

Adapting to Realities: Trends in HIV Prevention Research Funding, 2000 to 2008

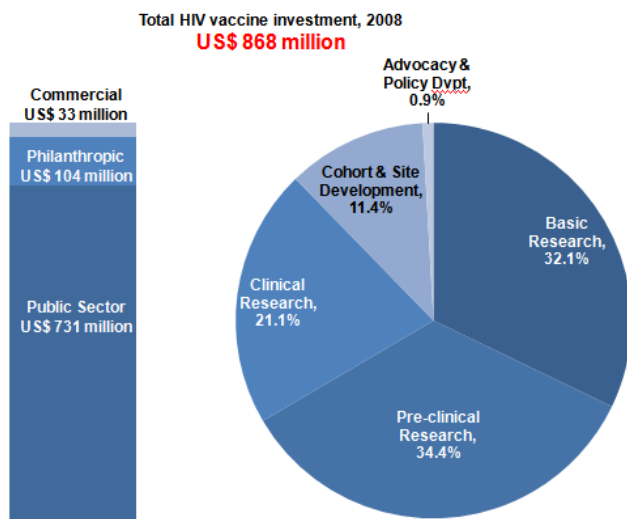
Developing new HIV prevention options to complement existing prevention strategies will provide a range of options to be used alone or in combination which appeal to various cultural and socio-economic backgrounds. The HIV Vaccines and Microbicides Resource Tracking Working Group uses a comprehensive methodology to track annual research and development (R&D) investment trends in HIV vaccines and microbicides that can be compared from year-to-year and across funders. The Working Group has expanded its tracking activities to include investment in HIV therapeutic vaccines, other new HIV prevention options such as pre-exposure prophylaxis (PrEP), and operations research to existing interventions. The Working Group developed estimates for HIV prevention R&D in 2008 and assessed recent trends which may have been influenced by shifts in scientific priorities, the declining economy and competing priorities in larger global health agenda.

FUNDING FOR HIV VACCINES R&D

- In 2008, total global investment in preventive HIV-vaccine R&D was US\$868 million, a 10% decrease from 2007. Public sector funders provided approximately 84% (US\$731 million) of funding, the philanthropic sector provided 12% (US\$104 million) and the commercial sector accounted for the remaining 4% (US\$33 million). Therapeutic HIV vaccines received US\$23 million in funding in 2008.
- European funders decreased investment in preventive HIV-vaccine R&D in 2008 by US\$10 million (13%). US funding declined by US\$39 million (6%). Investments from non-US and non-European countries such as Brazil, Canada, India, South Africa and Thailand decreased from US\$49 million to US\$41 million.
- Funds predominantly supported basic and pre-clinical research, which together accounted for 66% of the funds spent. In comparison, support for clinical trials accounted for 21%, cohort and site development for 11% and advocacy and policy development less than 1%. Basic research increased 19% between 2007 and 2008.
- Despite the decrease in HIV vaccine funding this year, there has been a net gain in public-sector HIV vaccine funding of 22% since 2005, and 155% since 2000.

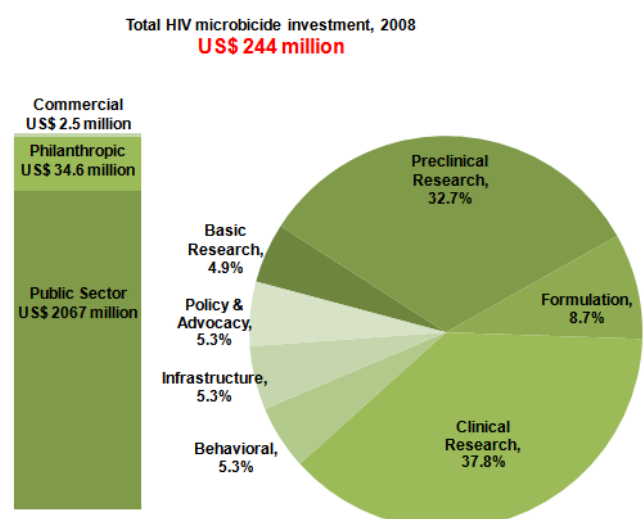
Investment for HIV Vaccines R&D 2008

Investment for Microbicides R&D 2008



Sources of Global Funding for Vaccine R&D in 2008

Global Funding Allocation by Category in 2008



Sources of Global Funding for Microbicide R&D in 2008

Global Funding Allocation by Category in 2008

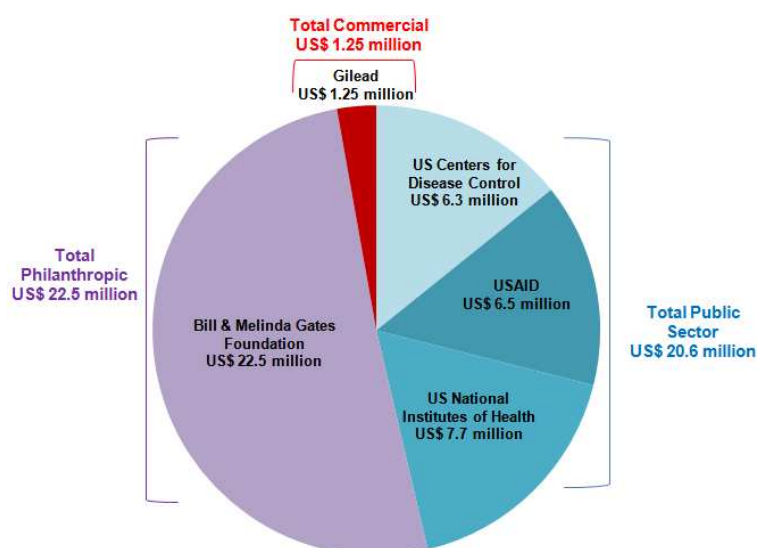
FUNDING FOR MICROBICIDES R&D

- In 2008, total global investment in microbicide R&D was US\$244 million, an 8% increase from 2007. The public sector provided 84% (US\$207 million) of funds allocated, the philanthropic sector provided 14% (US\$35 million) and the commercial sector accounted for 2% (US\$2.5 million).
- From 2007 to 2008, US funders increased their commitment to microbicide R&D by 10%. European funders decreased investment by US\$20 million (33%). Funding for R&D activities outside of the US and Europe increased from US\$3.4 million to US\$12.1 million.
- A breakdown of global funding allocations by type of activity or product development stage was estimated from a subset of investments on microbicide R&D. Of this, 5% was devoted to basic mechanisms of mucosal transmission; 33% to pre-clinical research; 9% to product formulation; 38% to clinical trials; 5% to social science; 5% to infrastructure; and 5% to advocacy.

R&D FUNDING FOR OTHER NEW PREVENTION OPTIONS

- In 2008, US\$81 million in R&D or operations research investment was directed towards adult male circumcision, herpes simplex virus type 2 (HSV-2) suppression, cervical barriers, prevention of vertical HIV transmission and pre-exposure prophylaxis using antiretroviral drugs (PrEP). Public sector funders provided 55% (US\$45 million) of the 2008 funds for these prevention options, the philanthropic sector provided 43% (US\$35 million), and the commercial sector provided an estimated US\$1.25 million in-kind donation of antiretroviral drugs for PrEP research.
- Global public-sector and philanthropic investment in R&D and operations research related to adult male circumcision has totaled US\$51.6 million over the last eight years. Investment increased almost US\$3 million from 2007 to 2008.
- Global public-sector and philanthropic investment in pre-exposure prophylaxis (PrEP) over the last seven years totaled US\$119 million. In 2008, funding for PrEP was US\$44.3 million or US\$4.3 million greater than in 2007.
- Global public-sector and philanthropic investment in HSV-2 suppression for HIV prevention using acyclovir totaled US\$51 million from 2002 to 2008. In 2008, the NIH provided US\$3.7 million for HSV-2 vaccines and US\$367 thousand for microbicides to prevent HSV-2 infection.
- In its first year of monitoring funding for operations research related to prevention of vertical transmission, the Working Group identified US\$21.2 million in funding in 2008.

Investment in PrEP R&D 2008 by Funder and Sector



HIV PREVENTION R&D FUNDING IN A TIME OF SHIFTING SCIENCE, TIGHT BUDGETS AND COMPETING GLOBAL HEALTH PRIORITIES

- Financing needs must be sustained in the coming years to explore new approaches to vaccine and microbicide design; bring novel candidates into the pipeline; meet the financial demands of clinical trials to test the safety, immunogenicity and efficacy of new products; and translate research results, such as those for adult male circumcision, into policies and programs.
- 2008 saw a range of funding level changes from the prior year both within and among different technologies. Still the overall trend over the recent has been of increasing investment for all experimental biomedical prevention strategies. Still, changes in scientific priorities, competing global health needs and the downturn in the economy could impact future funding decision-making. To ensure new HIV prevention options are developed, it will be critical that research funding resources are sustained.

The HIV Vaccines and Microbicides Resource Tracking Working Group is composed of the AIDS Vaccine Advocacy Coalition (AVAC), Alliance for Microbicide Development (AMD), International AIDS Vaccine Initiative (IAVI), and the Joint United Nations Programme on HIV/AIDS (UNAIDS). Please visit www.hivresourcetracking.org for a copy of the full report *Adapting to Realities: Trends in HIV Prevention Research Funding 2000 to 2008*.