PANDEMIC & EPIDEMIC INTELLIGENCE INNOVATION FORUM
SESSION 10 (2024-2)

ABOUT THE PANDEMIC & EPIDEMIC INTELLIGENCE INNOVATION FORUM

» The COVID-19 pandemic triggered renewed interest for and investment in epidemic intelligence, globally. However there has been a lack of communication and coordination between the various actors, ranging from Member States, philanthropy, NGOs and the private sector.

» The **World Health Organization Hub for Pandemic and Epidemic Intelligence** convened a meeting of representatives of the global surveillance community on 2&3 February 2022, where activities and investment priorities were shared, and opportunities for collaboration were identified. Around 55 colleagues from 16 organizations participated in the discussion.

» Based on the success of this meeting, the WHO Hub established the **Pandemic and Epidemic Intelligence Innovation Forum** which convenes regular meetings with international experts and thought leaders in the field of pandemic and epidemic intelligence.

SESSION 10 OF THE INNOVATION FORUM

Topic

Innovations in Pandemic Intelligence: Digital Twin Applications

Digital twins, virtual replicas of physical objects or systems, leverage different digital technologies/concepts to create living simulation models that update and change themselves as their physical counterparts change. For some time now, initiatives around the world have been exploring its uses for various purposes, including a digital twin of the ocean to inform sustainable measures for the preservation of marine environments, a digital model of the Earth that helps monitor, model and predict natural and human activity for more sustainable development, and digital twin technology to help protect and restore biodiversity. In the field of health, the potential is manifold: precision personalized patient care, training or simulation of complex surgeries, simulation of response to new treatments, simulation of entire healthcare systems, and others. This Innovation Forum session will discuss the concept of digital twins and explore if and how the technology underlying them could be leveraged to support public health surveillance activities.

Meeting objectives

» Understand the concept of a digital twin, its current applications and limitations
» Explore which aspects of public health surveillance could be supported through the use of digital twins
» Discuss data security and ethical aspects around the use of digital twins

Agenda

Pandemic and Epidemic Intelligence Innovation Forum | Session 10 Thursday, 20 June 2024 | 12:00 – 14:00 (CET)	
12:00 - 12:10	**Welcome words and presentation of speakers** - Oliver MORGAN, *WHO Hub*
12:10 - 13:10	**Presentations** "DTs: concept and current applications" - Hossein HASSANI, *World Top 1% Scientists* "Exploring the potential use of DT technology in the health domain" - Stephen MACFEELY, *World Health Organization* "A user-oriented DT for climate adaptation" - Francisco DOBLAS-REYES, *Barcelona Supercomputing Center* "A case study on the design and implementation of a DT" - TBC
13:10 – 13:40	**Fireside chat: "Applications of DTs for pandemic and epidemic intelligence"** - Julia FITZNER, *WHO Hub* - Hossein HASSANI, *World Top 1% Scientists*
13:40 - 13:55	**Q&As with audience** - Moderation: Oliver MORGAN, *WHO Hub*
13:55 – 14:00	**Wrap up** - Oliver MORGAN, *WHO Hub*

Connection details

Topic: WHO Hub Pandemic & Epidemic Intelligence Innovation Forum | Session 10
Time: Jun 20, 2024 12:00 PM Amsterdam, Berlin, Rome, Stockholm, Vienna
Join Zoom Meeting: https://us02web.zoom.us/j/89695236136