

Doing Their Part? Public, Private and Philanthropic Sector Investments in AIDS Vaccine Research and Development

Investments in new preventive technologies against HIV are critical

The AIDS epidemic is the greatest public health crisis facing the world today. More than 40 million people are living with HIV, and every day 14,000 people are infected.¹ The world must continue to scale up existing HIV prevention and treatment programs. At the same time, there is an urgent need to develop new preventive technologies such as AIDS vaccines and microbicides to ensure a sustained long-term response that can end the epidemic and the massive tolls it inflicts on individuals and communities.

Support for HIV vaccine R&D is growing...

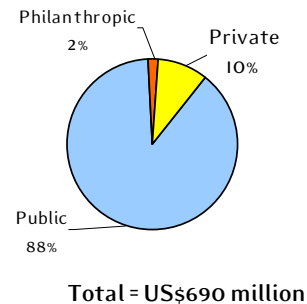
According to the new results of a study conducted by the AIDS Vaccine Advocacy Coalition, the Alliance for Microbicide Development, the International AIDS Vaccine Initiative and the Joint United Nations Programme on HIV/AIDS (UNAIDS):²

- In 2004, about US\$ 690 million was invested in preventive AIDS vaccine research and development (R&D), double the amount invested in 2000.
- The public sector dominates investment in AIDS vaccine R&D. In 2004, governments provided US\$ 610 million, about 88% of total investment (Fig. 1).
- The United States Government provided US\$ 526 million in 2004, or 86% of public spending and 76% of the global total (Fig. 2).
- In 2004, private companies invested US\$ 68 million or 10% of the total, down from US\$ 99 million in 2002.

...But more is needed

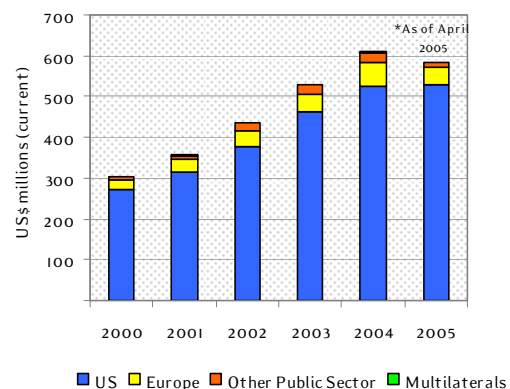
While it is encouraging that AIDS vaccine R&D investment has increased in recent years, this amount still falls short of the annual target of US\$ 1.15-1.2 billion estimated by IAVI and the Global HIV/AIDS Vaccine Enterprise.³ Many governments are currently spending relatively little in this area and have room to grow their investments to help close the funding gap of \$450-500 million a year.⁴ Additionally, the recent drop in private sector investment supports the view that policymakers should consider public policies such as tax credits, liability protection and advance purchase commitments to encourage stronger industry engagement in AIDS vaccine R&D.

Figure 1. Sources of funding for preventive HIV vaccine R&D in 2004.



Source: HIV Vaccines & Microbicides Resource Tracking Working Group. Prepublication Edition. May, 2005.

Figure 2. Annual public sector investment in preventive HIV vaccine R&D between 2000 and 2005 by region.



Source: HIV Vaccines & Microbicides Resource Tracking Working Group. Prepublication Edition. May, 2005.

¹ UNAIDS, *Report on the Global AIDS Epidemic*. Geneva: UNAIDS, 2004.

² Yearly "investment" figures refer to annual funding provided in a particular year, regardless of whether the funds are to be spent that year or over a period of time. "Expenditure" figures refer to the amount of money spent in a year by researchers and product developers.

³ Coordinating Committee of the Global HIV/AIDS Vaccine Enterprise. *The Global HIV/AIDS Vaccine Enterprise Scientific Strategic Plan*, PLoS Med 2:e25, 2005.

⁴ About \$100 million of the gap is expected to be covered by recently announced funding from the US National Institutes of Health and the Bill & Melinda Gates Foundation, leaving a remaining shortfall of \$350-400 million.

Public sector investment in AIDS vaccine R&D has doubled since 2000

The public sector's financial commitment to AIDS vaccine R&D has doubled in the past five years, to US\$ 610 million in 2004 from US\$ 305 million in 2000. Governments, multilateral organizations and other entities such as EU agencies provide just under 90% of total investment. Funding from most governments comes from both R&D and international development budgets in roughly equal parts; the US Government is an exception in that it disburses most of its funding through the National Institutes of Health. While a successful AIDS vaccine will be a major scientific accomplishment, the commitment of funds from international aid budgets is an important acknowledgement that a vaccine will be a significant development tool to help poor countries break the cycle of poverty and disease.

US Government funding dominates public sector contributions

Nearly 90% of public sector investment or US\$ 526 million was committed by the US Government in 2004. European national governments and the European Commission together accounted for just under 8% of public spending, while national governments from the rest of the world accounted for less than 4% and multilaterals (WHO, UNAIDS and the World Bank) for under 0.5%. The United Kingdom and Canada provided more than US\$ 10 million in 2004. The governments of Ireland, Italy and South Africa each invested over US\$ 5 million in 2004.

Private sector investment decreased between 2002 and 2004

Investment in AIDS vaccines by private companies decreased from approximately US\$ 99 million in 2002 to US\$ 68 million in 2004. While investment by the large multinational pharmaceutical companies remained stable over the period studied (US\$ 59 million in 2004 versus US\$ 57 million in 2002), funding by biotechnology companies dropped from US\$ 42 million to US\$ 9 million. This reflects the withdrawal of VaxGen, Inc. from AIDS vaccine R&D following the unsuccessful Phase III trials of its vaccine candidate.

Commitments by philanthropic foundations are growing

The philanthropic sector invested about US\$ 12 million or 2% of the total AIDS vaccine R&D spending in 2004. Philanthropic investment fluctuated in the years studied from a low of US\$ 7 million in 2001 to a high of US\$ 112 million in 2002. The largest charitable funder is the Bill & Melinda Gates Foundation, which accounted for 75% of the US\$ 166 million invested by philanthropies between 2000 and 2004. The Gates Foundation's investments are expected to grow significantly following its recent commitment of an additional US\$ 360 million for AIDS vaccine research over the next five years.

Most AIDS vaccine R&D expenditures are directed toward basic and pre-clinical research

The study on which this brief is based found that of the US\$ 694 million spent on AIDS vaccine R&D last year, 61% went to basic and pre-clinical research (22% and 39%, respectively); 32% to clinical trials and cohort development; 6% to process development and manufacturing; and just over 1% to advocacy and policy development. Recent analysis by IAVI and the Scientific Strategic Plan of the Global HIV/AIDS Vaccine Enterprise suggest that to accelerate the search for an AIDS vaccine, additional spending needs to be concentrated on research to solve several of the key scientific challenges, to expand testing of the most promising vaccine candidates, and to strengthen the human resources and physical infrastructure to conduct AIDS vaccine trials in Africa, Asia, and Latin America.

Current investment trends are encouraging, but the world must still do more

The increase in investment and spending on AIDS vaccine R&D in recent years signals a growing global commitment to developing a comprehensive response to the HIV/AIDS epidemic. While significant progress has been made in the search for an AIDS vaccine, the development, licensing and widespread use of preventive AIDS vaccines are still some years away. Increased and sustained funding is needed to reach this important goal as soon as possible. The world can, and must, do better to develop a safe and effective AIDS vaccine that is accessible to all.

For more information, please visit www.iavi.org.