

Abstract

Occupational health, well researched in developed countries, remains neglected in developing countries. One issue of particular importance is the use of pesticides on farms, which can have both chronic and acute impacts on human health. This paper focuses on acute health impacts associated with pesticide exposure in rural Nepal. Based on data from 291 households, the study finds that the magnitude of exposure to insecticides and fungicides can significantly influence the occurrence of health symptoms. The predicted probability of falling sick from pesticide related symptoms is 133% higher among individuals who apply pesticides compared to individuals in the same household who are not directly exposed. Households bear an annual health cost of NPR 287 (\$4) as a result of pesticide exposure. These costs vary with fungicide exposure. A ten percent increase in hours of exposure increases costs by about twenty-four percent. In aggregate, pesticide exposure contributes to a health burden of NPR 1,105,782 (US \$ 15,797) per year in the study area. Although pesticide use in Nepal is low relative to many other countries in the world, this study, which is the first of its kind in Nepal, suggests that farmers and policy makers need to become aware of the health impacts of pesticide use as they continue to promote its use in Nepal.

Key words: Pesticides, acute symptoms, cost of illness, dose-response function, Nepal.