

The WHO Global Observatory on Health Research and Development (R&D)



Dr Vasee Moorthy

**Coordinator,
Research, Ethics, Knowledge Uptake
Health Systems and Innovation Cluster**

World Health Organization

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What is the Global Observatory on Health R&D?



- The Global Observatory on Health R&D (‘the Observatory’) is a **centralized and comprehensive source of information and analyses** on global health R&D activities for human diseases.
- Observatory aim: to **map and synthesis** health R&D activities to enable evidence-based decisions on **R&D priorities** by the newly established **WHO Expert Committee on health R&D**.
- **Target users:** Governments, policy-makers, funders, researchers.
- **URL:** www.who.int/research-observatory/en/

Background

- **May 2013:** Sixty-sixth World Health Assembly mandated the establishment of the Observatory in resolution **WHA66.22**.
- **May 2016:** Sixty-ninth World Health Assembly re-emphasized the Observatory's central role and the importance of expediting its development. In resolution **WHA69.23** it also requested the establishment of an expert committee on health R&D to set priorities for new investments based on information primarily provided by the Observatory.
- WHO Member States requested that the WHO Director-General ensure the R&D needs relating to the following two specific areas of health concern (where current markets and business models are failing) are tracked through the Observatory:
 - antimicrobial resistance and the need to develop new medical products to protect populations from the risks of failing treatments against infectious pathogens (**May 2014, Sixty-seventh World Health Assembly, WHA67.25**);
 - a comprehensive R&D Blueprint preparedness plan that allows the rapid activation of R&D activities during future epidemics, such as the epidemic that occurred due to Ebola virus disease (**138th session of the WHO Executive Board, EB138/28**).

Scope

- Primary scope (as outlined in World Health Assembly resolution **WHA69.23**):
 - **type II and type III diseases** (i.e. diseases incident in both rich and poor countries, but with a substantial proportion of the cases in poor countries, and diseases that are overwhelmingly or exclusively incident in developing countries respectively);
 - the specific R&D needs of developing countries in relation to **type I diseases** (i.e. diseases incident in both rich and poor countries, with large numbers of vulnerable populations in each);
 - potential areas where **market failure** exist;
 - **antimicrobial resistance** and emerging infectious diseases likely to cause **major epidemics**.
- As more data and resources become available, the Observatory will expand the diseases and types of health research it covers.

How is it being developed?

- The Observatory:
 - **builds on existing data** and reports from a wide range of data sources
 - **gathers new information** (where needed and feasible).
- The WHO Secretariat:
 - works with its **technical departments** and their established **expert groups and committees** in order to develop and/or review analyses and syntheses produced by the Observatory;
 - seeks **regular feedback** on the Observatory's structure and outputs from **potential users** including national policy-makers, academia, WHO's technical experts and other international governmental organizations and global partnerships, WHO regional offices, civil society and industry stakeholders.

Collaborations

Fostering collaborations

12 currently in
R&D Observatory; with
expanding coverage



THE PEW CHARITABLE TRUSTS



Expansions

Exploring new areas

work on R&D data classification &
standards; inclusion of product
profile directory; World RePORT



What is covered?

- Content is organized in six sections:



Monitoring
inputs,
processes
and outputs



Benchmarking



R&D
indicators



Analyses and
syntheses



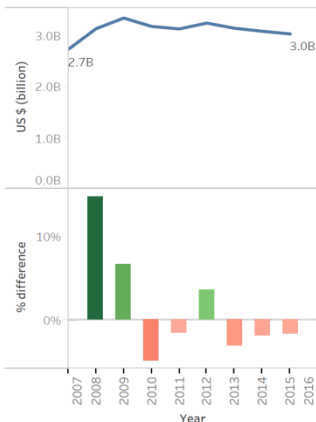
Databases
and resources



Classifications
and standards

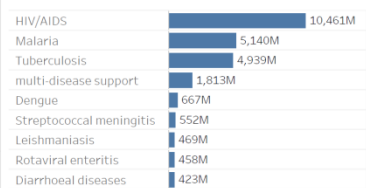
Monitoring funding: exploring the data

Investments by year (in billion)
adjusted to 2015 US\$

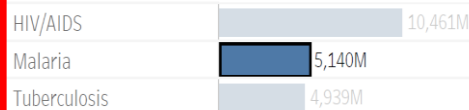


Disease category
Neglected tropical diseases

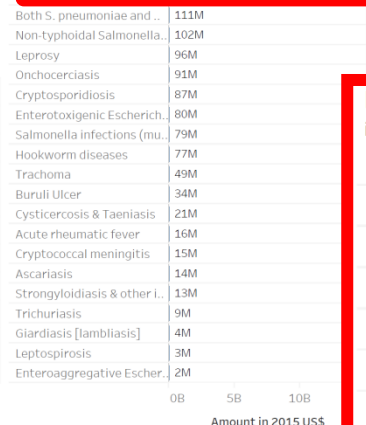
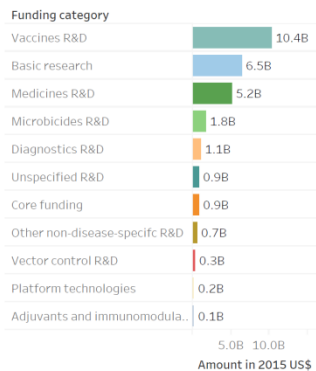
Investments by disease (in million)



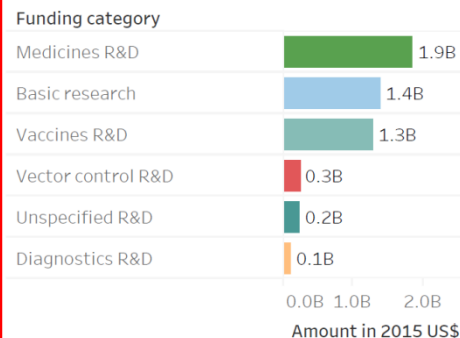
Investments by disease (in million)



Investments by type of R&D
in billion



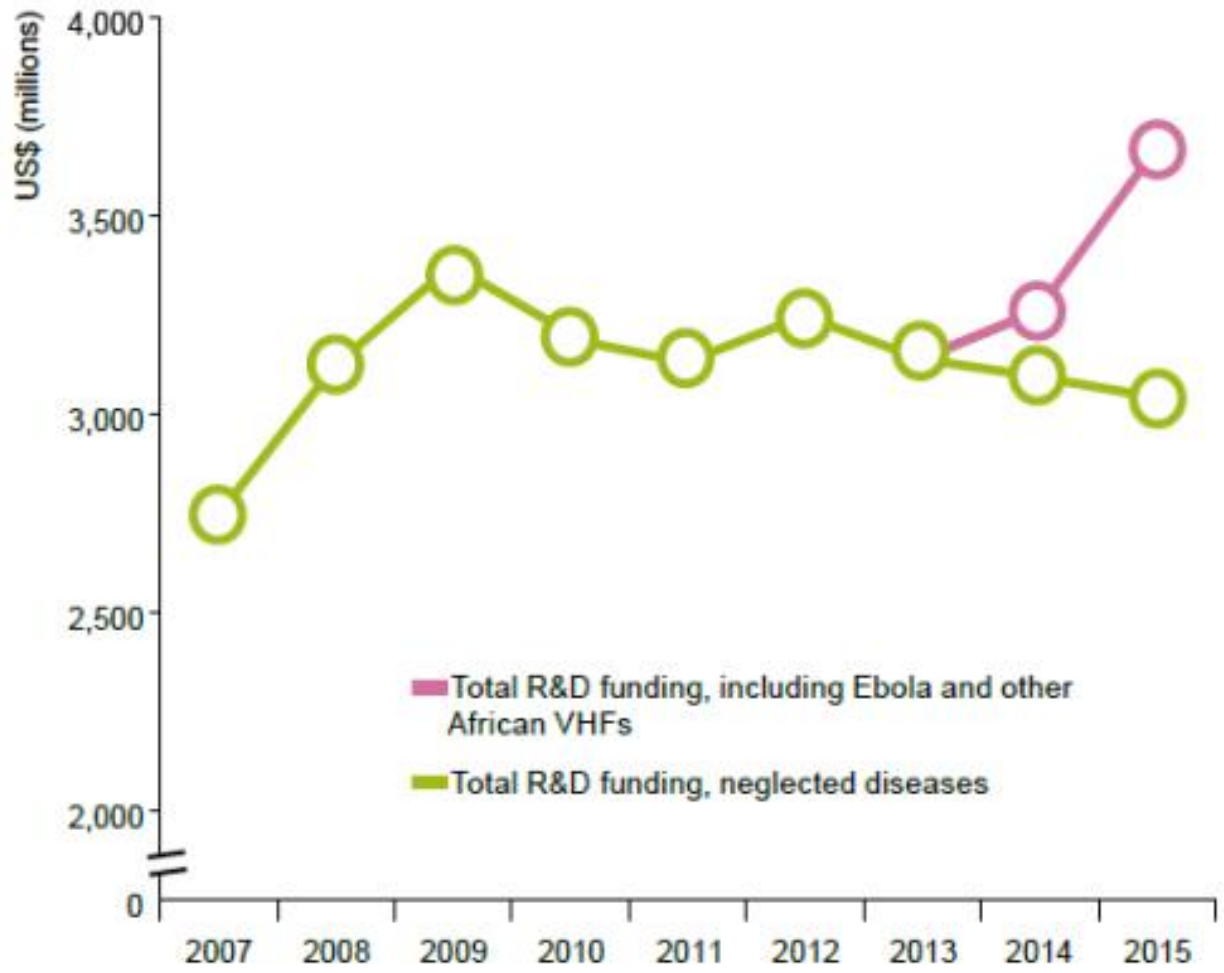
Investments by type of R&D
in billion



- Information is visualized using Tableau™ software.
- Users can select and deselect items to customize data output according to their interest.

- For instance, for Malaria, users will see that the bulk of R&D investments from 2007-2015 (nearly US\$ 5.1 billion) went into R&D for medicines, vaccines and basic research (US\$ 4.6 billion). Only US\$ 0.3 billion of investments went into vector control R&D.

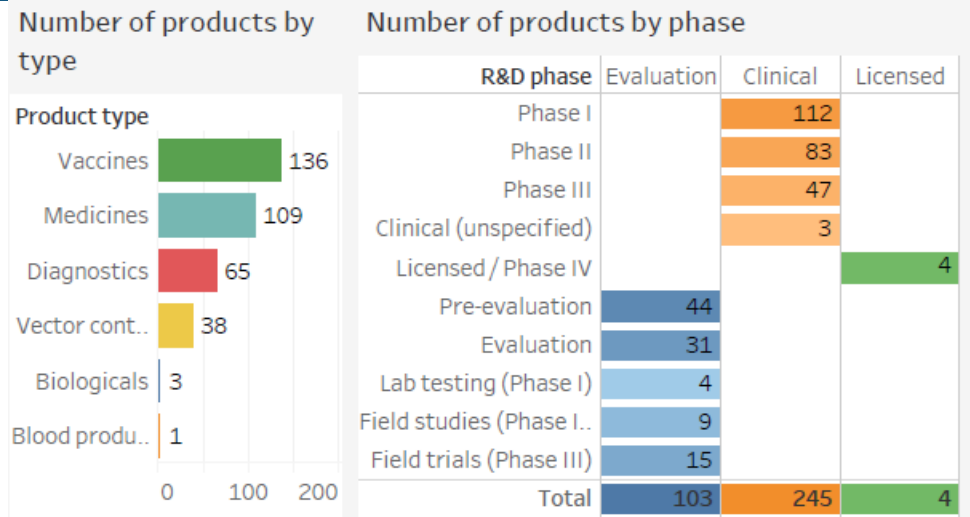
Total R&D funding with Ebola and other African VHF 2007-2015



Health Products in Pipeline

Across 23 mostly neglected diseases:

352 products are captured between various phases of developments as of May 2017



Health products in the pipeline

by disease, product name, type and phase of development

Disease name	Product type	Product name	Phase
African Trypanosomiasis	Diagnostics	HAT LAMP	Evaluation
		HAT lateral flow (2nd gen..)	Evaluation
		HAT Rapid Diagnostic Test	Evaluation
		HAT/Malaria RDT	Evaluation
	Medicines	Fexinidazole	Phase III
	Fexinidazole (pediatric)	Phase III	
	SCYX-7158 (AN5568)	Phase III	
Antibiotic resistant bacteria	Medicines	Afabicin (Debio 1450)	Phase II
		Aztreonam+Avibactam (A..)	Phase II
		Baxdela (delafloxacin)	Phase III

Clinical trials

Clinical trials from the WHO ICTRP data source

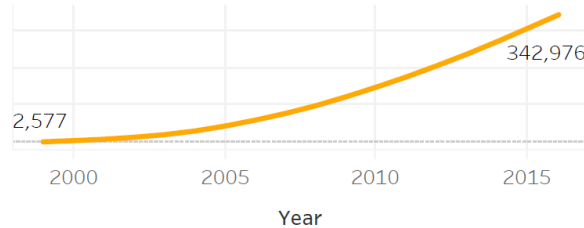
Can explored by:

- year,
- disease,
- phase of development,
- region or country

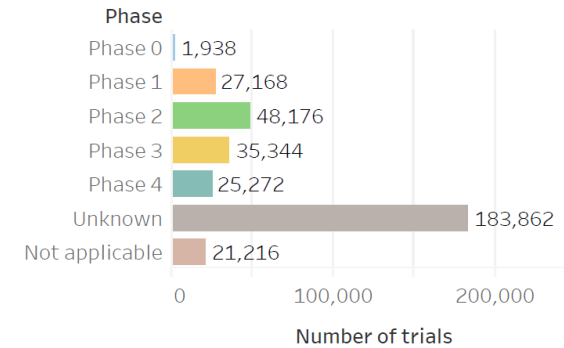
(data from 1999-2016)

Clinical vs Observational trials - use dropdown to select All

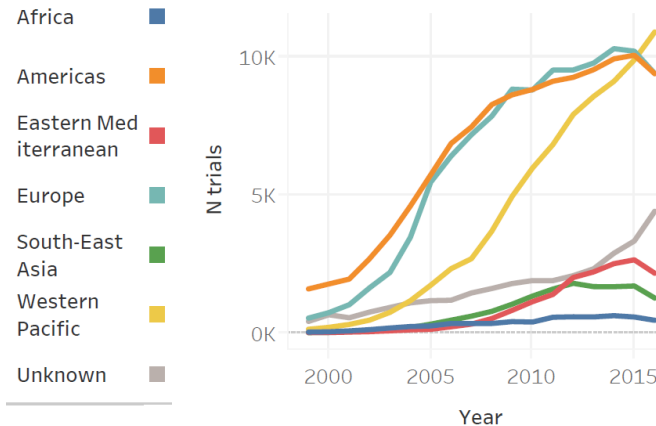
Trials per year- World (1999-2016)



Trials by phase of development

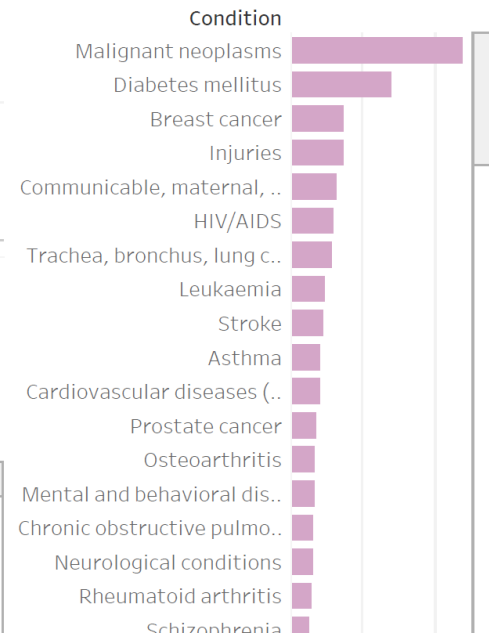


Trials by year and WHO region

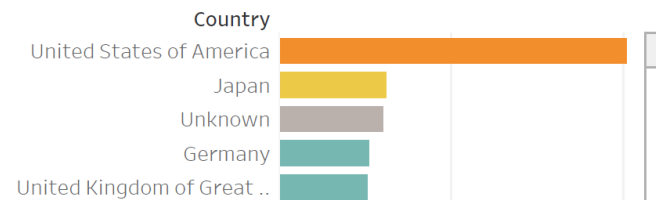


Trials by disease

Number of trials with unknown condition: 176,200



Trials by country



Monitoring publications: exploring the data



- Users can select and deselect items to customize data output according to their interest.

- For instance, for dengue, users will see that there has been a steep increase in publications since 2000, with first authors centred in South America, Asia as well as the United Kingdom.

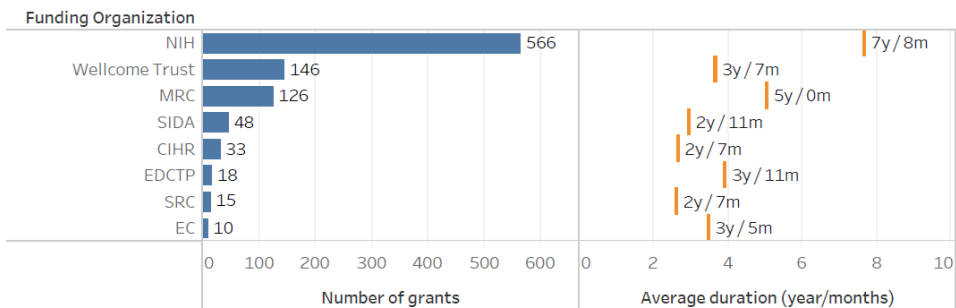
Upcoming:

Monitoring research grants: World RePORT

Exploring grants to low income countries

Select direct funding or collaboration
All

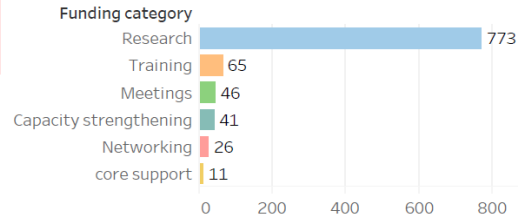
World RePORT- Grants by funder in 2015



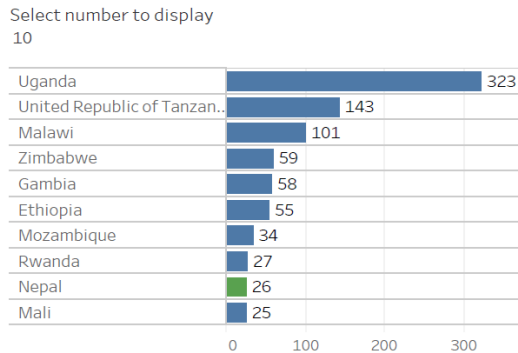
Grant recipients by WHO region and income group

WHO region	High income	Upper middle ..	Lower middle i	Low income	Unknown	Grand Total
Africa	1	625	57	912		2,085
Americas	61,164	581	61	24		61,830
Eastern Mediterranean		19	61			80
Europe	7,993	94	37			8,124
South-East Asia		144	132	26		602
Western Pacific	929	515	56			1,700
Unknown					5	5
Grand Total	70,087	1,978	1,394	962	5	74,426

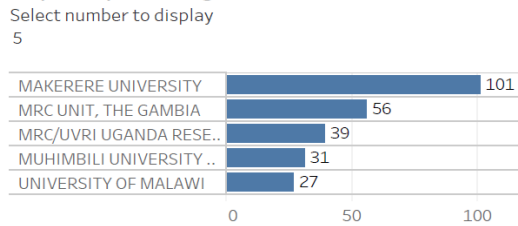
No. of grants by funding category



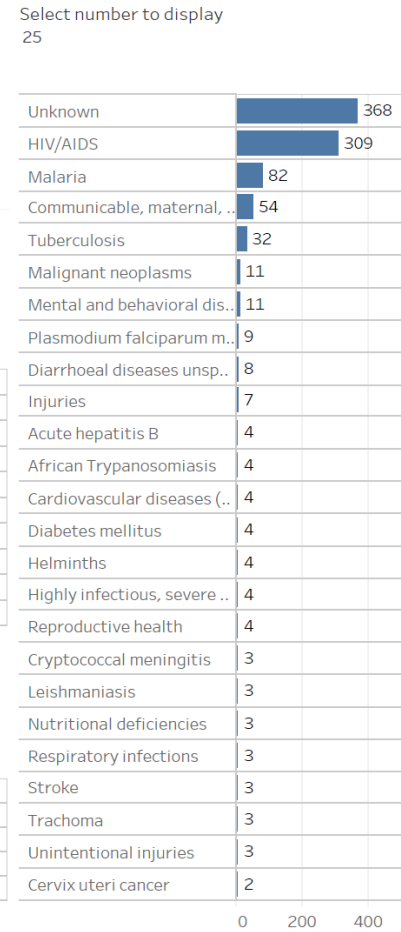
Top recipient countries



Top recipient organizations



Top diseases



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(<http://who.int/research-observatory/en/>)

New Expert Committee on health R&D

- Requested by resolution **WHA69.23** to advise the DG on new R&D priorities based on public health needs—within the same focus of diseases of the poor
- Closely linked to and draws from information and analysis provided by the R&D Observatory.
- Work ongoing to:
 - select and appoint experts (formal process)
 - produce comprehensive analyses of disease-specific R&D and
 - develop the methods for the priority setting process

Key messages

1. The R&D Observatory provides **one comprehensive source** of information and analyses on key health R&D activities
 - that is reviewed and quality assured by WHO
2. Priority setting for new R&D through the Expert Committee provides an **independent, impartial and evidence-based approach** to set global priorities based on public health needs
3. Added value of linking the two initiatives:
 - **Common approach for priority setting** across diseases
 - **Coordination of efforts** for priority setting across multiple initiatives

Acknowledging funding support

The Observatory gratefully acknowledges the financial support of (in alphabetical order since inception):

- European Commission
- Government of France
- Government of Germany
- Government of Switzerland
- Government of the United States of America

For more information: <http://www.who.int/research-observatory/en/>

Email: rd-observatory@who.int