1. Declare research as predictive OR causal (researchers answer questions below)

Does study attempt to:
- Identify who is at greater risk for a disease state?  ==>  Predictive (e.g. machine learning)
- Provide guidance for developing an intervention for a disease state?  ==>  Causal

=> Continue to step 2

2. Distinguish hypothesis, from process, from model (example below)

Heterogeneity of Treatment Effects

- Hypotheses
  - \( H_0 \)
    - "Context matters"
    - Complex system Tx interaction feedback loops
  - \( H_1 \)
    - "Patient factors matter"
    - Non-monotonic time effects
    - Moderating covariate Tx interactions

- Process models
  - \( P_{0A} \)
  - \( P_{1A} \)
  - \( P_{1B} \)

- Statistical models (normal point estimates)
  - \( M_{II} \)
  - \( M_{III} \)

3. Explicate causal structure with directed acyclic graphs (e.g. recommend implementation with dagitty.net)

4. Open access, open data, Open peer-review...open inference?

Adapted from: (McElreath, 2020)
Dagitty reference: (Textor et al., 2016)

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Towards Standards for Causal Inference in Health Sciences Research
Michael Ruderman, DO, MPH, Department of Psychiatry, Harvard Medical School
Center for Healthcare Organization & Implementation Research, United States Department of Veterans Affairs