

Geography 480
Spring 2012

ENSO (El Nino Southern Oscillation) is frequently used as a surrogate for longer-term climate change in assessing the impact of climatic variation on health. Select a disease of your choice, and then please select three original research articles. These research articles should assess whether warmer weather in specific locations increases the prevalence or incidence or mortality from the disease. This must use the “ENSO experiment.” Please clip the papers that you have selected to the back of your paper. You may write more than five pages if you wish, but you need not. *If there is an insufficient amount of research available on the relationship between ENSO and the disease, then pick some other index of climate change. You will need to convince me in a systematic way, however, that there has been little to no work on El Nino and this disease. We will discuss this more in class.*

Your overall question is to address the conclusion: does warmer weather increase the prevalence (etc) of this disease? Please consider the following:

- 1) What is the study design of the article?
- 2) What is the geographic setting of the research?
- 3) What population (sample) is being studied?
- 4) If there is any sampling scheme, is there any bias to the scheme, or is it a true representative sample?
- 5) Are there any confounders? Are these addressed in the papers? If so, how are they controlled? Are there additional confounders that are not considered? How might these confounders change the research findings?
- 6) Are climatic variables other than temperature being considered? If so, how is their influence taken into consideration? If not, how might this bias the findings?
- 7) Are the findings contradictory between the papers? Why (or why not?)
- 8) What is your conclusion about the underlying research question?

This paper is due in class on Tuesday, May 15th.