

# What is a Healthy Child?

Start



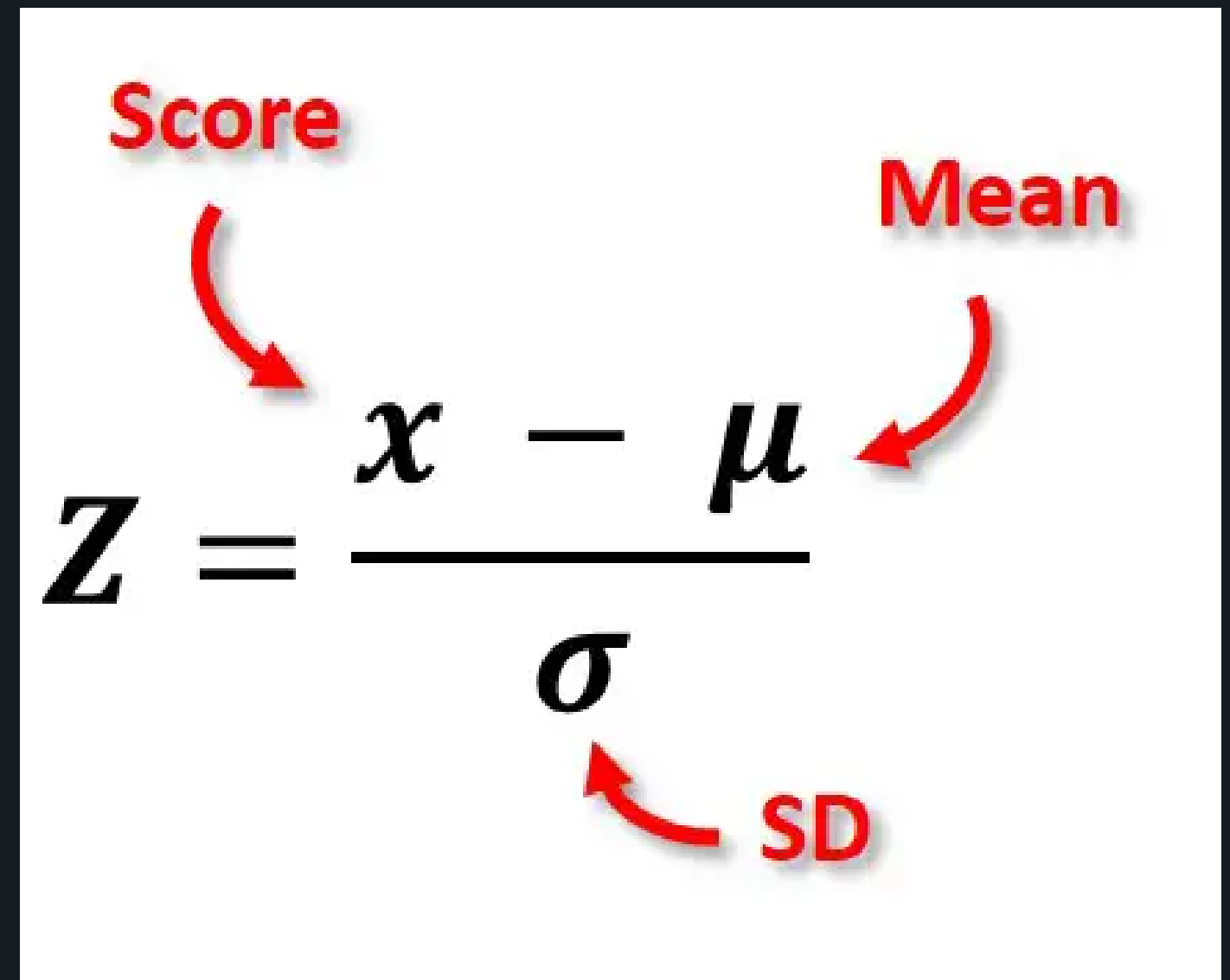
# Z-Score

The Z-Score will tell us how far (standard deviations) certain point (observation) is from the average (mean) of the data, if it is very far from the average, then it is not normal.

If the value is positive, the value lies above the mean.

If the value is negative, the value lies below the mean.

The Z-Score formula is:



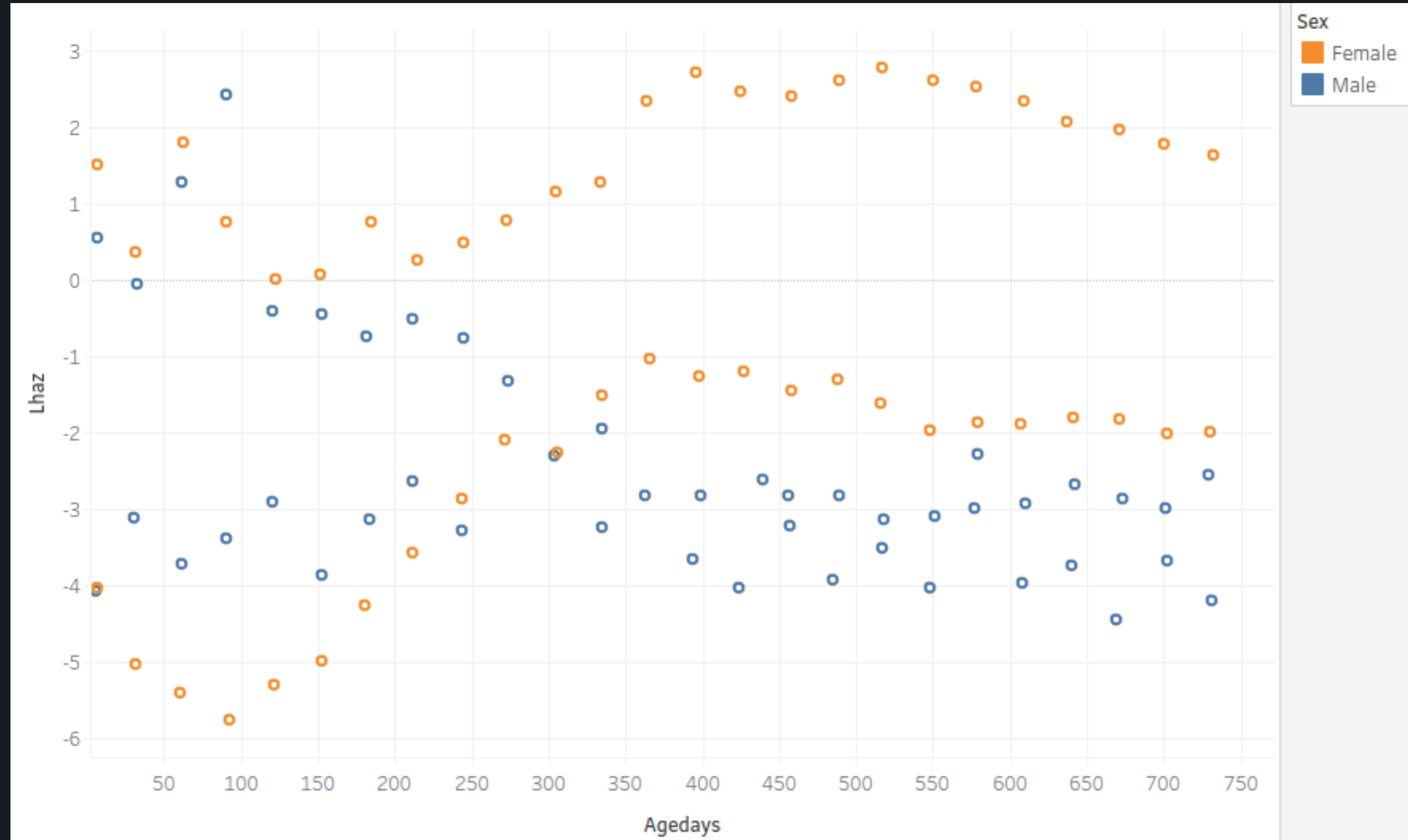
The diagram shows the Z-score formula with red labels and arrows indicating the meaning of each symbol:

$$Z = \frac{x - \mu}{\sigma}$$

- Score**: Points to  $x$
- Mean**: Points to  $\mu$
- SD** (Standard Deviation): Points to  $\sigma$

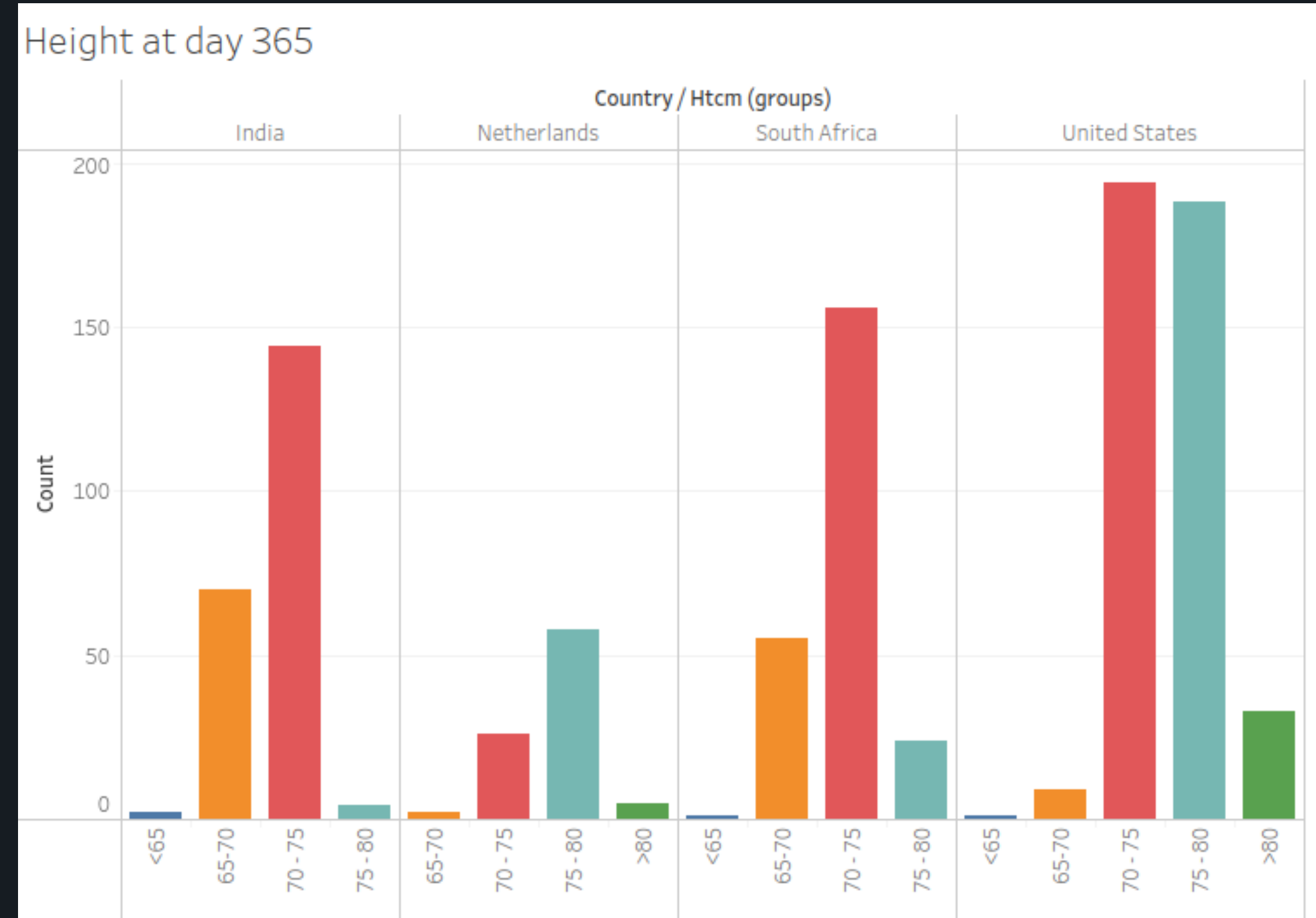
# Height-adjusted Z-scores(HAZ)

HAZ is the Height in SDS relative to WHO child growth standard. We can consider 0 (zero ) to be a normal value. Four random males and females were selected based on the criteria to be "healthy" (near or over 0) or "unhealthy" (far from 0).



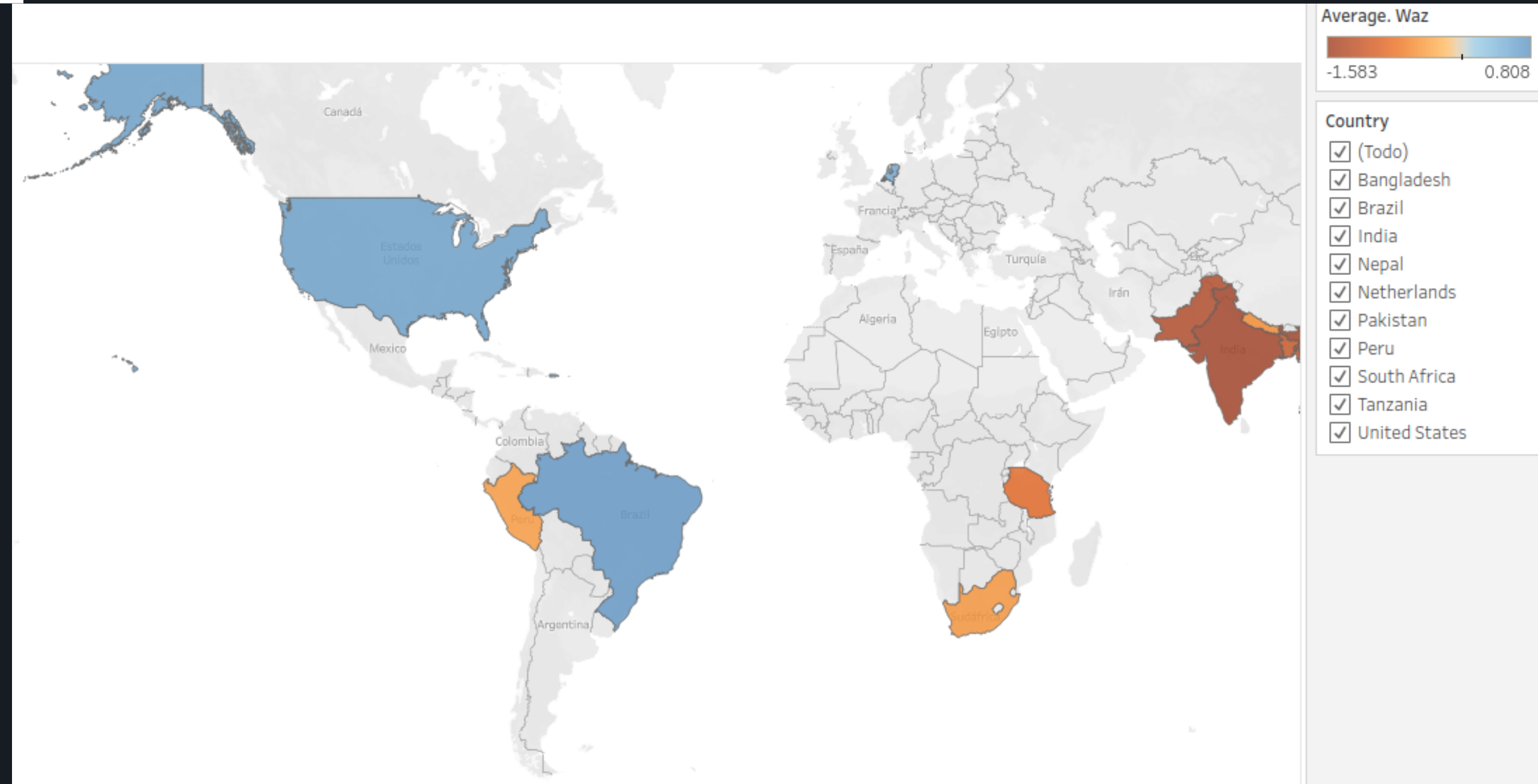
# Height at day 365

This chart will show the distribution of children's heights of different countries at day 365.



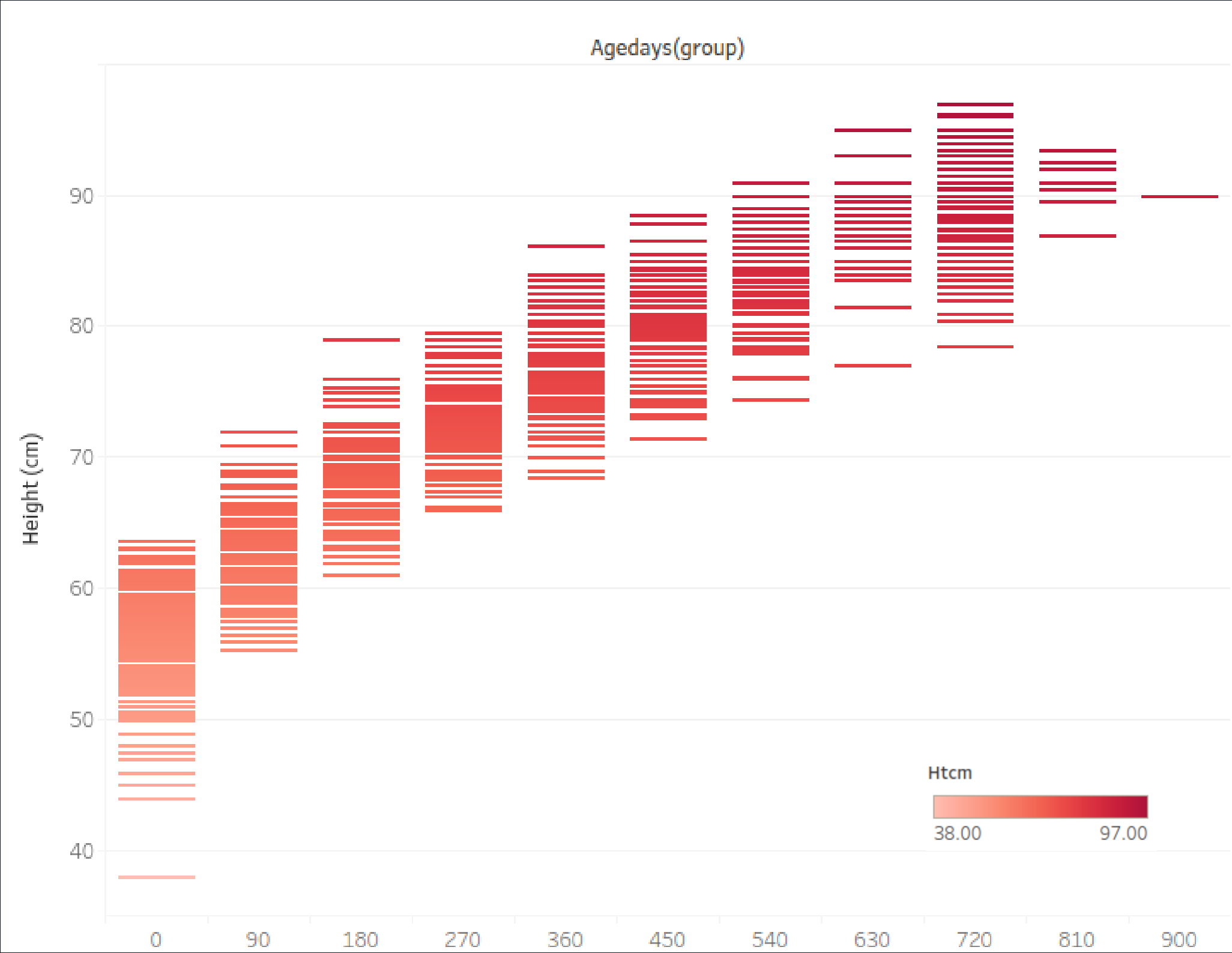
# Average WAZ

WAZ is the Weight in SDS relative to WHO child growth standard. We can consider 0 (zero) to be a normal value. This map will show the Average WAZ in these countries.



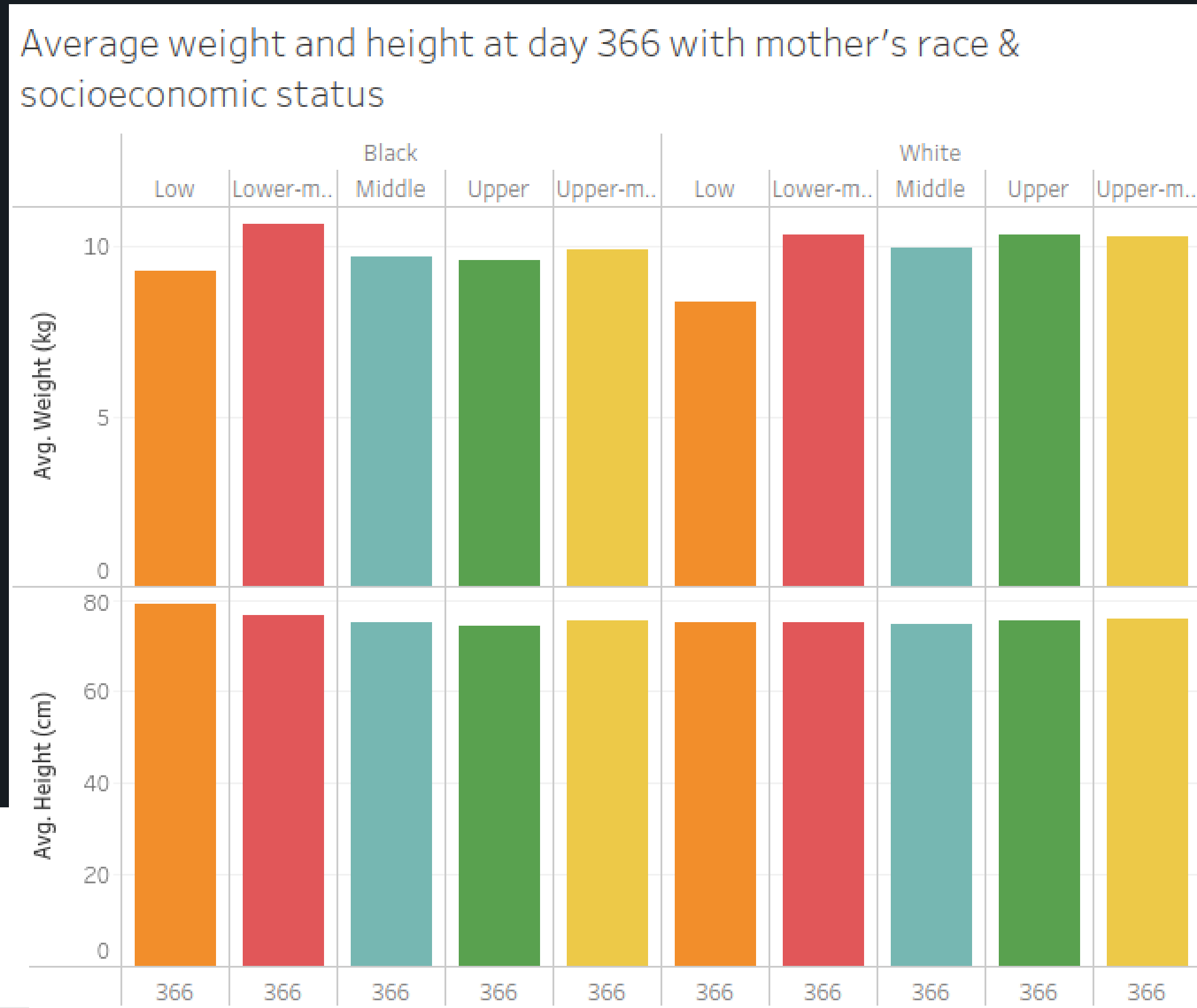
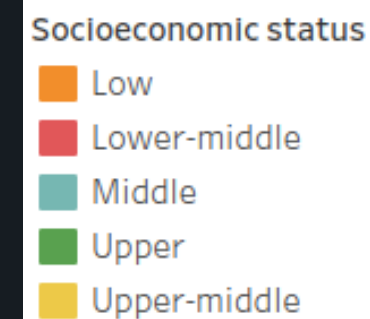
# Heights of Dutch children over time

This chart will display the heights of Dutch children born in 1988-1989. The days will display data each 90 days.



# Weight and height at day 366 in the US

This chart will display the heights and weights of children in the US at day 366, using race and socioeconomic status of the mother as criteria.



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End

