In this supplementary material, there is a description of sociodemographic, child and maternal characteristics from Brazilian Demographic Health Survey (BDHS) (Supplemental Table 1) and a description of socioeconomic and coverage indicators from Brazilian Information System (Supplemental Table 2). There are similar results for almost indicators for North and Northeast regions and for South, Southeast and Central Western regions.

**Supplemental Table** **1.** Sociodemographic characteristics of Brazilian geographic regions by survey year. Data from Brazilian Demographic Health Survey.

|  |  |
| --- | --- |
|  | **Geographic regions** |
| **Geographic regions** | **North** | **Northeast** | **Southeast** | **South** | **Midwest** |
| **Survey years** | **1996** | **2006** | **1996** | **2006** | **1996** | **2006** | **1996** | **2006** | **1996** | **2006** |
| **Sociodemographic characteristics - %(CI)** |
| **Maternal education (years)** |  |  |  |  |  |  |  |  |  |  |
| 0 to 3 | 29.0(21.3;38.2) | 19.0(15.0;23.7) | 44.2(40.3;48.2) | 17.0(12.5;22.7) | 19.2(16.0;23.0) | 7.9(5.3;11.6) | 15.7(11.5;20.9) | 8.1(6.0;10.9) | 21.0(16.3;26.7) | 7.2(5.4;9.6) |
| 4 to 7 | 40.6(34.4;47.2) | 32.1(27.6;36.9) | 33.1(30.1;36.1) | 34.6(30.4;39.1) | 42.7(38.9;46.5) | 24.9(19.9;30.7) | 46.7(40.8;52.7) | 31.7(26.8;37.0) | 44.8(37.6;52.1) | 29.9(25.8;34.4) |
| 5 to 8 | 27.1(22.0;32.9) | 45.6(40.5;50.8) | 21.1(18.2;24.3) | 44.0(38.9;49.2) | 31.1(27.5;35.0) | 58.7(51.5;65.6) | 31.5(25.6;38.1) | 49.9(44.8;55.0) | 30.5(24.2;37.7) | 52.0(47.3;56.6) |
| ≥12 | 3.2(1.8;5.8) | 3.3(2.1;5.2) | 1.7(1.1;2.6) | 4.4(2.7;7.1) | 7.0(5.0;9.7) | 8.5(5.7;12.5) | 6.1(3.8;0.98) | 10.3(7.8;23.6) | 3.7(2.1;6.4) | 10.9(8.2;14.3) |
| **Birth age of mother (mean)** | 24.4(23.7;25.0) | 23.7(23.2;24.3) | 25.7(25.3;26.1) | 24.0(23.5;24.6) | 26.1(25.7;26.6) | 26.0(25.3;26.8) | 27.1(26.4;27.7) | 26.0(25.3;26.7) | 24.9(24.2;25.6) | 24.8(24.2;25.4) |
| **Child and maternal characteristics - %(CI)** |
| **Early initiation of breastfeeding (first hour)** | 40.6(33.0;48.7) | 52.6(47.6;57.6) | 35.1(32.0;38.5) | 49.4(44.4;54.5) | 29.6(26.3;33.1) | 36.5(29.4;44.3) | 22.7(17.7;28.7) | 32.9(28.6;37.5) | 28.5(23.7;33.9) | 38.8(34.1;43.8) |
| **Children receiving breast milk** | 25.6(22.4;29.2) | 30.0(26.7;33.5) | 20.8(19.1;22.7) | 30.6(26.9;34.5) | 19.6(17.4;22.1) | 26.8(22.8;31.3) | 21.5(17.8;25.6) | 21.4(18.1;25.2) | 25.9(21.9;30.3) | 28.9(25.6;32.5) |
| **Antenatal care** **(at least once)** | 83.3(75.0;89.3) | 96.3(93.8;97.8) | 76.2(71.8;80.0) | 98.2(96.2;99.2) | 94.5(92.7;95.9) | 99.8(99.5;99.9) | 95.0(92.1;96.9) | 99.4(98.1;99.8) | 93.5(90.3;95.7) | 98.5(96.2;99.4) |
| **Antenatal and postnatal care (index)** | 14.8(10.3;20.9) | 13.4(10.7;16.5) | 13.1(11.0;15.4) | 19.8(15.8;24.5) | 35.0(31.6;38.5) | 41.0(35.0;47.4) | 38.8(31.6;38.5) | 41.3(36.8;46.0) | 29.0(23.1;35.8) | 26.6(22.8;30.8) |
| **Caesarian** | 26.5(21.3;32.5) | 30.7(26.2;35.6) | 21.1(18.7;23.7) | 32.7(27.0;38.9) | 48.2(44.3;52.2) | 50.8(44.9;56.6) | 45.6(39.9;51.3) | 51.3(46.6;56.0) | 49.2(43.3;55.1) | 49.8(44.8;54.7) |
| CI, confidence interval |

**Supplemental Table** **2.**  Socioeconomics, sanitization coverage and antenatal care indicators from DataSUS (Database of health indicators from Brazilian Health Public System).

|  |  |
| --- | --- |
|  | **Geographic regions** |
|  | **North** | **Northeast** | **Southeast** | **South** | **Midwest** |
|  | **1996** | **2006** | **1996** | **2006** | **1996** | **2006** | **1996** | **2006** | **1996** | **2006** |
| **Socioeconomic1** |  |  |  |  |  |  |  |  |  |  |
| Gross national product (GNP) *per capita* | 3218 | 7988 | 2350 | 6028 | 7355 | 16912 | 5822 | 14156 | 6928 | 15546 |
| Gini index per household *per capita* | 0.58 | 0.52 | 0.62 | 0.57 | 0.56 | 0.53 | 0.56 | 0.50 | 0.60 | 0.56 |
| Income ratio\* | 22.8 | 14.9 | 28.5 | 20.5 | 21.3 | 16.3 | 20.6 | 14.3 | 24.3 | 17.7 |
| Children in low income household (1/4 of minimum wage) (%) | 43.3 | 38.5 | 64.6 | 53.1 | 23.3 | 18.5 | 25.6 | 17.0 | 32.3 | 20.7 |
| **Coverage** | **%** |
| Adequate water supply coverage | 67.6 | 54.8 | 61.9 | 73.2 | 87.1 | 91.5 | 77.3 | 84.1 | 70.0 | 79.4 |
| Adequate sewage supply coverage | 43.0 | 49.0 | 36.5 | 46.7 | 81.5 | 86.6 | 64.9 | 76.6 | 39.7 | 43.9 |
| Antenatal care (≥7 visits)² | 39.9 | 30.2 | 39.4 | 39.3 | 56.1 | 68.9 | 62.3 | 70.8 | 53.3 | 60.4 |

1Source: PNAD (acronym in Portuguese to National Household Sample Survey, conducted by Brazilian Institute of Geographic and Statistics), 2SINASC (acronym in Portuguese for Information System of live births)

\*Income ratio: number of times that the richest population of wealth quintile is higher than the poorest population of wealth quintile

Accessed from: <http://www2.datasus.gov.br/DATASUS/index.php>





**Supplemental Fig. 1.** The random effect estimative and standard error of dietary patterns multilevel analysis by survey year per geographic regions (Figs S1A, S1C, S1E, S1G) and geographic regions (Figs S1B, S1D, S1F, S1H) of children under five years. Brazilian Demographic Health Surveys, 1996-1997; 2006-2007.

The caterpillar plot was used to estimate the effect of year transition and geographic regions in the prevalence of dietary patterns (Supplemental Fig. 1). The black line at “0” position in y axis indicates the overall average of each dietary pattern in all geographic region. The variance of dietary pattern prevalence was higher or lower of overall average if the confidence interval does not cross the black line.