**Introduction to data analysis: Case studies with iSIKHNAS data**

**Three day training agenda**

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| **Time** | **Training items** |
| **Day 1 (case study 1)** | |
| 8:30 – 9:30 | Introduction to course  Overview of steps in data analysis  Key concepts for sampling. |
| 9:30 -10:30 | Introduction to case study 1.  Step 1: Objective of case study 1 (exercise 1 and 2)  Step 2: Data management for case study 1 (download and preserve iSIKHNAS data) |
| 10:30-11:00 | Morning tea |
| 11:00 -12:30 | Key concepts about errors  Step 2: Data management for case study 1 (exercises 3-5) |
| 12:30-1:30 | Lunch |
| 1:30-3:00 | Key concepts about descriptive statistics  Step 3: Description of data (exercises 6-7) |
| 3:00-3:30 | Afternoon tea |
| 3:30-4:30 | Summary of case study 1  Introduction to case study 2 (if time, otherwise catch up time) |
| **Day 2 (case study 2)** | |
| 8:30 – 9:30 | Key concepts for measures of disease and association  Step 1: Objective |
| 9:30 -10:30 | Step 2: Data management (exercises 8-10) |
| 10:30-11:00 | Morning tea |
| 11:00 -12:30 | Step 3: Description of data (exercises 11-13) |
| 12:30-1:30 | Lunch |
| 1:00-3:00 | Step 4: Hypothesis testing (exercise 14) |
| 3:00-3:30 | Afternoon tea |
| 3:30-4:30 | Case study 2 (time to complete if needed)  Summary of case study 2  Introduction to case study 3 (if time) |
| **Day 3 (case study 3)** | |
| 8:30 – 9:30 | Key concepts for statistical hypothesis testing |
| 9:30 -10:30 | Key concepts for statistical hypothesis testing (continued)  Step 1: Objective (exercise 15) |
| 10:30-11:00 | Morning tea |
|  | Step 2: Data management (exercise 16)  Step 3: Description of data (exercise 17) |
| 12:30-1:30 | Lunch |
| 1:00-3:00 | Step 4: Statistical hypothesis testing (exercises 18-19) |
| 3:00-3:30 | Afternoon tea |
| 3:30-4:30 | Summary of case study 3  Questions and issues  Conclusion  +/- R Appendix 1 (if time and desire) |