# ATLAS OF CHILEAN CARDIOVASCULAR DISEASE MORTALITY 1997-2003

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Atlases of Mortality provide graphic representation of the geographical distribution of diseases. Their underlying objectives range from descriptive epidemiology to hypothesis generation. On the other hand, cardiovascular disease is the leading cause of death in the world, being responsible for 30% of all deaths. Moreover, isquaemic heart diseases and cerebrovascular diseases are the two leading causes of death in Chile. The aim of this study is to make an atlas of mortality for isquaemic heart diseases and cerebrovascular diseases using small geographic areas (comunas) in Chile for the period 1997-2003.

Vital statistics from the last seven years published by Ministry of Health and population from 2002 census were used to construct mortality rates for the 339 comunas in Chile. Smoothed mortality rates were estimated using Poisson regression mixed models which take into account the small area population variation. Adjusted rates were estimated controlling by age, sex and age-sex interaction. Thematic maps are presented in quintiles of mortality rates estimated by the models. We were not able to carry out other smoothing approaches (e.g. Bayesian methods) since we have problems to define neighbourhoods and to find spatial autocorrelations due to the peculiarities of the Chilean geography.