**DRILL: Getting Testy...**

For each of the following questions, outline how you could use an A/B test to find an answer. Be sure to identify all five key components of an A/B test we outlined above.

* Does a new supplement help people sleep better?

Take random sample of people who have sleeping disorders and divide them into two. Apply a new supplement to one of the groups. The outcome of interest is getting better sleep. I expect people to have an improved sleep after using the new supplement. To ensure I am experimenting using samples from same population, measure their sleeping pattern, age group, etc. The key metric is hours of sleep.

* Will new uniforms help a gym's business?

The first group can contain random days in which employees were not wearing uniforms and second group can be randomly chosen days from uniform days. I assume uniforms look professional and will increase the gym’s business. So, the outcome of interest is increased number of clients. Secondary outcome can be increased employee satisfaction and sense of community among themselves. To make sure that the samples are the same, the same employees can be used in two time periods like for the first 3 months they will not wear uniforms and for next 3 months they wear uniforms. The key metric is more subscribers. The duration can be reduced to prevent seasonality, like increased number of people will join during the months before summer. I can compare the number of clients at a time period using previous years data.

* Will a new homepage improve my online exotic pet rental business?

Take sample of days before the homepage is introduced and measure the rental business and introduce the homepage. I would give it a time before taking the other sample. Measure the level of business after the homepage was introduced. I assume I did an amazing homepage and it will attract more business. Secondary outcomes can be staying more on the website and increased view of pets. To make sure that the samples are taken from same population, one of them should not be in a holiday season, or after some catastrophe, all days shall be normal, usual days. The key metric is number of rentals. When can I say the number of rentals has increased?

* If I put 'please read' in the email subject will more people read my emails?

If I am caring about those people who are in the same industry like I do, I will select 2 samples from them, otherwise, I could take samples from all types of people. The outcome I expect is a greater number of reads because of politeness or begging. The only way to confirm a person has read an email is if he replies. The key metric is number of replies given that I emailed to all people in the samples.