

Early evidence of HPV vaccine impact

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Gardasil vaccine and box. Image: Wikipedia

(PhysOrg.com) -- In a new study published in *Lancet*, researchers from Australia report evidence that the vaccine designed to target the human papillomavirus, or HPV, has dramatically dropped the incidence of lesions in Australian girls that lead to cervical cancer.

The [HPV vaccine](#) was first introduced in Australia as a national vaccine program in April 2007 and focused on girls between the ages of 12 and 26 years old.

[Epidemiologist](#) Dorota Gertig and public health physician Julia Brotherton from the Victorian [Cytology](#) Service examined Pap smear

data from the four years before the HPV vaccine program was implemented as well as from April 2007 to December 2009 when the vaccine was available. They were looking for a change in the frequency of low-grade and high-grade cervical abnormalities. They looked at girls and women under the age of 26 and had Pap smear results from 337,000 before the vaccine and 208,000 after the vaccine.

What they discovered was that the rate of high-grade cervical abnormalities was much lower in girls under 18 years of age during the vaccine years. Prior to the vaccine being offered, 0.8 percent of girls that were tested showed high-grade abnormalities. During the years the vaccine has been offered, that number has dropped to 0.42 percent.

The total numbers in this group were small due to the fact that not many girls under the age of 18 receive [Pap smears](#). The pre-vaccine group had 109 girls while the post-vaccine only had 23. The researchers did not see any difference in women over the age of 18. There was also no difference noted for any age group when it came to low-grade abnormalities.

The one limitation to the study is that the researchers do not know which girls actually received the vaccine and which did not. They also wonder if screening of younger girls has dropped and that due to the lower number of girls tested, the rate of abnormalities may not really have dropped.

More information: Early effect of the HPV vaccination programme on cervical abnormalities in Victoria, Australia: an ecological study, *The Lancet*, Volume 377, Issue 9783, Pages 2085 - 2092, 18 June 2011. [doi:10.1016/S0140-6736\(11\)60551-5](https://doi.org/10.1016/S0140-6736(11)60551-5)

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