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## Culture columnist

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# A dying shame

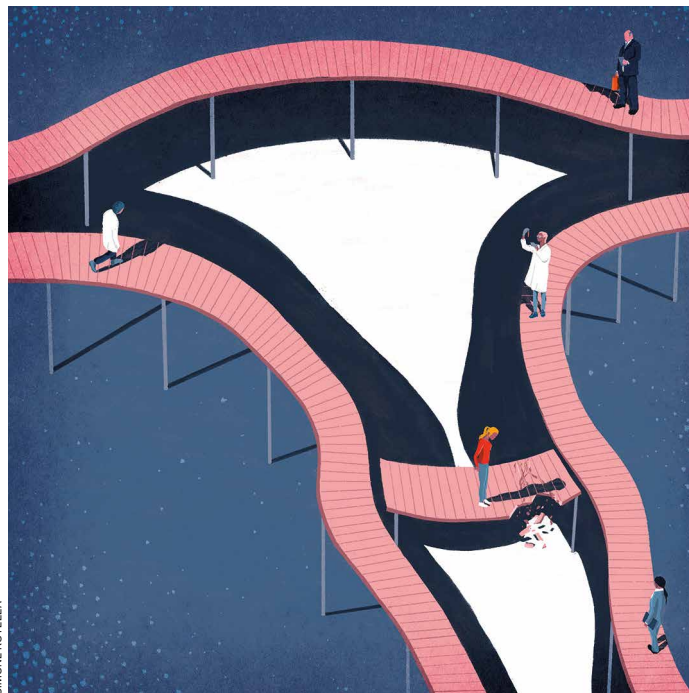
Twenty years after we developed a cervical cancer vaccine, the disease is still killing. Politics and economics got in the way, says **Linda Eckert**

**I**N 2003, those of us deeply involved in the prevention of cervical cancer heard some astonishing news. Results of a four-year, placebo-controlled trial of a prototype vaccine for a form of the virus that causes this cancer, known as HPV-16, were out. Of the 2400 participants who had the active vaccine, not one acquired an HPV-16 infection. Not one. Twelve years into my career as an obstetrician-gynaecologist, I knew I was witnessing a miracle.

Today, 20 years later, this cancer continues to kill – one woman every 2 minutes – and cases are on the rise: 604,000 in 2020, projected to reach 855,000 by 2040. That means millions of deaths and disfigurement and the forfeit of sexuality and fertility for survivors. It is scandalous.

It is also proof that, as much as I would love it to be otherwise, science is never enough. Its discoveries actually change the world only when they overcome political, economic and cultural challenges. We, the researchers so eager to launch extraordinary discoveries into the world, must understand, participate in and prepare for that.

Every vaccine that leaves the laboratory enters a world of supply and demand, where the market's loyalty to the highest bidder allows places like the US, which can pay \$160 per HPV vaccine dose, to purchase all the supply they need. The lowest-income countries rely on subsidy from the global health body Gavi (which



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negotiates a \$4.55/dose price) and get their doses after the demands of higher-income countries have been met. In 2018, a global HPV vaccine shortage – in no small part because, until recently, most of the world's supply was manufactured by just one company – left 34 million girls unvaccinated in countries where cervical cancer screening and treatment are as impossible to finance as the jabs. And for the “caught-in-the-middle” countries – too “rich” to receive vaccine subsidy, but not rich enough to buy it – the market is a long way from allowing them any access at all. This isn't about

science. This is economics, public policy and resource sharing, things that we, as scientists, had better care about if we want our work to actually do the work.

Another obstacle to the HPV jab's world-changing potential is infrastructure and delivery. Traditional programmes immunise very young children, but the vaccine's target population is 9 to 14 years old. Adding an entirely new entry to a country's list of vaccines demands storage, scheduling, training and other logistical changes. Again, not science, but integral to moving such medical research out of

the laboratory and into the arms of the people for whom it was created.

However, the most intractable challenges to the vaccine's promise to prevent cervical cancer spring from the fact that its primary audience is girls and its chief target a sexually-transmitted disease. It butts up against cultural fears, stigmas and inequities in low, middle and high-resource settings alike. The notion that the vaccine will encourage promiscuity in girls, though thoroughly disproven, persists. Claims about side effects, despite being swiftly investigated and dispelled, brought Japan's astonishing 70 per cent vaccination rate to near zero for a decade. Since the covid-19 pandemic, most of us know painfully well that science alone is helpless in the face of misinformation and requires muscular public health messaging and robust trust.

In 2003, I thought we might see the elimination of a cancer in my lifetime. Today, just 1 in 5 girls eligible for the HPV vaccine have received it. I have come to see that the research on its own isn't enough. Unleashing the world-changing power of this vaccine requires us to deal with politics, economics and culture too. ■



Dr Linda Eckert is the author of *Enough: Because we can stop cervical cancer*