## A Review of Berryman's Blog on HPV Vaccine

1. Berryman has stated that 'HPV infection is associated with 99.7% of cervical cancers'.

My reply: This is factually incorrect because the figure has been taken from a study of 1000 tumours that were re-analysed using different assays (Bosch et al 1995 and Walboomers 1999). Scientists believe the majority of tumours are associated with HPV infection but some claim that 5 - 10% is not (Haverkos 2005).

2. Berryman claims vaccinating boys will 'reduce the transmission of HPV infection to women'.

My Reply: This is simplistic and misleading. This is because HPV 16 and 18 infections on their own are not a risk – they are harmless and asymptomatic. The risk factors to induce cancer development are not prevalent in developed countries. So it is necessary to question whether we need to reduce HPV infections. Particularly if 99% of women in developed countries are not at risk of cervical cancer.

In addition, reducing the transmission of 2 types of HPV, when there are 15+ associated with cancer development *when the risk factors are present*, does not provide an accurate presentation of the risk of an HPV infection to most women. HPV infection is harmless and asymptomatic when the risk factors for cancer development are not present.

- 3. Berryman presents the percentage of male cancers that are associated with HPV infection yet this is not indicative of whether an HPV infection will lead to any type of cancer and it is not indicative of the number of men that get these cancers. He has not included on his website this direct quote from the paper that he participated in with David Hawkes:
  - 'HPV vaccination has been implemented for 7 years and it is difficult to quantitate the effect it will have on the incidence of cc, vaginal, penile, anal, and other cancers'. The question of how much of any type of cancer can be prevented from an HPV vaccine is still unknown. The duration of the vaccine against HPV infection is also unknown.
- 4. Berryman has presented one study to 'claim' that HPV vaccines will provide protection against other strains of HPV. This evidence is not conclusive and scientists do not agree that there is any cross-protection from HPV 16/18 vaccines.

- 5. Berryman claims that 'the vaccine provides immunity for HPV types 16 and 18 in 95% of people who take the recommended course of doses'.
  - **My reply:** Optimal efficacy against HPV 16 and 18 is only achieved in individuals who have not been previously exposed to HPV 16 and 18 (HPV naive individuals). This is stated in his own paper. There are many variables that affect vaccine efficacy from one individual to another and efficacy varies from 40% 95%.
- 6. He has provided selective information on the safety of this vaccine and has downplayed the serious reactions that have occurred. He has also not reported the inadequacies of the current passive monitoring systems that are used by most government regulators.