

# Tall order

## Injection of funds is key to protecting SA's young girls

Girls around the world are being vaccinated against the human papillomavirus, a virus that can lead to cervical cancer and other sexually transmitted diseases. The high cost of the vaccine is the biggest obstacle to South Africa implementing a vaccination programme. But, asks **Rebekah Kendal**, can we really afford not to have it?

**G**ynaecology is an awkward word. It conjures up images of stirrups, lady bits, and scary looking metal contraptions. It's a hushed word, a muttered word, a word reserved for discreet conversations. It's an adult word.

It is a word that doesn't sit comfortably next to the words "nine-year-old girl". At the slightest mention of prepubescent little girls, the letters a and e scramble over each other in the effort to distance themselves from those offending y's and g's.

And yet sometimes it is okay to have a conversation about little girls and gynaecology. Sometimes it is *necessary* to have that conversation. This is one of those times.

Breast cancer gets all the press, but cervical cancer kills more women in South Africa every year than any other cancer. Each year, 6 800 South African women are diagnosed with cervical cancer and 3 700 women die from it. It is estimated that one in 26 women will get cervical cancer at some point in her life.

Unlike many other cancers, cervical cancer has an identifiable cause — the human papillomavirus. HPV is a highly contagious viral infection that spreads through skin-to-skin contact. Certain strains of the virus infect the male and female genital areas — including the lining of the vagina and cervix — and are sexually transmitted. Because the virus can be passed from one person to the next through skin contact, condoms are not effective in preventing transmission.

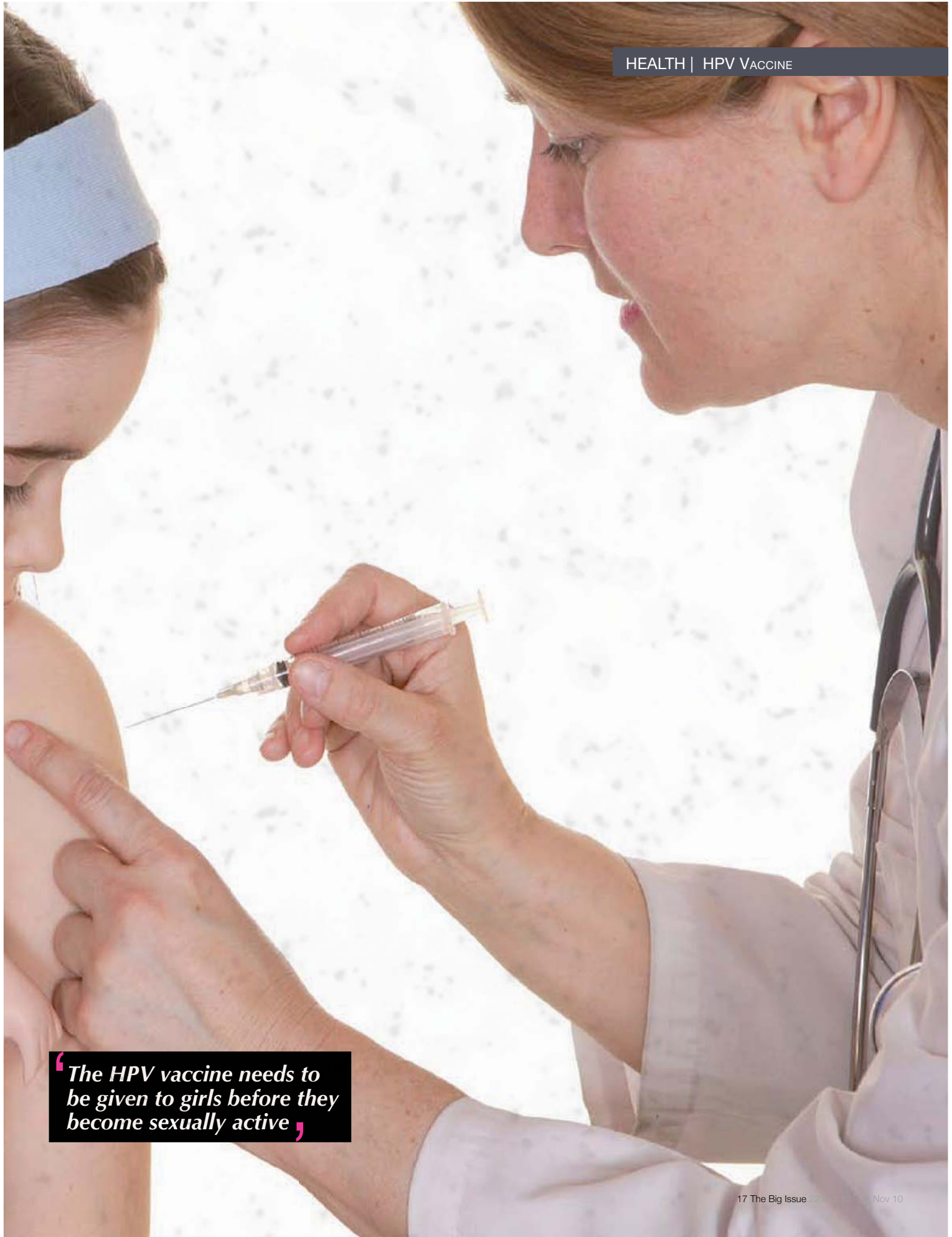
HPV is one of the most common sexually transmitted infections and it is estimated that between half and three-quarters of sexually active adults will have HPV at some stage in their lives.

Not all strains of HPV are oncogenic (tumour causing) — 13 strains have been shown to cause cervical cancer. Of these, HPV strains 16 and 18 account for approximately 70% of the global cervical cancer caseload. If you become infected with an oncogenic strain of HPV and it persists — often it doesn't — it can trigger malignant changes in previously normal cervical cells.

The surest way to detect pre-cancerous lesions is through cervical screening and the Papanicolaou (pap) smear. Although South Africa has a cervical cancer prevention programme which aims to screen at least 70% of women using the public health sector, studies by the Cancer Research Institute of South Africa have found that up to 60% of South African women have never had a pelvic examination and that only 23% have access to consistent and regular examinations.

What's more, a study by Professor Franco Guidozi at the University of Witwatersrand has found that all types of HPV infection are more likely to persist in women who are HIV-positive and that HIV-positive women develop invasive cervical cancer at a younger age than HIV-negative women and do not respond as well to treatment. In a country where HIV prevalence is estimated at 18%, this is significant.





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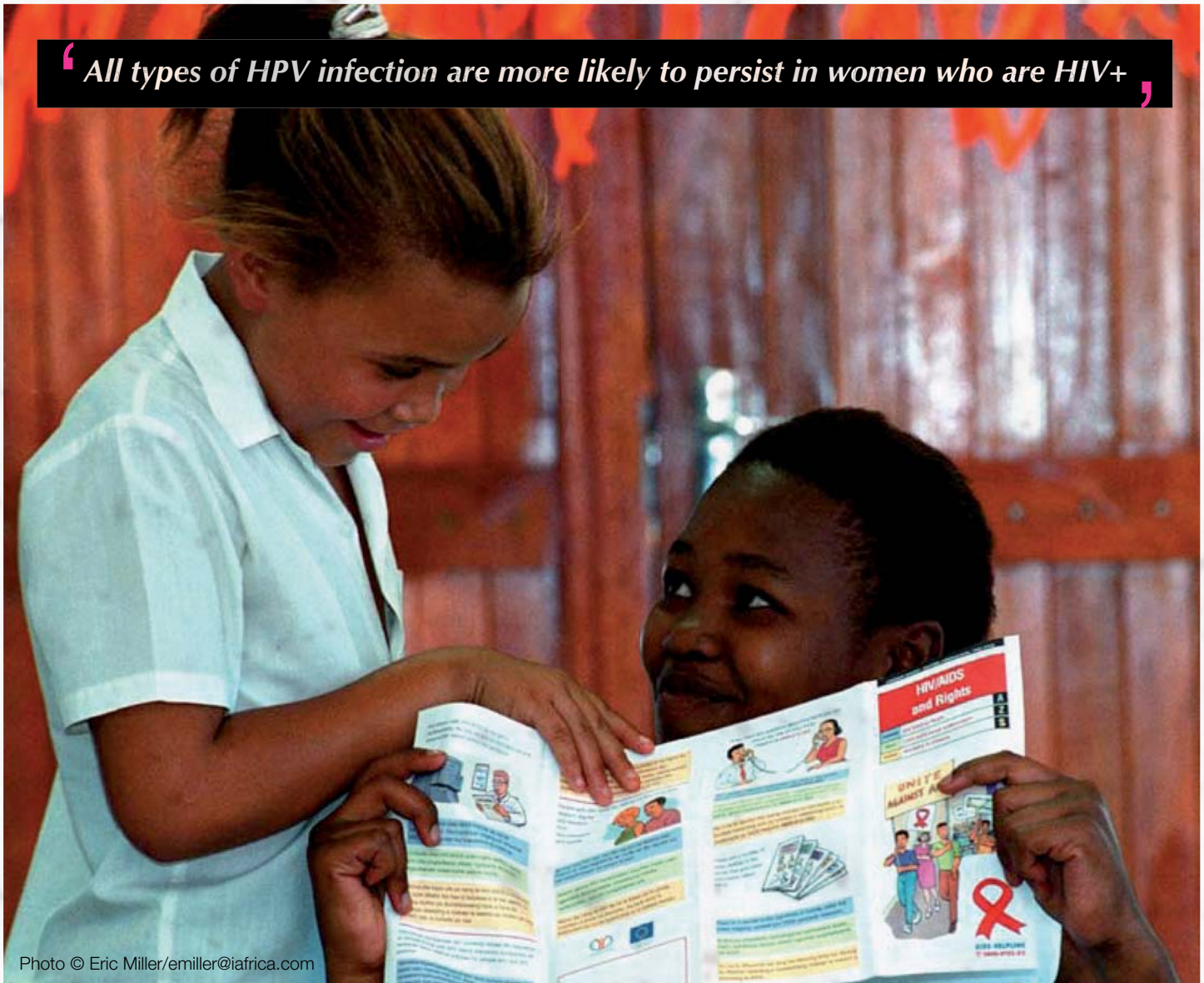


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### **Vaccines approved**

While cervical screening is the gold standard in preventing cervical cancer, certain countries — such as the UK and Australia — have national HPV vaccination programmes as an additional measure. There are currently two HPV vaccines on the market — Gardasil (by Merck) and Cervarix (GlaxoSmithKline). Both vaccines were approved for use in South Africa by the Medicines Controls Council in 2008.

The vaccines, which need to be administered in a series of three doses over six months, provide immunisation against HPV strains 16 and 18 (Gardasil also protects against the strains of the virus which cause genital warts). For a vaccine to be most effective, it needs to be administered before the person has had any exposure to strains 16 and 18 of the virus. This is why the HPV vaccine needs to be given to girls before they become sexually active. And because

girls become sexually active at different ages, the surest way to protect the highest number of girls is to do so before any of them become voluntarily sexually active.

Admittedly, this presents a bit of a conundrum for parents who feel that in doing so they will be sexualising their little girls. The conundrum, however, is easily overcome if the vaccine is seen for what it is: not just a vaccination against a sexually transmitted infection, but a useful tool in the fight against cervical cancer. Besides which, when it comes to concerns over sexualising your child, a Miley Cyrus music video probably poses a far greater threat than series of nondescript injections.

### **Concern over safety**

For some parents, however, the concern is over the safety of the vaccine. But Professor Gerhard Lindeque, chairman of the South African Society of Gynaecologic

Oncology and the South African HPV Advisory Board, says that fears around the HPV vaccine are unfounded.

“Some vaccines are safer than others. This HPV vaccine contains no viral DNA material and therefore is very safe. People should not panic about vaccines in general. They are very important health care tools.”

Before the vaccine can be deemed safe it needs to undergo laboratory testing, animal testing, and trials on human volunteers. Long-term follow up tests are always conducted to ensure long-term safety and effectiveness, explains Lindeque.

Despite this, there are still those who believe that the vaccine is responsible for a number of adverse — sometimes severe — side-effects. After Gardasil was approved by the Food and Drug Administration in America in 2006, there was a big push for the vaccination of young women. This was followed by a number of reports

in the media linking the vaccine to Guillain-Barré Syndrome and even death. However, later studies found no link.

“If a population takes part in such an exercise [a vaccination programme] the population will have all sorts of underlying conditions,” says Lindeque. “The safety profile of the HPV vaccine has been scrutinised so much that it has been registered for use in children and adolescents.”

There is an important difference — a point often misunderstood by the general public — between a vaccine “triggering” adverse side effects and a vaccine “causing” them, he adds.

“Adverse effects are really anything that can happen after medication, be it a sore arm, flu-like symptoms or whatever. Vaccines can trigger certain effects because the body’s immune response is stimulated. Vaccines causing adverse effects relate to what the vaccine itself is doing. Certain vaccines contain weakened viruses that are still alive and so can cause virus-like symptoms. The HPV vaccine contains viral antigens from the capsid or shell of the virus without containing viral DNA.”

Put simply: when you are given the vaccine, you are not receiving the actual virus. It is for this reason that even individuals who are HIV-positive can get the vaccine — although they may be less successful in producing antibodies because of their compromised immune systems. Negative side effects are not likely to extend much beyond a bit of redness, pain and swelling at the site of the injection.

The vaccination, which has been deemed safe for girls as young as nine years, is not registered for use in pregnancy. Although the vaccine should ideally be used on girls or young women who are not, as yet, sexually active, it can also be used on women who have had few sexual partners. The likelihood of a woman contracting HPV increases with every sexual partner and with the number of sexual partners that her partner has had in the past.

### Access to funding

So, if countries such as the UK and Australia — which already have comprehensive screening programmes in place — are making use of this additional measure, shouldn’t we? Yes, we should. But it comes down to the problem faced by every cash-strapped developing country: funding.

## ‘Thousands of South African girls may one day die from a largely preventable disease’

The vaccine is very expensive. So while South Africa’s more affluent citizens can afford it, the costs are prohibitive for those who utilise the public health sector and, to make matters worse, it is this group of women who are unlikely to have access to cervical screening.

Research by the Health Economic Unit at the University of Cape Town to establish the cost-effectiveness of a national HPV vaccination programme found that from a societal perspective, the cost per vaccinated girl would be R3 295. The cost of diagnosis and treatment of cervical cancer, on the other hand, ranges from R24 997 (stage one) to R55 997 (stage four) per woman. While the study found that adding the HPV vaccine to the current screening strategy to prevent cervical cancer would be cost-effective, the cost may still be too much for South Africa’s overburdened health system.

“The findings suggest that the extra costs of scaling up the preventative programmes for cervical cancer range from R9.77 to R88.51 per capita, depending on the vaccine price and vaccine type,” explains Dr Edina Sinanovic, a health

economist who works at UCT.

“Although the estimated investments are not large in absolute terms, they represent an additional 4.86% of total spending on health. If the vaccine price is reduced by 90% this spending would be 0.75% — much less of a burden on the health budget but still a sizeable amount considering competing priorities and the small margin that South Africa has for reallocation in the short term from their own resources.”

If South Africa hopes to roll out a national HPV immunisation programme, says Sinanovic, it will need to look at ways of reducing the cost of the vaccine by accessing international funding mechanisms, such as Unicef and public-private partnerships, and by lobbying pharmaceutical companies to drastically reduce their prices. A tall order indeed.

So, yes, it’s not easy to talk about cervical cancer. But this has nothing to do with the word gynaecology. It is a difficult conversation because it draws attention to the fact that thousands of South African girls may one day die from a largely preventable disease. **TBI**



What do you think — should South Africa urgently implement a HPV vaccination programme? SMS “**TBI HPV**” followed by **YOUR COMMENTS** to 33165.

SMS charged at R1.50 each. A portion of proceeds goes towards *The Big Issue*’s job creation programme. You can also send your comments via email (at no charge) to: [editor@bigissue.org.za](mailto:editor@bigissue.org.za)