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## IS HPV VACCINATION COST-EFFECTIVE IN THE DUTCH SITUATION?

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**Background:** Until now, all published cost-effectiveness analyses (CEAs) of HPV-vaccination conclude that vaccination is expected to be cost-effective. However, the answer depends on how well cervical screening performs: in countries with a high quality screening program, like the Netherlands, incidence and mortality is low, which implies low maximum effects for HPV vaccination.

**Material and Methods:** We performed a CEA and focused on the cost-effectiveness (CE) of adding vaccination to the current screening situation in the Netherlands. We considered the effects and costs incremental to that current situation. As a threshold, we used the incremental CE ratio (ICER) which was the maximum acceptable ICER when the screening programme was revised (20,000 €). If adding vaccination is less cost-effective than adding one screening round to the current screening, vaccination is not advisable from a CE point of view.

Base case assumptions were made for screening, vaccination, costs and utilities. We performed a threshold analysis on what unit price would result in an acceptable CE ratio. We also performed a sensitivity analysis on the need for boosting as well as on screening sensitivity. Costs and effects were estimated using the micro simulation model MISCAN.

**Results and Conclusions:** We found that adding vaccination prevents 33% of the CIN lesions detected, 54% of all cancers, 55% of the deaths from cervical cancer. There is 54% less life years lost and 47% less QALY's lost. Without discounting, the total costs increase with 58% and adding vaccination costs €11,477 per QALY gained. With discounting at 3% per year for costs and effects this becomes €59,800 per QALY gained and the threshold price per dose to be cost effective (considering a threshold value of €20,000 per QALY gained) becomes €38,76. If a booster is needed after 20 or 30 years, threshold price becomes €27,47 and €30,03, respectively. This is considerably less than the current "over the counter" price of €125.