

## Introduction

This leaflet details the health services research methods modules organised by the NIHR Biomedical Research Centre at Guy's & St Thomas' and King's College London. These were developed to meet a perceived need for training in research methods and aim to provide an introduction to research methods. The modules have been grouped into quantitative, qualitative and generic courses.

Full details of the courses booking are available on the [NIHR Guy's and St Thomas BRC website](#).

## Who can attend?

The courses are free for health care professionals employed by organisations associated with the National Institute of Health Research Biomedical Research Centre at Guy's & St Thomas' and King's College London:

- King's College London
- Guy's and St Thomas' NHS Foundation Trust
- South London and the Maudsley NHS Foundation Trust
- King's College Hospital NHS Foundation Trust
- St George's University of London
- St George's Hospitals NHS Foundation Trust

## Booking

All places need to be booked in advance via Skills Forge. If you are unable to book via Skills Forge (non King's staff) please email the booking form at the end of this booklet to [BRctraining@gstt.nhs.uk](mailto:BRctraining@gstt.nhs.uk).

Once the booking form is received, participants will receive email confirmation of their place. Places are booked on a first come, first served basis. If the module is full, your name will be placed on a waiting list and if a place becomes available you will be contacted at the latest 72 hours beforehand.

**Please note:** Since the programme was started in 2010, the modules have usually been oversubscribed. Unfortunately, the programme has suffered 'did not attend' (DNAs) without sufficient notice to allow applicants on the waiting list to fill vacant places.

In order to encourage participants unable to attend to cancel and so enable their place to be filled, we are introducing a Two Strike rule whereby should you book and fail to attend on two occasions without notification, and any future bookings will be cancelled. We understand that unforeseen clinical work pressures can prevent attendance at short notice, so two DNAs are permissible before this rule kicks in.

**NB We require a minimum of 72 hours' notice if you are unable to attend.**



## National Institute for Health Research

For further information please contact BRC Research Training Programme at [BRCTraining@gstt.nhs.uk](mailto:BRCTraining@gstt.nhs.uk) or contact

Claire Dossi, Training Manager on Tel: 0207 188 7188 ext 51239

Margarita, Research Training Programmes Administrator Tel: 0207 188 7188 ext 53373

## Quantitative Research Methods

### Quantitative Data Analysis (Part 1)

An introduction to basic statistical methods. **This is a two part course and attendees should attend both sessions.**

**Date:** Friday 8 February 2019  
**Time:** 10:30  
**Duration:** 3 hrs  
**Speaker:** Dr Abdel Douiri  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Lecture  
**Number of places:** 30

### Quantitative Data Analysis (Part 2)

An introduction to basic statistical methods. **Attendance at part 1 is required** before attending part 2.

**Date:** Friday 22 February 2019  
**Time:** 09:00  
**Duration:** 3 hrs  
**Speaker:** Dr Salma Ayis  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Lecture  
**Number of places:** 30

### Linear Regression – does the value of one variable predict the value of another?

This is an introductory course for anyone interested in correlation and linear regression. The course will be useful to researchers who need to use correlation and linear regression analysis for data analysis, and for readers of the medical literature who need a better understanding of its meaning. Attendees will also get insights into the workings principles underlying all regression techniques. The use of specific statistical packages will not be covered.

Attendees should attend the introductory sessions on statistics, or have an equivalent level of knowledge, before attending this course.

**Date:** Thursday 28 February 2019  
**Time:** 13:00  
**Duration:** 2 hrs  
**Speaker:** Dr Yanzhong Wang  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Lecture  
**Number of places:** 30

## Quantitative Data Analysis: Multivariable Analysis

Introduction to logistic regression with a particular focus on 'best practice' in terms of formulating and reporting statistical models.

**Date:** Wednesday 13 March 2019  
**Time:** 09:00  
**Duration:** 3.5 hrs  
**Speaker:** Dr Salma Ayis  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Cabaret  
**Number of places:** 20

## Introduction to Critical Appraisal of Quantitative Data Analysis

This module aims to cover the basics of critically appraising quantitative research. It is not intended to cover statistical analyses in detail.

**Date:** Monday 25 February 2019  
**Time:** 10:00  
**Duration:** 2hrs  
**Speaker:** Karen Poole  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Seminar (pre-reading essential)  
**Number of places:** 20

All attendees should read the pre-course reading material, which will be provided prior to the course.

## Data Management using R

High quality datasets are essential for statistical analysis. This course is for researchers that need to use the open source R programming language to prepare their data for statistical analysis. The course uses R Studio to illustrate the various techniques that can be used to prepare a data set that is analysable by statistical methods.

Attendees are expected to be familiar with the data collection process using an electronic tool, such as MS Excel.

**Date:** Thursday 28 February 2019  
**Time:** 09:00  
**Duration:** 4 hrs  
**Speaker:** Bolaji Coker  
**Venue:** G.1E Hodgkin Building  
**Session style:** Lecture & computer practice  
**Number of places:** 15

## Introduction to Statistical Data Management using SPSS

High quality datasets are essential for statistical analysis. This course is to introduce quantitative researchers, responsible for their own data collection, to techniques in preparing the final database for analysis. SPSS syntax will be used to illustrate the various techniques.

Attendees will be expected to be familiar with using spreadsheets for data entry and have a basic understanding of statistics.

**Date:** Thursday 7 February 2019  
**Time:** 10:00  
**Duration:** Session 1 (theory) – 3 hours, Session 2 (practical) – 4 hours  
**Speaker:** Bolaji Coker  
**Venue:** New Hunts House G.10 (SCR)  
**Session style:** Lecture & computer practice  
**Number of places:** 20

## Descriptive Statistics in R

Summary (or descriptive) statistics are the first figures used to represent nearly every dataset, and are essential to the analysis process. This tutorial will explore the ways in which R can be used to calculate summary statistics, including the mean, standard deviation, range, frequencies and proportions. We will also explore some of R's graphic capabilities and create summary plots such as scatterplots, histograms, bar charts and box and whisker plots.

This tutorial assumes no knowledge of R programming, although attendees will be expected to be familiar with using spreadsheets for data entry and have a basic understanding of statistics.

**Date:** Wednesday 6 March 2019  
**Time:** 09:00  
**Duration:** 4 hours  
**Speaker:** Alessandra Bisquera  
**Venue:** New Hunts House G.10 (SCR)  
**Session style:** Lecture & computer practice  
**Number of places:** 15

### **Estimation and Hypothesis Testing in R**

This tutorial will explain how to undertake inferential analyses that is appropriate for different data types, including hands-on experience of performing t-tests, chi-square tests, linear and logistic regression analyses. This will also include variable selection procedures based on univariate plots, and how to check important model diagnostics through scatter plots and histograms. Many of the graphical techniques for these procedures will be based upon those from the previous 'Descriptive Statistics in R' tutorial.

It will be assumed attendees have had some exposure to basic statistical inference concepts, such as sampling distributions, confidence intervals, hypothesis tests, p-values and regression techniques, although an overview will be provided. It will also be assumed that attendees have attended the previous two R-related courses, or have had some exposure to R before.

**Date:** Thursday 14 March 2019  
**Time:** 09:00  
**Duration:** All day  
**Speaker:** Bolaji Coker  
**Venue:** G.1E Hodgkin Building  
**Session style:** Lecture & computer practice  
**Number of places:** 15

### **Introduction to SPSS**

This session is an introduction to conducting basic statistical analysis using SPSS. **This course is only open to Guy's and St Thomas' staff who do not hold a joint appointment with King's.** If staff hold a joint appointment with King's they can attend SPSS training sessions organised via ISS - <http://www.kcl.ac.uk/iss/training/>.

All booking on this course must have attended the two parts of the Quantitative Data analysis course or have a good understanding of statistical theory, particularly inferential statistics.

**Date:** Monday 25 March 2019  
**Time:** 10:00  
**Duration:** All day  
**Speaker:** Dr Derek Cooper  
**Venue:** Hodgkin Building G.1E (SCR)  
**Session style:** Lecture & computer practice  
**Number of places:** 15

## Introduction to Meta Analysis

An introduction for anyone who is interested in finding out about how evidence from several studies on the same topic can be usefully combined. Concepts are explained through presentation of a real example and no mathematical formulae are presented.

**Date:** Thursday 28 March 2019  
**Time:** 09:00  
**Duration:** 3.5 hrs  
**Speaker:** Dr Salma Ayis  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Lecture  
**Number of places:** 30

## Qualitative Research Methods

### Introduction to Critical Appraisal of Qualitative Data Analysis

This module aims to cover the basics of critically appraising qualitative research. It is not intended to cover statistical analyses in detail.

**Date:** Wednesday 13 March 2019  
**Time:** 14:00  
**Duration:** 2 hrs  
**Speaker:** Jane Potheary  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Seminar (pre-reading essential)  
**Number of places:** 20

All attendees should read the pre-course reading material, which will be provided prior to the course.

### Qualitative Data Collection: Interviewing

This is an introductory course for researchers who may be considering using qualitative methods to collect data and also for anyone who may wish to further their understanding and knowledge of using interviewing techniques as a means of collection qualitative data.

**Date:** Monday 4 March 2019  
**Time:** 14:00  
**Duration:** 2 hrs  
**Speaker:** Dr David Wyatt  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Seminar  
**Number of places:** 20

### **Qualitative Data Analysis**

This is an introductory course for those who want to gain an understanding of how to analyse qualitative data. This course would be suitable for those planning to carry out qualitative research, or those who have begun to collect qualitative data and are starting to think about analysis.

**Date:** Monday 29 March 2019  
**Time:** 10:00  
**Duration:** 2 hrs  
**Speaker:** Dr Caroline Pearce  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Seminar  
**Number of places:** 20

### **Qualitative Data Collection: Ethnography and Observation**

This is an introductory course for researchers who may be considering using qualitative methods to collect data and also for anyone who may wish to further their understanding and knowledge of ethnographic and observational techniques as a means of collection qualitative data.

**Date:** Monday 11 March 2019  
**Time:** 14:00  
**Duration:** 2 hrs  
**Speaker:** Dr Rachel Faulkner-Gurstein  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Seminar  
**Number of places:** 20



## General Issues in Conducting Research

### Implementing Patient and Public Involvement

The course will provide participants with an understanding of the methods to involve users in the various stages of the research process. Participants will be provided with real examples and advice on the key factors to consider when planning and implementing user involvement, for example timescale, budget and objectives.

You must have either attended the introductory course 'User Involvement in Research' or attempted user involvement in research on at least one occasion prior to this workshop.

**Date:** Monday 4 February 2019  
**Time:** 13:00  
**Duration:** 2.5 hrs  
**Speaker:** Jacintha McGahon  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Lecture & group work  
**Number of places:** 20

Please note, this session is run in collaboration with the NIHR Research Design Service London and should be booked [via Eventbrite](#).

### Introduction to Study Design

This session will explain the basic concepts of key study designs such as observational and experimental and illustrate why different studies are used to answer different research questions. An introduction to the Equator Network will be provided so that researchers can be familiar with publication standards which exist for different types of study.

**Date:** Thursday 28 February 2019  
**Time:** 10:00  
**Duration:** 2 hrs  
**Speaker:** Dr Catey Bunce  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Theatre  
**Number of places:** 25

### Survival Data Analysis

This is an introductory/intermediate course for anyone who would like to understand more about time-to-event analysis and related tests that are reported in many medical journals; when are they appropriate to use? The course covers the statistical concepts and methods required for describing and analysing survival data arising in clinical studies. The use of specific statistical packages will not be covered.

**Date:** Thursday 28 March 2019  
**Time:** 13:00  
**Duration:** 3 hrs  
**Speaker:** Abdel Douiri  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Theatre  
**Number of places:** 20

### Evaluation of Diagnostics Tests and Prediction Models

This is an introductory course for anyone who is interested in finding out about mathematical tools related to the development of diagnostic and prognostic models in clinical practice.

**Date:** Friday 22 February 2019  
**Time:** 13:00  
**Duration:** 4 hrs  
**Speaker:** Clare Flach  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Lecture  
**Number of places:** 20

### Introduction to Missing Data Analysis

The course will provide an introduction to conceptual and practical issues related to the issues of missing data and the choice of strategy for handling missing data. The course will illustrate the shortcomings of ad-hoc procedures for dealing with missing data and identify where multiple imputation might be appropriate. The focus of the course will be on the practical use of modern (i.e. multiple imputation) missing data procedures.

**Date:** Thursday 7 February 2019  
**Time:** 10:00  
**Duration:** 2 hrs  
**Speaker:** Catey Bunce  
**Venue:** NIHR Guy's and St Thomas' BRC, Guy's Hospital, 16th floor  
**Session style:** Lecture  
**Number of places:** 20

**NIHR Guy's and St Thomas' BRC Research Methods  
Programme – Spring 2019**

Module Title	Date	Time	Places
Introduction to Statistical Data Management using SPSS Syntax	THU 07/02/2019	10:00	15
Introduction to Missing Data	THU 07/02/2019	10:00	25
Quantitative Data Analysis Part 1	FRI 08/02/2019	10:00	30
Quantitative Data Analysis Part 2	FRI 22/02/2019	09:00	30
Evaluating Diagnostic tests and prediction models	FRI 22/02/2019	13:00	20
Introduction to Critical Appraisal of Quantitative research	MON 25/02/2018	10:00	20
Introduction to Study Design	THU 28/02/2019	10:00	25
Linear Regression - does the value of one variable predict the value of another?	THU 28/02/2019	13:00	30
Data Management Using R	THU 28/02/2019	09:00	15
Qualitative Data Collection: Interviewing	MON 04/03/2019	14:00	20
Descriptive Statistics in R	WED 06/03/2019	09:00	15
Qualitative Data Collection: Ethnography and Observation	MON 11/03/2019	14:00	20
Multivariable Analysis (emphasis on logistic regression)	WED 13/03/2019	09:00	20

Introduction to critical appraisal of qualitative research	WED 13/03/2019	14:00	20
Estimation and Hypothesis Testing in R	WED 14/03/2019	09:00	15
Introduction to SPSS	MON 25/03/2019	10:00	15
Qualitative Data Analysis	MON 29/03/2019	10:00	20
Introduction to Meta-Analysis	THU 28/03/2019	09:00	30
Survival Data Analysis	THU 28/03/2019	13:00	20



## National Institute for Health Research

### NIHR Guy's and St Thomas' BRC Training Programme Spring 2019 Booking Form

Please complete the following information and email to [BRCTraining@gstt.nhs.uk](mailto:BRCTraining@gstt.nhs.uk)

Name:

Job title and grade:

Department & organisation:

Please tick the sessions you wish to attend:

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Mobile:

Work Telephone Number:

E-mail:

*The following information is used to brief the module leads on their participants*

Relevant qualifications:

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Line manager/PI: \_\_\_\_\_ Date: \_\_\_\_\_

BRC Research Training Programme

E-mail: [BRCTraining@gstt.nhs.uk](mailto:BRCTraining@gstt.nhs.uk)

Tel: 0207 188 7188 ext 51239 or 53373