HUMAN PAPILLOMAVIRUS HEALTH CARE PROVIDER MATERIALS TESTING REPORT

Executive Summary

A. Background

In early 2001, Congress mandated the Secretary of Health and Human Services to prepare and distribute educational materials for healthcare providers and the public that include information on HPV. Such materials were to address: 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. This report addresses CDC's efforts to develop and test effective and appropriate educational materials for health care providers.

Based on literature and qualitative and quantitative research findings, CDC established the following objective to guide this phase of its health care provider HPV education efforts: Develop and test messages/materials to educate providers about HPV with the goal of improving provider knowledge and clinical and management practices related to HPV infection and HPV-related conditions.

B. Materials Development and Testing

Following extensive formative audience research, Ogilvy PR, with CDC guidance, developed the following materials for testing with health care providers:

- Content for a health care providers' educational pamphlet on HPV and its link to cervical cancer;
- Two designs for the pamphlet.

Individual telephone interviews were used to test the content and designs, as well as to gather information about current clinical practices and communication preferences for receiving HPV information. The audiences were segmented by patient population (Caucasian, African-American, Hispanic, Native American, and Asian American) and provider type (physicians, nurse practitioners, and registered nurses), and were recruited to obtain a mix of specialty areas, practice settings, geographic locations, and clinical practices (e.g., providers who did and did not perform Pap tests or health maintenance exams/routine checkups). All of the participants provided direct patient care at least 20 hours a week; saw more than 20 percent female patients, saw HPV positive patients each quarter; had been in practice for more than one year.

Concurrent with the interview research, CDC solicited input from eight internal subject matter experts (SMEs), who commented on the scientific accuracy, scope, and appropriateness of the material.

Audience reactions were assessed through verbal discussion during the interviews. A notes-based analysis strategy was used to analyze the qualitative research findings.

C. Provider Practices

A total of 37 primary care providers participated in the interviews, including 17 physicians, 14 nurse practitioners, and six registered nurses. Many of the participants worked in community or public health settings, primarily serving lower-income patients. All but one participant performed Pap tests, and the majority reported that they conduct annual Pap tests on patients who are sexually active or over the age of 21. About one quarter of the providers said they extend the screening interval to every two to three years when a patient has had two or three normal tests. About one half of providers reported that the HPV DNA test is performed within their practices and nearly 60 percent said they are able to perform colposcopies on site.

D. Reactions to Pamphlet Content

Overall, participants had very positive reactions to the pamphlet content, which they described as informative, comprehensive, clear, concise, easy-to-understand, interesting, and important to know. Many were enthusiastic in their responses. They felt the information would be useful to them in their daily clinical practices as a "refresher" of important HPV facts and as a reference tool for detecting and treating HPV and for counseling patients on screening and prevention. Even participants who do not conduct follow-up on patients with abnormal Pap test results reported that they liked having the information because it allowed them to speak knowledgably with their patients about what to expect and about likely follow-up procedures.

While many acknowledged that the pamphlet contains a considerable amount of information to digest, they generally felt the use of bullets, short paragraphs, and bold subheads made the content easy to navigate, and helped them focus on the topics of greatest importance to their practices. The participants commented that the tables, charts, and textboxes throughout the document were well-structured. Virtually all of the participants cited the algorithms in the "Clinical Management Issues" section as being particularly useful and relevant to their practices. Several commented that the algorithms were highly effective in quickly conveying a great deal of complex information in a concise, easy-to-use format.

Many participants reported that, despite the length, all of the content areas were too important to limit or exclude from the document. However, others identified specific areas that could be shortened or eliminated, including some of the discussion about patient concerns and anxiety in the "Counseling People Infected with Genital HPV" section

Certain content areas elicited confusion or a desire for more information among participants. In some cases, participants identified specific statements that appeared contradictory or that they felt needed further clarification. For example, some participants expressed difficulty understanding some of the technical language within the "HPV DNA Testing" section. Several participants also mistakenly believed that the two lists of risk factors conveyed the same content, when one listed the risks associated with acquiring a genital HPV infection while the other addressed the risks that are associated with the progression to cervical cancer once genital HPV has been acquired.

E. Reactions to Pamphlet Designs

Design A was preferred by the majority of participants. They liked the cover design – particularly its size and color combination, which many cited as "eye-catching," "easy to read," and "effective." Most participants felt it was unnecessary to print the pamphlet on heavier stock paper, but thought a perforated or laminated algorithm sheet would be a useful tool.

F. HPV Materials and Communication Preferences

Alternative Materials. The participants reported that they were interested in having materials and information available online, algorithm wheel/chart, tip sheet, memo pad, and patient materials providing HPV information. Nurse practitioners and registered nurses were especially interested in obtaining a comprehensive toolkit.

Communication Methods. The participants were divided over their preferred HPV communication methods. Some preferred to receive information over e-mail or via a Web site, while others preferred to receive information through regular mail.

G. Reported Intentions

The participants said they were likely to share the information with their colleagues and/or use it as a reference tool. In some instances, providers also reported that they would show it to patients who wanted very detailed information, or that they would distribute sections of it to their patients.

H. CDC Subject Matter Expert Feedback

Overall, the CDC subject matter experts (SMEs) suggested primarily line edits and a few broad-based changes to the pamphlet content. Recommended changes included improving the accuracy of the statements; adding information and specific guidance to address gaps in knowledge and practice that have been identified through qualitative and quantitative research; adding more detailed information to clarify certain statements; and verifying references that are used to ensure the accuracy of the information presented. The experts suggested editing the risk factor tables to remove factors for which the science is weak or lacking. Changes to the key educational messages box and the "HPV Vaccines" section were also suggested to bring the statements in line with official CDC recommendations.

I. Recommendations

Based on current findings and guidance from CDC, Ogilvy PR recommends the use of Design A with the following refinements: 1) replace photos of health care professionals on the cover with clinical images; 2) incorporate a table of contents and the CDC logo; 3) insert additional images; 4) add internal tabs; 5) develop a separate, laminated pocket-sized piece containing the algorithms.

Ogilvy PR and CDC also recommend a number of revisions to the pamphlet content, such as: 1) providing citations for all the cited HPV risk factors; 2) removing references to DES and nutritional deficiencies as being associated with HPV; 3) providing a list of

Web resources for providers who wish to obtain more detailed information on specific topics; 4) adding content to address gay/lesbian patients in the transmission discussion; 5) clarifying whether most HPV cases truly go away or whether the infection becomes dormant; 6) shortening the discussion of patient anxiety and concerns; 7) adding clarifying points to the box of key educational messages; and 8) reorganizing and adding to the "HPV DNA Testing" section to make it more readable and to address indicated and non-indicated uses (respectively). *Refer to the Recommendations section for additional information about the suggested content changes*.

In addition to producing a provider pamphlet and algorithm pocket guide, Ogilvy PR recommends that CDC consider developing an algorithm/decision tool that can be posted in an exam room; patient education brochures; and a patient counseling tip sheet or guide. Ogilvy PR also recommends that CDC inform providers about new HPV information and materials by sending an e-mail containing a link to a CDC Web site and by conducting a companion print mailing to providers. If possible, CDC also should consider disseminating information through professional journals, continuing medical education programs, and conferences.

The recommendations in this report are currently under CDC review. Once a determination is made as to which recommendations are accepted, the pamphlet content and design will be revised accordingly. Once the pamphlet is officially cleared by CDC and the U.S. Department of Health & Human Services, it will be made available to health care providers and other interested parties.