

## Cancer vaccine boosted by infrastructure for HIV care in Africa

LWEZA, UGANDA — On 19 January, health workers at an HIV care facility run by Mildmay Uganda began vaccinating 500 HIV-positive girls between the ages of 9 and 13 against the cancer-causing human papillomavirus (HPV). The campaign makes the clinic run by Mildmay, an international not-for-profit Christian organization, the first treatment center devoted to HIV to vaccinate for HPV in Uganda.

AIDS clinics are poised to have an important role in providing essential infrastructure for delivery of the vaccine, Gardasil, which is made by Merck and protects against cervical cancer. Peter Mugenyi, a world specialist in HIV/AIDS and director at the Joint Clinical Research Centre in Kampala, Uganda says this is part of larger plan whereby governments will integrate HIV services in normal delivery of health care: “We have to be futurists.”

Cervical cancer is the leading cause of cancer deaths among women in the developing world. The International Agency for Research on Cancer estimates that more than 274,000 women die of cervical cancer each year and that 80% of these deaths occur in developing countries.



Take a jab: Uganda tackles cervical cancer.

In addition to the distribution of Merck's Gardasil by Mildmay, GlaxoSmithKline has committed to donating 90,000 doses of its HPV vaccine, Cervarix, to be administered in Uganda, a portion of which was delivered with help from the US-based nonprofit Path.

Currently, schools and health centers are being used to administer the HPV vaccine to adolescent girls in Africa. But these facilities and the teachers that staff them are overstretched. What's more, the vaccine cannot be delivered through the national routine immunization

days in most countries, as these campaigns target children younger than five years.

At Mildmay, the Cleveland, Ohio-based Axios International donated 1,600 doses for the 500 HIV-positive girls. The facility already has cold-chain facilities to ensure proper preservation of the shots and trained staff members who are knowledgeable in vaccine management and can report adverse effects to the government. The facility also has a fun-hospital setting for its young HIV-positive clients: there is an area where youngsters can read books and assemble puzzles and an adolescents' club where the girls discuss various issues affecting their lives.

According to Emmanuel Luyirika, a doctor and the country director of Mildmay Uganda, the clinic has taken a comprehensive approach. “We are not only looking at the vaccine; we are screening for cancer of the cervix for all women. All women found to have early signs [of cervical malignancies] are treated; those with advanced signs are referred to the Mulago hospital,” she says.

*Esther Nakkazi*

## New guidelines could plug data gaps in India's cancer research

NEW DELHI — In India, cancer researchers often lack comprehensive country-specific data, which makes it difficult for them to probe why some cancers predominate here and to know what prevention and treatment strategies work best. To plug this data gap, the Indian Council of Medical Research (ICMR), located in New Delhi, released its first set of recommendations on tracking and treating three kinds of cancers in late December, with instructions on 17 more cancer types in the pipeline.

The ICMR, which was established in 1949 under India's health ministry to oversee biomedical research and disease control, released treatment guidelines for cancers of the stomach, cervix, and ‘buccal mucosa cavity’, which refers to malignancies in the area between cheeks and the tongue.

The guidelines note that the new framework “may be used for more focused and planned research programs.” They hope to use the feedback they receive about treatment challenges to help scientists select research topics with immediate practical applications within India, ICMR deputy director general Kishore Chaudhry told *Nature Medicine*.

The newly issued recommendations “will give direction to local research,” says Jai Prakash Agarwal, an oncologist at the Tata Memorial Centre (TMC), a cancer treatment facility in Mumbai.

The guidelines, which emerged after three years of consultation with more than 130 cancer experts in India, invite feedback on cancer cases and treatment complications doctors encounter to the ICMR, which will compile the information and identify topics that need further research.

Prakash and others hope that by streamlining the collection of cancer-related information from hospitals, the new rules will help shed light on differences in cancer biology and genetics between Indians and other populations. For example, breast cancer often strikes premenopausal Indian women, whereas it is more common among postmenopausal women in the West, says TMC's Vani Parmar. Parmar adds that ‘triple negative’ breast cancers, in which three crucial cancer cell receptors are missing, account for around a third of all cases among Indian women, compared with half that rate in Western countries.

Even within India itself cancer rates vary dramatically. The ICMR guidelines state that there are few studies on factors linked to the strikingly high incidence of stomach cancer—57 per 100,000—in India's northeast, compared with the rates as low as 5 per 100,000 in other regions.

Agarwal hopes that the guidelines will ultimately help researchers in India better understand the variation in chemotherapy and radiation dose response within the country's population.

According to the ICMR, Indian researchers also need to strengthen the research agenda for buccal mucosa cancers, caused by extensive use of chewing tobacco in India but rare in developed countries. The agency notes that scant information exists worldwide regarding what the optimum chemotherapy and radiation dosages are for treating this particular cancer.

*T V Padma*