## ${\bf Question}$ 1: Thought Experiment - Spatial Randomization

- 1.1 What could you do to test whether the Treatment arms are spatially distributed.
- 1.2 What could you do to randomize the treatment arms over space.

## Question 2

- 2.1 Explain the previous table clearly and concisely, as if you were explaining it to someone who didnt know the back story
- 2.2What are the rows, what are the columns, why are we doing this? ( Rows What does the 0 mean, what does the 1 mean and what does the 2 Mean? )
- 2.3 Balance Check How does the randomization look?

Question 3: Describe your randomly selected household and the respondent who is answering the survey.

- 1. Age
- 2. Tribe
- 3. Education -
- 4. Member of any groups b11-b15?
- 5. Occupation -
- 6. Religion -
- 7. A summary of D variables, iron roof, floor materials, latrine, cattle, others..
- 8. Have they ever used WG?
- 9. Treatment Arm what was the assignment
- 10. How many children do they have
- 11. Gender and Age of children
- 12. Have any of the children been sick?

Question 4.1: What can we tell by comparing the confidence intervals for Arm 1 and Arm 2. Do they overlap? What does that mean?

**Question 4.2:** Propose an additional hypothesis to test with this data? Program the confidence interval for another treatment arm and see if it is different than the control arm.

Type your answer here, replacing this text.

In [61]: # coding section

Question 5: Make a version of this graph for Validated Presence of WG

In [70]: # Code in here

Explanation of what you did here

Extra Credit: Make another graph

Make another graph similar but different to the previous 6 ones above, that - uses the Validated means and Confidence Intervals - looks awesome (change the colors, choose the orientation, think about what you wish it looked like) - Add a short paragraph of explanation - what can you summarize from looking at the error bars in your graph?

In [78]: # add code here

Write a short paragraph explaining and interpereting your graph