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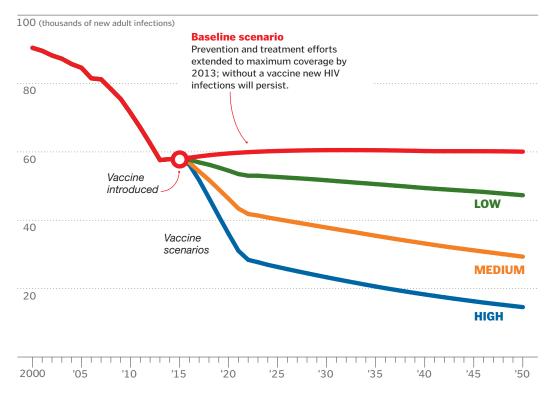
## **Uganda**

# Estimating the Potential Impact of an AIDS Vaccine

Despite Uganda's successes in expanding access to AIDS prevention, treatment and care programs, the growing number of new HIV infections continues to burden the nation's health system, underscoring the critical need for new HIV prevention technologies — in particular an AIDS vaccine. The International AIDS Vaccine Initiative (IAVI) and the Futures Institute partnered with the Uganda AIDS Commission (UAC) and the Makerere University School of Public Health to mathematically model the future trajectory of the AIDS epidemic and the potential impact that an AIDS vaccine could have in Uganda.

#### **Estimated number of new infections in Uganda**

Results generated by this analysis show that an AIDS vaccine could substantially alter the course of the epidemic in Uganda and reduce the number of new infections, even if vaccine efficacy levels are relatively low and existing HIV treatment and prevention programs are fully scaled up.



Vaccine scenarios	Vacinne Efficacy	Percentage of adult population given vaccine	New infections averted, 2016-50	Percentage reduction in new infections
LOW	30%	20%	309,100	15%
MEDIUM	50%	30%	780,200	37%
HIGH	70%	40%	1,242,500	59%

Additional information on this analysis can be found at www.iavi.org

The game-changing impact that an AIDS vaccine could have on the AIDS epidemic in Uganda underscores the importance of sustaining political support and financial investments to accelerate research and development of an AIDS vaccine.

- Without an AIDS vaccine and even with full scale up of AIDS treatment, prevention and care programs new HIV infections will persist in Uganda. More than 2.1 million new adult HIV infections are estimated to occur from 2016 to 2050.
- A partially effective AIDS vaccine, as part of a comprehensive package of treatment and prevention programs, could significantly reduce the number of new HIV infections in Uganda. A vaccine with 50% efficacy given to 30% of the adult population could avert 37% of new HIV infections, or approximately 780,200 new infections, from 2016 to 2050.
- Preliminary findings suggest that an AIDS vaccine would be costsaving. In comparison to the estimated cost of lifetime ART (US\$ 11,500), an AIDS vaccine that is 50% effective could cost up to US\$ 217 per vaccination and still result in cost-savings.

### The Impact Modeling Project

IAVI's Impact Modeling Project was launched in partnership with the Futures Institute in 2006 to model the future trajectory of the AIDS pandemic and the potential impact of an AIDS vaccine globally and in key countries. A global analysis was initially published in 2006 and subsequently updated in 2009. Country level analyses were conducted in Kenya, Uganda and Brazil and policy briefs published in 2009. The next

installment of the project is currently underway in China and is expected to be completed in 2010. Findings from this research highlight the relevance of AIDS vaccines in fighting the global pandemic and the need for sustained political and financial support for AIDS vaccine R&D. Published Impact Modeling policy briefs and one-page summaries can be found at www.iavi.org.

#### **About IAVI**

The International AIDS Vaccine Initiative is a global not-for-profit public-private partnership working to accelerate the development of a safe, effective and accessible, preventive HIV vaccine for use throughout the world. IAVI works around the world with offices in Africa, India, Europe and the United States to develop and assess candidate AIDS vaccines, to prepare communities and health systems for vaccine introduction, and to create a supportive policy environment for global health innovation.

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