Summary of discussion: JBC Data Science Advisory Board Meeting 24th September 2021, 14:00-14:50 [held virtually]

Chair: Daniela De Angelis

1. **Previous minutes were signed off and agreed**
   - Professor Simon Vosper and Dr Ben Goldacre sent their apologies.

2. **JBC update**
   - JBC Director of Data and Data Science gave an update on the transition to UKHSA.

3. **JBC presentation: Environmental Monitoring for Health Protection (EMHP)**
   - The presenters highlighted the current role of wastewater analyses as part of the COVID-19 response.
     - The EMHP programme has grown substantially in the past year and has both monitoring and response capabilities.
     - The EMHP programme works closely with the Devolved Administrations and additional partners, including water companies.
     - Insights from wastewater sequencing are shared with local and national decision makers.
   - Potential applications of wastewater epidemiology beyond COVID were presented, including monitoring antimicrobial resistance and non-communicable diseases.
   - Decisions on which applications to prioritise will depend on how the work falls into the UKHSA remit, whether there is sufficient scientific knowledge on the topic and whether methods are available to help answer the relevant questions.
   - The presenters welcomed input from the Board.

4. **Discussion**

A constructive discussion on the JBC presentation took place and centred on some key points:

   - Many board members noted that certain applications for wastewater epidemiology (e.g. antimicrobial resistance) are more actionable than others (e.g. non-communicable diseases).
     - The JBC presenters responded that a multicriterion decision analysis and additional input from stakeholders will be used to prioritise applications.
   - It was commented that many of these epidemiological topics have rich research components and so there is potential for the JBC's work to flow back into trusted research environments and open datasets (for metadata). Particular collaborations were suggested by board members. The chair and one JBC colleague mentioned that these collaborations were already underway.
   - It was raised whether automation of sampling and analytics is possible. The presenters noted that a number of innovation pilots are underway to explore how automation of techniques may increase the speed, efficiency and depth of insights.
   - It was commented that having methods and infrastructure for wastewater epidemiology would allow them to be quickly utilised for future threats.
   - Thanks were given to the JBC for their presentation and to the board for their insight.

5. **Any other business**
   - The JBC expressed that the role of DSAB will continue to be invaluable following transition and suggested it maintain its current membership and cadence. Board members were in agreement with this suggestion.
   - A review on conflicts of interest has been initiated, board members will amend or update information on conflicts of interest where necessary.
   - Professor Daniela de Angelis was thanked for her role as chair.
   - There was a request for volunteers to chair future meetings.
   - Professor Dame Wendy Hall and Professor Daniela de Angelis agreed to share chair duties for the remainder of the year.

Attendance:

Professor Daniela De Angelis	Professor of Statistical Science for Health, University of Cambridge, Deputy Director and Programme Leader at the MRC-BSU
Dr Ewan Birney	Deputy Director General of EMBL, Director of EMBL-EBI
Dr Zeynep Engin	Urban Dynamics Laboratory, University College London
Professor Dame Wendy Hall	Professor, Associate Vice President (International Engagement) and Executive Director (Web Science Institute), University of Southampton
Professor Alison J Heppenstall	Professor of Geocomputation, University of Leeds, ESRC-Alan Turing Institute Fellow
Professor Chris Holmes	Programme Director for Health and Medical Sciences, The Alan Turing Institute
Dr Johanna Hutchinson	Director of Data & Data Science, Joint Biosecurity Centre
Professor Graham Medley	Professor of Infectious Disease Modelling, London School of Hygiene and Tropical Medicine
Professor Andrew Morris	Chair of Medicine and Vice-Principal Data Science, University of Edinburgh
Professor Mark Parsons	Director of Research Computing, Engineering and Physical Sciences Research Council
Professor Sylvia Richardson	Chair of Biostatistics, Director of MRC-BSU, University of Cambridge
Kelly Clark	Joint Biosecurity Centre (Presenting)
Alex Bates	Joint Biosecurity Centre (Presenting)
Charlie Dunstan-Rice	Joint Biosecurity Centre (Secretariat)
Hannah Ogden	Joint Biosecurity Centre (Secretariat)
Professor Tracey Thornley	Joint Biosecurity Centre (Observer)
Jaymin Mistry	Joint Biosecurity Centre (Observer)
Josh Bunce	Joint Biosecurity Centre (Observer)