



**Mental Health Geography and Suicide in Brazil: The Construction of An Index of
Geo-Indicators for Public Policy**

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Introduction: During the fifteen year period from 1996 to 2010, roughly one hundred and twenty thousand people have killed themselves in Brazil, or, in other words, there is an average of 22 suicides each day. In an international comparison for the year 2011, the suicide rate in Brazil was lower than two thirds of the more than one hundred countries analyzed (WHO, 2012). However, when we look at the data on a larger cartographic scale, we can see considerable discrepancies within the country, whether regional –there is a higher prevalence in the south and south-east – or whether looked at by federal political units, with significant differences between and within states. With regard to mental health, there has been a geographical tradition in Anglo-Saxon countries in studies of the incidence of schizophrenia from the contributions of Faris and Dunham (1965) to the ecological studies of the Chicago school to contributions looking to incorporate new qualitative methodologies (Giggs, 1973). According to these studies, we can identify communities whose characteristics propitiate the forming of therapeutic environments, as well as a correlation between geographical contexts. Hence, the aim of this research is to understand the spatial distribution of suicide and mental health services in Brazil. **Methodology and development:** The tenth International Classification of Diseases (ICD-10) characterized admissions of self-harm (X60 to X84) as attempted suicide and deaths by suicide in the same way. The data used is official and up-to-date – provided by IBGE and the Ministry of Health (DATASUS) for the period 1979 to 2010. The analysis categories in this study are: geographical contexts, region, mental health and public policy. Spatial analysis of morbidity and mortality for LAV are calculated both by absolute frequency and by average rates. Mapping data and results of spatial and geo-statistical analysis allows us to identify patterns of spatial and temporal distribution across the country. **Final thoughts:** From the results so far a concentration of clusters in cities can be observed with high rates of suicide in the south and south-east regions of the country and in some of the capitals of other regions. In the 1980s, 1990s and 2000s incidences tended to be spread across all regions and gradually increased where cases were already being counted, with some spatial exceptions, becoming widespread in Amazonia, the Pantanal and along the coastal strip. These results give rise to other questions such as the influence of low population densities, epidemiological silence, and nature of society and interpersonal relationships which could help the understanding of the health mental illness in Brazil.

Key words: Geography of health, suicide, mental health, geo-processing, Brazil.