Three studies hold out hope on reducing infection in young females

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DURBAN: Three key studies held over Tuesday by a leading South African-based research organisation could help revitalize the fight against HIV/AIDS in young women.

The Centre for the Aids Programme of Research in South Africa (Cape Town) has released its findings yesterday, in time for the first day of the International AIDS Conference.

The three studies, said the organisation, provided new information on the high rate of HIV infection in young women in South Africa, resulting from the “cycle of HIV transmission” involving age-disparate sex and on two vaginal bacteria—increasing Viralload and in determining the efficacy of tenofovir-based topical pro-exposure prophylaxis.

In most of southern and eastern Africa, HIV incidence in young women (less than 35 years) continues to remain unacceptably high, said women's organisation.

About 300,000 HIV infections occur in adolescent girls and females aged 15 and 24 each year. By 2020, the number of HIV-infected women will increase to 700,000.

“Reducing new HIV infections in young women is the greatest challenge in southern Africa,” said director Sulain Abdurahman.

“Based on our results, implementing a combination of evidence-based targeted interventions to break the cycle of HIV transmission, while effectively treating bacterial vaginosis, could enhance HIV prevention in women in the highest HIV burden region of the world,” she said.

But, he added, the findings, while surprising, still need to be confirmed due to, among other reasons, the small sample size.

“These are preliminary findings. We don’t know if we will see something similar in women in Kenya, or Malawi or anywhere else, but the findings still need to be explored.”

In the first study of 9,812 individuals, the genetic code of HIV from each of 1,000 HIV-positive people was analysed to better understand the relentless spread of HIV in a rural and urban community in South Africa.

It revealed a “cycle of HIV transmission” driven by high rates of new HIV infections in adolescent girls and young women from men who are on average eight years older. Many of the men were also part of a group of similarly aged women who have HIV prevalence rates exceeding 60 percent.

In a second study investigating the genetic code of vaginal bacteria in 118 South African women, those with an overgrowth of Prevotella, a bacterium that had an almost 13 times higher chance of acquiring HIV infection than those with low levels or absence of this bacterial infection.

In the third study, an analysis of 3,334 genital bacterial proteins from women showed that the presence of a “healthy” lactobacillus dominated vagina showed that the lack of vaginal pre-exposure prophylaxis was effective in preventing HIV, while the women who did not have this condition showed little benefit from the gel.

Follow-up laboratory studies showed that Gardnerella vaginalis, which predominates in the vagina when lactobacillus is absent, is also less susceptible to tenofovir, thereby reducing the availability of the drug to prevent HIV infection.