

# WELCOME

## GLOBAL LAUNCH OF G-FINDER 2011



- ❖ **The Hon Teresa Gambaro MP**, Federal Member for Brisbane, Shadow Parliamentary Secretary for International Development Assistance, Shadow Parliamentary Secretary for Citizenship and Settlement
- ❖ **Chair: Dr Norman Swan**, Producer and presenter of the Health Report, ABC Radio
- ❖ **Dr Mary Moran**, Executive Director, Policy Cures and G-FINDER report author
- ❖ **Dr Trevor Mundel (video)**, President, Global Health Program, Bill and Melinda Gates Foundation
- ❖ **Dr Nicholas Coatsworth**, President, MSF Australia
- ❖ **Mr Bill Bowtell**, Executive Director, Pacific Friends of the Global Fund to Fight AIDS, TB and Malaria
- ❖ **Dr Glen Mason**, Director, Medical & Regulatory Affairs, Sanofi Pasteur
- ❖ **Professor Stephen Howes**, Director, Development Policy Centre, Crawford School of Economics and Government, ANU





# G-FINDER: YEAR 4

NEGLECTED DISEASE RESEARCH AND DEVELOPMENT:  
IS INNOVATION UNDER THREAT?



# PRESENTATION OUTLINE

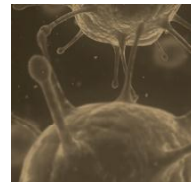
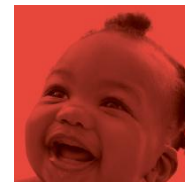
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## ❖ About Policy Cures

❖ About G-FINDER

❖ Results

❖ Key messages



## ABOUT POLICY CURES

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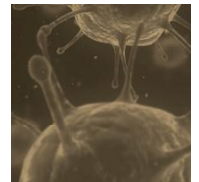
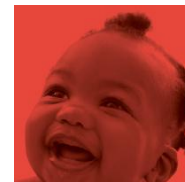
- ❖ An independent not-for-profit policy research group
- ❖ Innovative ideas and accurate analysis to accelerate development and uptake of new drugs, vaccines, diagnostics and other products for neglected diseases of the developing world
- ❖ 12 staff based in Sydney and London



# PRESENTATION OUTLINE

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- ❖ About Policy Cures
- ❖ **About G-FINDER**
- ❖ Results
- ❖ Key messages



## ABOUT G-FINDER

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- ❖ An annual funding survey
- ❖ 31 neglected diseases
- ❖ 134 product areas
- ❖ All R&D stages

- ❖ Data from 54 countries
- ❖ Data from 240 organisations
- ❖ Over 8,000 entries
- ❖ All non-NIH entries > \$0.5m were cross-checked
- ❖ Funded by the Bill & Melinda Gates Foundation

# PRESENTATION OUTLINE

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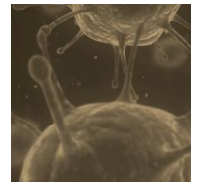
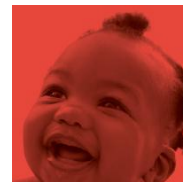
❖ About Policy Cures

❖ About G-FINDER

## ❖ Results

- Total funding
- Funding by disease
- Funders
- Funding flows
- Australia's role

❖ Key messages



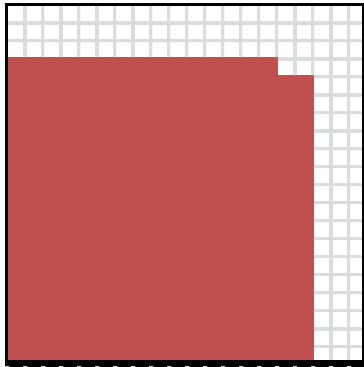
# TOTAL INVESTMENT IN NEGLECTED DISEASE R&D IN 2010

**\$3,063m**

**Down \$109m (-3.5%)**

# FUNDING SPREAD ACROSS DISEASES

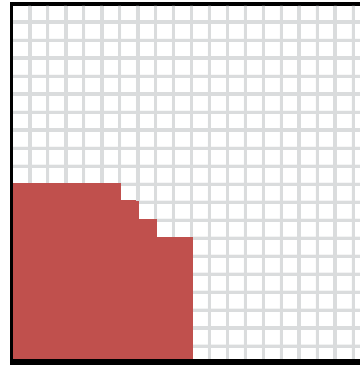
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'Top tier' diseases

72%

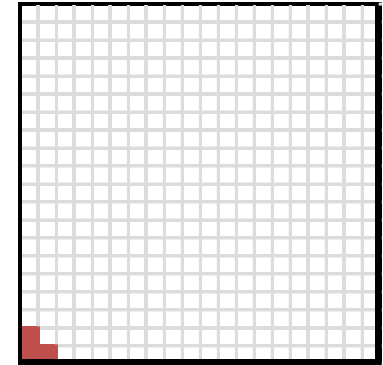
- HIV/AIDS
- TB
- Malaria



'Second tier' diseases

23%

- Dengue
- Diarrhoeal diseases
- Kinetoplastids
- Bacterial pneumonia & meningitis
- Helminths
- Salmonella



'Third tier' diseases

<1%

- Leprosy
- Buruli ulcer
- Trachoma
- Rheumatic fever

## DISEASE FUNDING TRENDS

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### Increased



- Bacterial pneumonia & meningitis (↑ \$32m)
- TB (↑ \$30m)
- Dengue (↑ \$9m)

### Decreased



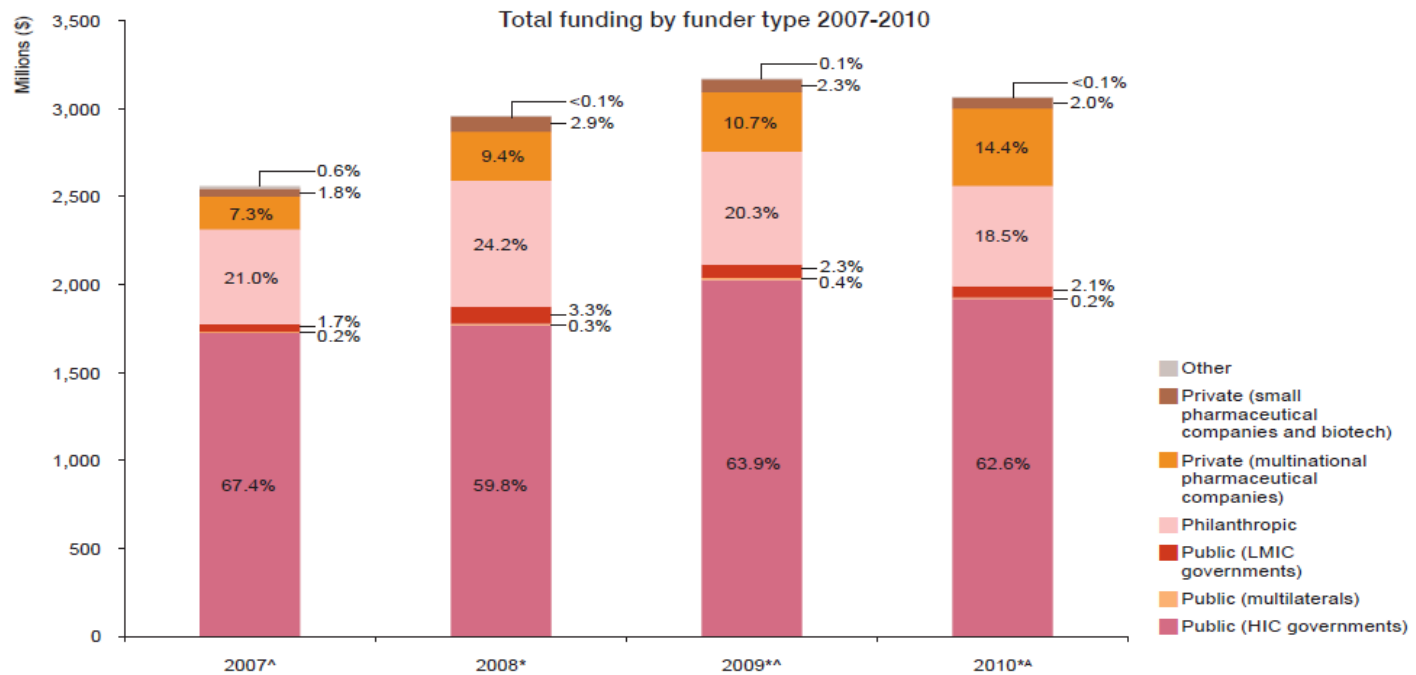
- HIV/AIDS (↓ \$67m)
- Malaria (↓ \$46m)
- Diarrhoeal diseases (↓ \$18m)
- Kinetoplastids (↓ \$16m)
- Helminths (↓ \$9m)

### Steady (or too small to say)

Salmonella, leprosy, rheumatic fever, trachoma, Buruli ulcer

# FUNDER SHARE

- **Funding cuts across all sectors except MNCs**
  - Public funders still driving neglected disease R&D (65%), but funding markedly down
  - Philanthropic share down
  - Industry's share up for the fourth year



\* Figures are adjusted for inflation and reported in 2007 US dollars

<sup>^</sup> Figures for 2007 and 2009 have been updated and therefore differ from previously published figures

<sup>^</sup> There may be minor under-reporting as some organisations did not submit 2010 data

# PUBLIC FUNDING

**\$2.0 billion**  
**↓ \$136m, -7%**

Country	2007 (US\$)	2008 (US\$) <sup>^</sup>	2009 (US\$) <sup>^</sup>	2010 (US\$) <sup>^</sup>	2007%	2008%	2009%	2010%	
United States of America <sup>^</sup>	1,252,598,360	1,258,318,321	1,461,035,845	1,386,550,051	70.6	67.2	69.2	69.7	↓
United Kingdom <sup>^</sup>	104,684,734	103,328,720	142,591,385	163,812,491	5.9	5.5	6.8	8.2	↑
European Commission	121,366,882	129,899,906	118,311,296	92,529,756	6.8	6.9	5.6	4.6	↓
France <sup>B,C</sup>	15,667,008	29,296,116	48,161,454	40,534,200	0.9	1.6	2.3	2.0	↓
Germany	12,055,796	3,728,140	34,120,231	37,755,148	0.7	0.2	1.6	1.9	
India		32,518,735	24,587,971	31,099,602		1.7	1.2	1.6	↑
Australia	18,166,780	25,132,872	22,767,236	24,976,220	1.0	1.3	1.1	1.3	↑
Sweden	21,566,527	25,600,321	33,096,084	18,854,648	1.2	1.4	1.6	0.9	↓
Netherlands	34,088,694	26,976,797	28,741,454	18,067,252	1.9	1.4	1.4	0.9	↓
Norway	13,271,949	16,603,371	17,275,683	13,816,625	0.7	0.9	0.8	0.7	↓
Spain	10,723,060	26,701,408	19,679,113	13,800,191	0.6	1.4	0.9	0.7	↓
Switzerland	6,586,409	3,920,220	6,962,865	11,949,269	0.4	0.2	0.3	0.6	↑
Subtotal top 12 public funders <sup>*,C</sup>	1,666,183,078	1,734,272,596	1,982,152,491	1,853,745,452	93.9	92.6	93.9	93.1	
<b>Total public funding<sup>C</sup></b>	<b>1,775,079,830</b>	<b>1,872,824,080</b>	<b>2,111,645,711</b>	<b>1,990,081,760</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

<sup>^</sup> Figures are adjusted for inflation and reported in 2007 US dollars

<sup>\*</sup> Subtotals for 2007, 2008 and 2009 top 12 reflect the top funders for those years, not the top 12 for 2010

<sup>B</sup> 2009 and 2010 funding data likely to be incomplete

<sup>C</sup> Figures for 2007 and 2009 have been updated and therefore differ from previously published figures

Did not participate in the survey this year

- ❖ Eight of the top 12 government funders cut their R&D funding in 2010
- ❖ US still top public funder, but cut funding by \$75m (NIH down \$45m)
- ❖ Increases by fewer governments and smaller amounts

## PHILANTHROPIC FUNDING

**\$568m**  
**↓ \$80m, -12%**

Funder	2007 (US\$)	2008 (US\$)^	2009 (US\$)^	2010 (US\$)^	2007%	2008%	2009%	2010%
Gates Foundation*	452,102,715	616,991,512	557,518,315	455,832,350	84.0	86.1	86.5	80.2
Wellcome Trust	59,985,371	60,864,206	65,121,278	80,459,662	11.1	8.5	10.1	14.2
UBS Optimus Foundation	546,927	1,110,768	1,105,687	7,357,535	0.1	0.2	0.2	1.3
MSF	7,187,885	7,275,268	4,563,905	4,725,479	1.3	1.0	0.7	0.8
Funds raised from the general public	2,064,283	1,214,399	440,079	310,513	0.4	0.2	0.1	0.1
All other philanthropic organisations*	16,392,563	29,072,023	15,599,224	19,417,462	3.0	4.1	2.4	3.4
<b>Total philanthropic funding*</b>	<b>538,279,744</b>	<b>716,528,175</b>	<b>644,348,488</b>	<b>568,103,001</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

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\* Figures for 2007 and/or 2009 have been updated and therefore differ from previously published figures

- ❖ Philanthropic funding down for the second year
- ❖ Drop driven by the Gates Foundation (↓ \$102m) – product maturity
- ❖ Wellcome Trust investment increased sharply (↑ \$15m)

# INDUSTRY INVESTMENT

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**\$504m**  
**↑ \$107m, 28%**

## MNCs

- ❖ \$442m (88%)
- ❖ Up \$115m (35%)
- ❖ Diseases with significant MNC funding saw overall increases. MNC increases: TB (↑ \$36m), dengue (↑ \$36m)

## SMEs

- ❖ \$61m (12%)
- ❖ Down \$7m (-14%) – due to halving of SME investment in IDCs
- ❖ Cuts to all diseases except TB (↑ \$5m) and trachoma (funded for first time)
- ❖ Malaria saw the biggest funding decrease (↓ \$7m)

## TOP 12 GLOBAL FUNDERS

Funder	2007 (US\$) <sup>^</sup>	2008 (US\$) <sup>^</sup>	2009 (US\$) <sup>^</sup>	2010 (US\$) <sup>^</sup>	2007%	2008%	2009%	2010%
US NIH	1,064,859,791	1,078,627,652	1,256,471,979	1,211,704,054	41.6	36.5	39.6	39.6
Aggregate industry respondents <sup>AB</sup>	231,912,647	365,252,975	411,265,510	503,525,794	9.1	12.4	13.0	16.4
Gates Foundation <sup>B</sup>	452,102,715	616,991,512	557,518,315	455,832,350	17.7	20.9	17.6	14.9
UK DFID	47,565,987	43,278,878	84,396,112	97,229,720	1.9	1.5	2.7	3.2
European Commission	121,366,882	129,899,906	118,311,296	92,529,756	4.7	4.4	3.7	3.0
USAID	80,600,336	83,805,395	84,483,425	85,975,465	3.1	2.8	2.7	2.8
Wellcome Trust	59,985,371	60,864,206	65,121,278	80,459,662	2.3	2.1	2.1	2.6
US DOD	86,914,578	72,548,392	98,236,367	69,942,925	3.4	2.5	3.1	2.3
UK MRC <sup>B</sup>	51,716,968	52,765,367	51,710,748	60,857,019	2.0	1.8	1.6	2.0
Institut Pasteur	31,617,540	26,547,885	26,477,069	45,158,519	1.2	0.9	0.8	1.5
Inserm	1,774,770	3,121,721	27,222,504	20,196,417	0.1	0.1	0.9	0.7
Australian NHMRC	15,457,337	18,682,020	20,242,107	19,464,047	0.6	0.6	0.6	0.6
Subtotal top 12 funders <sup>B*</sup>	2,286,866,018	2,577,455,990	2,808,483,550	2,742,875,728	89.3	87.2	88.6	89.6
<b>Total R&amp;D funding<sup>B</sup></b>	<b>2,560,068,749</b>	<b>2,955,964,344</b>	<b>3,168,940,958</b>	<b>3,062,669,973</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

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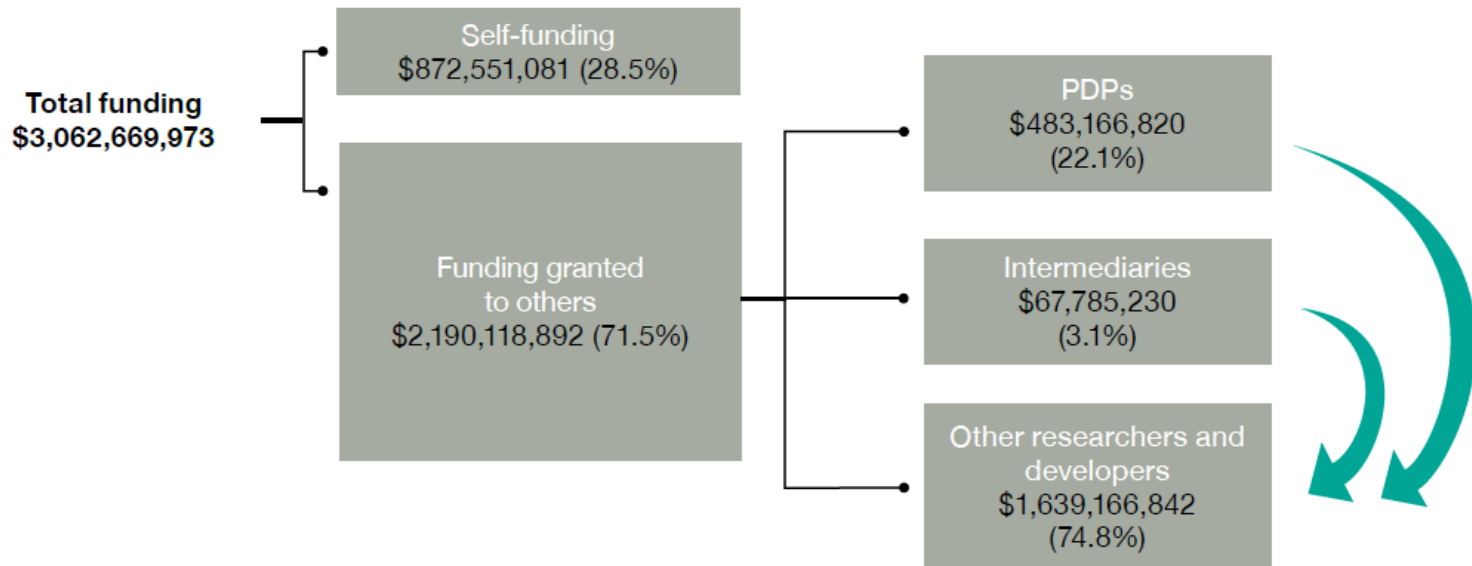
<sup>A</sup> Includes new survey respondents in 2010

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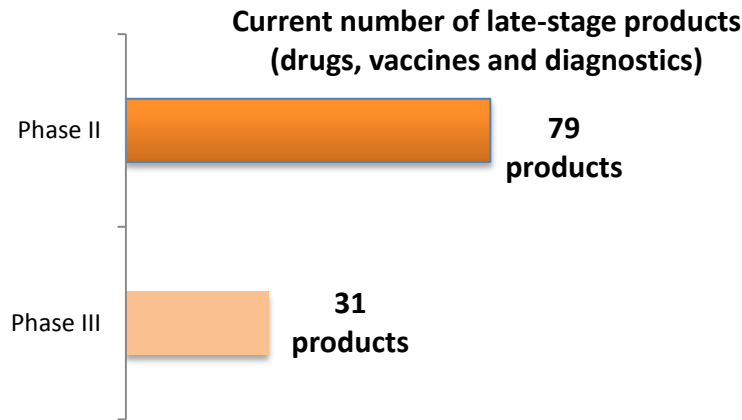
- ❖ Same 10 groups provide close to 90% of global funding each year (NHMRC among 'top 12' for first time, Dutch DGIS out of list)
- ❖ 11 organisations provided nearly three-quarters of global funding (73%)
- ❖ Industry provided more funding than the Gates Foundation for the first time

## FUNDING FLOWS



- ❖ PDPs still account for nearly a quarter (22%) of global grant funding
- ❖ But PDP funding down by a further \$47m (-9%) in 2010, after a fall of \$50m in 2009
- ❖ Worrying as they account for many late-stage products about to reach patients

# LATE-STAGE PRODUCTS



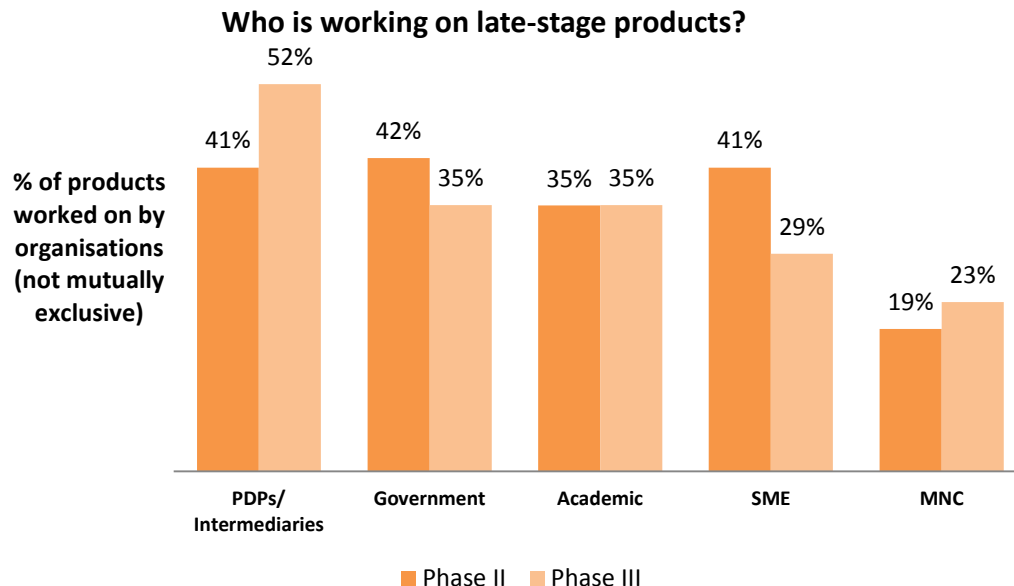
**Product Development Partnerships/ Intermediaries manage 25% of global grant funding and 52% of phase III products.**

## What products?

- First-ever malaria vaccine
- New vaccines for TB and diarrhoeal diseases
- Drugs for malaria and TB
- Diagnostics for sleeping sickness and TB

MenAfriVac™ now available in Burkina Faso, Mali and Niger.

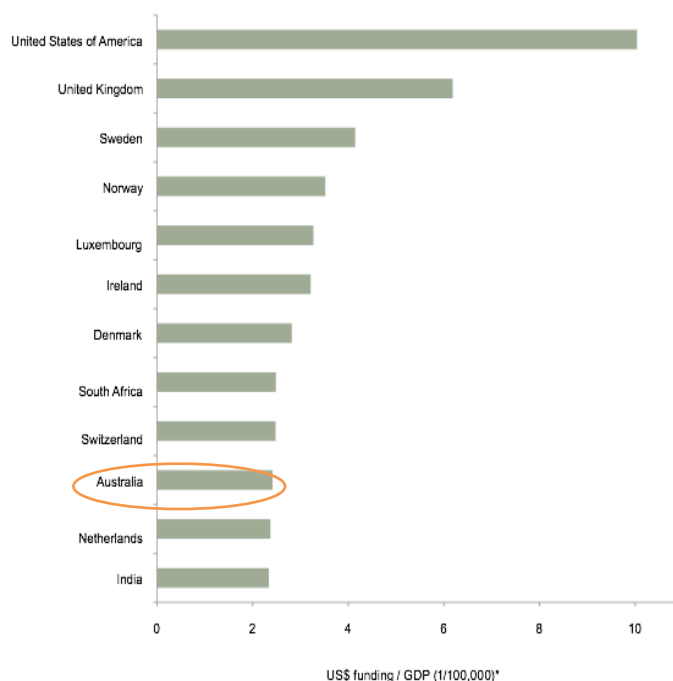
- 55 million people vaccinated
- lowest number of cases this year



# AUSTRALIAN GOVERNMENT FUNDING FOR NEGLECTED DISEASE R&D

**\$25 million: 1% of public funding**  
**Rank: 7<sup>th</sup> overall, 10<sup>th</sup> by GDP**

Public funding by GDP 2010



Top 12 public funders 2010

Country	2007 (US\$) <sup>A</sup>	2008 (US\$) <sup>A</sup>	2009 (US\$) <sup>A</sup>	2010 (US\$) <sup>A</sup>	2007%	2008%	2009%	2010%
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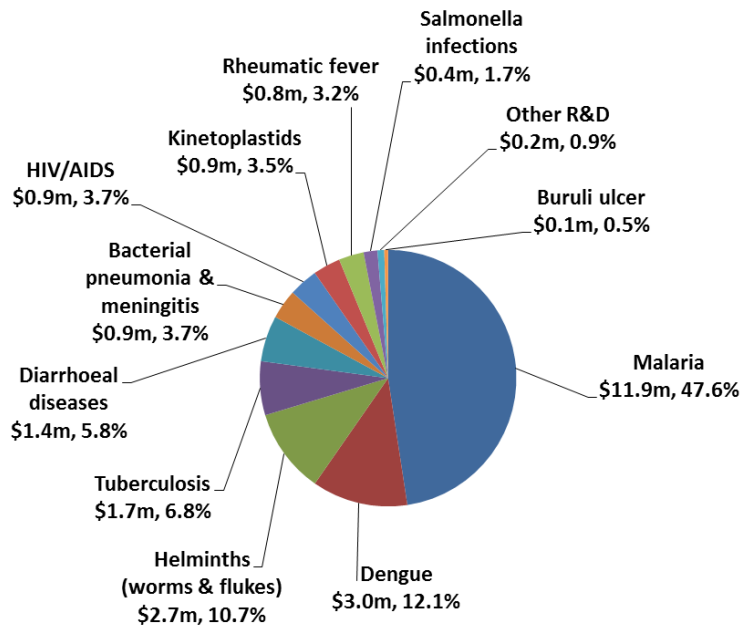
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Did not participate in the survey this year

Australia was one of the few governments to increase funding in 2010: ↑ \$3m, 14%

# WHAT DOES AUSTRALIA FUND?

## Australian public funding 2010 (disease)



## Disease

- ❖ Half to malaria

## Basic research rather than product development

- ❖ Less on product development than any other OECD country
  - ❖ 71% to basic research (28% UK; 32% US)

## Domestic academics

- ❖ 100% is disbursed domestically
  - ❖ 99% to academics (38% UK; 75% US)

Reflects the nature of the funding agency....

## WHERE DOES THE FUNDING COME FROM?

- ❖ 99% of Australian public funding comes from two organisations
- ❖ Unlike other countries, virtually no aid agency funding for neglected disease R&D (27% of global funding comes from aid agencies, excluding the US)

### Australian public funders 2010

Organisation	2010 total*	2010%
National Health and Medical Research Council (NHMRC)	19,464,047	78
Department of Innovation, Industry, Science and Research (DIISR) and/or Australian Research Council (ARC)	5,177,213	21
Australia - India Strategic Research Fund	218,003	1
Australian Government Overseas Aid Program (AusAID)	83,540	0.3
Australian Defence Force	33,416	0.1
<b>Total</b>	<b>24,976,220</b>	

\* Figures are adjusted for inflation and reported in 2007 US dollars

## WHO IS DOING THE RESEARCH?

### Top 12 Australian researchers & product developers by funding received 2010 (all sources)^

Organisation name	2010 amount received*	% funded from overseas
Aggregate industry respondents	7,524,341	98
The Walter and Eliza Hall Institute of Medical Research	6,366,318	18
Queensland Institute of Medical Research (QIMR)	6,082,146	22
The University of Melbourne	4,045,451	8
Monash University	2,495,669	63
Murdoch Children's Research Institute	1,791,454	55
The University of Sydney	1,512,999	-
The University of Queensland	1,503,650	6
Griffith University	1,467,527	57
Menzies School of Health Research	1,370,336	-
La Trobe University	1,138,281	52
Australasian Biosecurity Cooperative Research Centre	997,761	-
<b>Subtotal top 12</b>	<b>36,295,933</b>	
<b>Total</b>	<b>40,851,667</b>	

^ Data compiled from grant information provided by funding organisations that completed the survey, some of the recipients did not participate so data may be incomplete

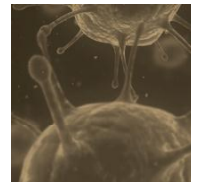
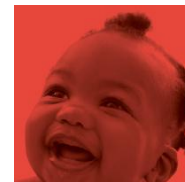
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- ❖ Companies (applied research) are almost entirely funded from overseas e.g. by PDPs
- ❖ Academics rely heavily on overseas funders for their neglected disease research

# PRESENTATION OUTLINE

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- ❖ About Policy Cures
- ❖ About G-FINDER
- ❖ Results
- ❖ **Key messages**



## THE GLOBAL FINANCIAL CRISIS HAS HIT

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- ❖ **For the first time, we are seeing big funding cuts in neglected disease R&D**
  - ❖ Public funding down \$136m
  - ❖ Philanthropic funding down \$80m
  - ❖ Industry cushioned the impact but they aren't the major funders
- ❖ **Diseases that rely heavily on public and philanthropic funding (three-quarters or more) were hardest hit**
  - HIV/AIDS down \$67m (6%)
  - Malaria, kinetoplastids, diarrhoeal diseases, helminth infections down 8-11 %
- ❖ **PDP funding is at risk**
  - Down by \$47m in 2010 ... after a \$50m cut in 2009
  - Almost two-thirds of PDP funders reduced their funding in 2010 , including most aid agencies



**FIRST TIME REDUCED OVERALL GLOBAL INVESTMENT**

## THE RISK

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- ❖ **If we lose programmes and pipelines now they can be impossible to replace**
- ❖ **It took at least 30 years to restart neglected disease R&D but this is under threat – we must act NOW**

## A ROLE FOR AUSTRALIA

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- ❖ **Australia can do more**
- ❖ **Australia has committed to doubling its aid budget over the next 5 years**
  - ❖ **The aid effectiveness review suggests AusAID should start investing in neglected disease R&D**
- ❖ **An opportunity for Australia to:**
  - ❖ **Take over funding responsibility for its own researchers and industry**
  - ❖ **Support the best neglected disease R&D globally**
- ❖ **New products to save lives are so close: Australia can help make them a reality**



THANK YOU