

THE BRAZILIAN POPULATION-BASED CANCER REGISTRIES AS INSTRUMENT FOR SURVEILLANCE: A PRACTICAL EXAMPLE USING SPATIAL DATA ANALYSIS.

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INTRODUCTION

The PBCR produce information that allows to describe and to monitor the profile of the cancer incidence, it becomes an essential source for clinical and epidemiological research development, as also, to plan cancer-control programmes and to monitor and evaluate their performance.

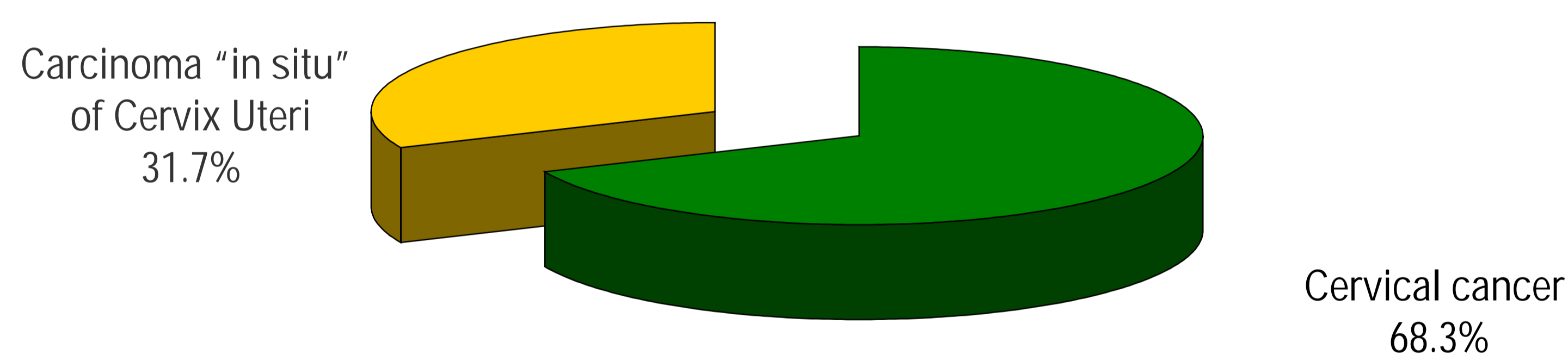
OBJECTIVE

- Describe spatial distribution of the average age-adjusted incidence rates of cervical cancer in Rio de Janeiro city.
- Explore geographic variations across population groups in exposure to socioeconomic and demographic status in relation to average incidence rates of cervical cancer measured on a geographic scale.

METHOD

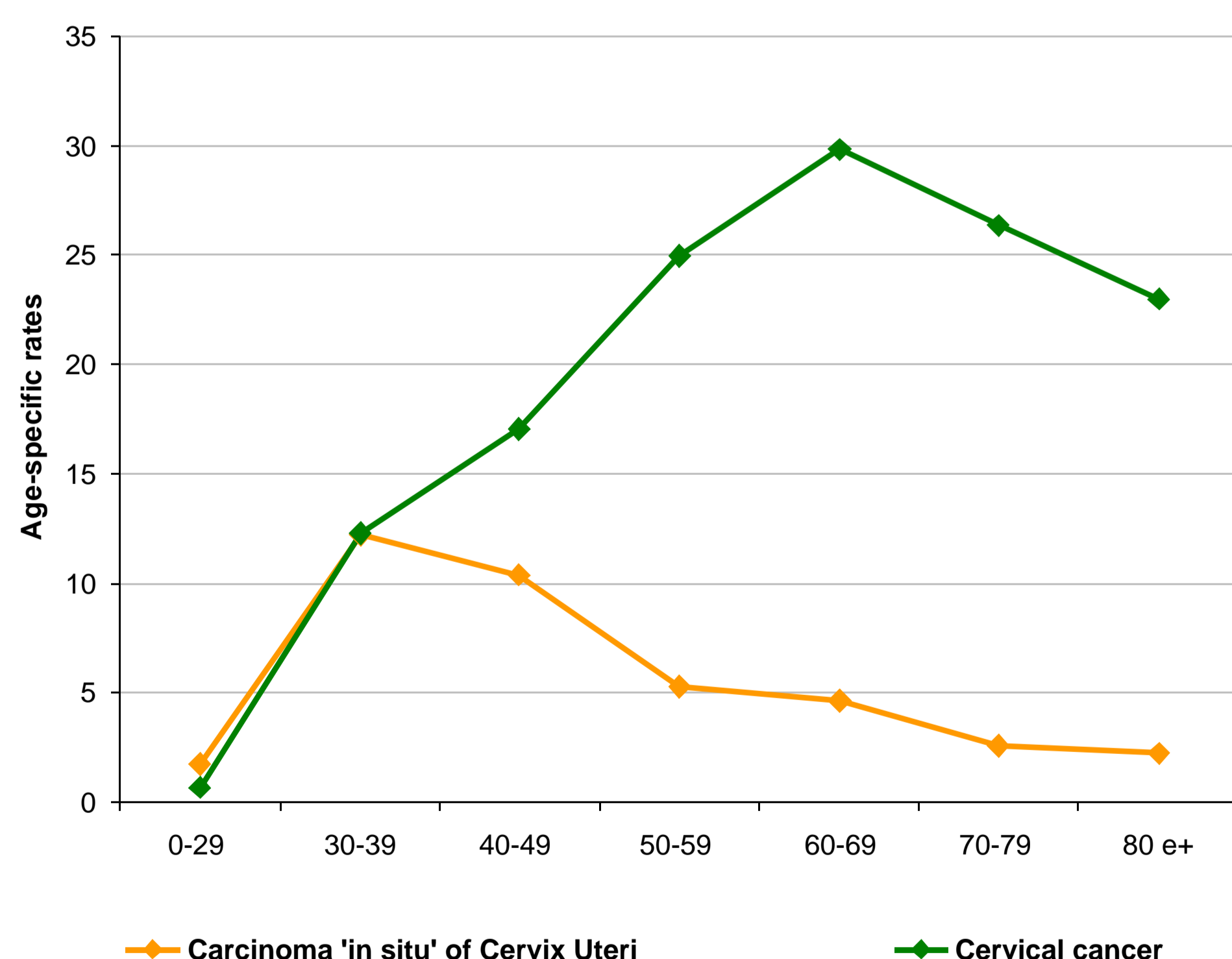
- Incidence data:** PBCR of Rio de Janeiro, 1995 - 1998;
- Socioeconomic and demographic measures:** Life expectancy; expected number of scholarly years (chief of household); expected number of children; percent of illiterate adults (ages 25 and above) and *per capita* income;
- Population data:** Brazilian Institute of Geography and Statistics Foundation – IBGE
- Statistical methods:** exploratory analysis, spatial data analysis, cervical cancer rates mapping, geographic correlation.

Percentage distribution for cervical cancer by behavior.
Rio de Janeiro, 1995 to 1998.



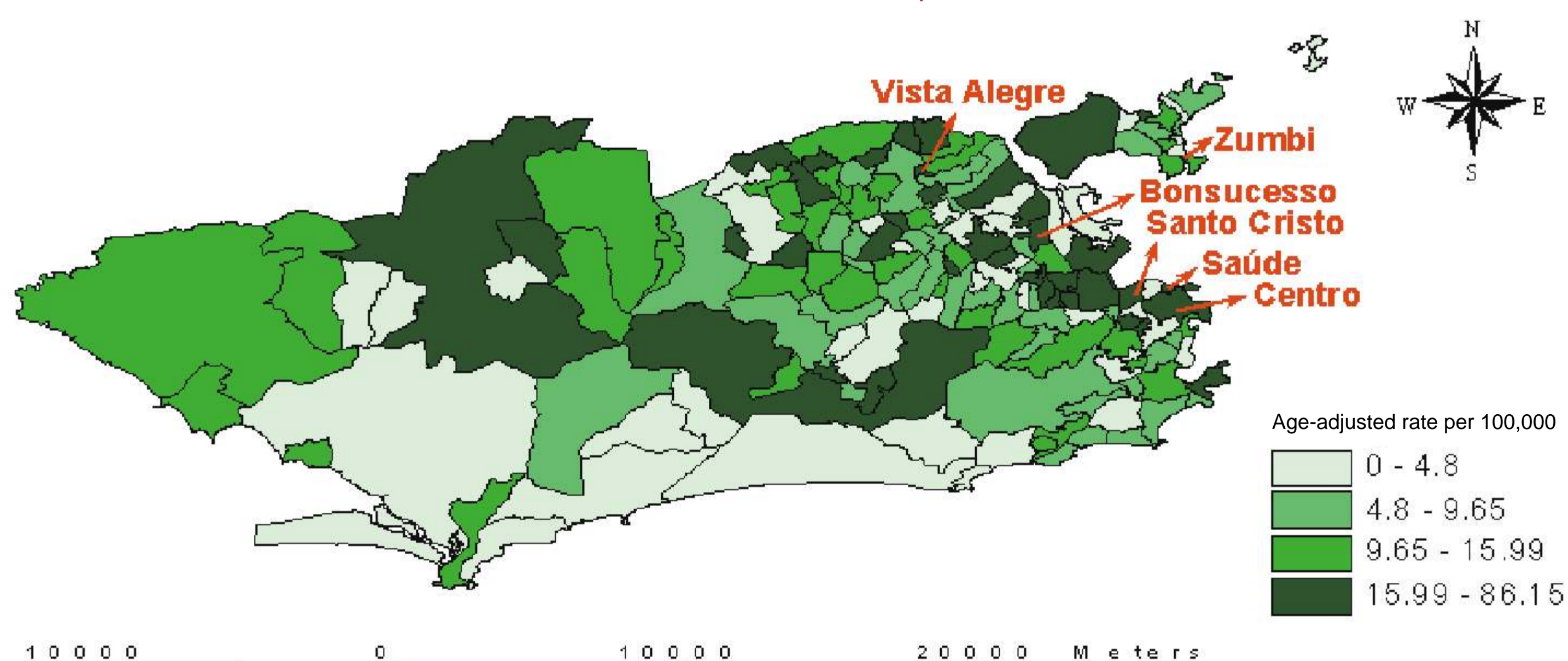
Sources: MP/Brazilian Institute of Geography and Statistics Foundation - IBGE
MS/INCA/Conprev/Information Department/ PBCR - Rio de Janeiro

Average age-specific rates* for cervical cancer. Rio de Janeiro, 1995 to 1998.



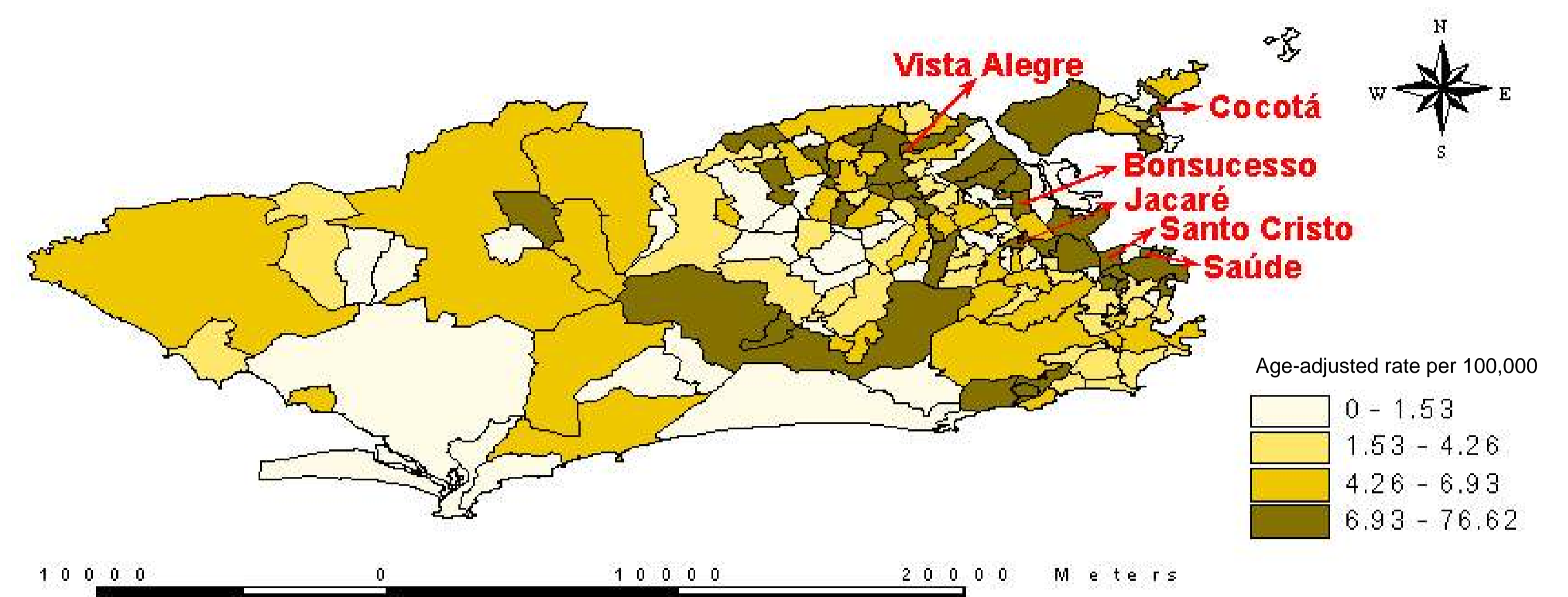
Sources: MP/Brazilian Institute of Geography and Statistics Foundation - IBGE
MS/INCA/Conprev/Information Department/ PBCR - Rio de Janeiro

Geographic distribution of average age-adjusted incidence rates for cervical cancer. Rio de Janeiro, 1995 to 1998.



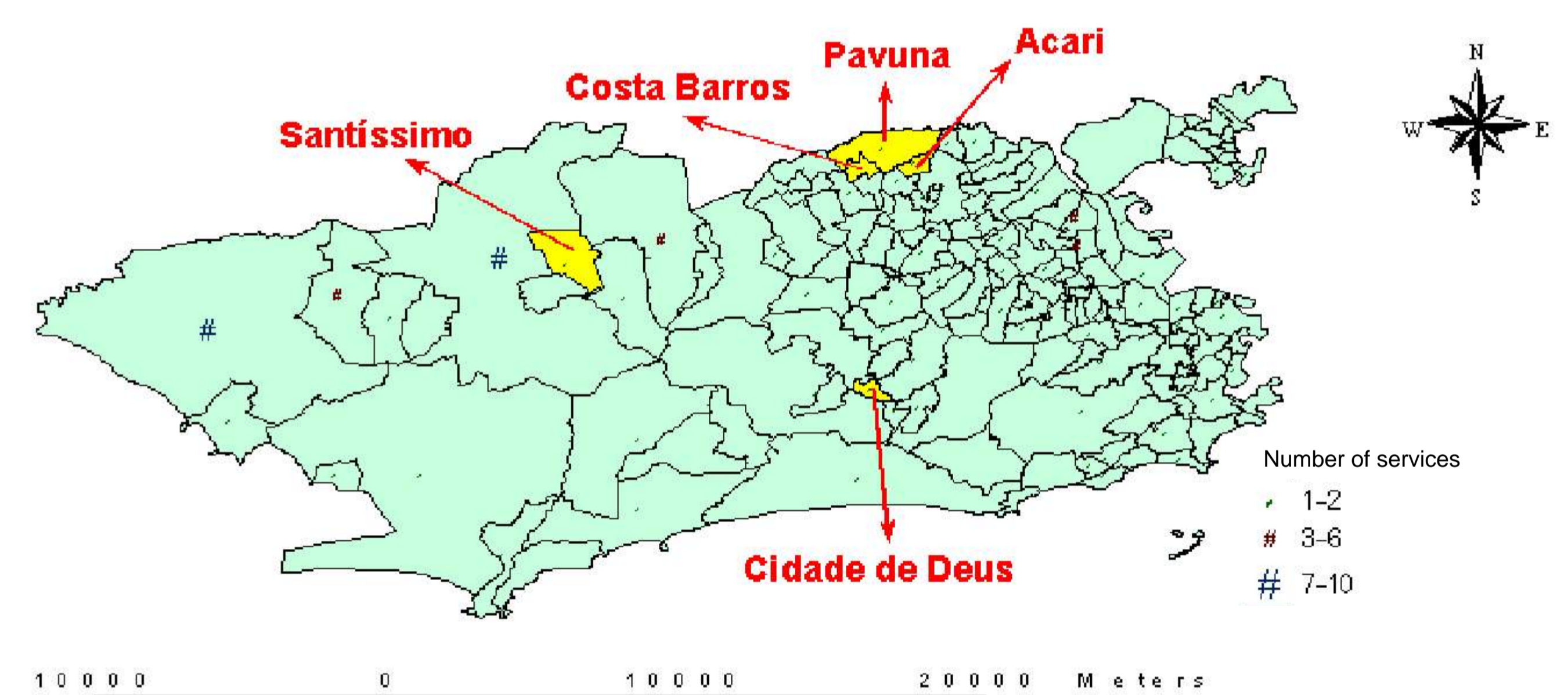
Sources: MP/Brazilian Institute of Geography and Statistics Foundation - IBGE
MS/INCA/Conprev/Information Department/ PBCR - Rio de Janeiro

Geographic distribution of average age-adjusted incidence rates for carcinoma "in situ" of cervix uteri. Rio de Janeiro, 1995 to 1998.



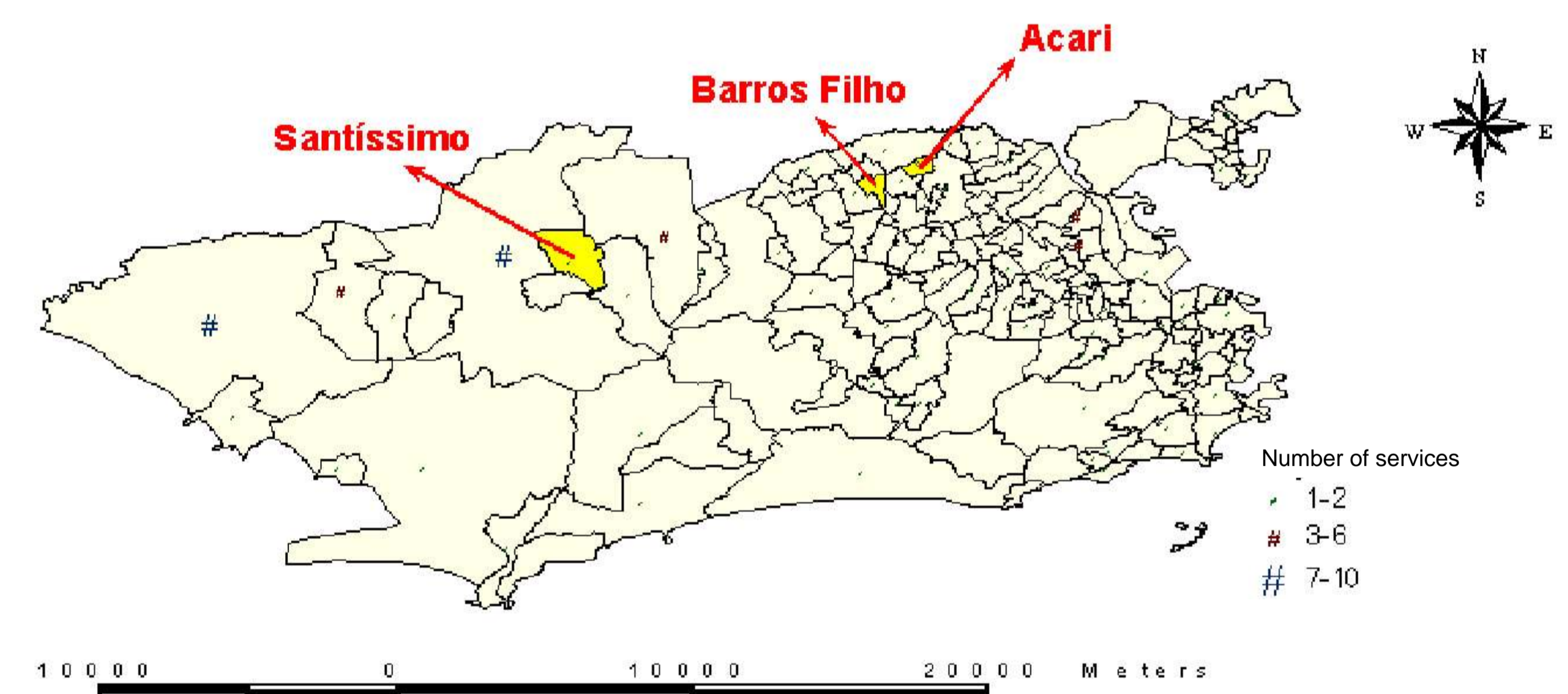
Sources: MP/Brazilian Institute of Geography and Statistics Foundation - IBGE
MS/INCA/Conprev/Information Department/ PBCR - Rio de Janeiro

Distribution of elevated cervical cancer incidence in Rio de Janeiro, by socioeconomic and demographic status and public health access, by counties.



Sources: MP/Brazilian Institute of Geography and Statistics Foundation - IBGE
MS/INCA/Conprev/Information Department/ PBCR - Rio de Janeiro
Pereira Passos Institute - IPP, 2000.

Distribution of elevated carcinoma "in situ" of cervix uteri incidence in Rio de Janeiro, by socio-economic and demographic status and public health access, by counties.



Sources: MP/Brazilian Institute of Geography and Statistics Foundation - IBGE
MS/INCA/Conprev/Information Department/ PBCR - Rio de Janeiro
Pereira Passos Institute - IPP, 2000.

Results

There are differences in the incidence of cervical cancer rates according geographical to distribution. Spatial statistical model (SAR) shows significant independent variables (expected number of children; percent of illiterate adults (ages 25 and above) and *per capita* income). It means that there are association between cervical cancer incidence and socioeconomic and demographic variables. The highest average adjusted incidence rates were found in places where were found worse social indices and scarce health care services

Conclusion

Surveillance for disease prevention and control purposes can be applied to the problem of disease clusters. Information of geographical pattern of cancer incidence can contribute to planning effective and efficient cancer control programmes aiming to reduce cancer morbidity and improve the quality of life of the Brazilian population.