

**A STUDY OF THE
SOCIAL DETERMINANTS OF INFANT MORTALITY IN MALAYSIA**

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1.0 Abstract

1.1 Background

There is a large body of empirical evidence to suggest that social conditions are one of the major determinants of population health. These are defined as the ‘Social determinants of Health (SDH)’. Developing a better understanding of the social determinants of health is critical in order to ameliorate the social forces associated with poor health and to reduce the health disparities within the population.

1.2 Aim

To examine the relationship between social factors and infant mortality in Malaysia

1.3 Methods

This study comprises an ecological (area-based) population health survey involving all 135 administrative districts of Malaysia.

A literature review was undertaken in order to develop a model that hypothesises the main social determinants of infant mortality in Malaysia. In order to test the model, secondary cross-sectional data from a range of sources were collected and analysed. Statistical analysis of the data using general linear model including correlations, factor analysis and multiple regression were undertaken in order to examine the collective influence of a range of social factors on variations observed in infant mortality.

Determinants of infant mortality in Malaysia tested in this study include GDP per capita, poverty rate, mean income of bottom 40% income earner, Gini coefficient, ratio of top 20% income: to bottom 40% income, population per doctor ratio, hospital bed per population ratio, car ownership per population, computer ownership per population, urbanization rate, percentage living in single housing and flats, women education and social development index.

1.4 Results

Although simple regression revealed a significant relation between IMR and fifteen predictors, further analysis using multiple regressions failed to demonstrate any significant linear relationship because of the problem of multicollinearity among variables. Factor analysis was done to identify similar items and new variables were created based on the identified factors.

Using the new group of variables, economic development explained 27%, socioeconomic status explained 21%, income inequality explained 14%, service provision 9% and finally type of housing explained 4% of the variability observed in IMR. However, collectively, the variables were able to explain only 29% of the variability in IMR using multiple linear regression analysis.

1.5 Conclusion

Two significant determinants of IMR at $p < 0.05$ level were living standards and income distribution. One unit increase in living standard would reduce IMR by 1.6 while a unit increase in income distribution would increase IMR by 0.9. Other factors such as economic development, housing and health service provision failed to demonstrate significant linear regression with IMR.