

# The Effect of Unemployment on Health

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## Abstract

This paper examines the impact of unemployment on health, using changes in mortality and suicide rates in Japan. We construct a panel data by sex and specific age groups(25-34, 35-44 and 45-54), using the Vital Statistics and the Population Censuses from 1975 through 2010 with 5-year intervals. Since the data include a long time period, we treat time effect carefully in order to confirm the appropriateness of specifications. Specifically, we change time effect in several forms, treating stochastic term in error components, or using several types of time trends. In addition, we solve the endogeneity problem in unemployment by utilizing a panel IV model and a dynamic panel data model.

The main results are as follows. First, rising unemployment rates raise mortality rates for the male, but the relationship is less clear for the female, especially younger female. Second, the age group from 45 to 54 is affected most seriously by recessions for both the male and the female. Third, rising unemployment rates raise suicide rates for the female as well as for the male. Thus, we can conclude that economic downturns damage population's health and that it is possible the effect on mental health is more serious in Japan.

Key Words: Health, Deaths, Mortality, Suicide, Unemployment, Recessions, Japan

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