**Chapter 1 outline**

* **Intro**
  + Brief background on spillover
    - Multifactorial, major work on intrinsic and extrinsic drivers
  + Discuss interactions between host and virus as pathogenesis
    - Use flu as example of pathogenesis playing a role in spillover
  + Come back to specific aspects of pathogenesis I think are important; cellular receptor, cell tropism, receptor distribution, within host spread mechanisms
  + Study objective- hypotheses (this guides analysis)
* **Methods**
  + Literature search with terms
  + Metagear to screen
    - Exclusion/inclusion criteria
  + Data cleaning wrangling
  + Univariate/bivariate analysis
  + Multiple correspondence analysis
* **Results**
  + Discuss in 2 sections; the presence/absence of data and what the present data shows
  + 1.univariate presentation of data
  + 2.bivaraiet presentation of categorical data, mosaic plots of; host order vs pathological factors
  + 3.multiple correspondence analysis
* **Discussion** 
  + Discuss results and relevance to field,
  + Particular discuss the significance of absent data and its potential importance
  + Discuss inclusion of pathogenesis in prediction models
  + LIMITATIONS: no background, bias towards virus/host interactions of human and/or economic importance, lack of pathogenesis data
* **conclusions**