iavi POLICY notes

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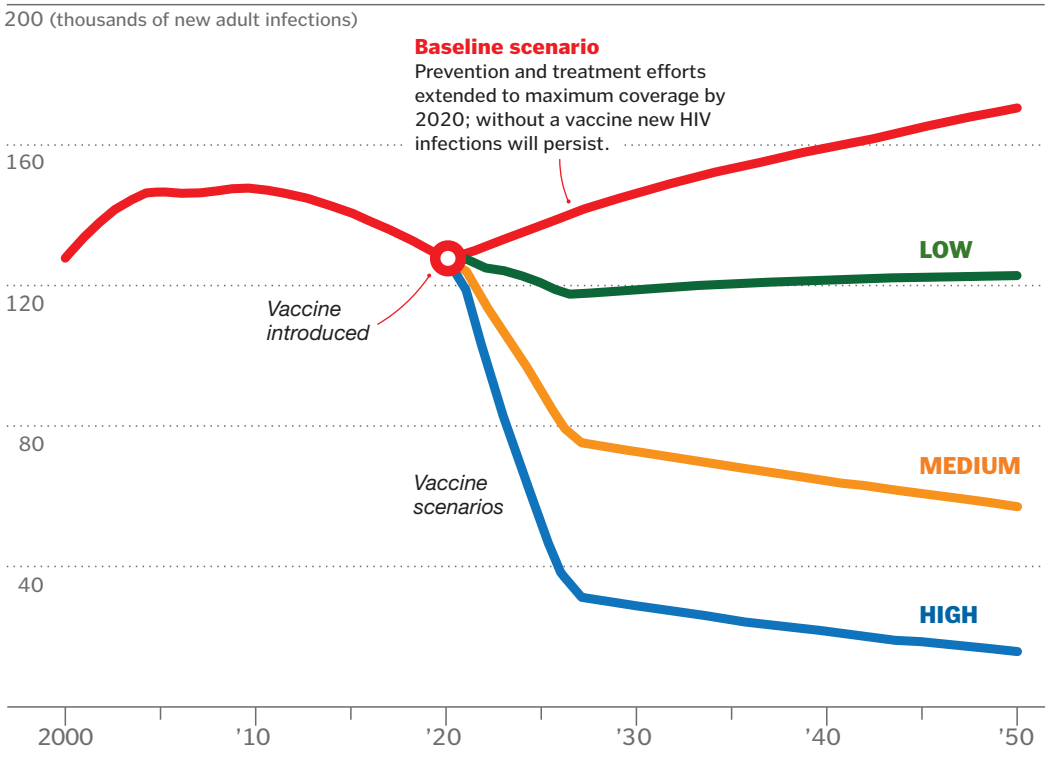
Kenya
Estimating the Potential Impact of an AIDS Vaccine

The ongoing devastating impact of Kenya's AIDS epidemic underscores 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 Kenya AIDS Vaccine Initiative (KAVI) and the Kenya HIV and AIDS Coordinating Mechanism (KARSCOM) to mathematically model the future trajectory of the AIDS epidemic and the potential impact that an AIDS vaccine could have in Kenya.

Estimated number of new infections in Kenya

Results generated by this analysis show that an AIDS vaccine could substantially alter the course of the epidemic in Kenya 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	Vaccine efficacy	Percentage of population given vaccine	New infections averted, 2020-50	Deaths averted, 2020-50	Percentage reduction in new infections
LOW	30%	30%	1.4 million	409,000	25%
MEDIUM	50%	50%	2.4 million	850,000	65%
HIGH	70%	70%	3.5 million	1,233,000	90%

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 Kenya 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 Kenya,** increasing from 147,560 in 2010 to 170,406 new infections per year by 2050 due to population growth.

- A partially effective vaccine, as part of a comprehensive package of treatment and prevention programs, could significantly reduce the number of new HIV infections in Kenya. A vaccine with 50% efficacy given to 50% of the adult population could **avert 65% of new HIV infections, or approximately 2.4 million new infections,** from 2020 to 2050.

- Preliminary findings suggest that **an AIDS vaccine would be cost-saving.** In comparison to the estimated lifetime cost of ART (US$ 8,700), an AIDS vaccine that is 50% effective could cost up to US$ 335 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 of 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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