2023 Harvard/University of Global Health Equity
Mathematical Modeling for Infectious Disease Planning
Finalizing research question and study team

Time: 1 hour

In the past week, you have had the opportunity to brainstorm your model structure, interventions, and health outcomes for your project. In this activity, you would finalize your research question using the PICO framework as detailed in the table below.

- Use the framework below to finalize the research question for your project.

Item	**Details**
Population/problem: *The population in this context may include the country of interest and the disease.*	
Intervention**: W***hat type(s) of interventions will be considered in the model?*	
Comparison: *Is there a comparison intervention to be considered in the model? E.g., low vs. high vaccination coverage, no vs some intervention, etc.*	
Outcomes: *what is the desired effect of interest? What is (are) the output(s) of your model?*	

- Write your research question (s) from the above table. What question(s) are you seeking to answer using your model?
- What types of data are needed to answer your research question using a mathematical model?
- Briefly explain your access to data that can be used to estimate parameters for your model.
- How would you identify additional sources of data for your model?
- Are there uncertainties you need to accommodate for your model?
- Aside your team partner, who will you be working with on this project? (Identify whether there is the need for collaboration with institutions other than yours).

Resources:

1. https://guides.library.harvard.edu/c.php?g=309833&p=2069900
2. https://libguides.mssm.edu/ebm/ebp_pico#:~:text=The%20PICO%20framework%20is%20the,Comparison%20or%20control
3. https://canberra.libguides.com/c.php?g=599346&p=4149722