Model-based Geostatistics: geospatial statistical methods for public health applications

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Q & A, closing remarks

Closing remarks

- **Many spatial statistical methods can be understood as sophisticated versions of regression analysis**
- **Be wary of ad hoc methods (tests of clustering,...why?)**
- **A model-based approach**
  - **enables principled inference (objectivity, efficiency)**
  - **maintains a distinction between:**
    a scientific model of the process
    and a statistical model for the data
- **Modelling for prediction or for scientific understanding?**

Analyse problems, not data

Diggle, P.J. and Chetwynd, A.G. (2011). Statistics and Scientific Method: an Introduction for Students and Researchers. Oxford: Oxford University Press.

Q & A

- **excluded topics include:**
  - **zero-inflated prevalence data**
  - **selection bias amongst participants (non-randomized surveys)**
  - **selection bias amongst sampled locations (preferential sampling)**
  - **repeated surveys over time (spatio-temporal models and methods)**
- **any questions?**

Thank you for your attention!