

# Adding It All Up

## Funding for microbicide research and development between 2000 and 2005

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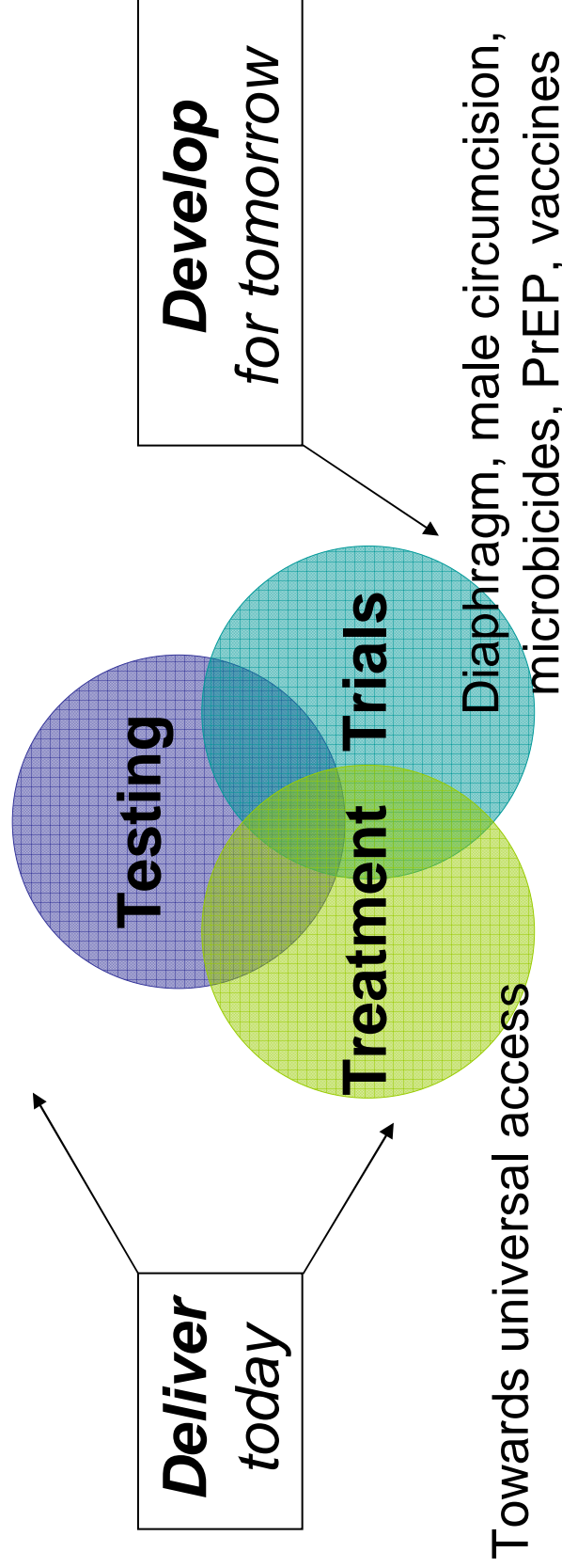
Microbicides 2006 Conference  
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Cape Town, South Africa



# A truly comprehensive and integrated approach

An expanded alphabet soup of prevention:

ABC (M&F), clean needles, VCT, male circumcision...



# Key Points

- Quantify – How much money?
- Qualify – How well is it spent?
- It's not just money...
- Science, science, science...
- There is no problem in the field that a good candidate microbicide can't fix



## Background

- A number of estimates have been made of global funding for preventive AIDS vaccine and microbicide research and development (R&D).
- In the absence of comparable methodology, these estimates cannot be used to estimate temporal trends in funding.
- In 2004, UNAIDS, the AIDS Vaccine Advocacy Coalition (AVAC), the Alliance for Microbicide Development (AMD), and the International AIDS Vaccine Initiative (IAVI) established a collaborative project to track trends in R&D funding for both AIDS vaccines and microbicides (the *HIV Vaccines & Microbicides Resource Tracking Working Group*).



## Why track R&D Funding?

- Monitor current levels of effort
- Identify trends in investment, spending, and research focus over time
- Identify areas where more resources and effort need to be focused
- Assess the impact of public policies aimed at increasing R&D investment



## **Methods - General**

1. Identify key organizations funding preventive HIV vaccine & microbicide R&D
2. Collect published and unpublished data
3. Contact funders asking for information on specific projects funded between 2000 and 2005.
4. Review data against inclusion criteria for comparability and cross-checked to eliminate double-counting.
5. For those organizations not responding after numerous follow-ups, developed estimates based on publicly available information & discussions with experts in the field.



## Investments - General

### *Investments: annual disbursements by funders*

- Took perspective of funder
- Identified funders & classified them as public, philanthropic, or commercial
- Distinguished between primary funders & intermediaries (such as CONRAD, the International Partnership for Microbicides (IPM), the Microbicides Development Programme (MDP) and the Population Council) to eliminate double-counting.



## Public, Philanthropic and Commercial Sector Primary Funders

Public sector	<ul style="list-style-type: none"> <li>▪ National governments (including government research bodies, international development assistance agencies and other government funding agencies)</li> <li>▪ European Commission</li> <li>▪ Multilateral agencies</li> </ul>
Philanthropic sector	<ul style="list-style-type: none"> <li>▪ Private, not-for-profit organizations (e.g., foundations, trusts and non-governmental organizations)</li> <li>▪ Charities</li> <li>▪ Corporate donations</li> <li>▪ Individual gifts and bequests</li> </ul>
Commercial sector	<ul style="list-style-type: none"> <li>▪ Pharmaceutical companies</li> <li>▪ Biotechnology companies</li> <li>▪ Generated investment estimates based on data collected, interviews and other available information</li> </ul>

## Data Limitations

### *Missing or incomplete information:*

- May have missed key organizations/agencies
- Focused public sector data collection on national-level efforts only
- Not able to obtain data from all funders contacted
- Many private sector companies don't track this type of information
- Unable to obtain expenditures data for microbicides

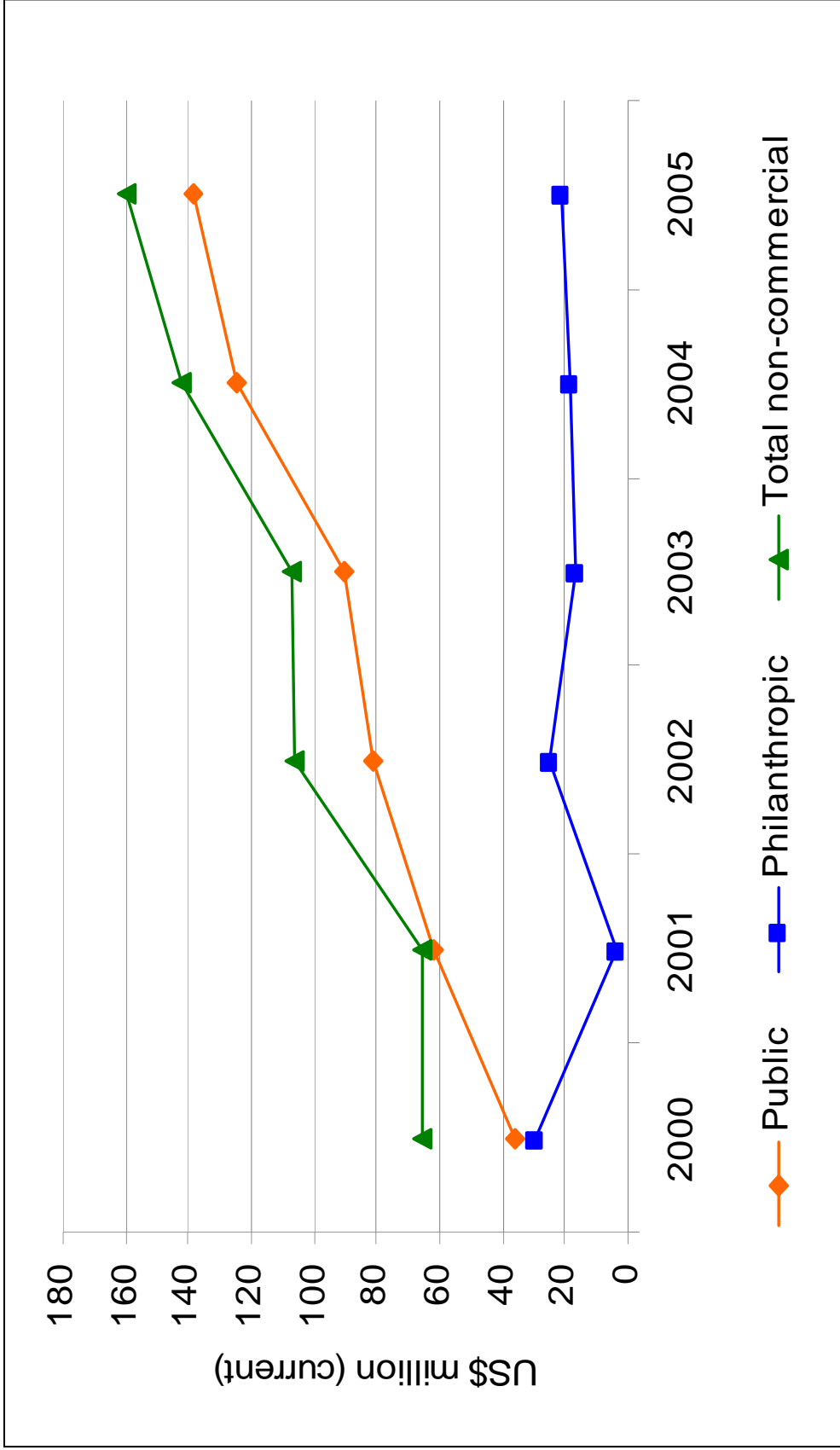
### *Differences in definitions:*

- Not all funders report based on calendar year
- Expenditure estimates are based on combination of intermediary & non-intermediary spending
- Most funder do not break down expenditures by type of R&D activity

### *Sources of information:*

- All self-reported figures
- For private sector, tried to exclude funds received from outside sources such as public research institutions

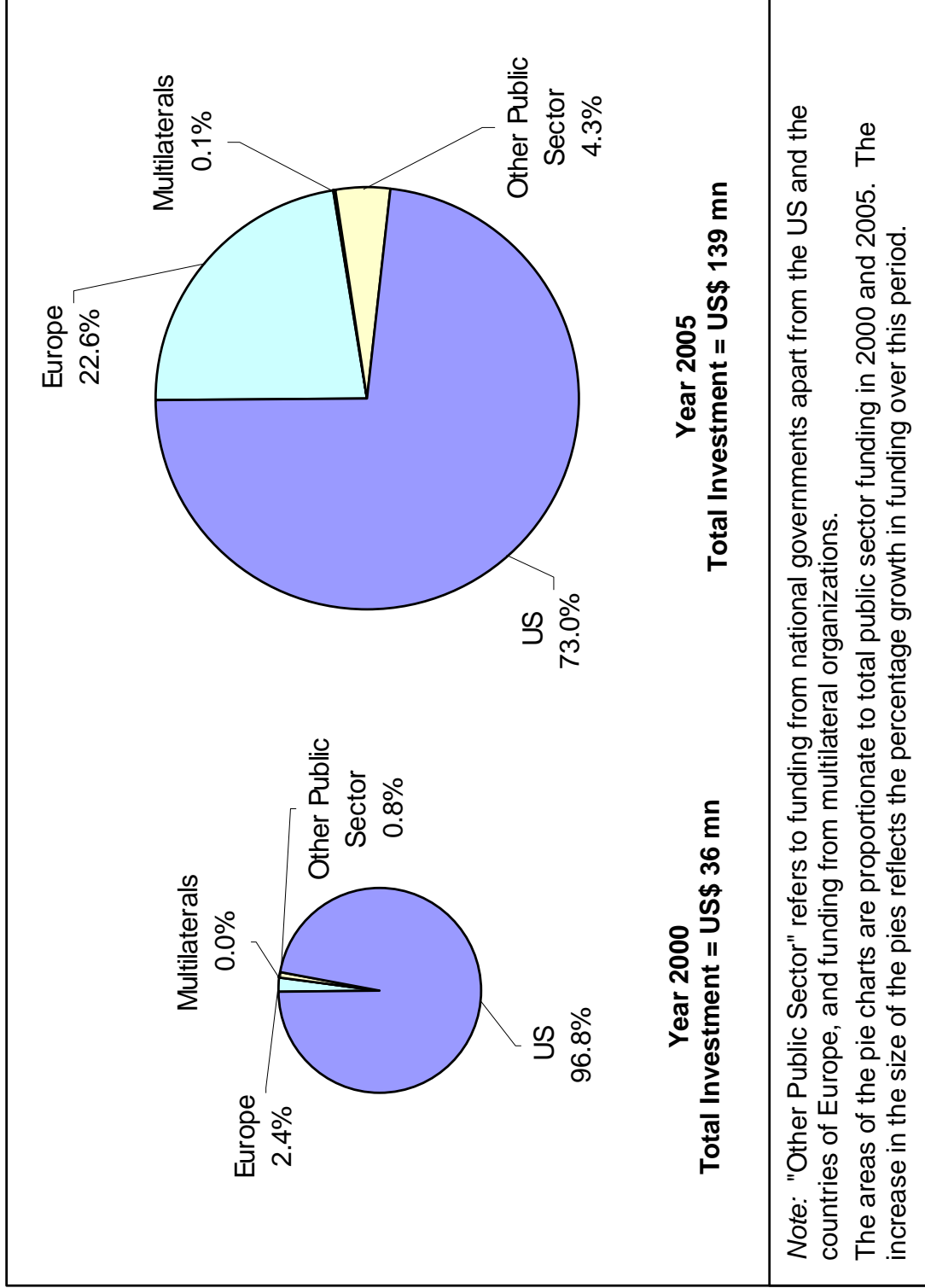
# Annual investments in microbicide R&D: Public and Philanthropic Sectors (2000 to 2005)



## Investments in microbicide R&D by the public and philanthropic sectors, 2000-2005 (current US\$ million)

	2000	2001	2002	2003	2004	2005
<b>Public Sector</b>						
- US	34.6	61.3	75.3	78.8	92.0	101.3
- Europe (including EC)	0.7	0.4	5.1	10.6	29.9	31.3
- Other	0.3	< 0.1	0.2	0.9	2.0	6.0
- Multilaterals	< 0.1	0.3	0.4	< 0.1	0.2	0.2
<b>Total public</b>	<b>35.7</b>	<b>62.0</b>	<b>81.0</b>	<b>90.2</b>	<b>124.2</b>	<b>138.9</b>
<b>Philanthropic Sector</b>						
<b>Total philanthropic</b>	<b>29.4</b>	<b>3.4</b>	<b>24.8</b>	<b>16.9</b>	<b>18.1</b>	<b>21.1</b>
<b>Non-Commercial (Public &amp; Philanthropic)</b>						
<b>Total non-commercial</b>	<b>65.1</b>	<b>65.4</b>	<b>105.8</b>	<b>107.1</b>	<b>142.3</b>	<b>160.0</b>

# Sources of funding in 2000 & 2005



Note: "Other Public Sector" refers to funding from national governments apart from the US and the countries of Europe, and funding from multilateral organizations. The areas of the pie charts are proportionate to total public sector funding in 2000 and 2005. The increase in the size of the pies reflects the percentage growth in funding over this period.



# Per capita public sector investm in microbicide R&D by country in 2005

*Countries are listed alphabetically within each category*

Less than US\$ 0.01	US\$ 0.01 to 0.10	US\$ 0.10 to 0.25	US\$ 0.25 to 0.50	US\$ 0.50 to 1.00
-Australia -Belgium -China -France -Germany -India -Italy -South Africa	-Canada	-Denmark -Sweden -United Kingdom	-Netherlands -Norway -United States	-Ireland



# Public sector investment in microbicide R&D in 2005 by country as a percentage of GDP

*Countries are listed alphabetically within each category*

Less than 0.00001	0.00001 to 0.0001	0.0001 to 0.001	0.001 to 0.0025
<ul style="list-style-type: none"> <li>-China</li> <li>-Germany</li> <li>-India</li> </ul>	<ul style="list-style-type: none"> <li>-Australia</li> <li>-Belgium</li> <li>-France</li> <li>-Italy</li> </ul>	<ul style="list-style-type: none"> <li>-Canada</li> <li>-Denmark</li> <li>-Norway</li> <li>-Sweden</li> <li>-South Africa</li> <li>-United Kingdom</li> <li>-United States</li> </ul>	<ul style="list-style-type: none"> <li>-Ireland</li> <li>-Netherlands</li> </ul>



# Non-financial support

- Funding for R&D is only one component of the significant contribution that the public sector makes to microbicide R&D.
- The public sector, particularly in the developing world, provides significant non-financial support.
  - ⇒ Especially in countries where trials are planned or ongoing, government salaried collaborators and government -sponsored hospitals and clinics play a crucial role in the conduct of safe and ethical clinical trials, as do national regulatory authorities and ethics committees.



# Commercial Sector

- Data on annual investments by the commercial sector are much harder to collect.
- Commercial sector investment has played a critical role in the development of a number of microbicide candidates such as C-31G/Savvy and PRO 2000.
- Virtually all of the companies engaged in microbicide R&D are funded from external sources, predominantly public sector agencies (e.g., DFID, NIH) and/or intermediary organizations (e.g., CONRAD, IPM).



# Commercial Sector

- Fifteen companies were identified that were actively engaged in microbicide R&D in 2004-2005, and it is estimated that between US\$ 3 mn and US\$ 6 mn was invested annually.
- Investments from companies' own financial resources are generally small and supplementary to any external funding they receive.



**Every €, £, ¥, \$, F, ₪, ¢, R**

- No currency left behind
- No grant amount is too big or too small
- While the overall microbicide effort requires hundreds of millions of dollars, every hundred, thousand or million of whatever currency can make a difference.



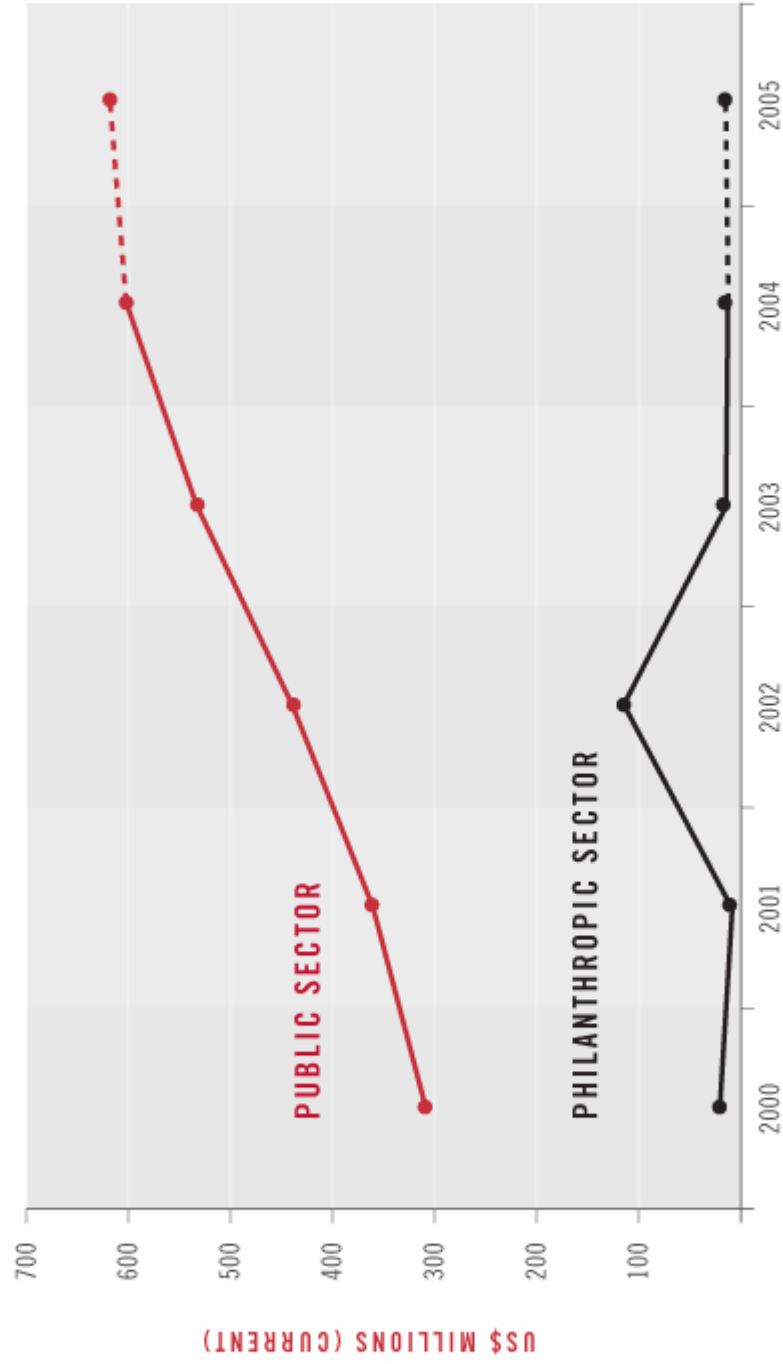
# A comprehensive, integrated response

- The significant increase in funding for microbicides over the last six years has coincided with a dramatic increase in the overall financial commitment to the HIV/AIDS field in general.
- While we did not collect data on overall financial commitments to HIV/AIDS, evidence suggests that funders have increased funding for the development of microbicides (and preventive HIV vaccines) in addition to – *not at the expense of* – their commitments to expanding access to the existing prevention, care and treatment programmes already available.





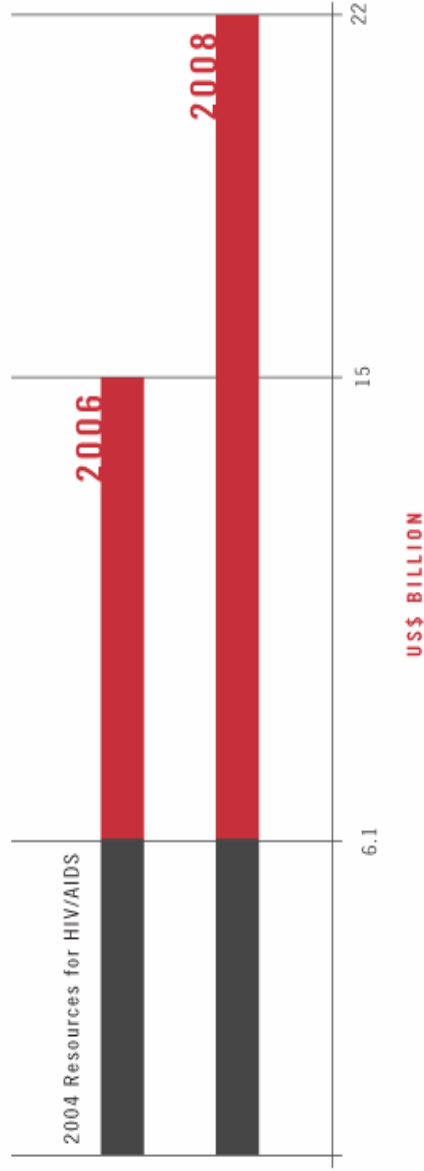
**FIGURE 1. ANNUAL INVESTMENTS IN PREVENTATIVE HIV VACCINE R&D BETWEEN 2000-2005**



**Source:** HIV Vaccines and Microbicides Resource Tracking Working Group, *Tracking Funding for Preventive HIV Vaccine Research & Development*  
2005 estimates are based on actual disbursements and firm commitments made as of April 5, 2005.



## ESTIMATED FUNDS NEEDED TO RESPOND TO GLOBAL AIDS EPIDEMIC



Note: This estimate does not include funding for HIV/AIDS research.

Source: Kaiser Family Foundation and UNAIDS



# Conclusions

- Over the six-year period 2000 to 2005, funding from both the public and the philanthropic sectors for R&D efforts directed at developing microbicides increased significantly, from US\$65m in 2000 to US\$159m in 2005.
- Preliminary data from some funders suggest that investment levels in 2006 will be even higher.
- This increase in funding represents both greater contributions from existing public and philanthropic donors as well as a growth in the total number and geographical distribution of funders supporting microbicide R&D.



# Conclusions

- Data for the public and philanthropic sectors are more comprehensive than the data for the commercial sector.
- This reflects both how companies track their own funding and corporate concerns about divulging proprietary information.
- Future estimates would benefit from a stronger collaboration with industry to find creative solutions to track commercial sector investments of their own resources and to track the level of funding companies receive directly from public and philanthropic sources and from intermediary agencies.



# Conclusions

- Future work in this area would also benefit from additional effort being directed at collating more detailed information on the breakdown of expenditures and subdividing some of the expenditure categories, such as pre-clinical research, that cover a wide range of topics.
- Collection of this type of information, combined with estimates of funding needs and absorptive capacity, should help identify areas where more resources and effort need to be focused.



# Where we've been...

- For more than a decade, we advocates have been optimistic that with more resources, more cooperation and more scientific knowledge, new preventive technologies could be found in time to stem the growing epidemic...



# Where we are...

- A decade later, the AIDS vaccine field has more resources, more cooperation and more depth of scientific knowledge – but still no AIDS vaccine...



## Where we must go...

- The “easy” advocacy messages remain: we still need more resources, more cooperation and more scientific knowledge, PLUS
- Refine and more honestly communicate timelines
- Learn from our collective past and current activities
- Expand understanding of community involvement
- Place AIDS vaccines as part of comprehensive response



# Acknowledgements

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# For more information

- For more information on HIV vaccines, please contact the AIDS Vaccine Advocacy Coalition ([avac@avac.org](mailto:avac@avac.org) or [www.avac.org](http://www.avac.org)) or the International AIDS Vaccine Initiative ([publicpolicy@iavi.org](mailto:publicpolicy@iavi.org) or [www.iavi.org](http://www.iavi.org)).
- For more information on microbicides, please contact the Alliance for Microbicide Development ([info@microbicide.org](mailto:info@microbicide.org) or [www.microbicide.org](http://www.microbicide.org)).
- For more information on UNAIDS resource tracking activities, please contact the UNAIDS Resource Tracking Unit ([rtpdata@unaids.org](mailto:rtpdata@unaids.org) or [www.unaids.org](http://www.unaids.org)).

