

## **Evaluation of digital health interventions: workshop and “Issues to consider” document**

**Lead Applicant:** Dr Susanna Dodd (University of Liverpool, North West HTMR)

### **Co-applicants**

- Professor Paula Williamson (University of Liverpool, North West HTMR)
- Professor Elizabeth Murray (University College London)
- Professor Amanda Farrin (University of Leeds)
- Dr Matt Sydes (University College London, MRC CTU HTMR)

### **Budget**

- Awarded: £4435.50 (£3750 for travel/accommodation; £685.50 for room hire and catering)
- Amount spent (to date): £2518.40

### **Objectives**

Host workshop for CTU statisticians, information system developers, health economists and chief investigators with experience of designing, running and analysing trials of digital health interventions (DHI), in order to identify the issues to consider in the evaluation of DHI, thus directly impacting on practice and in turn helping to improve the quality and validity of the evidence base for such interventions.

### **Achievements**

The DHI evaluation workshop took place on December 3<sup>rd</sup> 2019 (see appendix 1 for the programme) and was attended by 35 researchers (see appendix 2 for list of attendees). There were four invited talks and five oral presentations from attendees.

Invited talks covered the following topics:

- Methodological issues in DHI evaluations
- Public Health England approach to DHI evaluation
- NICE Evidence standards framework for Digital Health Technologies
- Health economic evaluation of DHI

Attendee talks covered:

- Focusing on process: Preparing for technological change in the time frame of DHI RCTs
- Designing for DHI evaluation
- Example of physiotherapy DHI trial with multi-user platform
- A systematic review of economic evaluations of digital smoking cessation DHI
- NICE Evidence standards framework for Digital Health Technologies

Small group discussions focused on:

- Statistical issues in the design and analysis of DHI evaluation RCTs
- Health economic evaluation of DHI
- Evidence to inform initial commissioning
- Evidence to inform development
- Evidence to inform ongoing commissioning/effectiveness

This workshop also provided an opportunity for the co-leads of the TMRP Health Informatics working group (co-applicants Amanda Farrin and Matt Sydes) to promote this working group. Interested attendees were invited to apply to join, and as such, it is hoped that the discussions that took place at this workshop will develop further in future working group meetings and collaborations.

### **Outputs**

The discussions and knowledge exchange that took place at the workshop are currently being summarised in an “Issues to consider” document. This document will be submitted for publication, in order to provide additional benefit to the wider clinical and trial community. The manuscript will be circulated to all attendees for comments prior to submission for publication, and all attendees will be acknowledged in the publication.

## **Appendix 1. Workshop programme**

### **Evaluation of digital health interventions**

**Workshop funded by the MRC Network of Hubs for Trials Methodology Research**

**Date:** December 3, 2019

**Location:** Foresight Centre, University of Liverpool, 1 Brownlow Street, Liverpool L69 3GL

10.45	Registration and refreshments	
11.00	Welcome	Professor Paula Williamson
11.15	Methodological issues in DHI evaluation	Professor Elizabeth Murray
11.40	Public Health England approach to DHI evaluation	Kassandra Karpathakis
12.05	NICE Evidence standards framework for Digital Health Technologies	Bernice Dillon
12.30	Health economic evaluation of DHIs	Professor James Raftery
13.00	LUNCH	
13.45	Thinking beyond the digital in DHI trials	Adam Geraghty
13.55	Designing for DHI evaluation	Henry Potts
14.05	Physiotherapy DHI trial with multi-user platform	Vincent Poile
14.15	Health economic evaluation of a DHI trial	Hannah Hussain
14.25	Testing the NICE Evidence standard frameworks for Digital Health Technologies	Michelle Green and Judith Shore
14.35	Tea/coffee break	
14.50	Small group/open discussion	To inform publication on "Issues to consider"
15.50	Closing remarks	Professor Paula Williamson
16.00	End	

## Appendix 2. Workshop attendees

Adam Geraghty  
Alexander Thompson  
Amanda Farrin  
Anna Roberts  
Bernice Dillon  
Carol Platt  
Chen Ji  
Cheryl Jones  
Chris Newby  
*Elaine Nicholls* *Remote access*  
Elizabeth Murray  
*Gareth McCray* *Remote access*  
George Bouliotis  
Gillian Lancaster  
Hannah Hussain  
Henry Potts  
James Raftery  
John Tredinnick-Rowe  
Jonathan Benn  
Jonathan Hill  
Judith Shore  
*Kassandra Karpathakis* *Remote access*  
Kieran Bromley  
Leonie Brinkmann  
Ly-Mee Yu  
Matt Sydes  
Michelle Green  
Paula Williamson  
Samantha Wilson  
Sundus Mahdi  
Susanna Dodd  
Thomas Allen  
Vijay Gc  
Vincent Poile  
Zak Connan