HIV Vaccines by the Numbers

Trials, discoveries, money and more

AVAC
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Founded in 1995, AVAC is an international, non-profit organization that uses education, policy analysis, advocacy and community mobilization to accelerate the ethical development and global delivery of biomedical HIV prevention options as part of a comprehensive response to the epidemic.

AVAC is based in the US and focuses on issues and priorities in countries where prevention research and implementation are ongoing. Specifically, we seek to deliver proven HIV prevention tools for immediate impact; demonstrate and roll out new HIV prevention options; and develop long-term solutions needed to end the epidemic.

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We know that an HIV vaccine is possible and that a vaccine will be an important part of a long-term strategy to end the HIV epidemic. The road ahead is long, but clinical trials — even those with disappointing results — and early-stage research provide critical clues to the way forward. The graphics below represent key facts about the HIV vaccine field.

### THE NUMBER OF HIV VACCINE TRIALS UNDERWAY (2016)

- **Phase I:** 21 trials
- **Phase II & I/II:** 9 trials

### NUMBER OF BROADLY NEUTRALIZING ANTIBODIES DISCOVERED

- 87 antibodies discovered

### TIME TO DEVELOP A VACCINE

<table>
<thead>
<tr>
<th>Disease</th>
<th>Year of Discovery</th>
<th>Year of Vaccine Approval</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhoid</td>
<td>1884</td>
<td>1989</td>
<td>105 years</td>
</tr>
<tr>
<td>Polio</td>
<td>1908</td>
<td>1955</td>
<td>47 years</td>
</tr>
<tr>
<td>Pertussis</td>
<td>1931</td>
<td>1948</td>
<td>17 years</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>1973</td>
<td>2006</td>
<td>33 years</td>
</tr>
<tr>
<td>HPV</td>
<td>1984</td>
<td>1981</td>
<td>23 years</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>1965</td>
<td>1979</td>
<td>16 years</td>
</tr>
<tr>
<td>Measles</td>
<td>1963</td>
<td>1963</td>
<td>10 years</td>
</tr>
<tr>
<td>HIV</td>
<td>1983</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HIV VACCINE CLINICAL TRIAL PARTICIPANTS BY REGION (2014)

- **North America:** 7,183 participants
- **Western Europe:** 1,439 participants
- **Latin America:** 14 participants
- **Africa:** 1,592 participants
- **South & Southeast Asia:** 662 participants
- **East Asia:** 150 participants

### NEW HIV INFECTIONS BY REGION (2014)

- **Asia and the Pacific:** 1.4 million
- **Sub-Saharan Africa:** 87,000
- **Eastern Europe and Central Asia:** 85,000
- **Latin America:** 140,000
- **North America and Central Europe:** 340,000

### GLOBAL INVESTMENT IN HIV VACCINE R&D (2014)

- **Total HIV Vaccine R&D Funding:** US$ 841 million
- **Funders:**
  - **United States:** 591 million
  - **Europe:** 40 million
  - **Other:** 27 million
  - **Multilaterals:** 0.5 million
- **Total Public:** 659 million
- **Total Philanthropic:** 131 million
- **Total Industry:** 51 million

### EPIDEMICS SUCCESSFULLY COMBATED WITH VACCINES (CASES 1980 – TODAY)

- **Measles:**
  - 1980: 4,000,000
  - 2015: 225,892 (Data from the World Health Organization, estimated cases)

### THE WORLD NEEDS AN AIDS VACCINE