R&D roadmaps for priority diseases

The 2014–16 Ebola epidemic in West Africa and the current Zika virus outbreak have highlighted the importance of having a clear R&D roadmap in place prior to an outbreak. To that end, WHO has begun to elaborate R&D roadmaps for 10 priority diseases that have the potential of becoming epidemic. The first such roadmap concerns Middle East respiratory syndrome coronavirus (MERS-CoV), which has so far caused illness and death in more than 17,000 and 600 people, across 27 countries. Read the MERS roadmap here.

Zika R&D

Immediately following the declaration of Zika as a public health emergency the R&D Blueprint team developed R&D landscapes to identify existing research in the pipeline. See development pipeline.

On the basis of a March consultation on Zika R&D, WHO prioritised diagnostics, vaccines and vector control measures as priority medical countermeasures for research. See consultation summary.

Zika diagnostics

The Emergency Use Assessment and Listing (EUAL) procedure WHO established during the Ebola outbreak to accelerate quality assessments of new products was opened to candidate Zika in vitro diagnostics (IVDs) in February this year. To date, over 20 in vitro diagnostic (IVD) tests have been submitted to WHO EUAL, and one has been accepted for procurement by UN agencies. WHO has also published target product profiles (TPPs).
for Zika virus diagnostics tests, thereby specifying the desired features for these assays to facilitate development and manufacture. Read more >

Zika vaccine profile

In June, regulators and vaccine developers were convened for a first discussion on regulatory considerations for Zika vaccines. A Target Product Profile for Zika vaccines was published. This document describes the preferred and minimum product characteristics for vaccines aimed at protecting against congenital Zika-related syndromes during the ongoing public health emergency, or future emergency situations. Read more >

Platform technologies for R&D preparedness in epidemics

In the absence of market-driven research and development, platforms for technology sharing can strengthen R&D efforts, including in low- and middle-income countries. WHO launched a public consultation on ideas for relevant platform technology solutions to address the WHO list of priority pathogens. Six most promising proposals were presented to potential R&D funders and interested Member States for their consideration during a technical workshop held in July 2016. Read more >

Implementing adequate study designs

Being outbreak ready means that R&D tools and processes can be quickly activated as soon as an outbreak occurs. WHO and experts are developing a trial simulator using realistic outbreak scenarios, and generic study protocols for vaccines addressing each priority disease under the Blueprint. Once ready, these tools will guide expedited assessments of clinical trials during future outbreaks. They will shortly be made publicly available for discussion and fine tuning. A similar process will be initiated for therapeutics in early 2017. Read more >

WHO calls for Ebola Sudan and Marburg vaccines
Aiming to provide long-term protection to high-risk populations, WHO stresses that any multivalent filovirus vaccine should be clinically effective against Ebola Zaire, Ebola Sudan, and Marburg Viruses due to the fact that all three viruses have caused the largest number of outbreaks with fatalities. It is imperative that these vaccines are available for use during future outbreaks. A draft document of the Multivalent Vaccine Target Product Profile was made available for public consultation and is currently being finalised. **Read more >**

**Ethics guidance for infectious disease outbreaks**

The West Africa Ebola outbreak raised a number of ethical issues related to medical research and public health interventions. The purpose of this document is to focus on the cross-cutting ethical issues that apply to infectious disease outbreaks generally, and examines how these principles can be adapted to different epidemiological and social circumstances. Decisions during an outbreak need to be made on an urgent basis, often in a context of scientific uncertainty, social and institutional disruption, and an overall climate of fear and distrust. Setting up systems and procedures in advance is the best way to ensure that ethically appropriate decisions will be made when an outbreak occurs. **Read more >**

**New partnership for the development of new vaccines**

In September 2016 WHO signed a memorandum of understanding (MoU) with the Coalition for Epidemic Preparedness Innovations (CEPI), a new public-private partnership that aims to finance and coordinate proactive and expedited development of new vaccines to prevent and contain infectious disease epidemics. The MoU provides the basis for collaborative and mutually strengthening efforts within the broad scope of the R&D Blueprint coordination network. **Read more >**

**Data and sample sharing**

Data and sample sharing are critical to informed research and development efforts and for ensuring equitable access to potential new products. The biological samples taken during the West African Ebola outbreak are a precious and non-renewable resource from which we can develop and evaluate new tools to control future outbreaks. WHO is currently developing global norms for sharing data and results, and mechanisms for collaboration and data sharing during public health emergencies, for example, a
virtual resource linking national bio-banks through an information-sharing platform. Read more >

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<td>NOVEMBER 2016</td>
<td>Initial round table of the Global Coordination Mechanism – in collaboration with Chatham House and Welcome Trust</td>
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<td>Consultation on methodology to prioritise top emerging diseases</td>
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<td>JANUARY 2017</td>
<td>WHO &amp; NIAID Scientific Consultation on Zika Virus Vaccine Development</td>
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<td>MARCH 2017</td>
<td>Material Transfer Agreements (MTA) capacity building tool</td>
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<td>APRIL 2017</td>
<td>Supporting expansion of capacity to implement adequate study designs – Working groups meeting</td>
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R&D blueprint action plan: [Click HERE](#)  
Web: [www.who.int/csr/research-and-development](#)