Annual review of the list of priority diseases for the WHO R&D Blueprint

On 24-25 January 2017, the World Health Organization held an informal consultation in Geneva, Switzerland, to review the list of priority diseases for the WHO R&D Blueprint. The R&D Blueprint focuses on severe emerging diseases with potential to generate a public health emergency, and for which insufficient or no preventive and curative solutions exist. The original list of diseases that most readily meet these criteria and for which additional research and development is urgently required was agreed at an international consultation held in November 2015.

The January 2017 meeting brought together virologists, bacteriologists, vaccinologists, public and animal health professionals as well as infectious disease clinicians to review the list of priority diseases. These experts made use of a tailored prioritization methodology developed by WHO and validated at an informal consultation in November 2016. The methodology uses the Delphi technique, questionnaires, multi-criteria decision analysis, and expert review to identify relevant diseases.

The 2017 annual review determined there was an urgent need for research and development for:

1. Arenaviral hemorrhagic fevers (including Lassa Fever)
2. Crimean Congo Haemorrhagic Fever (CCHF)
3. Filoviral diseases (including Ebola and Marburg)
4. Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
5. Other highly pathogenic coronaviral diseases (such as Severe Acute Respiratory Syndrome, (SARS))
6. Nipah and related henipaviral diseases
7. Rift Valley Fever (RVF)
8. Severe Fever with Thrombocytopenia Syndrome (SFTS)
9. Zika

*NB: the Chikungunya virus was discussed during the meeting and a number of experts stressed the risks it poses. Along with a number of other pathogens, there was agreement that Chickungunya Virus continues to warrant further research and development.

In addition, any disease identified prior to the next review using the Blueprint’s decision instrument will be included in the list.

Other pathogens were considered during the review and a wide range of additional relevant research and development initiatives encouraged. In particular, participants noted the importance of cross-cutting research and development which would help to address a range of different pathogens or diseases at the same time.

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1 The order of diseases on this list does denote any ranking of priority.
The meeting also reached a common understanding of the importance of other diseases not included in the priority list. Further research and development is needed on a wide range of diseases. Where there major disease control initiatives, extensive R&D pipelines, existing funding streams, or established regulatory pathways for improved interventions in order to reduce the potential for dilution of scarce resources and duplication of effort, any necessary further actions for such diseases might be coordinated through the disease-specific initiatives.

The value of a One Health approach was recognized, as well as the importance of working more closely with animal health to identify priority diseases and develop relevant countermeasures. The meeting also noted that whilst anti-microbial resistance is an issue being dealt with by thematic initiatives at the international level, specific diseases with resistance might be considered for prioritization in the future.

Feedback from the meeting on the methodology used and opportunities for further strengthening this process will be fed into its next review to be conducted within two years.

The R&D Blueprint is a global strategy and preparedness plan. The main objective of the R&D Blueprint is to pre-empt the development of a public health emergency due to highly infectious pathogens by implementing a plan of action for R&D preparedness. The ultimate goal is to reduce delay between the declaration of an emergency and the availability of effective medical or other interventions in order to save lives and avoid social and economic disruption.