DYNAMIC DASHBOARD

ROADMAP

GOAL

To be the global knowledge centre for all antimicrobial resistance (AMR) research and development (R&D) activities across the One Health continuum. The dashboard will support global priority setting and decision making and lead to more efficient use of international resources through the identification of gaps, overlaps and potential for cross sectoral collaboration and leveraging in AMR R&D.

OBJECTIVES

To develop a dynamic dashboard that:

➢ Collects AMR R&D information (data)* from human health, animal health, plant health and environmental health sectors (One Health);
➢ Captures as close to real time data from public and private (for profit and philanthropic) funded basic and applied R&D on therapeutics, preventives, diagnostics, policy, operational and implementation strategies and activities. R&D on therapeutics, preventives and diagnostics will be captured across the research and innovation value chain (from discovery to registration and application);
➢ Presents high level data interactively^;
➢ Allows high level comparison of R&D activities and funding across sectors; and
➢ Provides a platform that enables identification of gaps and duplications in AMR R&D activities, including incentives (both push and pull), to inform global research priority setting and to help accelerate innovation.

* Information on AMR R&D investments and activities (data) for the dashboard will be systematically captured, using agreed categorisations, in a staged approach. To the extent possible, data for the dashboard will come from AMR R&D data collected by other initiatives, especially in the initial stage. Data collection will then be expanded to address identified gaps.

^ The dashboard will present the data on R&D activities graphically and will allow the user to seek additional detail on set parameters through an interactive interface. For example, data on total funding for a year could be selected and then further information could be provided on the type of funding (public, private or self-funded) and also on what One Health sector it was applicable to.

Target audience

The target audience of the dynamic dashboard is high-level decision makers as well as researchers, developers involved in AMR R&D.

MILESTONES AND DELIVERABLES

Dates provided are when milestones will be completed by, work may start earlier and be done concurrently.

Roadmap
March 2019

- Develop a draft roadmap on building the form and content
- Agree on key questions the dashboard will be designed to answer
- Roadmap finalised

Data sources
June 2019

- Agree on data categorisation fields
- Identify existing R&D mapping exercises, initiatives and activities for inclusion (publicly available and not released)
- Map institutional funding and identify institutions to approach
- Decide on the key indicators, and the appropriate context, to be visually represented on the dashboard
- Engage with Board of Members on data sources and potential relationships they may have to seek additional data

Platform development
August 2019

- Purchase and customisation of dashboard and database software
- Plan and develop the database (or data acquistion system)
- Identify data quality control measures
- Development of hosting website

Data collection
September 2019

- Provision of R&D information from Board of Members completed (started as soon as possible)
- Data identified during data sources stage requested and obtained (started as soon as possible)
- Data categorisation to begin as soon as fields are agreed and software purchased
- Ongoing data acquitision options and timing identified

Launch of dashboard
December 2019

- Communication strategy for the launch of the dynamic dashboard developed - October 2019
- Testing of the dynamic dashboard - November 2019
- Dynamic dashboard providing AMR R&D information for bacterial infections in humans launched - December 2019

Expansion
2020

- Identify existing R&D mapping exercises, initiatives and activites for AMR R&D in animal, plant and environmental health
- Extensive consultation with relevant experts in animal, plant and enviromental health sectors on data categorisation and analysis (beginning second quarter of 2019)
- Start collecting and uploading data identified for animal, plant and environment
- Ongoing work to update data and identify new sources of data

Analysis/reporting
Ongoing

- The Global AMR R&D Board of Members will be provided reports at each meeting, beginning December 2019
- Annual reports will be published on the Global AMR R&D Hub website in June the following year

What questions will the dynamic dashboard answer?

The dynamic dashboard will be interactive and user-friendly. Users of the dashboard will be able to further explore the aggregated data through set parameters.

The dynamic dashboard will be designed to answer questions and be the data source for further analysis (presented in the annual reports):

- What AMR R&D is happening in the different One Health sectors (human, animal, plant or environmental health)?
    - Are there linkages that could be made between research happening in different sectors?
- What AMR R&D is happening on syndromes or on individual organisms?
- How much AMR R&D funding is provided globally and within world regions?
    - How much funding is provided to certain organisms?
- Is AMR R&D funding provided across the entire research and innovation value chain (discovery, development and implementation)?
    - If not, where is it focused and where is there need (stage, organism, One Health sector)?
- What are we doing AMR R&D on? For example, is R&D investigating new therapeutics, diagnostics, interventions, alternatives to antimicrobials and/or improvements to operational or implementation activities?
- Are there any gaps or duplications in the AMR R&D being conducted?
- What AMR R&D needs to be done to fill identified gaps? What are our priorities?
- What products are currently in the pipeline for human bacterial infections and at what stage of development are they?

Data collected on each investment will be standardised across the dashboard through agreed categorisation. Once this categorisation is agreed and initial data are received and reviewed additional questions will also be answered.

Analysis and reporting

A key task for the Global AMR R&D Hub will be to complement the presentation of data on the dynamic dashboard by reports and analyses.

Analysis of all the data presented in dashboard, including the pipeline, will be presented in the annual reports which will be published in June using a snapshot of the data from the preceding year. The focus of these annual reports will be to answer the questions posed above using a One Health approach.

Furthermore, topical reports will be prepared. It is anticipated that early after the launch of the dynamic dashboard a report will be prepared to assist the Global AMR R&D Hub to fulfil its objective to *support the filling of product pipelines with priority candidates, using an appropriate mix of incentives, with a view to the development of deployable products, while recognizing the importance of access, prudent use and stewardship*.

There are a number of global pipeline analyses for products targeting the WHO priority pathogens and tuberculosis currently available. This includes (but is not limited to) the WHO Global Observatory both the published analysis and current data call for pre-clinical research, the PEW pipeline tracking report, BEAM

Alliance pipeline, Access to Medicines AMR Benchmark, CARB-X, Vaccines to tackle drug resistant infections report, and progress reports from the AMR Industry Alliance and the Infectious Diseases Society of America.

Any analysis and representation of the clinical pipeline for products targeting human bacterial infections conducted by the Global AMR R&D Hub will build on these existing analyses and reports rather than duplicate.

The aforementioned reports present information on the progress of individual products and the majority do not present the investment associated with the studies. The dynamic dashboard will be able to present high level information on the current pipeline for therapeutics, preventives, and diagnostics by pathogen and investment amount (where possible).