Practicals Day 1 Morning Session

PhD course: Causal prediction for medical decision making

Exercise 1

Consider the CVD risk prediction tool for type 1 diabetes (Steno Diabetes Center Copenhagen): `https://steno.shinyapps.io/T1RiskEngine/`

Answer the following questions:

1. Who is eligible to use this calculator?
2. At what occasion can people use this calculator (i.e., what is time zero)?
3. How many predictor variables are used to predict the 5-year risk of CVD?
4. In what direction does the 5-year risk change when you change any of the predictor variables keeping the other predictor variables at a fixed value?

Think about and discuss the following with your nearest neighbors:

5. What possible applications does this medical risk prediction model have?
6. Which of the risk factors may change over time?
7. How old (relative to time zero) are the measurements of these risk factors allowed to be?
8. Which of the risk factors are modifiable?
9. Correspondingly what would be possible interventions?
10. Decision making (for versus against an intervention) could be based on comparing the predicted 5-year risk to a fixed threshold, e.g., 10% risk. How would one incorporate lower and upper limits for the predicted risks to guide a person's decision?