

**EVALUATING THE USE OF DIFFERENT HPV TESTING
STRATEGIES, AS COMPARED TO THE PAP, FOR THE
DETECTION OF CERVICAL CANCER IN MEXICO:
EPIDEMIOLOGIC AND ECONOMIC ANALYSES**

by

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Abstract

Background. Infection with human papillomavirus (HPV) is considered a necessary but insufficient cause of cervical cancer (CC). Although HPV testing is not currently used as a routine CC screening tool, research is underway to determine if HPV testing should be used as a CC screening technique. This research study evaluates the use of HPV testing, as compared to the Papanicolaou (Pap) test, for CC screening.

Methods. This study was conducted in Morelos, Mexico, from January 2000 until September 2002. An epidemiological analysis was performed to identify risk factors associated with a cervical intraepithelial neoplasia (CIN) 2/3 or CC diagnosis among women who are high-risk HPV positive. A cost-effectiveness analysis (CEA) was conducted to determine the incremental costs and effects of HPV testing and the Pap test. A preliminary cost-benefit analysis (CBA) was performed to compare the monetary costs and benefits associated with HPV testing and the Pap test.

Results. The epidemiological analysis results indicate that increasing age, viral load, and a young age at first sexual intercourse are important risk factors for the development of CIN 2/3 and CC among HPV positive women. The CEA and CBA results indicate that HPV testing is always more cost-effective than the Pap test and screening women aged 20-80 is more cost-effective than screening

women aged 30-80. These results were true from both the perspective of the Mexican Institute of Social Security (IMSS) and Mexican society.

Conclusions. HPV testing is a cost-effective option for the IMSS CC screening program in Morelos, Mexico.

Key words: Cervical cancer, screening, HPV testing, Pap.