was “too celebratory” and “too happy” for a message about a sexually transmitted virus, and which some CDC partners felt could introduce improper connotations.

However, due to partner concerns that an emphasis on sexual transmission within the supporting tagline could stigmatize cervical cancer by association with HPV, Ogilvy recommends the use of identity image D: “HPV. Common Infection. Common Reality” as an alternative. As with image A, the use of the word “common” was well received by most focus group participants, and was perceived to be a potential source of comfort for participants who are diagnosed with HPV since it explains that so many people have the virus. In fact, the tagline in this identity image was ranked highest overall for having a tagline that participants liked. In addition, many focus group participants felt that the design was bold and compelling and gave the identity image high marks for being informative.

B. Brochure Content

Recommended Approach: Brochure B

Brochure B was selected as the preferred approach by 95 African-American, Caucasian, and Hispanic male and female participants – almost three times the number who selected Brochure A (33 participants). Overall, participants reported that they found Brochure B to be better organized and easier to read and follow. Participants especially liked the question and answer format of Brochure B, and felt that this version was more evenly targeted to both men and women. In contrast, many felt that Brochure A bounced from topic to topic, and was wordy, repetitious, and primarily geared for female audiences.

English Version

With respect to finalizing the English version of the brochure, we recommend modifying Brochure B as follows:

- ***Highlight information for men:*** While both male and female Caucasian and African-American participants reacted positively to what they perceived as Brochure B's greater amount of information for men, male participants tended to want information that they knew was designed for them. For this reason, we recommend incorporating one section of copy that contains HPV information specifically of interest to men, which is designated by special box or sub-head. Other research supports the receptivity of men to information about HPV.¹ Reinforcement of the fact that HPV rarely has a significant impact on men's health may also be necessary to help alleviate men's feelings of helplessness regarding HPV.
- ***Remove the section on genital HPV risk factors:*** Throughout the focus groups, participants often confused risk factors with causes. Since this information may not be critical, we recommend removing it.
- ***Clarify the meaning of low-risk vs. high-risk:*** Many participants reported they associated "risk" with a behavior and that they did not understand the distinction between these terms and were confused about how a risk could ever be a "low risk." This finding is consistent with other studies in which women have expressed confusion about the difference between low-risk and high-risk types of HPV.⁶ As such, we recommend that CDC incorporate a more detailed description of the types of HPV that are considered to be low-risk and high-risk, with minimal use of the "low-risk" and "high-risk" terms.
- ***Explain the difference between the Pap test and the HPV test:*** Some female participants reported confusion about the distinction between a Pap test and a HPV test. Women were confused about whether they were being tested for HPV along with cancer when they received their Pap tests, or whether this is a separate test. Similar questions have been raised by women in other studies as well.⁶ We recommend revising the copy to address these questions.
- ***Clarify that HPV is not associated with HIV or herpes:*** In both the concept-testing and materials-testing focus groups, some participants reported that they often thought HPV was HIV or another form of HIV. The similarity in the acronyms and the fact that both are sexually transmitted viruses led some participants to wonder whether they are related or similar. In addition, a few African-American female participants in the materials-testing groups expressed confusion about the difference between HPV and herpes simplex virus since both conditions can cause warts or sores; cannot be cured; and can disappear but return later. As a result, we recommend adding a brief statement explaining that HPV is not the same as either HIV or herpes.
- ***List ways one can and cannot get genital HPV:*** Several African-American male participants expressed confusion about how genital HPV is transmitted and wondered whether it could be spread through non-genital skin contact. We recommend adding a brief, bulleted list of ways in which genital HPV is and is not spread.
- ***Clarify statements about "there is no cure" vs. those stating HPV often goes away:*** Many participants identified these two pieces of information as contradictory.

- ***Make a clearer statement about condom use:*** Many participants were frustrated and confused by the lack of a clear statement about whether or not they should use condoms. They were surprised to learn that condoms are not effective protection against HPV and felt that abstinence was not a realistic alternative. Given that the science relating to this issue is inconclusive, we recommend that CDC be more direct and specific about the risk-reduction benefits of condoms, for HPV and other sexually transmitted infections.
- ***Use “virus” rather than “infection”:*** The vast majority of participants preferred the term “virus” because they believed that there may be no treatment for a virus, whereas an infection can be cured through treatment. Participants also thought virus sounded more serious and attention-getting than infection. In addition, virus already is part of the term, “HPV.”

Spanish Version

With respect to finalizing the Spanish brochure content, we recommend modifying Brochure B as follows:

- ***Eliminate all references to confusing genital HPV risk factors:*** As with the Caucasian and African-American groups, considerable confusion surfaced over how the various genital HPV risk factors (e.g., smoking, circumcision, oral contraceptives) relate to or interact with HPV. Since this information may not be critical, we suggest removing it.
- ***Find alternative words and/or descriptions for confusing Spanish terms:*** Many of the Hispanic male and female participants had trouble understanding the following words: Sistema Inmunologico (immune system), Proclives (monogamous), Circuncidar (circumcision), ADN del HPV (HPV DNA test), Propaga (contagious), Monogamica (monogamous), Vinculados (linked), Caucasicas (Caucasians), Protuberancias (growths), Hombres sin circuncidar (men without circumcision), Anormalidades (abnormalities), and Indoloras (painless). As such, we suggest working with a Spanish-language expert to identify simpler words and/or to define these concepts in more general terms, where they appear in the revised content.
- ***Clarify the cervical cancer disparities vs. incidence of HPV among Hispanic women:*** While most Hispanic women understood that cervical cancer incidence is higher among Hispanics, some interpreted the content to mean that they have a greater incidence of HPV than the general population. We recommend clarifying this point as appropriate.
- ***Provide a better distinction between the Pap test and the HPV test:*** Some Hispanic female participants were unclear on how the HPV test fits in with or reinforces the Pap test. They requested clarification on whether a separate HPV test is necessary. As such, we suggest revising the copy to address this concern more directly with Hispanic women – within the context of when they should ask their healthcare provider about the HPV test and/or expect to receive it.

- **Clarify statements about “there is no cure” vs. those stating HPV often goes away:** In addition to the Caucasian and African-American participants, several Hispanic participants identified these two pieces of information as contradictory and requested clarification.
- **Draw a better distinction between the fact that “there is no cure for HPV” vs. the fact that cervical cancer is highly curable with early detection:** Many Hispanic women confused the cervical cancer fact as pertaining to HPV and requested clarification as the information appeared to be conflicting.
- **Provide greater HPV information for men:** As with the Caucasian and African-American participants, Hispanic participants felt that additional HPV information is needed specifically for men. Some Hispanic women believed this would encourage partners to read the information together and help facilitate communication about the issue. We recommend incorporating one section of copy that contains HPV information of special interest to men, designated by a box or sub-head. Reinforcement of the fact that HPV rarely has a significant impact on men’s health may also be necessary to help alleviate men’s feelings of helplessness.
- **Detail the ways in which genital HPV is and is not transmitted:** Like some of the African-American male participants, some Hispanic men expressed confusion about how genital HPV is transmitted and wondered whether it could be spread through non-sexual means, such as public bathrooms. As such, we recommend adding a brief, bulleted list of ways in which genital HPV is and is not spread.
- **Make a clearer statement about condom use:** After reviewing the draft materials, many Hispanics understood that condoms do not prevent HPV, and felt a sense of hopelessness because they did not perceive abstinence to be a viable alternative. We recommend being more clear about the risk-reduction benefits of condoms, for HPV and other STIs.
- **Incorporate “No Blame, No Shame” content into this document:** Several Hispanic men and women commented that this was stigma-reducing content and that version A of the brochure did a better job of encouraging and explaining how to discuss HPV with a partner – within the context of “No Blame, No Shame.” We suggest adding this information to version B.
- **Refer to HPV as VPH:** The vast majority of Hispanic participants prefer the Spanish translation, VPH.
- **Refer to HPV as a “virus” rather than “infection”:** The vast majority of Hispanic participants preferred the term, “virus” because they believed that there is no treatment for a virus, whereas an infection can be cured through treatment. Participants also thought virus sounded more serious and attention-getting than infection.
- **Refer to “genitals” as opposed to “private parts”:** Contrary to the initial concept-testing findings, the Hispanic female participants seemed to prefer the term, “genitals” instead of the

term, “private parts,” which they interpreted to include breasts. None of the Hispanic men or women were offended by the term, “genitals.”

- ***Clarify that HPV is not associated with HIV or herpes:*** Although the Hispanic participants in the materials-testing focus groups did not appear to confuse HPV with HIV, this issue was fairly prominent in the initial concept-testing groups. In addition, since other focus group participants were unclear of the difference between HPV and herpes, we suggest incorporating a clarification that HPV is neither associated with HIV nor herpes within the Spanish-language materials, in addition to the English materials.

C. Brochure and Poster Design

Recommended Approach: Individual

The Individual design received positive comments in almost all of the Caucasian, African-American, and Hispanic male and female focus groups, and the greatest number of votes overall for first choice, as reflected in the ranking sheets. While the Group and Couple designs were popular in some of the focus groups – receiving– they also elicited some strong negative associations.

Participants found the headline of the Individual design to be informative, eye-catching, and compelling – particularly due to the depiction of different races, ethnicities, and genders. Although a few individuals may have considered the “Fact” and “50%,” statements to be a fear-appeal, the vast majority of focus group participants did not perceive them to be scary. Rather, they perceived the headline to be attention-getting and to provide credibility and an appropriate level of seriousness. Across the audience segments, participants also liked the Individual design’s diversity of images, which communicated the message that anyone can get HPV – a message they related to well. Certain segments actually suggested that the photos depict even greater racial/ethnic diversity.

Although some participants expressed mixed reactions to the design’s use of green, nobody stated that they were offended by the color. In fact, many individuals who said they did not especially like the color, still found it appropriate and attention-getting for an educational piece on a health or medical topic. Several Hispanic participants felt that the green should be contrasted with a second, complementary color. Given the Hispanic population’s general tendency to prefer bold, bright, colorful creative elements, we suggest incorporating a second color to the Spanish version of the brochure and poster design.

For both the English and the Spanish versions of the poster and brochure, we recommend using the Individual design with the following modification:

- ***Add a photo of a healthcare provider with a patient to the brochure:*** Participants tended to prefer photos of healthcare providers interacting with patients, although Caucasian participants asked that we not use the photo that was tested as part of the Group design because the patient appears to look frightened.

- **Add photos of Hispanic or Asian Adults to cover and/or inside of English brochure/poster:** Rather than including only White and African-American images, other images should be added to capture feel of ‘diversity’ and indiscriminant nature of HPV.
- **Revise Tagline to reduce urgency of call-to-action:** In light of participants’ reactions that information about the high prevalence of HPV, in conjunction with the call-to-action to ‘talk to your doctor’, was perceived to be a scare tactic, a different call-to-action that does not reflect an urgency or need for alarm might be more appropriate. While messages should prompt further information seeking about HPV, they should not incite alarm or fear. Moreover, previous CDC research with health care providers found that providers are not up-to-date on the science of HPV, nor are they prepared to discuss HPV with their patients.⁸ This suggests that sending the public to their providers could be both an unwelcome and inappropriate way of informing the public at this point in time. Given the attention-getting and informative nature of the tagline in the *Group* design—even despite its less alarmist call-to-action, this might present a better option.

D. Poster Content Volume

Recommended Approach: Shorter and More Concise Bullet-Point Format

While some individuals felt that the volume of the poster copy would be appropriate for a clinic or library setting, the majority of Caucasian, African-American, and Hispanic participants responded that the content provides too much information that they would never have adequate time to absorb. Many suggested that a bullet-point format would be more appropriate – emphasizing only the most critical HPV information. Participants liked the poster copy’s inclusion of a telephone number and Web site for seeking more information. We strongly encourage CDC to limit the poster copy to no more than five key points with a reference to the hotline and Web site for additional details.

E. Partner Dissemination of HPV Posters and Brochures

Based on the recommendations provided within this report, CDC has developed English- and Spanish-language template posters and brochures that program partners may customize by simply inserting their organization’s logo and telephone number into the PDFs.

Organizational partners are encouraged to disseminate these materials through all available channels, including posting them to their Web sites and/or establishing links that connect their constituencies to the HPV information resources provided at CDC’s Web site; printing and distributing the materials at medical conferences and annual meetings addressing women’s and minority health, social and reproductive health, and cancer prevention and control-related issues; publishing key HPV information presented within these materials in both internal and external publications; and encouraging their member organizations and/or communities to circulate these materials to intended audiences through their established communication channels.

While these materials serve as a helpful starting point for raising HPV awareness among the general population, additional outreach tools and tactics will be needed over time to facilitate a widespread knowledge and understanding of HPV; motivate consumer actions that can lead to informed decision-making about their sexual health, as well as an earlier detection of cervical cancer and other diseases caused by HPV; and ultimately change the social norms that currently cast a stigma on the sexually transmitted nature of HPV.

It is worth noting that in addition to receiving print materials, many of the focus group participants expressed an interest in obtaining HPV information through other traditional health communications and advertising vehicles, such as radio, television, and newspapers and other publications. They also envisioned seeing HPV awareness messages posted on buses and trains. Some respondents felt that special HPV curriculum should be developed for health classes at all levels of education, particularly in middle schools. Using the research findings contained within this report, partners are encouraged to consider all of these and other potential outreach tactics as funding, staffing, and other resources become available to supplement and reinforce the initial HPV print materials.

F. Future Research and Materials Development Considerations

In addition to helping CDC determine the viable approaches for developing and disseminating messages and materials to raise awareness of HPV among the general population, this research uncovered the following issues and unanswered questions that may warrant further research and materials development in the future, should additional funds become available.

- Due to the existing gaps and complexities in HPV science, longer-length HPV information resources may be needed to supplement the general population posters and brochures recommended by this report. Additional information resources may help alleviate some audience confusion about HPV by addressing the HPV-related questions that the shorter-length materials do not have adequate space to include. For example, additional materials could address topics such as maternal-infant transmission and risk of HPV; incidence rates of cervical cancer and genital warts, and other specific questions that arose throughout the focus group discussions about transmission, treatment, prevention and consequences. Additional research could help to identify the most appropriate longer-length formats for presenting in-depth HPV information among the target population.
- Further research may help determine the best approach for explaining to the general population the multiple risk factors that are associated HPV. As explained in this report, focus group participants were confused by the presentation of “factors that have been linked to genital HPV.” Additional exploration of this issue – particularly with low literacy populations – could help ensure that information about all of the HPV risk factors and how they interrelate is presented to key audiences in a logical and easy-to-understand fashion.
- The research presented in this report suggests that female audiences may be more receptive to messages and materials emphasizing HPV’s impact on women – such as the number of women with HPV who develop cervical cancer (by race and ethnicity) and the number of women who die of cervical cancer versus those who survive. Although CDC originally planned to test a female-specific fact sheet and poster as part of this research, the focus groups did not allow adequate time for these elements. Further research would help

determine which female-specific data, messages, and materials would hold the greatest promise in reaching this important audience segment with critical HPV information.

- As reflected in this report, the Latina focus group participants generally found the Latina-specific data presented within the Spanish-language brochure to be especially compelling and worthy of their attention. However, many requested clarification as to why Hispanic women are more likely to get cervical cancer and whether Hispanic women have higher rates of HPV than the general population. A more thorough investigation into the most effective strategies for conveying this (and other HPV-related) information to Hispanic women may be warranted. Additional qualitative research with this audience segment would help identify the most effective way to communicate these and other special concerns.
- Many focus group participants were confused by the notion that there currently is no cure for HPV, yet the virus often goes away on its own. Moreover, they were confused by messages suggesting that people need to get screened for the diseases caused by HPV, but not specifically for HPV itself. This inability to reconcile how a virus can be (a) present without necessarily posing a risk to one's health, and (b) both incurable and transient at the same time may reinforce how HPV does not fit neatly into the public's current understanding of disease, which generally entails an identification, treatment, and cure. Further audience research into these issues may help uncover more effective ways to clarify these confusing aspects of HPV for the target audience. Perhaps more importantly, medical and public health agencies may need to reconsider how the issue of HPV is conceived and approached both within the health field and to the general public.
- Finally, a broader communication effort, including multi-media channels (e.g., television, radio, print and outdoor advertising) should be considered to support current awareness and education efforts for the public. Further, HPV training or educational materials for health care providers should be developed and disseminated simultaneously, so that providers are comfortable with the issue and prepared to answer patients questions about it.