

The Biggest Risk Factors Causing Death with Heart Failure



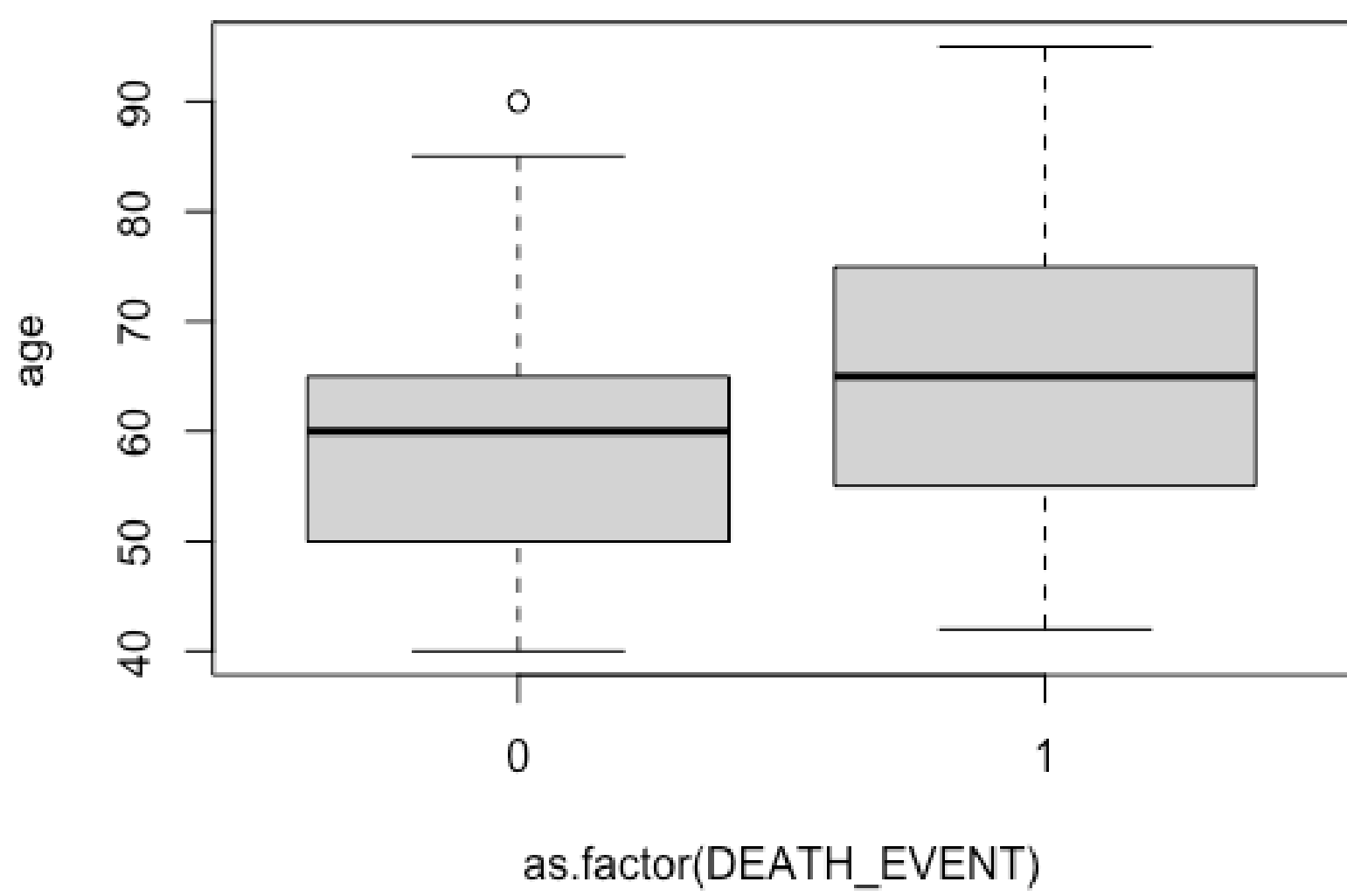
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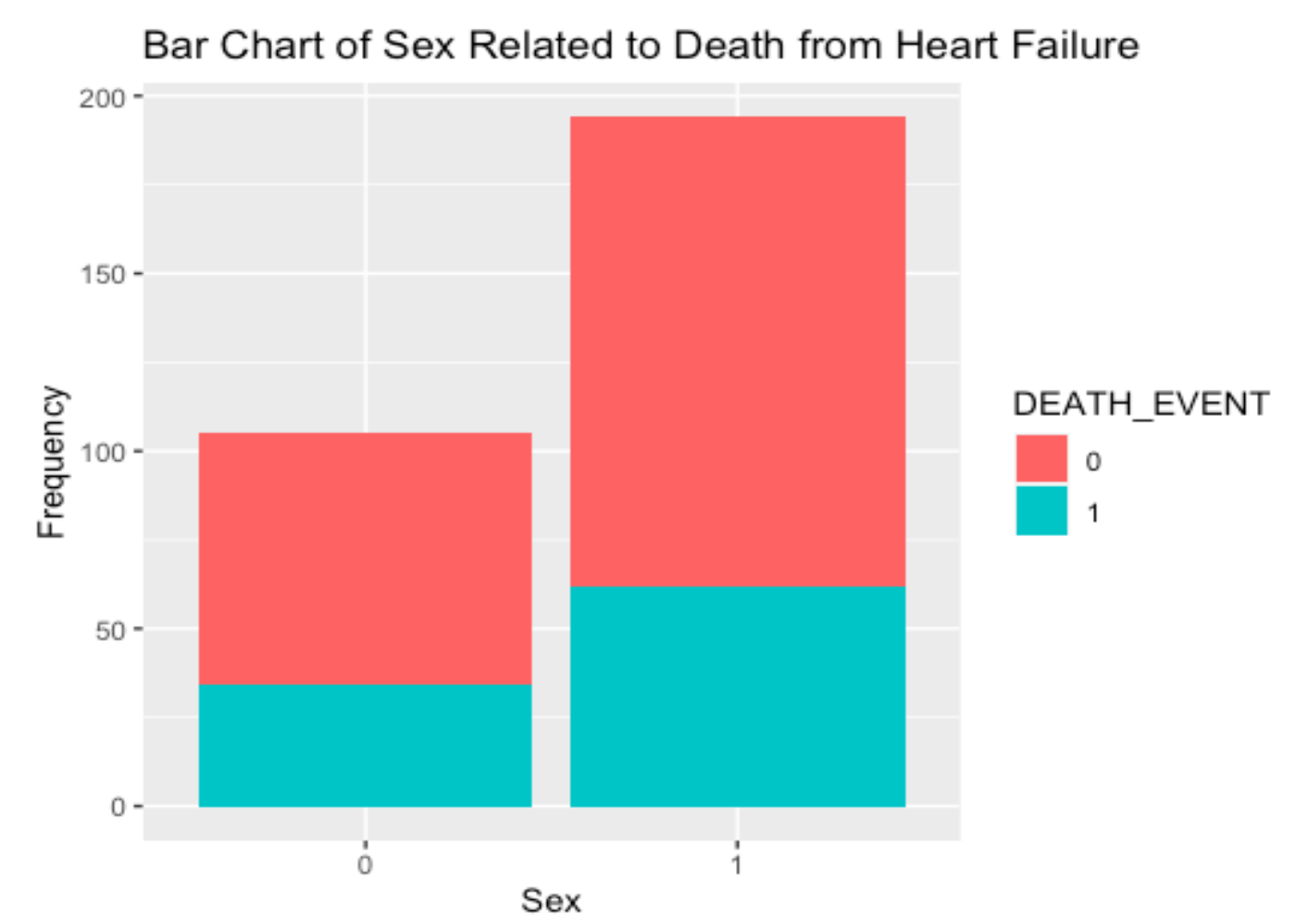


Image (Stock)

What are the biggest risk factors for death related to heart failure? This is a very important question that data analysis can help try and pinpoint risk factors. This is important because knowing risk factors can better educate people of the chances of death related to heart failure.

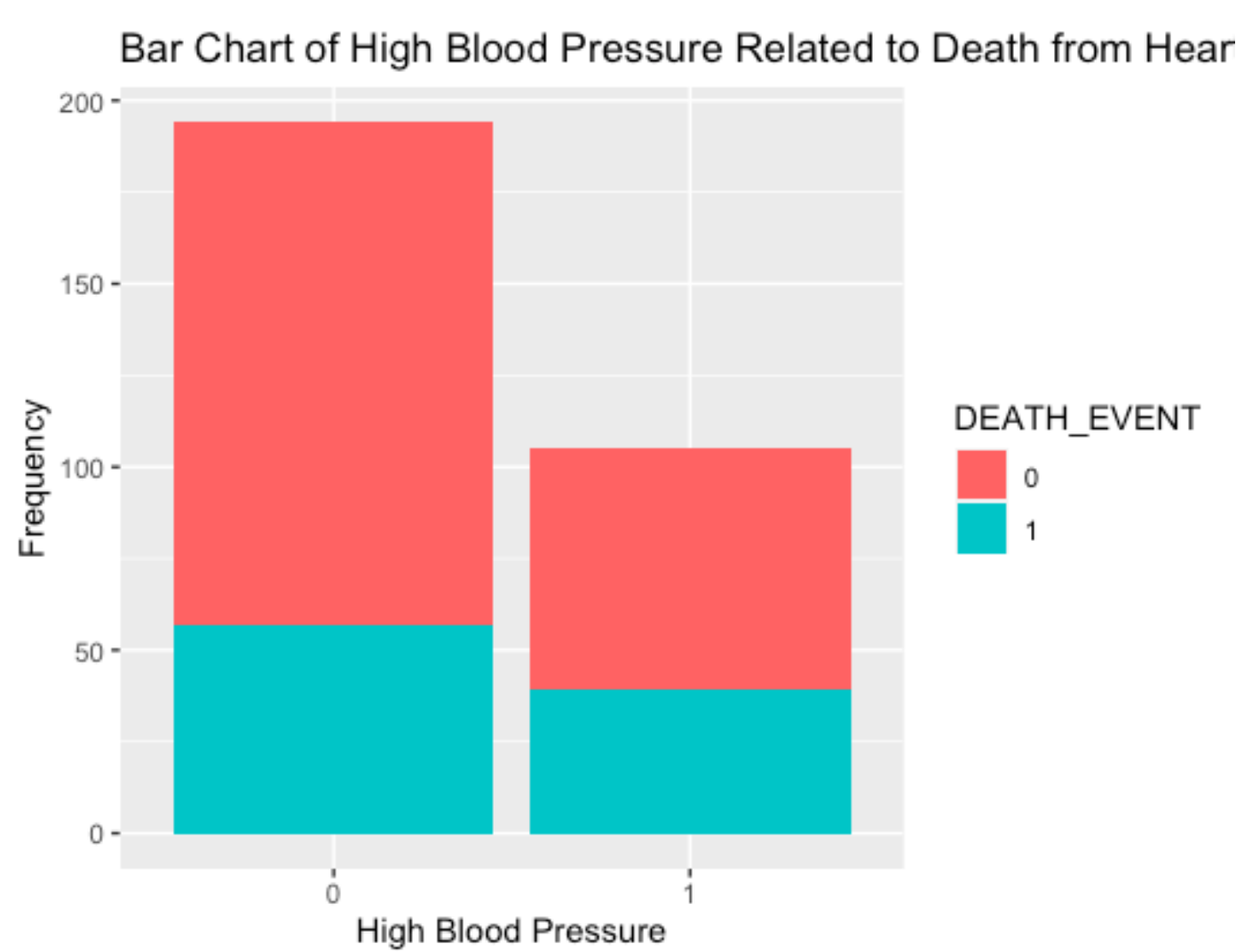


Higher Risk

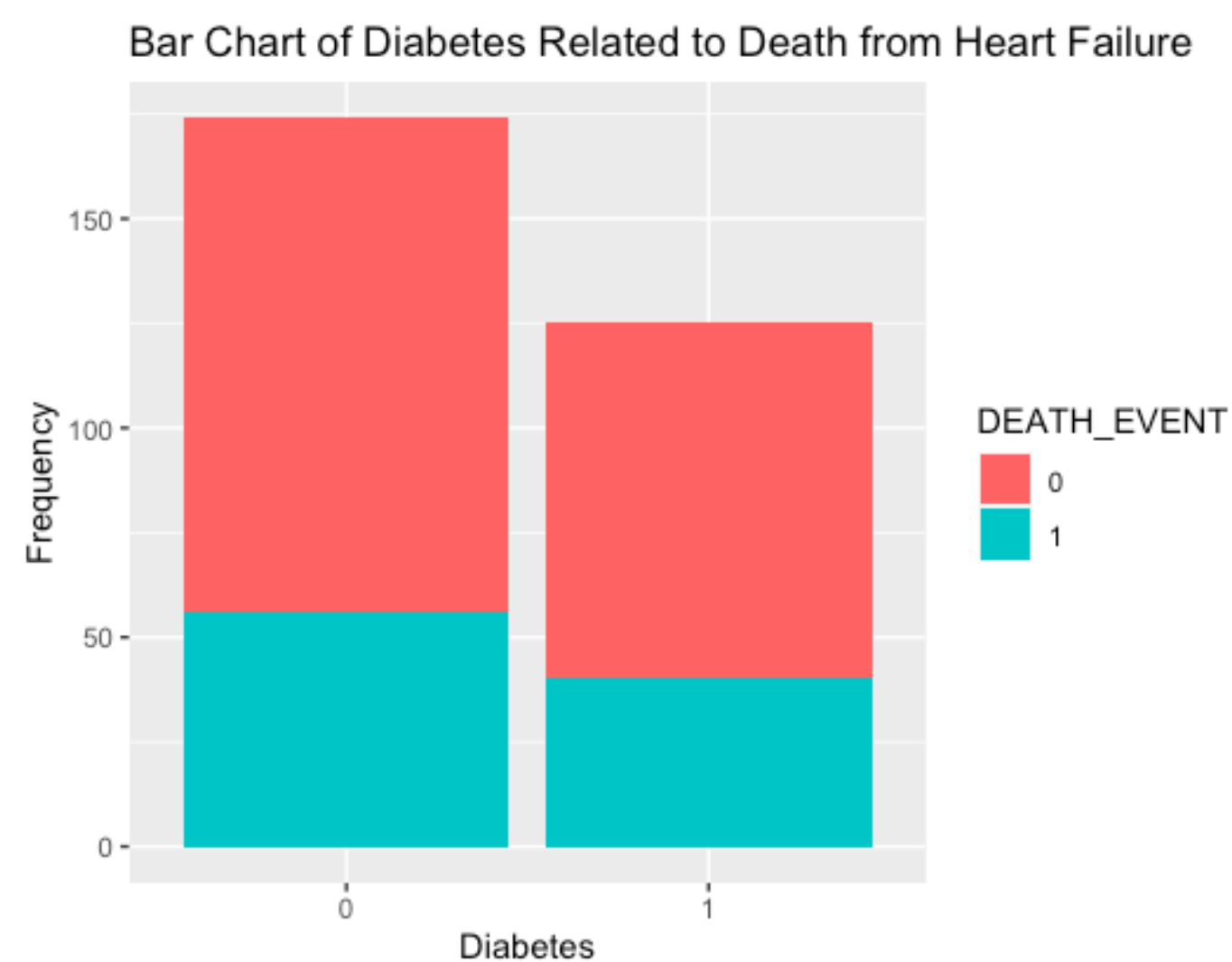


- Those of higher age range, from 55-80 have a higher chance of death related to heart failure

- Males make up 64.89% of the data on heart failure
- Men are at a much higher risk of having heart failure, and of that 64.89%, 20.74% of men die from heart failure.

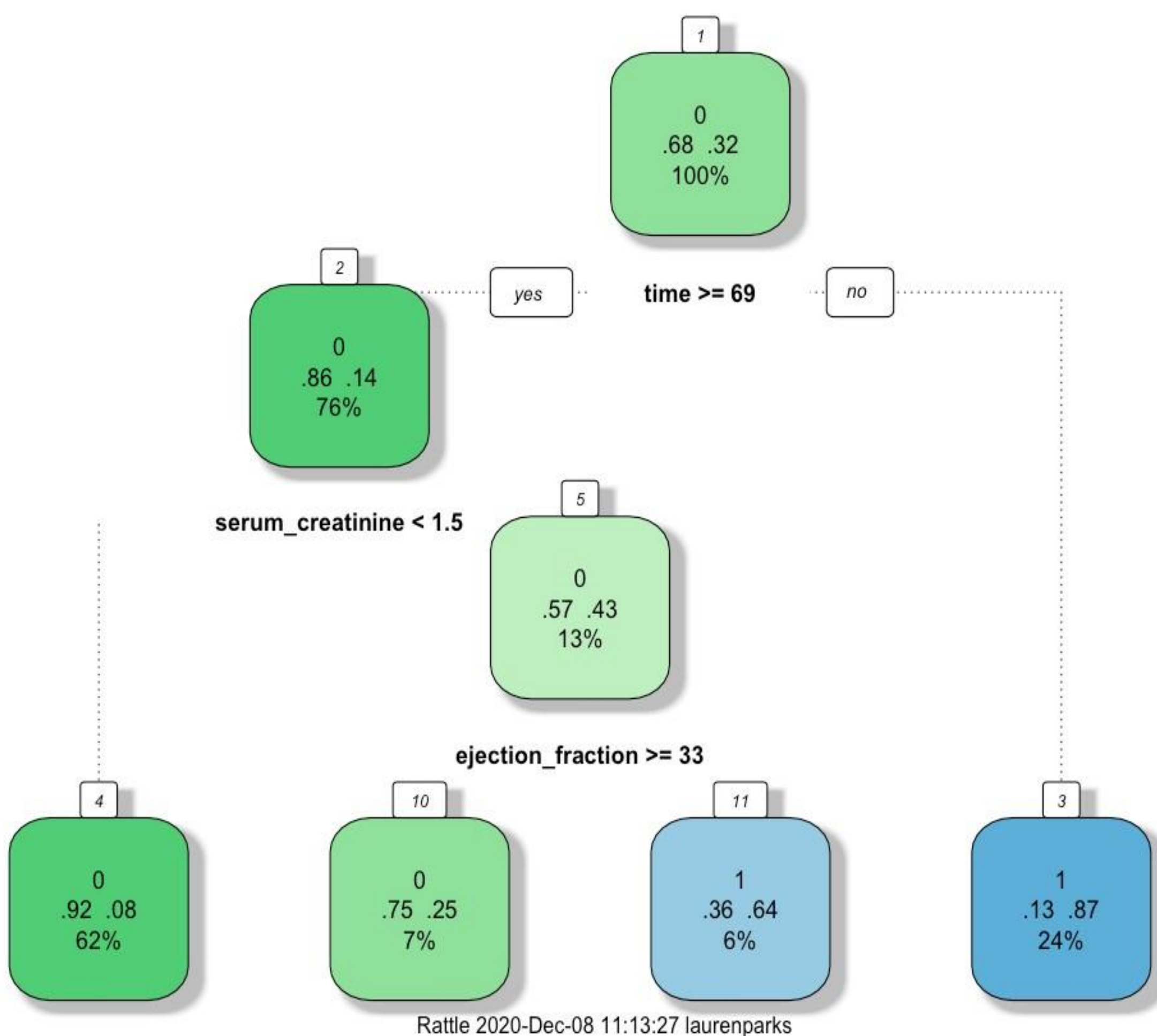


Lower Risk



- Those with lower blood pressure have a 26.76% more chance of surviving after heart failure.

- Those without diabetes have a 20.73% more chance of surviving.



CART Model of Heart Failure Data

- The first node rule shows those with time greater or equal to 69, and serum creatinine less than 1.5. This applies to 62% of the data
- The second node rule shows those with time greater or equal to 69, serum creatinine greater than 1.5, and ejection fraction greater than or equal to 33. This applies to 7% of the data.
- The third node rule shows those with time greater than or equal to 69, serum creatinine greater than 1.5 and ejection fraction less than 33. This applies to 6% of the data.
- The fourth node rule shows those with time less than 69. This applies to 24% of the data.
- The rule that applies to the most amount of data is time being equal to or greater than 69 and serum creatinine less than 1.5. This applies to 62% of the data with 92% classified as the first target variable and 8% being classified as the second target variable.
- The second rule that applies to the most amount of data is time being less than 69. This applies to 24% of the data with 13% being classified as the first target variable and 87% being classified as the second target variable.

For all the data, 0 means that there was not a death event and 1 means that there was a death event.