*Mia's in words:* The United Kingdom introduced HPV vaccines in 2006, eight years before South Africa. Today, the UK is virtually free of cervical cancer. So how do HPV vaccines work and how much do they cost? We break it down.

**HELEN REES –** "HPV virus is one of the commonest sexually transmitted infections that we have. And it's one that affects young people very soon after they have sex."

**VO:** Professor Helen Rees is the founder of the Wits Reproductive Health and HIV Institute.

She says HPV jabs are safe and over 90% effective against cervical cancer. HPV is the main cause of this type of cancer.

**HELEN REES –** "HPV as a virus has got over 100 types, but there are only a few of those types that are associated with cancer."

**HELEN REES –** "When we develop a vaccine, we say: what are those HPV types that are very strongly associated with the development of cancer of the cervix, and the vaccine is then developed around it."

**HELEN REES** – "It doesn't have the virus in it, it's got what we call virus-like particles."

**VO:** Virus-like particles are tiny molecules that look like viruses.

But they can't infect you because they don't contain genetic material of the virus that they resemble. The tiny bits of man-made particles train your immune system to make antibodies that can fight the virus.

**HELEN REES** – "And in the future, if you get exposed to that real virus, the body says, I remember this and immediately fights off the infection."

**VO:** South Africa has two types of HPV jabs, Cervarix and Gardasil-9.

Cervarix protects against the two most common HPV types that can cause cervical cancer.

Gardasil-9 protects against nine such types.

Because people get HPV from having sex, the shots need to be taken before users have started to have sex.

That's why South Africa's school vaccine campaign starts at grade 4.

**HELEN REES –** "Once you get older, much older, many women will have been already exposed. And so the benefit of the vaccine is more limited."

**VO:** Girls at public schools get the Cervarix jab for free. The government plans to introduce HPV vaccination in private schools within the next five years - but private

learners will have to pay for it. In the private sector, one shot costs between R1 200 and R1 300. Each girl needs two shots.

**HELEN REES –** "They are literally life saving vaccines."