

# Dementia Mortality in Brazil: A Nationwide Time Series Analysis (2019–2024)

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Recorded dementia mortality in Brazil rose significantly from 2019 to 2024, accelerating fastest among adults aged ≥80 years and in the North and South regions.

| INTRODUCTION                                                                                                                                                                                                                                                              | METHODS                                                                                                                                                                                                                                                                                                                                                                                                                                            | RESULTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CONCLUSIONS       | REFERENCES |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <p>Brazil is undergoing a rapid demographic transition, shifting the epidemiological profile toward age-related diseases, particularly dementia. This study analyzed temporal trends in dementia mortality in Brazil and its five macroregions between 2019 and 2024.</p> | <p>Nationwide time-series study using mortality data from the Mortality Information System (SIM/DATASUS) and population estimates from IBGE. Mortality rates per 100,000 inhabitants were stratified by sex, macroregion, and age group (60–69, 70–79, ≥80 years). Temporal trends were estimated with Prais-Winsten regression models, reporting the Annual Percentage Change (APC) and 95% confidence intervals (<math>\alpha = 5\%</math>).</p> | <p>A total of 186,031 dementia deaths were recorded (2019–2024). Alzheimer’s disease (ICD-10 G30) was the leading cause (87.2%), occurring mostly in women (65.2%), people with ≤3 years of schooling (42.9%), and at home (34.5%). National mortality rates rose significantly across all age strata (Figure 1), with the steepest regional increases in the North and South (Table 1).</p> <p>Table 1. Annual Percentage Change (APC, %) in dementia mortality rates, by macroregion and age group, Brazil, 2019–2024 (total population). Bold = statistically significant trend (<math>p&lt;0.05</math>); ns = not significant.</p> <table><tr><th>Macroregion</th><th>60–69 yr</th><th>70–79 yr</th><th>≥80 yr</th></tr><tr><td>Brazil (national)</td><td>5.5 (3.2; 7.9)</td><td>7.3 (5.6; 9.0)</td><td>7.2 (5.5; 8.8)</td></tr><tr><td>North</td><td>12.3 (7.0; 17.8)</td><td>8.2 (5.6; 10.9)</td><td>11.7 (10.0; 13.4)</td></tr><tr><td>Northeast</td><td>7.8 (2.3; 13.5)</td><td>8.0 (6.5; 9.5)</td><td>9.2 (8.2; 10.3)</td></tr><tr><td>Central-West</td><td>2.1 (-6.4; 11.2) ns</td><td>4.4 (2.4; 6.5)</td><td>6.3 (3.7; 8.9)</td></tr><tr><td>Southeast</td><td>5.2 (2.9; 7.6)</td><td>6.7 (5.3; 8.1)</td><td>5.5 (3.7; 7.2)</td></tr><tr><td>South</td><td>6.2 (1.7; 10.8) ns</td><td>9.2 (6.0; 12.4)</td><td>9.3 (6.3; 12.4)</td></tr></table> <p>Figure 1. National trends in dementia mortality rates by age group, Brazil, 2019–2024</p> | Macroregion       | 60–69 yr   | 70–79 yr | ≥80 yr | Brazil (national) | 5.5 (3.2; 7.9) | 7.3 (5.6; 9.0) | 7.2 (5.5; 8.8) | North | 12.3 (7.0; 17.8) | 8.2 (5.6; 10.9) | 11.7 (10.0; 13.4) | Northeast | 7.8 (2.3; 13.5) | 8.0 (6.5; 9.5) | 9.2 (8.2; 10.3) | Central-West | 2.1 (-6.4; 11.2) ns | 4.4 (2.4; 6.5) | 6.3 (3.7; 8.9) | Southeast | 5.2 (2.9; 7.6) | 6.7 (5.3; 8.1) | 5.5 (3.7; 7.2) | South | 6.2 (1.7; 10.8) ns | 9.2 (6.0; 12.4) | 9.3 (6.3; 12.4) | <p>Recorded dementia mortality is increasing in Brazil, with sharper acceleration in the North and South regions. These trends reflect both population aging and a growing disease burden in specific regions, reinforcing the need for public health strategies focused on early diagnosis and equitable access to specialized dementia care in the context of advanced aging.</p> | <div><div><p>1. Brazil. Ministry of Health. DATASUS. Mortality Information System (SIM).</p><p>2. IBGE. Population estimates, Brazil.</p><p>3. Antunes JLF, Cardoso MRA. Epidemiol Serv Saude. 2015.</p><p>4. World Health Organization. Global status report on dementia. Geneva: WHO; 2021.</p></div><div><h2>CONTACT</h2><div><div><p>Caio Ferreira de Jesus<br/>enfercaioferreira@gmail.com<br/>Nurse, Adventist College of Amazonia,<br/>Benevides – PA, Brazil</p></div></div><div></div></div></div> |
| Macroregion                                                                                                                                                                                                                                                               | 60–69 yr                                                                                                                                                                                                                                                                                                                                                                                                                                           | 70–79 yr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ≥80 yr            |            |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Brazil (national)                                                                                                                                                                                                                                                         | 5.5 (3.2; 7.9)                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7.3 (5.6; 9.0)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7.2 (5.5; 8.8)    |            |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| North                                                                                                                                                                                                                                                                     | 12.3 (7.0; 17.8)                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8.2 (5.6; 10.9)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 11.7 (10.0; 13.4) |            |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Northeast                                                                                                                                                                                                                                                                 | 7.8 (2.3; 13.5)                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.0 (6.5; 9.5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 9.2 (8.2; 10.3)   |            |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Central-West                                                                                                                                                                                                                                                              | 2.1 (-6.4; 11.2) ns                                                                                                                                                                                                                                                                                                                                                                                                                                | 4.4 (2.4; 6.5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6.3 (3.7; 8.9)    |            |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Southeast                                                                                                                                                                                                                                                                 | 5.2 (2.9; 7.6)                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.7 (5.3; 8.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5.5 (3.7; 7.2)    |            |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| South                                                                                                                                                                                                                                                                     | 6.2 (1.7; 10.8) ns                                                                                                                                                                                                                                                                                                                                                                                                                                 | 9.2 (6.0; 12.4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 9.3 (6.3; 12.4)   |            |          |        |                   |                |                |                |       |                  |                 |                   |           |                 |                |                 |              |                     |                |                |           |                |                |                |       |                    |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |