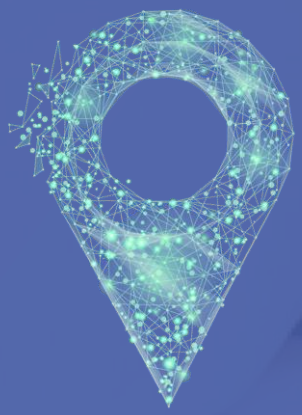
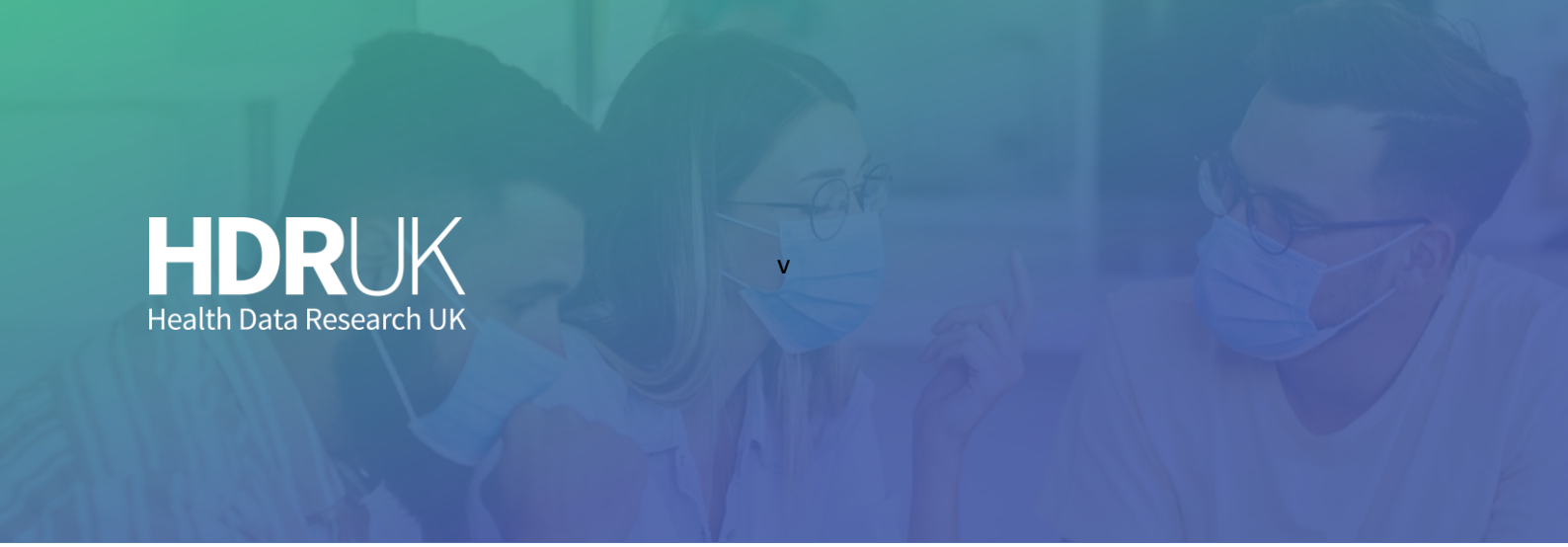
HDRUK
Health Data Research UK

HDR UK Scientific Conference

DATA INSIGHTS IN A PANDEMIC

23 June 2021





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Time	Sessions
08:45	**Plenary welcome: Health Data Research UK – the story so far** Andrew Morris, Health Data Research UK
09:00	**"Leave no one behind" – Focusing the health data science to address unmet patient need** Margaret O'Hara, Patient Representative & Founding Member, Long COVID Support
09:10	**Plenary keynote: How COVID-19 changed the world – global policy insights** Maria Van Kerkhove, COVID-19 Health Ops and Technical Lead, WHO Health Emergencies Programme, World Health Organization (WHO)
09:30	**Panel discussion** • Devi Sridhar, Professor of Global Public Health, University of Edinburgh • Maria Van Kerkhove • Margaret O'Hara Q&A
09:50	**COVID Data Showcase: Informing the pandemic response** • **National Surveillance:** Ian Diamond, UK National Statistician, Office for National Statistics (ONS) • **Improving health through enhanced data linkage to UK SARS-CoV-2 genomes:** Sharon Peacock, Director, COVID-19 Genomics UK Consortium (COG-UK) and Professor of Public Health and Microbiology, University of Cambridge Q&A
10:20	**BREAK**

Convened in partnership with

ADRUK · UK Research and Innovation · Genomics england · *use MY data · Understanding Patient Data · CDI

10:25	Stream A	Stream B	Stream C
Parallel 1: How the pandemic has accelerated the impact of data science on patients	**Health data science at pace – how has discovery been accelerated in a pandemic?** Chair: Cathie Sudlow, Director, BHF Data Science Centre Panellists: 1. Martin Landray, HDR UK Clinical Trials and Professor of Medicine and Epidemiology, University of Oxford – *The RECOVERY Trial – An exemplar of a data-enabled clinical trial* 2. Liz Sapey, PIONEER – The Health Data Research Hub for Acute Care – *Using real world data to improve care pathways for COVID-19* 3. Rosalind Eggo, HDR UK Fellow – Applied Analytics and Associate Professor, London School of Hygiene and Tropical Medicine – *Modelling for prediction and prevention* 4. Kirsty Irvine, Patient Representative – *Is there room for patient perspective in a pandemic?*	**FAIR use of data at scale** Chair: Neil Sebire, Professor of Pathology, UCL Great Ormond Street Hospital Institute of Child Health, and Chief Clinical Data Officer, Health Data Research UK Panellists: 1. Jonathan Sterne, Professor of Medical Statistics and Epidemiology, University of Bristol and Director, HDR UK Better Care Partnership South West – *FAIR use of data at scale* 2. Laura North, Research Officer & Data Scientist, Swansea University and Richard Fry, HDR UK Public Health and Associate Professor, Biomedical Sciences, Swansea University – *The impact of real-time high-resolution spatial health surveillance of COVID19 linked health data at scale* 3. Ben Goldacre, Director, The DataLab, University of Oxford – *OpenSAFELY: 58 million patients and 12 months of open science*	**How has data enabled vaccine research?** Chair: Munir Pirmohamed, Director, HDR UK North and David Weatherall Chair of Medicine and NHS Chair of Pharmacogenetics, University of Liverpool Panellists: 1. Aziz Sheikh, Director, The Usher Institute and Professor, University of Edinburgh, and HDR UK Better Care –*Making use of data collected as part of routine care to estimate vaccine effectiveness- EAVE II* 2. Paul Elliot, Professor of Epidemiology and Public Health Medicine, Imperial College London – *REACT Study and Vaccine Data* 3. Julia Hippisley-Cox, Professor of Clinical Epidemiology & General Practice, University of Oxford – *Data-enabled vaccine research*
11:15	 **BREAK**		

11:25	Stream A	Stream B	Stream C
Parallel 2: The effects of COVID-19 across different parts of society	**How can big data tackle health inequalities?** Chair: Kamlesh Khunti, Professor of Primary Care Diabetes & Vascular Medicine, University of Leicester Panellists: 1. Rhiannon Owen, Associate Professor of Statistics, Swansea University – *Impact of COVID-19 on socioeconomically-deprived communities* 2. Laura Shallcross, Associate Professor in Public Health, University College London and HDR UK Better Care – *An epidemic within an epidemic – care homes* 3. Vahé Nafilyan, Principal Statistician, Office for National Statistics – *Health inequalities amongst ethnic groups*	**Beneath the tip of the iceberg – the indirect effects of COVID-19** Chair: Harry Hemingway, Director, Institute of Health Informatics, UCL and Research Director, HDR UK Phenomics Panellists: 1. Richard Wood, Head of Modelling and Analytics, NHS Bristol, North Somerset and South Gloucestershire CCG – *Using linked data to understand and mitigate the indirect impacts of COVID-19 – perspectives from a healthcare system in South West England* 2. Mark Lawler, Professor of Digital Health, Queen's University Belfast and Scientific Director DATA-CAN – *Impact of pandemic on cancer services: what does this mean for cancer patients?* 3. Rashmi Patel, HDR UK Fellow, King's College London – *Remote Mental Healthcare During COVID-19: Insights from Electronic Health Record (EHR) Data*	**International masterclass - how did Rwanda, Norway and Singapore respond to COVID?** Chair: Agnes Binagwaho, Vice Chancellor, University of Global Health Equity Panellists: 1. Agnes Binagwaho, Vice Chancellor, University of Global Health Equity – *COVID-19 Reponse: A Perspective from Rwanda".* 2. Camilla Stoltenberg, Director General, Norwegian Institute of Public Health – *2 Key lessons from the Norwegian response* 3. Teo Yik Ying, Professor and Dean of Saw Swee School of Public Health, National University of Singapore – *Balancing lives and livelihoods during COVID-19: A case study from Singapore*

12:15	**Early Career Lightning Talks** Chair: Fatemeh Torabi, HDR UK Fellow, Swansea University 1. **The UK Biobank COVID-19 Serology Study –** Jelena Bešević, University of Oxford 2. **Predicting emergency admissions in the Scottish population –** James Liley, University of Edinburgh and Alan Turing Institute 3. **Assessment of how accurately telephone triage services identified those who suffered an adverse outcome needing an emergency 111 or 999 response** – Carl Marincowitz, University of Sheffield 4. **A spatial time series modelling approach for tracking COVID-19 cases in England at the Lower Tier Local Authorities level –** Claudio Fronterre, Lancaster University 5. **Assessment of the likelihood of test positivity in pupils and staff in relation to other recent cases in linked pupils, staff or their households** – Daniel Thompson, Swansea University
12:40	 **LUNCH BREAK**
13:25	Plenary talk: Molecular science and electronic health records – what does the future hold? **Adam Butterworth, Reader in Molecular Epidemiology, University of Cambridge**

13:50	Stream A	Stream B	Stream C
Parallel 3: How a range of data types are informing the response to COVID-19	**Behavioural data in action – the role of self-reported and other data** Chair: Susan Michie, Professor of Health Psychology, University College London Panellists: 1. John Edmunds, Professor, London School of Hygiene and Tropical Medicine – *Impact of physical distance on UK transmission: Pros and cons of different behavioural measures (CoMix)* 2. Stephen Reicher, Bishop Wardlaw Professor of Social Psychology, University of St Andrews – *Data for description, data for explanation? The use of survey and experimental data in the pandemic* 3. Ed Manley, Professor of Urban Analytics, University of Leeds – *SAFER study – transmission of COVID-19 in health care workers*	**How omics data science can support a global response to health crises** *Convened in partnership with Genomics England* Chair: Chris Wigley, CEO, Genomics England Panellists: 1. Sue Hill, Chief Scientific Officer, NHS England and NHS Improvement – *How omics data science can support a global response to health crises* 2. Albert Tenesa, Professor of Quantitative Genetics, University of Edinburgh – *How genome analysis of COVID patients has informed care: the GenOMICC consortium* 3. Ewan Harrison, Career Development Fellow, Wellcome Sanger Institute - COG-UK – *A nationwide sequencing effort to understand SARS-CoV-2 biology*	**Improving care through use of novel and multimodal data** *Convened in partnership with the Industrial Strategy Challenge Fund, UK Research & Innovation* Chair: Alison Cave, ISCF Challenge Director, Data to Early Diagnosis and Precision Medicine and Accelerating Detection of Disease, UK Research & Innovation Panellists: 1. Fozia Ahmed, Consultant Cardiologist, Manchester University NHS Foundation Trust – *Digital Heart Failure Care Pathways: Building Back Better After COVID* 2. Suzy Gallier, Technical Director, PIONEER – The Health Data Research Hub for Acute Care – *Leveraging PIONEER data to improve clinical care of COVID-19 patients in intensive care* 3. David Gonzalez de Castro, Professor of Genomic Medicine and Consultant Clinical Scientist in Molecular Pathology, Queens University Belfast – *The ACTIONED consortium for multi-modality diagnostic integration in cancer*
14:40	 **BREAK**		

14:50	Stream A	Stream B	Stream C
Parallel 4: Learning from others: The impact of cross-sectoral, multi-regional approach	**Data beyond borders** Chair: Martin Murphy, ICODA Scientific & Strategic Advisory Council (SSAC) Panellists: 1. Calum Semple, Professor of Child Health and Outbreak Medicine, University of Liverpool – *Impact of agreement on how the world collects its COVID-19 data – ISARIC-CCP* 2. Sarah Stock, Reader and Subspecialist in Maternal and Fetal Medicine, University of Edinburgh – *Finding new ways to bring data together from around the world to determine the impact of lockdown on preterm births worldwide* 3. Nevine Zariffa, Founder, NMD Group LLC – *The Joys, Trials and Disappointments of Working Towards Sharing of Data from RCTs During a Pandemic – ICODA case study* 4. Marion Mafham, Clinical Research Fellow, University of Oxford – *Lessons learned from the RECOVERY trial on sharing routine data from clinical trials to MHRA – and going international*	**'Nothing about us without us': Co-development with public and patients** *Convened in partnership with Understanding Patient Data and Use MY Data* Chairs: Natalie Banner, Lead, Understanding Patient Data, Wellcome Trust and Maisie McKenzie, Patient Representative, Use MY Data Panellists: 1. Ami Banerjee, Associate Professor in Clinical Data Science and Honorary Consultant Cardiologist, University College London – *Communicating risk to patients during the pandemic* 2. Ana Alvarez, Agile Lighthouse Squad Lead, NHS Test and Trace – *'Nothing about us without us'* 3. Margaret Grayson, Public Patient Involvement & Engagement Group Member, DATA-CAN – The Health Data Research Hub for Cancer	**Beyond health data: Cross-sectoral data science at scale** *Convened in partnership with Administrative Data Research UK (ADR UK)* Chair: Emma Gordon, Programme Director, ADR UK, ESRC Panellists: 1. Ruth Gilbert, Professor of Clinical Epidemiology, University College London – *Linking together administrative data from health and education* 2. Andrew Engeli, Deputy Director, Innovation and Partnerships Hub and Environmental Monitoring for Health Protection, Joint Biosecurity Centre, NHS Test and Trace – *Data Innovation in the time of COVID: The case of wastewater monitoring* 3. Mark Green, Senior Lecturer in Health Geography, University of Liverpool – *Local Data Spaces: Helping Local Authorities tackle the Covid-19 pandemic* 4. Nicola Perrin, Strategic Governance Lead, International COVID-19 Data Alliance (ICODA) – *Demonstrating trustworthiness in cross-sector data sharing*
15:40	 BREAK		

15:50	Stream A	Stream B	Stream C
Parallel 5: The future	**What lies ahead? Health data research beyond the pandemic** Chair: Simon Ball, Research Director, HDR UK and Chief Medical Officer, University Hospitals Birmingham NHS Foundation Trust Panellists: 1. Cathie Sudlow, Director, BHF Data Science Centre – *A new data asset to improve COVID-19 outcomes in heart disease patients* 2. Richard Hobbs, Pro-Vice Chanellor and Nuffield Professor of Primary Care, University of Oxford – *The PRINCIPLE trial* 3. Colin McCowan, Professor of Health Data Science, University of St Andrews, HDR UK Scotland – *Pivoting the multimorbidity cohort* 4. Ben Johnson, HDR UK Science and Infrastructure Delivery Group Lay Member – *Health inequalities threaten the national and global response to pandemics*	**Cutting edge analytics for the future** Chair: David Robertson, Research Director, HDR UK and Head of College of Science & Engineering, University of Edinburgh Panellists: 1. Zoe Kourtzi, Professor of Cognitive Computational Neuroscience and Alan Turing Fellow, University of Cambridge and Alan Turing Institute – *The EDoN Initiative* 2. Dan Bean, HDR UK Fellow, King's College London – *NLP-enabled COVID19 analytics with CogStack* 3. Kenny Baillie, Senior Clinical Research Fellow, University of Edinburgh – *Mobilising analytics in genomics for COVID-19* 4. Aiden Doherty, Associate Professor, University of Oxford – *Reproducible machine learning of wearable datasets*	**Innovative approaches to data stewardship** *Convened in partnership with the Open Data Institute (ODI)* Chair: Jack Hardinges, Data institutions Programme Lead, Open Data Institute Panellists: 1. Carly Kind, Director, Ada Lovelace Institute – *Data stewardship as an ideal* 2. Wen Hwa Lee, CEO and Chief Scientist, Action Against AMD – *Widening participation in practice with the INSIGHT Hub* 3. Mad Price Ball, Open Humans Foundation – *Data Stewardship - From the bottom*-up

16:40	**BREAK**
16:50	**Keynote fireside chat: Are we ready for the next pandemic?** Steve Kern, Deputy Director, Quantitative Sciences, The Bill & Melinda Gates Foundation *In conversation with* Caroline Cake, Chief Executive Officer, Health Data Research UK
17:15	**HDR UK annual awards** Andrew Morris, Director, Health Data Research UK • **Lightning Talk Award** – *presented by* Fatemeh Torabi, HDR UK Fellow, Swansea University • **Team of the Year Award** – *presented by* Anne Ridley, Professor and Head of School, School of Cellular and Molecular Medicine, University of Bristol • **Impact of the Year Award** – *presented by* James O'Shaughnessy, HDR UK Non-Executive Board member
17:25	**Plenary summary remarks** Andrew Morris, Director, Health Data Research UK
17:30	**CLOSE**