



Creating a model world to address a research question

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MMED 2017

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Step 0 (yesterday):

- Focus on a clear, concise research question.

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- Example:

What level of vaccination is necessary to eliminate domestic dog rabies in Tanzania?

Step 1:

- *Identify the key outcome of interest for addressing your question.*

Step 2:

- *Identify the processes that may affect the outcome of interest.*

Step 3:

- *Identify relevant characteristics of individuals in your study system.*

Step 4:

- *Identify what you think are the **most important** processes and characteristics among those identified above **for addressing your research question.***

Step 5:

- *Reconcile your process and characteristic lists by identifying how the most important processes relate to the most important characteristics.*

Step 6:

- *Construct a diagram that represents all of the individual characteristics and processes of interest.*

Step 7:

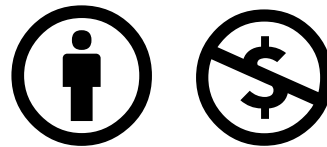
- *Hand draw or print a clean, clearly labeled version of your model diagram and bring it with you to **tomorrow morning's 8:30am session.***

Step 7:

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 - Label all arrows into or out of a state variable with the total rate for the process.
 - Use solid **labeled arrows** to represent the transitions from one category or state to another.
 - Use **dashed arrows** (pointing to transitions, not states) to indicate influences of one state on the rate of transition from another state.
 - Include a **key** for symbols/abbreviations.



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Title: **Creating a model world to address a research question**

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