Response

We welcome the opportunity to clarify our comments on implementing human papillomavirus (HPV) testing into international cervical cancer prevention. In the Supplementary Material to which Suba et al. refer, we stated: “We believe that it is advisable in most, but not all, developing countries to bypass cytology (and visual inspection because of its inaccuracy) and to plan for HPV screening.” Suba et al. reply: “Papanicolaou screening (with or without HPV testing) must be implemented without further delay in any setting where cervical screening is appropriate.” Both statements clearly favor expanded access to high-quality screening. We noted that no single screening test can be universally recommended for implementation among low- and middle-income countries (LMICs).

We cited the efforts of Suba et al. (1) on cytology-based screening in southern Vietnam as a success. The unsolved dilemma is how to expand access to, and the efficacy of, state-of-the-art screening. Although some settings in LMICs have experienced success with conventional cytology screening followed by colposcopy-guided biopsy confirmation of precancer and subsequent treatment (1–3), such success has not been observed in most other LMICs attempting to implement a cytology-based program (3–5). Studies (3–5) have documented that almost all steps in such programs are vulnerable to failure, including 1) recruiting women to the clinic for pelvic examination; 2) quality assurance in sampling, preparing, and interpreting slides; 3) sustaining adequate numbers of well-trained cytologists; 4) tracking women’s progress through the multi-visit prevention program; 5) follow-up of women with abnormal results; and 6) performing sufficient screens in a lifetime (frequent screening is inherently required because of the limited sensitivity of cytology). We believe that novel technologies generally thought to be practical in high-income settings do hold genuine promise for solving some of these above-mentioned limitations if they are affordable and properly implemented. Carcinogenic HPV DNA testing has high sensitivity, is amenable to one or two screens in a lifetime, and has much better reliability than cytological methods. The low risk after a negative HPV DNA test likely extends for 10 or more years; women aged 30–45 years who test HPV negative (≥80%) have a minimal risk of cervical intraepithelial neoplasia grade 3 or cervical cancer (CIN3+), probably for the rest of their lives. The remainder of women who test HPV positive receive immediate treatment, which addresses their higher risk of CIN3+. The high sensitivity of HPV testing creates the possibility of self-sampling outside the clinic, which allows expanded population coverage (6). Also, HPV tests continue to improve, whereas cytology has well-documented and fixed limitations.

That said, our enthusiasm about HPV testing is not unrestrained. Eight years after the Food and Drug Administration approved the first HPV DNA test, no clinically validated test is commercially available that is inexpensive enough to allow widespread implementation in LMICs. Even as enthusiasm to implement HPV screening increases, we share Dr Suba’s concerns regarding the use of tests that have not been clinically validated (7), or that are not simple to perform and openly available to local health authorities.

We agree with Suba et al. (1) that even when an affordable and reproducible cervical screening test of any kind is available, there will be formidable obstacles in scaling up in settings where the medical infrastructure is less developed, and where the notion of cancer screening is unfamiliar to local women and health-care providers. As usual
in international health, the real problem is so vast, the resources so limited, and the opportunities for benefit so great that all earnest approaches must be welcomed.

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References


Notes

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DOI: 10.1093/jnci/djr309
Published by Oxford University Press 2011.
Advance Access publication on August 22, 2011.