**Chocolate & Cycling**

DATE: February 15, 2021

TO: Head Trainer Bicycle Team

FROM: Anonymous Data Scientist

SUBJECT: Chocolate and Cycling Performance

Food is crucial to the performance in a highly competitive sport team, and some kinds of food can impact more than others. Recently, scientific articles have said that chocolate may influence the yield of the athletes, and more specific, in bikers. The results are different if the chocolate is white or if it is dark.

**Interpreting data**

According to the articles, we are analyzing data collected from 9 male participants, where there were two measures: one after eating dark chocolate (DC) and the second, after eating withe chocolate (WC).

The values of the dark chocolate measure tell us that cyclists that consume dark chocolate have an increase in the average of meters during the time trial. With 95% of confidence, we can say that cyclists that eat dark chocolate, will improve their distance score between 164m and 314m. However, the probability of this happening is really small, around 0.001%. This means it is very unusual that cyclists improve their performance significantly by eating chocolate.

The results showed that neither dark chocolate nor white one can impact directly on the efficiency of the athletes, although there is a difference between DC and WC. With 95% confidence, we can say that only 0.003% of the time, athletes which have eaten DC, will mark a difference between 82m and 292m in relation with cyclists that have eaten WC.

**Conclusion**

Adding chocolate to the cyclist diet can be a good approach because of all the positive things it gives to highly competitive athletes, but it won’t impact directly on the results of their competitions. Also if it is dark can incidence more than if the chocolate is white.

**Sources**

R. K.; Brouner, J.; Spendiff, O. Journal of the International Society of Sports Nutrition. 2015 12:47.