



Association between global climate changes and headache hospitalizations in Brazil

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Introduction

Headache is one of the most common medical complaints and can affect all ages and lifestyles. This complaint is old and as it was studied it became clear that it varies in intensity and duration. Currently, it is clear how environmental factors can influence the frequency and severity of headaches. Studies suggest that climate changes, such as an increase in the planet's temperature and changes in the atmosphere can worsen headache episodes and this is visible in the increase in the number of hospitalizations for headache over the years.

Objective

To analyze the incidence of hospitalization cases due to headache associated with climate change in Brazil between 2000 and 2022.

Methods

Descriptive, cross-sectional study with a quantitative approach to time series analysis. Data from DATASUS/TABNET were selected, considering records of hospitalizations resulting from migraine and headache attacks, which occurred in all states of Brazil, from January 2000 to December 2022, correlating with the climate changes that occurred during this same period. n.

Results

The analysis showed a significant increase in the number of hospitalizations between the analyzed period, coinciding with an increase in ambient temperature. 772 cases were observed in 2000 and 10,406 cases in 2022, an increase of approximately 13 times. While the temperature in 2000 showed little variation, from 2011 to 2020 there was a deviation in temperature of up to 0.9°C. Furthermore, another important increase in the number of cases was observed in the northeast region, coinciding, again, with an increase in ambient temperature. The year 2000 with only 51 reported cases, 2008 with 426 cases and 2022 with 3459 registered cases, representing 33.2% of Brazil's total cases in 2022.

Conclusion

It is important to recognize and address the significant impacts of climate change on neurological health. The results of this study suggest another perspective that has been less studied so far, showing that the increase in hospitalizations for headache coincides with the increase in ambient temperature in the country. Therefore, there is a need for actions related to climate change that can protect the neurological health of the population most susceptible to these changes.