Supplementary Material

Definition and sources of independent variables – Demographic, socioeconomic and
health indicators.

Independent variable	Definition	Source/year
Population density	Spatial distribution of inhabitants per square kilometer	Population data (IBGE)/ 2020 and 2021 available in: https://www.ibge.gov.br/estatisticas/sociais/populacao/9103-estimativas-de-populacao.html?=&t=resultados
Percentage of the Population with Health Insurance	Percentage of the Brazilian population covered by supplementary health care plans and insurance, in a given geographic space, in the year considered.	Atlas of Human Development of Brazil - IPEA / 2017. Available in: http://www.atlasbrasil.org.br/consulta/planilha
Mortality Rate from Chronic Non-communicable Diseases (NCDs)	Number of deaths of residents due to chronic non-communicable diseases (ICD 10 I00-I99, C00-C97, E10-E14, J30-J98), per 100,000 inhabitants	Atlas of Human Development of Brazil - IPEA / 2017. Available in: http://www.atlasbrasil.org.br/consulta/planilha
Percentage of population over 18 years of age employed	Percentage of the population over 18 years of age with formalized employment.	Atlas of Human Development of Brazil - IPEA / 2010. Available in: http://www.atlasbrasil.org.br/consulta/planilha
Gini Index	Measures the degree of income concentration for this study at the municipal level. It ranges from zero to one and the closer to 1, the	Atlas of Human Development of Brazil - IPEA / 2010. Available in: http://www.atlasbrasil.org.br/consulta/planilha

	greater the inequality.	
Dependency Ratio	Ratio between the segment of the population defined as economically dependent (those under 15 years of age and those over 60 years of age) and the potentially productive age segment (between 15 and 59 years of age), in the population residing in a given geographic space, in the year considered.	Atlas of Human Development of Brazil - IPEA / 2010. Available in: http://www.atlasbrasil.org.br/consulta/planilha
Municipal Human Development Index (MHDI)	Composite indicator that adapts the calculation methodology of the United Nations Global Human Development Index to the Brazilian reality	Atlas of Human Development of Brazil - IPEA / 2010. Available in: http://www.atlasbrasil.org.br/consulta/planilha
Municipal Human Development Index - Income	Axis of the MHDI measured by municipal income per capita.	Atlas of Human Development of Brazil - IPEA / 2010. Available in: http://www.atlasbrasil.org.br/consulta/planilha
Municipal Human Development Index - Longevity	Axis of the MHDI measured by life expectancy at birth.	Atlas of Human Development of Brazil - IPEA / 2010. Available in: http://www.atlasbrasil.org.br/consulta/planilha
Municipal Human Development Index - Education	Axis of the MHDI measured by the percentage of people with complete elementary education and by the percentage of children and young people, in 4 age	Atlas of Human Development of Brazil - IPEA / 2010. Available in: http://www.atlasbrasil.org.br/consulta/planilha

groups, with schooling
adjusted for their age.