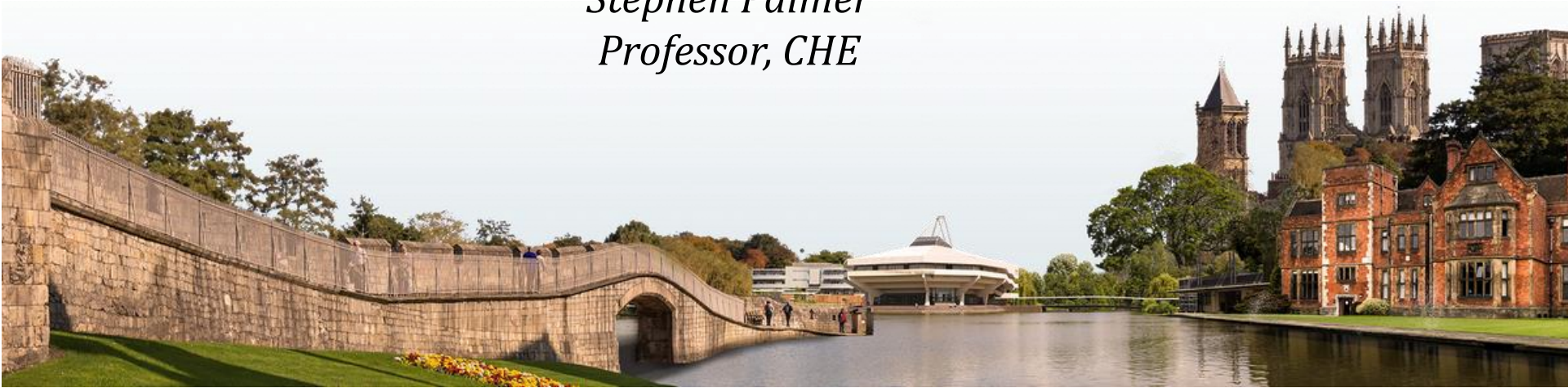


Online Advanced Methods for Cost-Effectiveness Analysis

Presentation 3: Populating models - effectiveness 3.11: Summary and conclusions

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Summary

- Evidence synthesis is an important input to cost-effectiveness modelling
- Statistical tools, such as meta-analysis, enable the combination of quantitative results from multiple studies
- Subgroup analysis and meta-regression may be used to investigate heterogeneity
- Network meta-analysis can be used when there are multiple treatments providing estimates for all comparisons of interest
- Estimation of absolute outcomes required for evidence synthesis to be used within models
- Range of possible sources of heterogeneity should be explored

Further reading

Methods and application of network meta-analysis

- Bucher H et al. The results of direct and indirect treatment comparisons in meta-analysis of randomized controlled trials. *J Clin Epidemiol.* 1997; 50(6): 683-691
- Caldwell D et al. Simultaneous comparison of multiple treatments: combining direct and indirect evidence. *BMJ.* 2005 Oct 15;331(7521):897-900
- NICE DSU TSDs on Evidence Synthesis: TSD 1 to TSD 7 (available from: <http://nicedsu.org.uk/technical-support-documents/evidence-synthesis-tsd-series/>)

Application of evidence synthesis approaches for HTA

- Sutton A, Ades AE, Cooper N, Abrams K. Use of Indirect and Mixed Treatment Comparisons for Technology Assessment. *PharmacoEconomics.* 2008; 26: 753-767

Subgroups and heterogeneity

- Sculpher M. Subgroups and heterogeneity in cost-effectiveness analysis. *Pharmacoeconomics.* 2008;26(9):799-806