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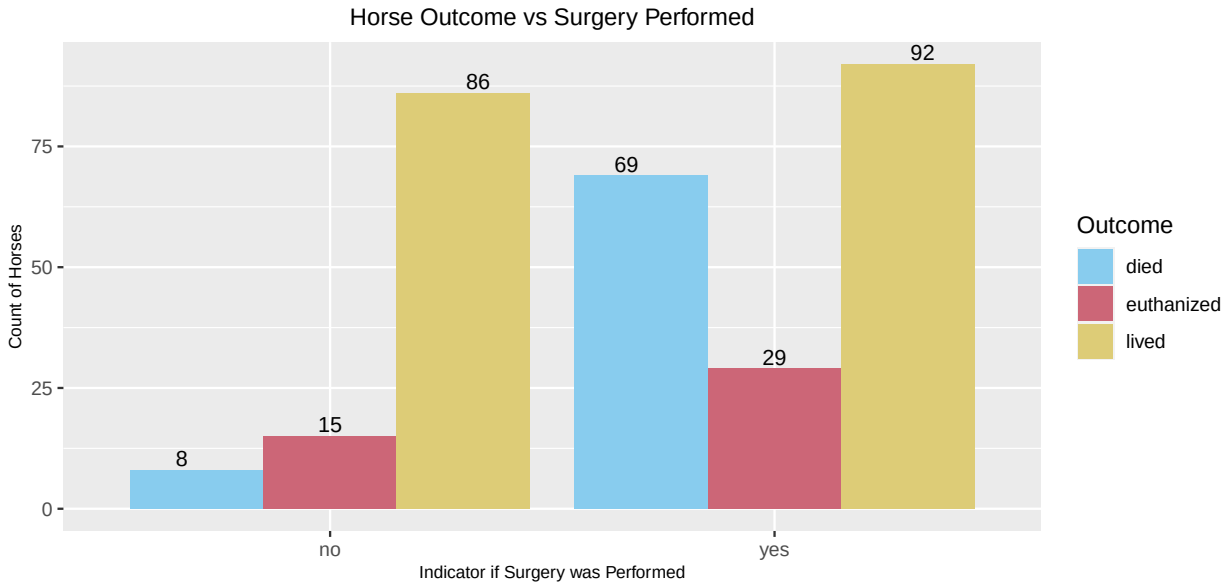
Conclusions

- Adult horses have higher survival rate than young horses
- Horses with multiple treatments had a 20% higher chance of being euthanized or dying
- Those who lived have three times higher proportions (around 60%) of normal and warm temperatures than those who died or euthanized (18~20%)
- About 70% of lived horses had normal peripheral pulse and about 70% of died or euthanized horses had problematic peripheral pulses
- The distribution for lived horses had more stable rectal temperatures than the other two groups.
- About 60% of the lived horses had normal circulation when about 20~25% of the died or euthanized horses had normal circulation
- About 70% of the horses without surgery survived when horses who had surgery, around 53% lived, and 32% died

The research report focuses on the benefits of colic surgery for horses that are admitted into the hospital for abdominal issues. colic surgery is used to treat issues that affect the longevity of a horse, most commonly used to address issues within the gastrointestinal tract. The data gave us a look into 299 hospital cases of horses that were admitted due to poor health, and of those horses which lived, died, or were euthanized. The data also provided an indicator to whether the horse received surgery or not. Our analysis focused on looking at the horses admitted and their outcome. From there, we wanted to explore the key characteristics of the horse's condition to determine if the outcome could have been different had they received surgery, especially the horses that had symptoms related to colic Surgery.

Was it Surgical?	Did They Have Surgery	Died	Euthanized	Lived
no	no	6	5	75
no	yes	2	10	11
yes	no	13	12	8
yes	yes	56	17	84



This analysis is proved useful in determining if colic surgery can be beneficial in saving a horse's life when admitted into the hospital. Our initial hypothesis was that the increase in surgeries to treat gastrointestinal tract complications in horses would lead to an increase in the number of horses that lived.

With the data given, we explored the different components of a horse's health, focusing primarily on their gastrointestinal tract. A few of the key factors were the horse's protein levels, pH levels and rectal temperature.

From our initial analysis, we found that while the number of horses that lived did not change much between horses who had surgery and those who did not, the number of horse that died after surgery grew by about 3 times the amount of those without surgery.

Based on this discovery, we wanted to explore the correlation what brought the horse to the hospital, if they received surgery, and how that affected the outcome. The data provided insight on whether the horse entered the hospital due to something that was deemed "worthy of surgery." We used this in conjunction with if the horse actually received surgery to expand on the hypothesis that horses that need surgery, and receive surgery, are more likely to live.