QResearch News Update Summer 2021

In this edition

Next Issue

We hope that you are enjoying our newsletters. We think that they are a great opportunity to feature some of the wide-ranging projects that have been enabled by access to QResearch data.

To feature your research news here, please email Claire Meadows at

pa-Julia.hippisley-cox@phc.ox.ac.uk

Model that predicts patient risk from COVID-19 wins Florence Nightingale Award for Excellence in Healthcare Data Analytics

The winner of the Florence Nightingale Award for Excellence in Healthcare Data Analytics 2021, jointly awarded by the Health Foundation and the Royal Statistical Society, has today been announced. Now in its second year, the award recognises practitioners in applied health care data analytics who have gone the extra mile in delivering innovative improvements for the health care system.

This year's award has been given to the COVID-19 Population Risk Assessment team, for their COVID-19 Population Risk Assessment predictive model powered by QCovid®.

This cross-organisational team produced QCovid, a predictive mode which combines characteristics such as age, ethnicity, gender and deprivation from a number of national datasets to estimate an individual's risk of catching and then being hospitalised or dying from COVID-19. QCovid was rolled out over every adult in England and it has been running regularly since February 2021. Thanks to this programme, at-risk adults in England could be identified, prioritised for vaccination and added to the national 'Shielded Patients List'.

Adam Steventon, Director of Data Analytics at the Health Foundation, said:

'The pandemic continues to highlight the critical role that data and analytics increasingly play in protecting and improving the health of everybody in our society. The COVID19 Population Risk Assessment team's work powerfully demonstrates that high quality analytics can make a real difference to patients' lives on a national scale. The level of collaboration, careful navigation of obstacles and the focus on addressing health inequalities on this project are outstanding.'

Stian Westlake, Chief Executive of the Royal Statistical Society, added:

'Healthcare data analysts across the UK have risen to the numerous challenges and obstacles brought by the COVID-19 pandemic – working responsively, collaboratively and openly together. Congratulations to the winners who have really shown how their work can make a difference to patient outcomes.'

Meet the new Chair of the QResearch Scientific Committee

After two years at the helm of the QResearch Scientific Committee, Rafael Perera-Salazar is stepping down.

QResearch founder Prof Julia Hippisley-Cox says

'We're grateful for Rafael's service, which has overseen an increase of quality applications to use QResearch data'

Committee member Paula Dhiman has been appointed Chair.

Dr Dhiman is based at the Centre for Statistics in Medicine at the University of Oxford, where she is a postdoctoral researcher in meta research.

She is passionate about statistical methodology and observational research, and is particularly interested in prognostic/risk modelling.

She enjoys working with large routinely collected datasets (QResearch, THIN, and CPRD) and programming in Stata statistical software. She is also the Associate Editor for the *Journal of Intellectual Disability Development*.

Dr Brian McMillan has been appointed Deputy Chair.

Paula Dhiman University Profile
https://tinyurl.com/n44t6vf3

QResearch Scientific Committee
https://tinyurl.com/yn9b7rua

PROJECT FOCUS: QResearch DART Lung Cancer Study

DART (the Integration and Analysis of Data Using Artificial Intelligence to Improve Patient Outcomes with Thoracic Diseases) is the latest project to join the NCIMI programme.

UK Research and Innovation, Cancer Research UK and industry are investing more than £11 million in an Oxford-led artificial intelligence (AI) research programme to improve the diagnosis of lung cancer and other thoracic diseases

Professor Fergus Gleeson at the University of Oxford is leading on a programme of research focusing on accelerating pathways for the earlier diagnosis of lung cancer. Lung cancer is the biggest cause of cancer death in the UK and worldwide, with £307 million/year cost to the NHS in England.

Lung cancer is a research priority in this country, due to its high incidence and mortality, and poor survival. It is the biggest cause of cancer death in the UK, with £307 million per year cost to the NHS England.

Early diagnosis is critical to reduce lung cancer mortality, and improve patient outcomes (survival and quality of life). Through developing, validating, and evaluating personalised risk prediction models, this study can help identify individuals with a high-risk of developing lung cancer and refer them to do low dose CT scan, which may result in early diagnosis but without unduly burdening the overstretched NHS.

In addition, health economic analysis will provide new insight to maximise the cost-effectiveness of lung cancer screening. The potential impact includes early diagnosis and better survival outcomes for patients, and reduced disease burden of lung cancer in the UK.

The DART website is now live at www.dartlunghealth.co.uk

On Twitter @dartlunghealth

QResearch Advisory Board Member Focus: Caroline Mitchell

Caroline has been a GP partner for over 30 years. In addition to part time clinical practice, she joined the Academic Unit of Primary Medical Care at the University of Sheffield in 1993, initially as an undergraduate teacher and later as a Senior Clinical Lecturer.

She leads the 'Under-served populations' research theme in the department and her research and clinical practice focuses on inclusion health.

Her research interests are in the overlap of physical health problems with severe mental illness and / or substance use and in co-design approaches to support inclusive primary care research with underserved populations.

New Paper: Association Between Race and COVID-19 Outcomes Among 2.6 Million Children in England

A new paper by Dr Defne Saatci, using QResearch data and looking at the link between ethnicity and COVID-19 outcomes in children, has been published online by JAMA.

Approximately 10% of COVID-19 cases involve children up to the age of 18 years. Although children with COVID-19 largely experience mild disease, hospitalization rates are steadily increasing, and the underlying factors associated with severe outcomes have not been comprehensively explored.

Only a small number of observational studies have focused on children with COVID-19, and these studies have mainly concentrated on age, sex, and pre-existing comorbidities.

There is an established association between race/ethnicity and severe COVID-19 outcomes in adults, including hospitalizations and mortality. Disentangling the factors associated with these differences in adults is challenging. A combination of clinical factors, including higher prevalence of underlying chronic diseases in racial/ethnic minorities, and sociodemographic factors, including deprivation, key worker status, housing, and household size, are thought to play important roles.

Whether a similar association between race/ethnicity and severe COVID-19 exists in children is not well established. To our knowledge, no population-based studies to date have directly explored race and SARS-CoV-2 infection and COVID-19 hospitalization risk in children, while accounting for important clinical and sociodemographic factors.

Hot off the press: Vaccine safety and effectiveness study using QResearch

The Blood Cancer UK Vaccine Collaborative have funded Professor Julia Hippisley-Cox and her team at the University of Oxford to carry out a study that will look at the safety and effectiveness of the COVID vaccines based on patient data records.

The data provided by the QResearch database will tell researchers whether certain vaccines may be better suited for people with blood cancer. They'll look to see if there's a difference in side-effects experienced from the vaccines and will look if there's a difference in the protection offered. Find out more here