Children's Health
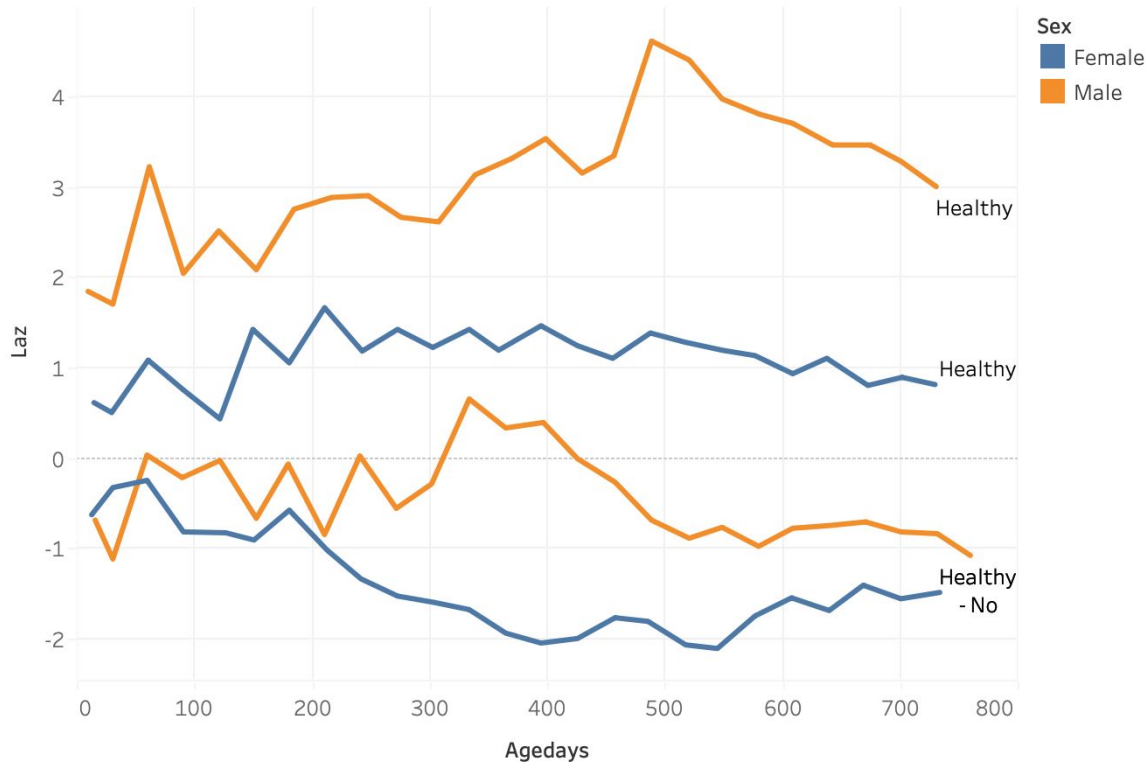
Case Study 4

What is a Z score?

Z-Score

- The formula for calculating a z-score is $z = (x-\mu)/\sigma$
- x is the raw score
- μ is the population mean
- and σ is the population standard deviation

Length Adjusted Z-Scores

Takeaways

- The males tend to get better over time
- The females tend to be more consistent in their health over time
- The lower two are unhealthy because they aren't as tall as everyone else

Source: Tableau childhealth_maled
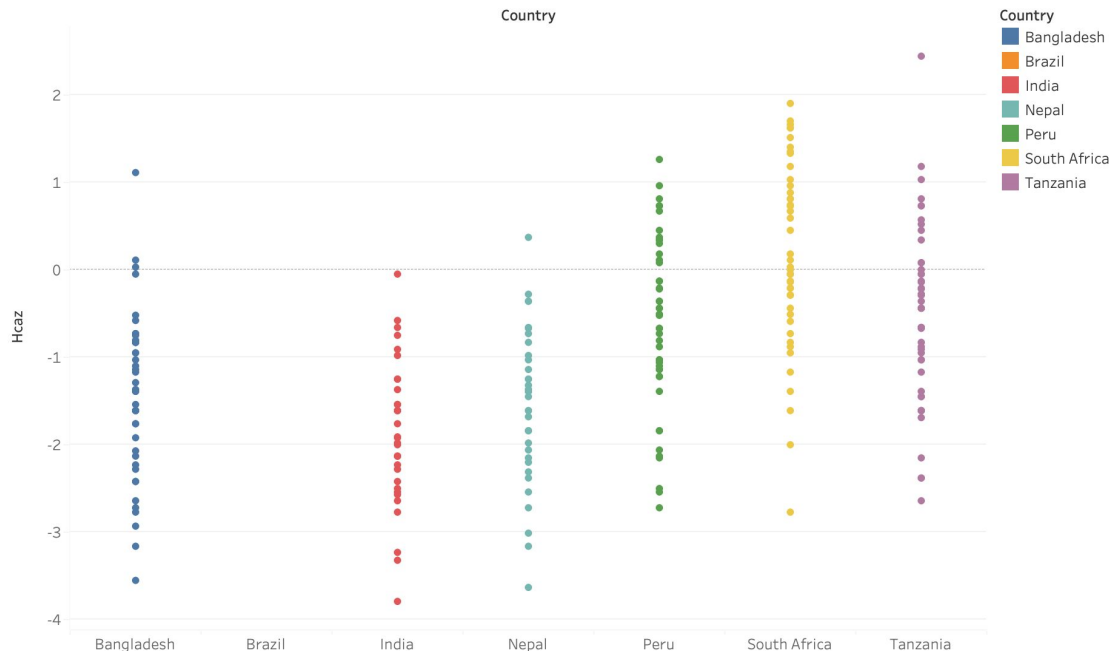

Length Adjusted Z-scores

Agedays vs. Laz. Color shows details about Sex. The marks are labeled by Subjid and In / Out of Subjid Set. The data is filtered on Laz, which keeps non-Null values only. The view is filtered on Subjid, which keeps p_0a75432ec142ab99, p_0b3712a6ac967752, p_2bbf210325d1d47f and p_6b8b8baf076813b3.

Distribution of Heights

Takeaways

- South Africa has higher height z-scores than other countries
- India has the lowest heights but isn't far behind Nepal and Bangladesh
- Each dot is a child's adjusted z-score height at day 365

Source: Tableau childhealth_maled
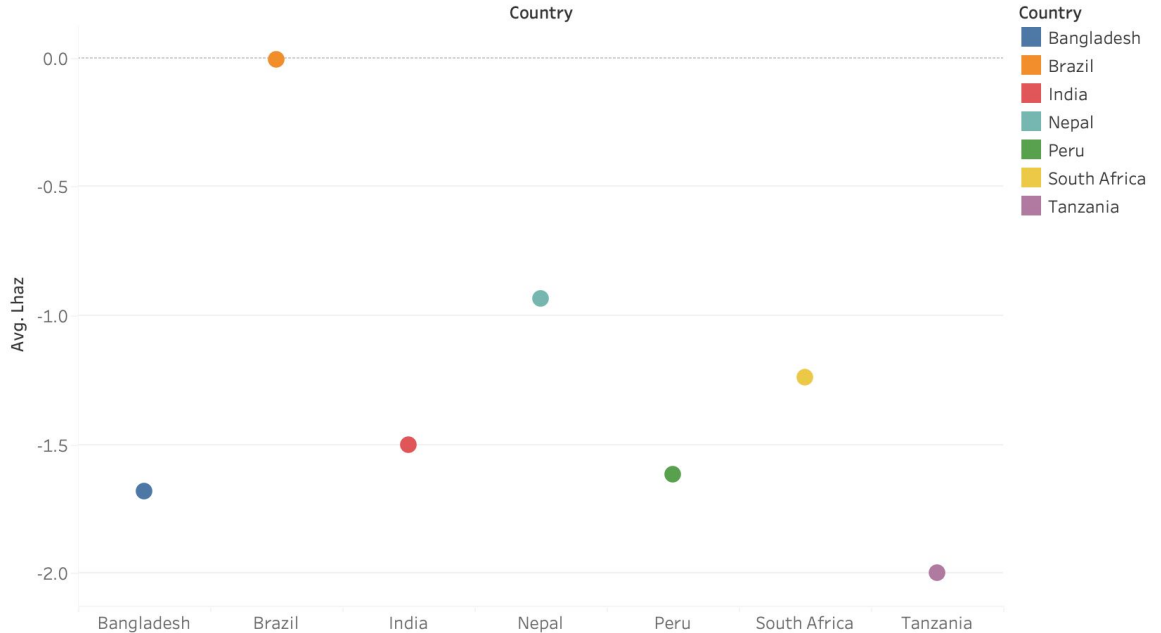

Distribution of Heights

The trend of sum of Hcaz for Country. Color shows details about Country. Details are shown for Subjid. The data is filtered on Agedays, which ranges from 365 to 365. The view is filtered on Country and Subjid. The Country filter excludes Pakistan. The Subjid filter keeps 2,145 of 2,145 members.

Which Countries are Healthiest?

Takeaways

- Brazil tends to be the healthiest
- Tanzania has the lowest overall health average would be due to: poor medical practices, malnourishment, and other common causes

Source: Tableau childhealth_maled

Visualization of Health

Country

	Country
	Bangladesh
	Brazil
	India
	Nepal
	Peru
	South Africa
	Tanzania

Average of Lhaz for each Country. Color shows details about Country. The data is filtered on Agedays, which ranges from 365 to 365. The view is filtered on Country, which excludes Pakistan.   -Averages were taken at day 365
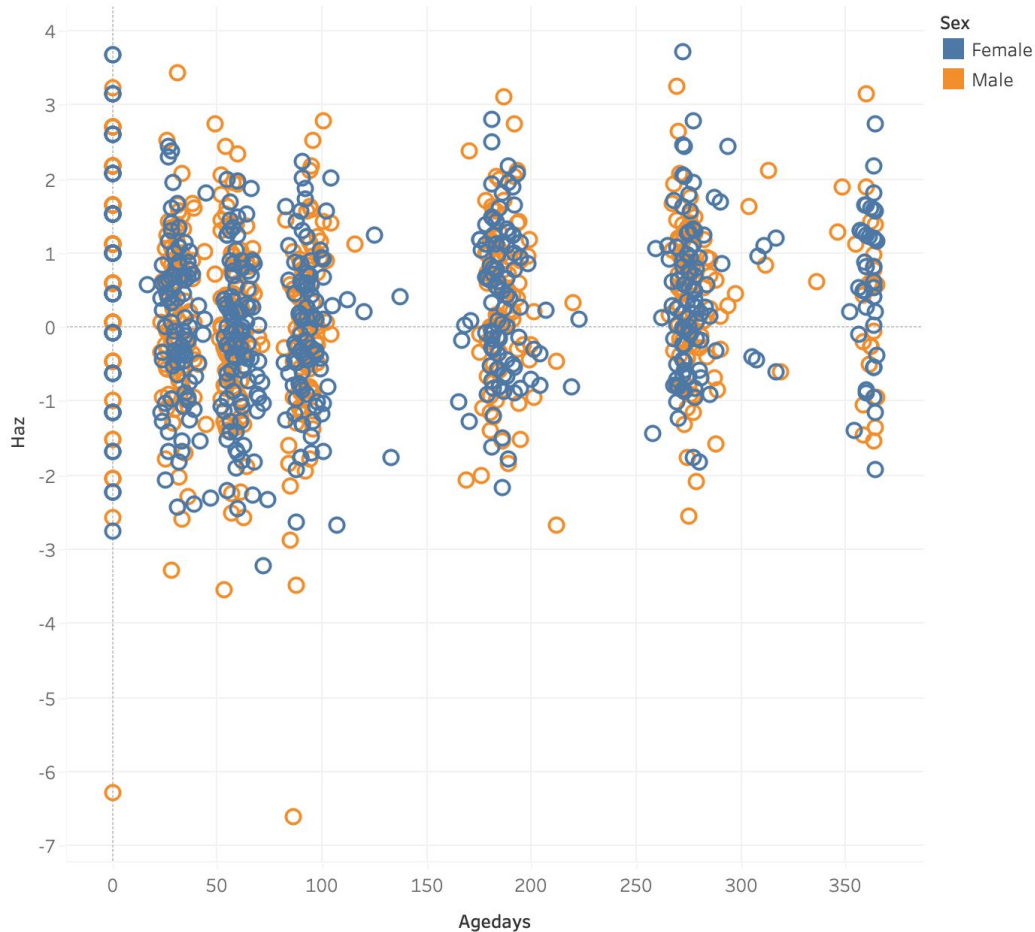
Visualizing Health

Takeaways

- One slide should show a plot of the heights of the Dutch children over time. Take the time to describe the key takeaways about their growth.

Source: Tableau childhealth_maled

Heights of Dutch Children

Agedays vs. Haz. Color shows details about Sex. The data is filtered on Agedays, which ranges from 0 to 365.

What is the Overall Health?

Health

This is an overview showing the health of young children over their first few years. In many provinces, different health models of the over all populations have been made. Some assumptions can be made, however, the overlining theme of this data is that children's health have naturally been declining over the years. This could be due to a lack of medical attention, sanitary measures, and/or malnutrition.