Congratulations! You passed!

Next Item

1 / 1 point

1. What is the first thing you should do when beginning the interpretation phase of your data analysis?

- Consider new analyses of the data
- Consider how best to communicate the results.
- Assess the totality of the evidence.
- Revisit the question

Correct
It is not uncommon for people to lose their way as they go through the process of exploratory analysis and formal modeling. Revisiting the question can help to re-focus the analysis on the right problem.

1 / 1 point

2. Which of the following is a characteristic of the result from your primary model that you should consider during the interpretation phase?

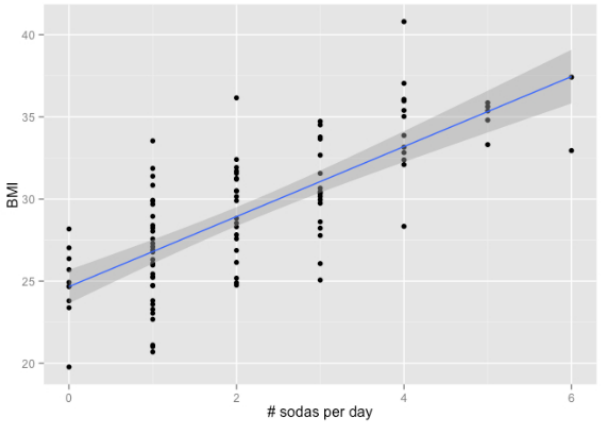
- Uncertainty

Correct
Directionality, magnitude, and uncertainty are three characteristics that you should consider for your primary model results.

- Statistical significance
- Modeling approach

1 / 1 point

3. You are conducting an associational analysis and attempting to estimate the association between soda consumption in the U.S. and body mass index (BMI). A scatterplot of the data from 100 individuals is shown below.



What is the directionality of the association depicted in this plot?

- Zero
- Positive

Correct

- Negative

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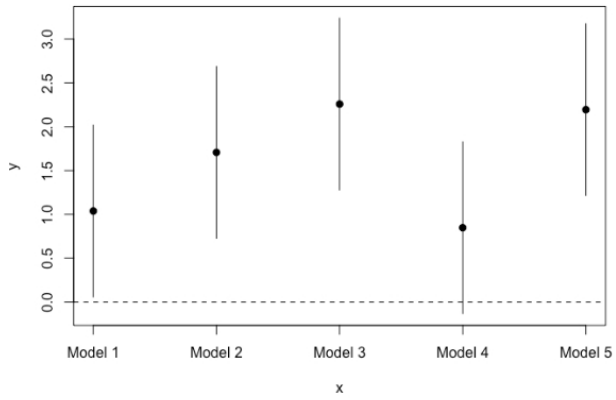
4. You are conducting an associational analysis and attempting to estimate the association between soda consumption in the U.S. and body mass index (BMI). As part of a sensitivity analysis you fit a series of 5 different models which of which produce a different estimate

point

of the association, which is the change in BMI per 12 oz can of soda consumed daily. A plot of the estimates from the 5 models and their 95% confidence intervals is shown below.



From the plot of the estimates, which of the following can you reasonably conclude?

- The estimates of the association are all statistically equivalent to zero.
- The estimates from the 5 models are consistent in their directionality

Correct

- The estimates all have very different levels of uncertainty

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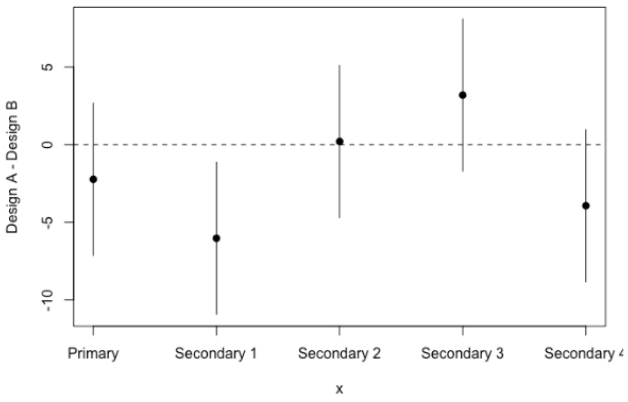
✔ 1 / 1 point

5. You are building a web site and are A/B testing two different designs for the site. You want to know which designs lead to people taking a certain action on your web site (e.g. buying a product, clicking a button). The tests for the different designs are conducted separately over time because you do not want there to be two different versions of the web site available at any given time. Therefore, one issue may be the presence of time trends that can confound the relationship between a given design and the number of actions taken. The target of estimation is the average difference in actions taken on the web site per visit between design A and design B.

In your formal modeling you fit a series of models to account for possible temporal trends in different ways. The results of your primary model and 4 secondary models is are shown below.



What could you conclude from these results?

- Design A is worse than Design B because the primary model estimate is negative.
- Design A is worse than Design B because 3 out of the 5 models produced a negative estimate of the difference.
- There is no difference between the two designs because there is a lack of consistency in the directionality of the estimates between the models.

Correct

Design A is worse than Design B because Secondary model 1 indicates that there are about 5 fewer actions taken under Design A and that estimate is statistically significant.