

## **The next frontier in the battle against cervical cancer: Prospects and challenges**

Madam, cancer of the cervix uteri is a leading global cause of mortality and morbidity in women. The burden of this oncological disease is unfortunately largely concentrated in the developing world.<sup>1</sup> Pap smear screening is perhaps the single most cost-effective screening tool that has been developed for the timely detection of malignant and pre-malignant cervical lesions. This simple approach has spelled out a phenomenal success story because of its potential for "nipping the evil in the bud". However, the developing world has not been able to reap the full benefits of this simple scientific paraphernalia. In developing countries like Pakistan, screening for human papilloma virus (HPV) infection is not a common practice. Exact estimates of the prevalence of HPV infection in Pakistan are lacking. However, laboratory studies on cervical cancer biopsy specimens have shown high rates of HPV infection (88 - 98%); HPV 16 being the dominant subtype.<sup>2,3</sup>

In addition, there is a difference in the healthcare priorities for different demographics of the society;<sup>4</sup> this in turn is coupled with inadequacies in the health-seeking knowledge and behaviour of the population. Cervical cancer, therefore, remains a major health problem. Once diagnosed, advanced stage at presentation, anemia, poor nutrition, ignorance about self-hygiene and lack of follow-up have been described as important causes of treatment failure of cervical cancer in Pakistan.<sup>5</sup>

Recognition of a strong causal association of HPV with cervical cancer in myriad studies paved the way for medical science to explore the next frontier in the fight against cervical cancer. An important milestone was achieved with the development of quadrivalent and bivalent vaccines targeting different HPV strains. These vaccines have been reported to be highly efficacious in

the prevention of HPV infection in seronegative women.<sup>6</sup>

For developing countries, HPV vaccination can have important implications for improvement in women's health and lowering of mortality from cervical cancer. Obstacles such as lack of routine and organized screening, advanced presentation of cervical cancer and minimal physician visits by many women make HPV vaccination an attractive adjunct in the fight against cervical cancer. However, the widespread acceptance of HPV vaccination is not possible without addressing a few key areas. The public needs to be made more receptive of the advantages offered by HPV vaccination by removing prejudices that exist with regards to the vaccination in general because of lack of awareness. The vaccine must also be made more cost effective, affordable and accessible to the public in order to realize the envisaged impact of the vaccine in the developing countries.<sup>7</sup>

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