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1. The child mortality rates have lowered greatly from 1800 until 2015. This means children are generally living longer than before.

2.

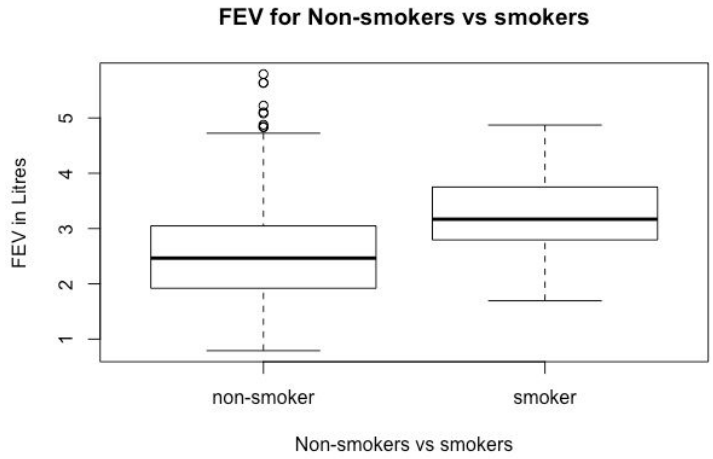
	X	X02	X70
1	P(X)	0.433	0.567

The average life expectancy is 02 * 0.433 + 70 * 0.567 = 40.556.

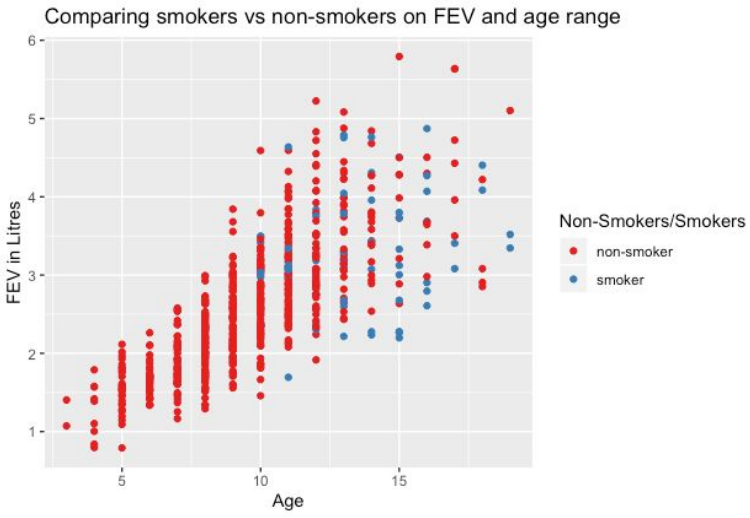
3. Life expectancy over time increases as the portion of the population that died at age 2, decreases.

4. Low life expectancy does not necessarily mean that adults won't live to an old age. We do not have the data showing us at what age an adult passed, only that they aged passed childhood. The data is derived from our old age probability distribution calculation.

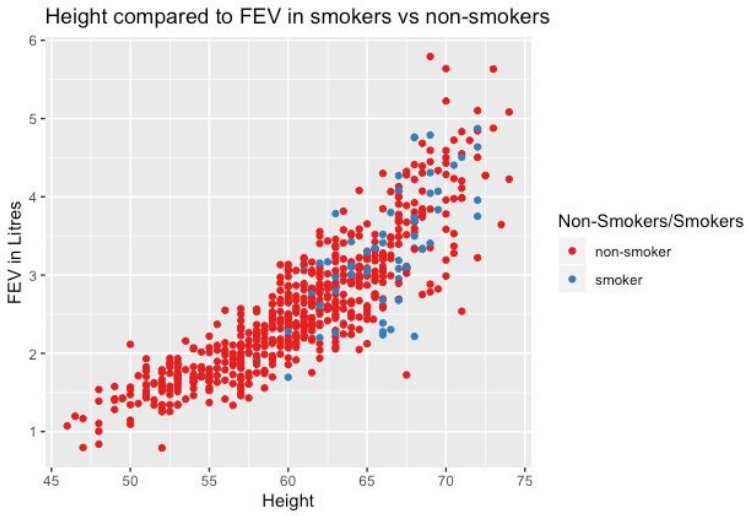
5.



At a first glance it appears that smokers on average have larger forced expiratory volume than non-smokers. Before we draw this conclusion we need to consider other variables.



Using the FEV and age comparison (with smoker and non-smoker groups) we see two important details. As a person gets older their FEV increases. In addition, we see that smokers are generally 10 years old or older.



Like age, there is a strong correlation with height and FEV. Smokers are generally 60+ inches tall.

Conclusion: Despite the first graph telling us that smokers have larger FEV, we see that it is likely due to the subject being older and/or taller which has affected the average of the FEV in smokers. Taking this into account we cannot conclude that smokers have better or worse FEV.