



Hospitalization for Headache in Brazilian Children: Who, Where, and Under What Circumstances?

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KEY FINDINGS

From 2014 to 2024, Brazil recorded **10,587 pediatric headache hospitalizations**. Most cases occurred in children **aged 10–14 years (55.4%)** and in **females (56%)**. The **Southeast** led in frequency (36%), while the **Northeast** showed the **longest hospital stays (4.5 days)**. **Brown children** accounted for the largest racial group (47.7%) and had the **longest average stay (4.0 days)**. Overall, the average hospitalization lasted **3.6 days**, slightly longer in **females (3.7 vs. 3.5 days in males)**. Notably, the **high proportion of missing data on race** highlights a potential issue of **underreporting** in national health records.

Objective

To evaluate the epidemiological profile of pediatric hospitalizations due to headache in Brazil.

Methods

- Retrospective cross-sectional study
- Between January 2014 and December 2024
- Pediatric patients aged 0 to 14 years.

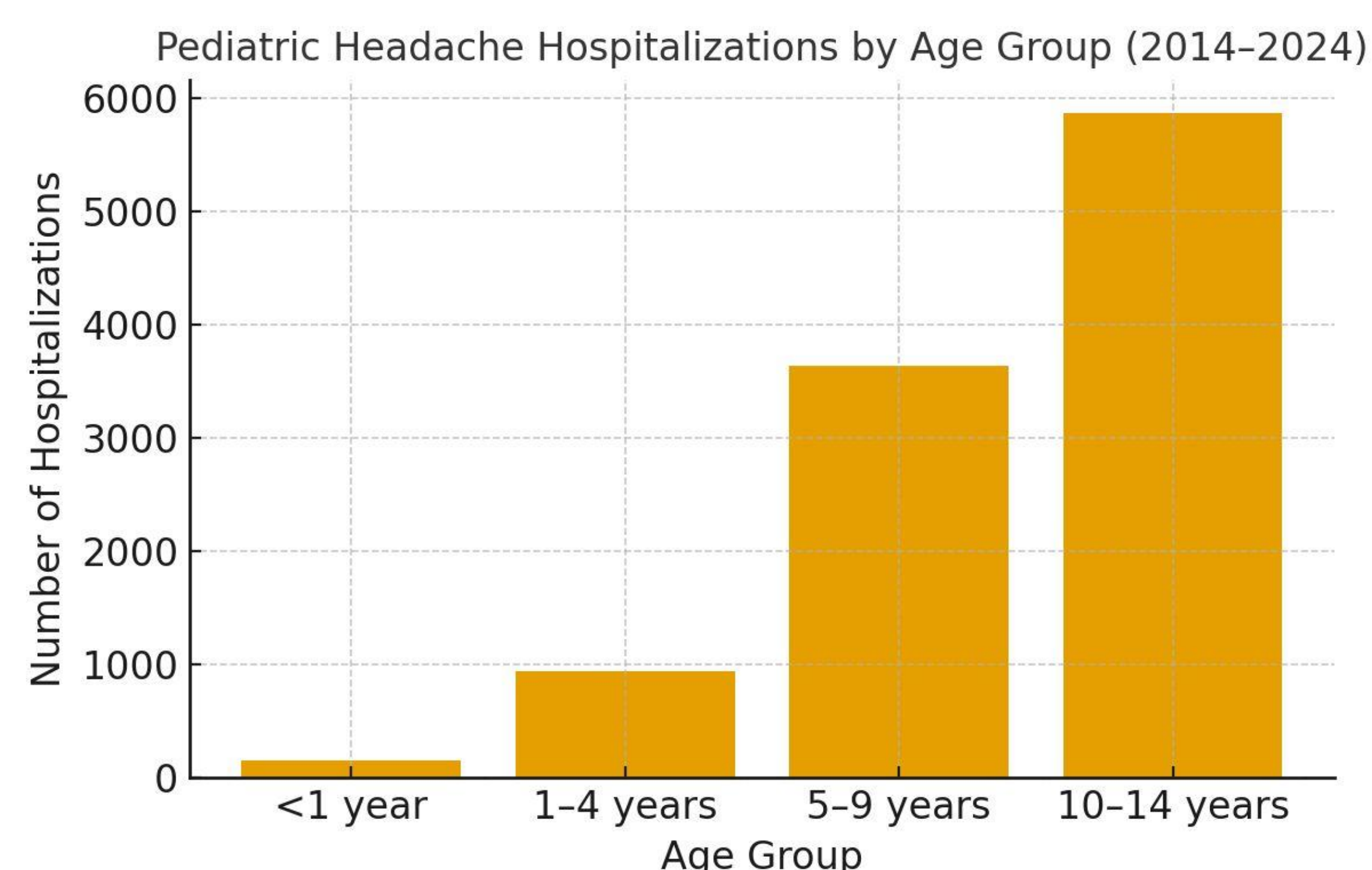


Results

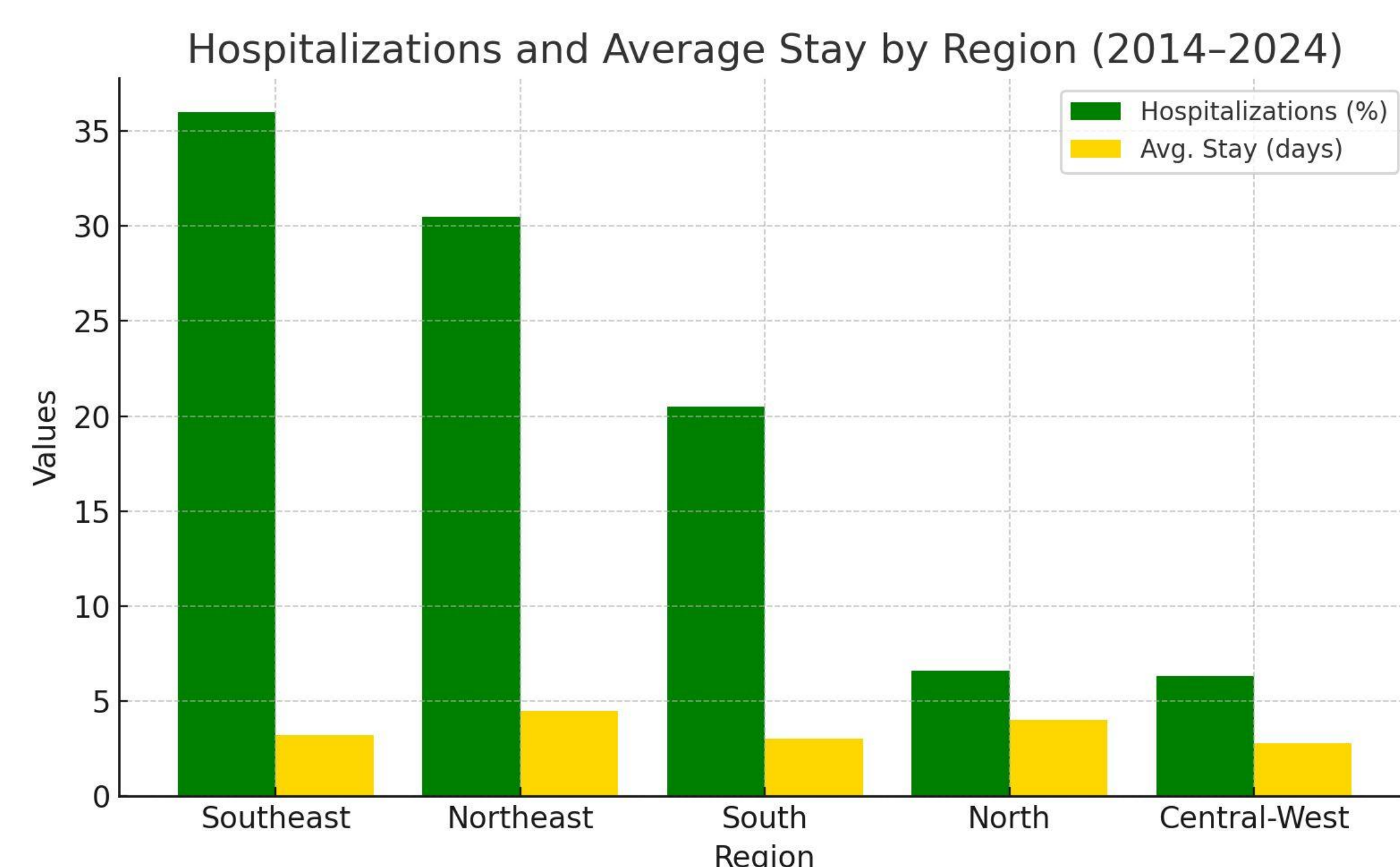
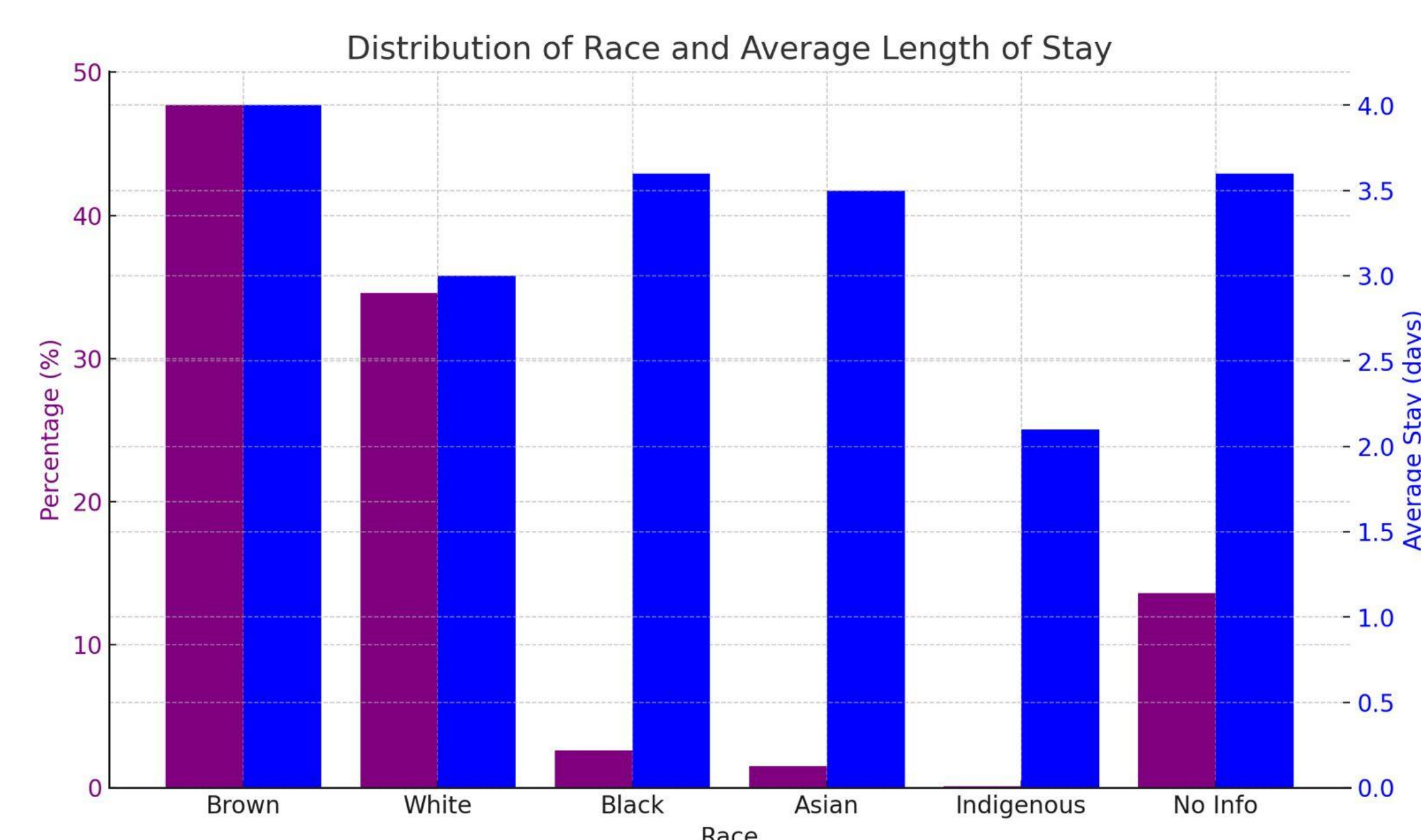
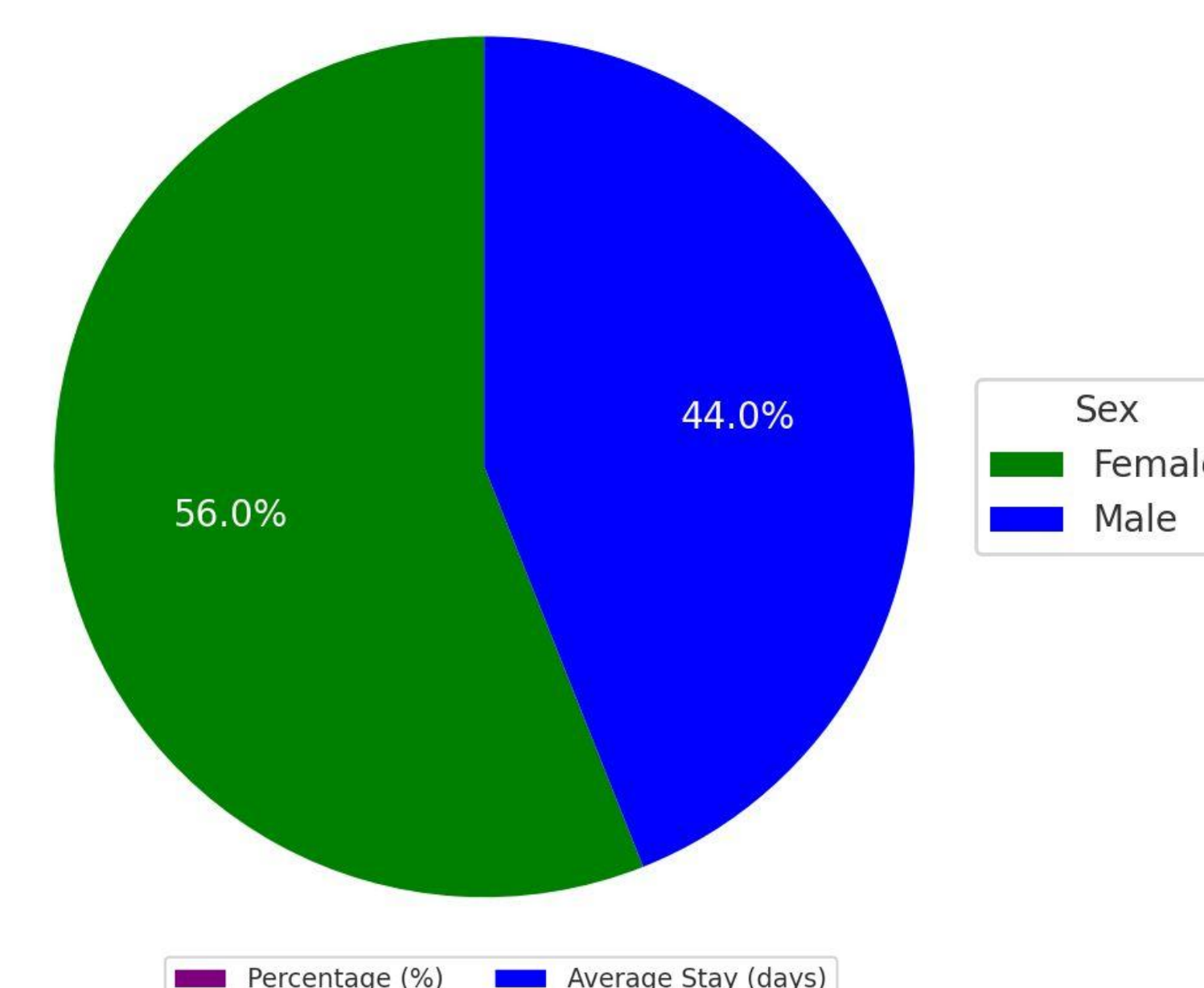
Between January 2014 and December 2024, Brazil recorded a total of 10,587 pediatric hospitalizations due to headaches. The majority of these cases occurred in children aged 10 to 14 years ($n = 5,870$; 55.4%), followed by those aged 5 to 9 years ($n = 3,632$; 34.3%), 1 to 4 years ($n = 936$; 8.8%), and children under 1 year ($n = 149$; 1.4%). Regarding sex, 56.0% of the hospitalizations were in females ($n = 5,931$) and 44.0% in males ($n = 4,656$). In terms of race, 47.7% were identified as Brown ($n = 5,045$), 34.6% as White ($n = 3,668$), 2.6% as Black ($n = 270$), 1.5% as Asian ($n = 157$), and 0.1% as Indigenous ($n = 10$), while 13.6% had no race information available ($n = 1,437$).

Regionally, the Southeast had the highest proportion of hospitalizations (36.0%), followed by the Northeast (30.5%), South (20.5%), North (6.6%), and CentralWest (6.3%). The overall average length of hospital stay was 3.6 days, with regional differences: 4.5 days in the Northeast, 4.0 days in the North, 3.2 days in the Southeast, 3.0 days in the South, and 2.8 days in the Central-West.

The length of stay also varied slightly across racial groups, with Brown individuals having an average of 4.0 days, followed by Black and those without race information (3.6 days each), Yellow (3.5 days), White (3.0 days), and Indigenous (2.1 days). For sex, the average length of hospital stay was 3.5 days for males and 3.7 days for females.



Pediatric Headache Hospitalizations by Sex (2014–2024)



Conclusion

Females and Brown/Black children experienced longer hospital stays for headaches in Brazil, with the Northeast and North regions showing the longest durations, suggesting regional and racial disparities in access to specialized care.