**MPH- Thesis: Optional course in Data analysis**

In real life, data analysis can be quite different from the exercises in courses and textbooks. It can be a challenge to develop a good research question, even more challenging is to transform available data into a format ready for analysis. The analysis itself also requires a well-structured approach.

In this course students will be provided with a dataset from a project in Bihar, India (funded by TMRC, Tropical Medicine Research Council) that was used in a published analysis on risk factors for visceral leishmaniasis (1). They will formulate a research question, develop a data analysis plan, transform the available data into an appropriate dataset for analysis and carry out their own analysis.

During the course all participants will work on the TMRC dataset but there will be opportunity to consult the facilitators on their own individual data sets.

* Work on the TMRC dataset, individually or in group
* The exercise with the TMRC dataset serves as an example:
  + Follow all the steps carefully
  + Consider the same questions for your own data
  + Feedback will be on the TMRC dataset, limited individual feedback on your own data
* Feedback sessions are scheduled daily between 10:00 and 12:00 on Tuesday-Thursday
* The final session on Friday from 14:00 to 16:00 is to present and discuss results

The course is scheduled from Monday 27 February until Friday 03 March 2022 in Room SOUTH.

The timetable is shown below:

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| **ZOOM-link:** <https://Itg.zoom.us/j/87320559955?pwd=SC9mM0trVFpKVlVrbmRYOVR6UkFEUT09> | | | |
| **Date** | **Time** | **Topic** | **Venue** |
| Monday  27-Feb-2023 | 09:15 – 13:00 | Introduction, distribution of TMRC dataset  Basic data manipulations in R Commander:   * Making a script * Uploading data * Recoding variables | Room SOUTH |
| Tuesday  28-Feb-2023 | 10:00 – 12:00 | * Merging side by side and head to tail * Transforming long to wide * Creating an asset-index * Feedback | Room SOUTH |
| Wednesday  01-March-2023 | 10:00 – 12:00 | * Merging datasets * Feedback | Room SOUTH |
| Thursday  02-March-2023 | 10:00 – 12:00 | * Data analysis * Feedback | Room SOUTH |
| Friday  03-March-2023 | 14:00 – 16:00 | * Fitting a logistic regression model * Final presentations of data analysis results | Room SOUTH |

(1) Hasker E, Singh SP, Malaviya P, et al. Visceral leishmaniasis in rural Bihar, India. *Emerg Infect Dis* 2012; **18**(10): 1662-4.