

ANALYSIS OF LOCAL MORTALITY VARIATION:
A CANADIAN CASE STUDY

(ABSTRACT)

This paper deals with the problems of measuring and explaining local mortality variation, based on a case study of the Hamilton region in the Province of Ontario, Canada. Due to lack of detailed official data, the local mortality pattern is established after we have spent much time in recording information directly from individual death registrations and in matching the number of deaths by age and sex with the relevant at-risk population for each of the 96 census tracts in the Hamilton region. To explain local mortality variation by socioeconomic variables, we use the logit model and the maximum quasi-likelihood estimation method.

We find that local mortality variation is substantial in our study area; that median family income can explain nearly half of the mortality variation among the census tracts; and that other socioeconomic variables (e.g. widowhood and divorcehood), which appear to be significant variables of mortality variation in bivariate and non-spatial analyses, turn out to be insignificant in our multivariate analysis using the logit model.

Our results are by no means definitive. To help promote further research on local mortality variation, we conclude our paper by providing what we hope to be helpful and practical suggestions.