Q1: $E(Y_{T=0})$

The average BMI of all Duke students in a world where no one drinks diet soda.

Q2: $E(Y_{T=1})$

The average BMI of all Duke students in a world where everyone drinks diet soda.

Q3: $E(Y_{T=1})$- $E(Y_{T=0})$

The average difference in the BMI of all Duke students between a world where all Duke students drink diet soda and a world where no Duke students drink diet soda (i.e. the average treatment effect of diet soda on Duke students).

Q4: $E(Y_{T=1}|D=1)$

The average BMI of Duke students who we actually observe drinking diet soda (in the world where they drink diet soda).

Q5: $E(Y_{T=0}|D=0)$

The average BMI of Duke students who we actually observe not drinking diet soda (in the world where they don't drink diet soda.

Q6: $E(Y_{T=1}|D=0)$

The average BMI of Duke students who we actually observe not drinking diet soda in a world where they do drink diet soda.

Q7: $E(Y_{T=0}|D=1)$

The average BMI of Duke students who we actually observe drinking diet soda in a world that they don't drink diet soda.

Q8: $E(Y_{T=1}|D=0) - E(Y_{T=0}|D=0)$

For Duke students who we actually observe not drinking diet soda, this is the average difference in BMI between a world where those students do drink diet soda and a world where they do not (i.e., it is the effect of diet soda on BMI for students who don't actually drink diet soda, also known as the "Average Treatment on the Control (ATC)").

Q9: $E(Y_{T=0}|D=1) - E(Y_{T=0}|D=0)$

The average difference in BMI between Duke students who we actually observe drinking diet soda and Duke students who we actually observe not drinking diet soda in a world whether neither group drinks diet soda (i.e., the baseline difference in BMI between the two groups).

Q11: $E(Y_{T=0}|D=1) - E(Y_{T=0}|D=0) = 0$

This condition means that in a world were nobody drinks diet soda, the students who we actually observe drinking diet soda and the students who we actually observe not drinking diet soda would have the same average BMIs. In other words, there are

no baseline differences in BMI.

Q12: $E(Y_{T=1}|D=0) - E(Y_{T=0}|D=0) = E(Y_{T=1}|D=1) - E(Y_{T=0}|D=1)$

This condition means that the differences in BMI between a world where students drink diet soda and a world where students don't drink diet soda is the same for the students we actually observe drinking diet soda and the students we actually observe not drinking diet soda. In other words, the difference in BMI for these two groups of students is the same between the world where they drink diet soda and the world where they don't drink diet soda.

Or, in different other words, both groups of students' BMIs respond to drinking diet soda the same way.

Q13: It may be the case that $E(Y_{T=0}|D=1) - E(Y_{T=0}|D=0) \neq 0$ because:

People who have more difficulty controlling their weight (and thus BMI) may also be more likely to drink diet soda as a way of further regulating their weight. Thus, even if the people we observe drinking diet soda weren't drinking diet soda, they might still tend to have higher BMIs.

Q14: It may be the case that $E(Y_{T=1}|D=0) - E(Y_{T=0}|D=0) \neq E(Y_{T=1}|D=1) - E(Y_{T=0}|D=1)$ because:

The people who drink soda may be doing so precisely because they find it helps them control their weight (i.e., they find that they have lower BMIs when drinking diet soda then when they don't drink diet soda). This could be because they drink lots of soda, so the impact of drinking diet soda is larger on their calorie intake.

At the same time, those who drink regular soda may be choosing to do so because drinking diet soda doesn't help them control their weight, and so they drink the beverage they prefer (regular soda). This could be because they only drink soda once or twice a week, and so the sugar content of the soda doesn't matter much.

As a result, the "effect" of drinking diet soda may be bigger for the people we observe drinking diet soda than the effect we'd see for the people we don't observe drinking diet soda.

Q1: $E(Y_{T=0})$

The average healthcare a WMW employee would consume in the world where patients are not required to do Zoom triage appointments.

Q2: $E(Y_{T=1})$

The average healthcare a WMW employee would consume in the world where patients are required to do Zoom triage appointments.

Q3: $E(Y_{T=1})$- $E(Y_{T=0})$

The average difference in healthcare consumption of a WMW employee between a world where patients are required to do Zoom triage appointments and a world where patients are not required to do Zoom triage appointments (i.e. the average treatment effect of Zoom triage appointment on a WMW employee).

Q4: $E(Y_{T=1}|D=1)$

The average healthcare consumption of a WMW employee who we actually observe doing Zoom triage appointments (in the world where they are required to do Zoom triage appointments).

Q5: $E(Y_{T=0}|D=0)$

The average healthcare consumption of a WMW employee who we actually observe not doing Zoom triage appointments (in the world where they are not required to do Zoom triage appointments).

Q6: $E(Y_{T=1}|D=0)$

The average healthcare consumption of a WMW employee who we actually observe not doing Zoom triage appointments (in the world where they are required to do Zoom triage appointments).

Q7: $E(Y_{T=0}|D=1)$

The average healthcare consumption of a WMW employee who we actually observe doing Zoom triage appointments (in the world where they are not required to do Zoom triage appointments).

Q8: $E(Y_{T=1}|D=0) - E(Y_{T=0}|D=0)$

For a WMW employee who we actually observe not doing Zoom triage appointments, this is the average difference in healthcare consumption between a world where the employee is required to do Zoom triage appointments and a world where he/she is not (i.e. it is the effect of doing Zoom triage appointments on average healthcare consumption for employee who actually doesn't do Zoom triage appointments, also known as the "Average Treatment on the Control (ATC)").

Q9: $E(Y_{T=0}|D=1) - E(Y_{T=0}|D=0)$

The average difference in healthcare consumption between employee who we

actually observe doing Zoom triage appointments and employee who we actually observe not doing Zoom triage appointments in a world where neither group is required to do Zoom triage appointments (i.e., the baseline difference in healthcare consumption between the two groups).

Q11: $E(Y_{T=0}|D=1) - E(Y_{T=0}|D=0) = 0$

In a world where nobody is required to do Zoom triage appointments, the employee who we actually observe doing Zoom triage appointments and employee who we actually observe not doing Zoom triage appointments would have the same average healthcare consumption. In other words, there are no baseline differences in healthcare consumption.

Q12: $E(Y_{T=1}|D=0) - E(Y_{T=0}|D=0) = E(Y_{T=1}|D=1) - E(Y_{T=0}|D=1)$

The differences in healthcare consumption between a world where employee is required to do Zoom triage appointments and a world where employee is not required to do Zoom triage appointments is the same for the employee who we actually observe doing Zoom triage appointments and the employee who we actually observe not doing Zoom triage appointments. In other words, the difference in healthcare consumption for these two groups of employees is the same between the world where they are required to do Zoom triage appointment and the world where they are not.

Or, in different other words, both groups of employee's healthcare consumption respond to being required to do Zoom triage appointments the same way.

Q13: It may be the case that $E(Y_{T=0}|D=1) - E(Y_{T=0}|D=0) \neq 0$ because:

People who have more difficulty controlling their healthcare consumption may also be more likely to do Zoom triage appointments of further reducing their healthcare consumption. Thus, even if the employee we observe doing Zoom triage appointments wasn't doing Zoom triage appointments, they might still tend to have higher healthcare consumption.

Q14: It may be the case that $E(Y_{T=1}|D=0) - E(Y_{T=0}|D=0) \neq E(Y_{T=1}|D=1) - E(Y_{T=0}|D=1)$ because:

The employee who do Zoom triage appointments may be doing so precisely because they find it helps them control their healthcare consumption (i.e. they find that they consume less on healthcare when doing Zoom triage appointments than when they don't do Zoom triage appointments). This could be because they need to visit doctors frequently, so the impact of receiving the 50 dollar bonus for doing Zoom triage appointments is larger on their healthcare consumption.

At the same time, employee who doesn't do Zoom triage appointments may be choosing to do so because doing Zoom triage appointments doesn't help them control their healthcare consumption. This could be because they seldom need to visit doctors, so the 50 dollar bonus a month doesn't matter much.

As a result, the effect of doing Zoom triage appointments may be bigger for employee we observe doing Zoom triage appointments than the effect we'd see for

the employee who we don't observe doing Zoom triage appointments.