



Published in final edited form as:

J Womens Health (Larchmt). 2012 November ; 21(11): 1128–1129. doi:10.1089/jwh.2012.3994.

Cervical Cancer Screening Measures Need to Evolve to Continue to Tell the Story

Mona Saraiya, M.D., M.P.H., Meg Watson, M.P.H., and Vicki B. Benard, Ph.D.

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Cancer Prevention and Control, Epidemiology and Applied Research Branch, Atlanta, Georgia

According to Chen et al.,¹ 6% of U.S. adult women reported never having been screened for cervical cancer. These women were young (< 21 years) or old (> 70 years), less educated, uninsured, Hispanic, widowed, and never married. Besides the focus on the never screened women, this study offers many insights into the successes, failures, and gaps of cervical cancer screening over the past two decades. Additionally, it gives public health professionals who develop and use survey measures issues to consider in finding the right balance between keeping the survey consistent to allow for interpretation of trends and flexibility to allow measurement of emerging technologies and new practices.

One important success not fully appreciated in the article by Chen et al. is that for the first time, in 2012, cervical cancer screening guidelines are consistent among the three national organizations^{2–4} (www.cdc.gov/cancer/cervical/pdf/guidelines.pdf for table), including consensus that women <age 21 years no longer need to be screened. Chen's Behavioral Risk Factor Surveillance System (BRFSS) analysis foreshadows this sentinel event by documenting that the percentage of young women <21 years who report never being screened increased from 35% in 1993 to 54.3% in 2010. This could be a result of concern over the increased adverse pregnancy outcomes associated with screening before the recommended age or the aggressive treatment of preclinical lesions that have a long latency period and a strong likelihood of regression.^{5,6} We expect that the decline that we are seeing now will continue to be observed in future surveys. A lower proportion of women reported screening in the past year (from 64.5% in 1993 to 54.1% in 2010); this finding may signal the wave of the future because of the call by all three organizations for an end to annual cervical cancer screening. Additionally, the Chen et al. article highlights that screening continues among women with a hysterectomy when recommendations for this have been consistent for 10 years.^{7–9} Why do half of women who have had a hysterectomy report having had a Pap test within the past 3 years? Surely, we cannot expect that all these women have had a supracervical hysterectomy or a history of treatment for cervical intraepithelial neoplasia (CIN2) and still require a Pap test. The aim of measuring screening failure is to

Address correspondence to: Mona Saraiya, M.D., M.P.H., Centers for Disease Control and Prevention, 4770 Buford Highway, NE, MS K-55, Atlanta, GA 30341, msaraiya@cdc.gov.

Disclosure Statement

The authors have no conflicts of interest to report.

avoid harm for women at lowest risk and target resources for women at highest risk of getting cervical cancer.

Over half of cervical cancers in the United States occur among women who have never been screened.¹⁰ There has remained a constant proportion of women who have never received a Pap test since the 1990s—approximately 6%. Who are the elderly women > 70 years of age who have never had a Pap test? Chen et al. could identify only characteristics currently collected, which do not include language spoken, country of birth, in BRFSS, or specific Hispanic subgroups, all characteristics of women who have been reported to be less likely to get screened.¹¹ Additional measures not addressed include newer technologies, such as human papillomavirus (HPV) testing and HPV vaccination status. HPV and Pap testing together (cotesting) has been an approved option in screening since 2003 according to some organizations. By 2012, all organizations now either strongly recommend or include cotesting as an option for women > 30 years of age. If both tests are negative, women can now extend the screening interval to 5 years, a response option that needs to be incorporated with in surveys that measure current screening behaviors and practices.

Questions on HPV vaccination status would address the interpretation of screening behaviors. There is concern that vaccinated girls and women may have a false sense of security and, thus, not follow recommended screening guidelines. Although current guidelines remain the same for vaccinated and nonvaccinated women,² it is anticipated that in the future screening fully vaccinated girls can occur later and less often.¹² In the United States, self-reported state and national surveys are heavily relied upon to measure screening prevalence and gaps for cervical cancer screening, largely because a nationwide population-based screening program does not exist. Long-standing national and state-based surveillance systems face a tough challenge in being responsive to changes in communications technology, population diversity, and newer technologies while still allowing measurement of trends.¹² The same issues are salient and relevant to the international setting. The World Health Organization Global Monitoring Framework currently proposes an indicator to measure that women between the ages of 30 to 49 years have been screened for cervical cancer at least once.¹³ With international efforts focused on cervical cancer in low- and middle-income countries, we may need to leverage existing surveillance systems that ask standardized core sets of questions for cervical cancer screening, whether the screening method is using the HPV test, Pap test, or visual inspection with acetic acid (VIA). Clearly, cervical cancer measures can tell a story, but they will need to keep up with the times.

Acknowledgments

The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Diseases Control and Prevention.

References

1. Chen H-Y, Kessler CL, Mori N, Chauhan SP. Cervical cancer screening in the United States, 1993–2010: Characteristics of women who are never screened. *J Womens Health*. 2012; 21:xxx–xxx.
2. Saslow D, Solomon D, Lawson HW, et al. American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology screening

- guidelines for the prevention and early detection of cervical cancer. *Am J Clin Pathol.* 2012; 137:516–542. [PubMed: 22431528]
3. Moyer VA, U.S. Preventive Services Task Force. Screening for cervical cancer: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2012; 156:880–891. [PubMed: 22711081]
 4. American College of Obstetricians and Gynecologists. ACOG practice bulletin. No. 109. Cervical cytology screening. 2009
 5. Kyrgiou M, Koliopoulos G, Martin-Hirsch P, Arbyn M, Prendiville W, Paraskevaidis E. Obstetric outcomes after conservative treatment for intraepithelial or early invasive cervical lesions: Systematic review and meta-analysis. *Lancet.* 2006; 367:489–498. [PubMed: 16473126]
 6. Castle PE, Gage JC, Wheeler CM, Schiffman M. The clinical meaning of a cervical intraepithelial neoplasia grade 1 biopsy. *Obstet Gynecol.* 2011; 118:1222–1229. [PubMed: 22105250]
 7. Saslow D, Runowicz CD, Solomon D, et al. American Cancer Society guideline for the early detection of cervical neoplasia and cancer. *CA Cancer J.Clin.* 2002; 52:342–362. [PubMed: 12469763]
 8. American College of Obstetricians and Gynecologists Practice bulletin: Clinical management guidelines for obstetrician-gynecologists. Number 45. Cervical cytology screening. *Obstet Gynecol.* 2003; 102:417–427. [PubMed: 12907124]
 9. U.S. Preventive Services Task Force. Screening for cervical cancer: Recommendations and rationale. Rockville, MD: Agency for Healthcare Research and Quality; 2003.
 10. Leyden WA, Manos MM, Geiger AM, et al. Cervical cancer in women with comprehensive health care access: Attributable factors in the screening process. *J Natl Cancer Inst.* 2005; 97:675–683. [PubMed: 15870438]
 11. Tsui J, Saraiya M, Thompson T, Dey A, Richardson L. Cervical cancer screening among foreign-born women in the United States by birthplace and duration in US. *J Womens Health.* 2007
 12. Mokdad AH. The Behavioral Risk Factors Surveillance System: Past, present, and future. *Ann Rev Public Health.* 2009; 30:43–54. [PubMed: 19705555]
 13. World Health Organization. 2012. Available at http://www.who.int/nmh/events/2012/discussion_paper2_20120322.pdf. Accessed October 9, 2012