

Session 3 - Probabilistic Programming with PyMC3 - Exercises

Consider the `vacince_efficacy.ipynb` notebook.

1. Use `np.shape` to check the length of the `trace['e_Pfizer']` array.
2. The contents of `trace['e_Pfizer']` consists of samples from the posterior efficacy of the Pfizer vaccine. Use `trace['e_Pfizer']` and `trace['e_Moderna']` to calculate the probability that the Pfizer vaccine has a higher efficacy than the Moderna vaccine.
3. What is the probability that the Pfizer vaccine has a higher efficacy than the Astra Zeneca Regime 1 vaccine?
4. What was the probability of exposure to the virus in the Pfizer and the Moderna trials?
5. What was the probability of exposure to the virus in the Pfizer and the Moderna trials?