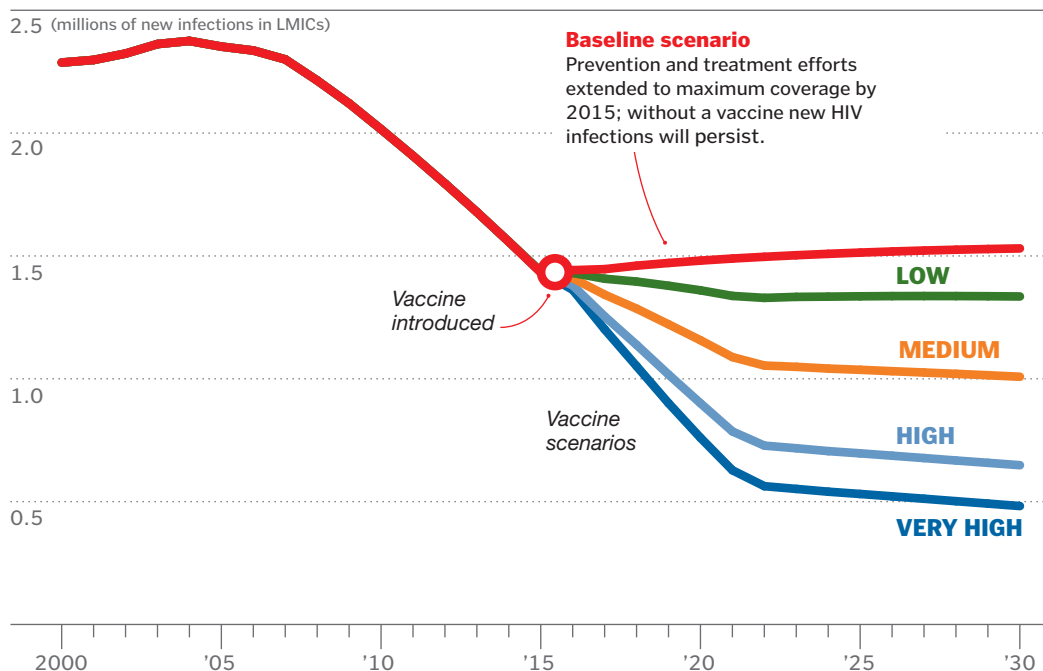


Estimating the Potential Impact of an AIDS Vaccine in Developing Countries

Almost 30 years into the pandemic, more than 25 million people have died from AIDS, 33 million people are living with HIV worldwide and nearly 3 million become newly infected each year. While the global community works to expand treatment and care services to those infected with HIV, there is an urgent need to develop new prevention technologies — in particular an AIDS vaccine — to stem the tide of new infections. The International AIDS Vaccine Initiative (IAVI) worked with the Futures Institute to mathematically model the future trajectory of the AIDS pandemic and the potential impact that a vaccine could have in preventing new HIV infections.

Estimated number of new infections in developing countries

Results generated by this analysis show that an AIDS vaccine could substantially alter the course of the global AIDS pandemic 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, 2015-30	Percentage of new infections averted	Annual HIV infections in 2030
LOW	30%	20%	2.1 million	9%	1.3 million
MEDIUM	50%	30%	5.6 million	24%	1.0 million
HIGH	70%	40%	9.8 million	41%	600,000
VERY HIGH	90%	40%	12.0 million	50%	500,000

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

The game-changing impact that an AIDS vaccine could have on the global AIDS pandemic 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 globally.**

■ 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 developing countries. A vaccine with 50% efficacy given to 30% of the adult population could **avert 24% of new HIV infections, or approximately 5.6 million new infections, from 2015 to 2030.**

■ Preliminary findings suggest that **an AIDS vaccine would be cost-saving.** In comparison to the estimated cost of lifetime ART (US\$7,400), an AIDS vaccine that is 50% effective could cost up to US\$ 800 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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