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## An analysis of the impact of epidemics of infectious diseases on the number of relevant news, based on the panel data model

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Public opinions and health risk communication play an influential role in the public health practice, especially in diseases control and vaccination. News is the primary source of public opinions and to some extent guides the latter. By monitoring relevant news, we can predict public opinions trends and make an effective risk communication strategy. This article is an empirical study to find out the influence of the epidemics of infectious diseases to and the time effect on the number of relevant news. Monthly announcement of infectious diseases and relevant news were collected for the analysis. Panel data model was applied. Panel data model is a comprehensive model to analyze the combination of cross-sectional (i.e., disease specific) and time series data. It can also offer a determinant parameter as other association analysis does. After screening the sample sizes of all 55 notifiable diseases, the data of Acquired Immunodeficiency Syndrome (AIDS), and Hand, Foot and Mouth Disease (HFMD) were used to establish the model. Both of their monthly epidemics were the key factors of the number of relevant news. Using individual-time fixed effect model, the determinant parameter (R²) was 0.870. Media was more active to the news related to AIDS, compared with HFMD. From the time effect aspect, the more sensitive months to the epidemic was January and February, while in December it was on the contrast. The study suggests that the epidemics of AIDS or HFMD are good predictors to the relevant news. We can also evaluate the capacity of risk communication by estimating the number of relevant news.

## **Biography**

Dingfeng Wu is a PhD candidate in Chinese Center for Disease Control and Prevention. He has done his major in epidemiology, biostatistics and health policy, with particular interests in HIV/AIDS. He got his Master degree in Public Health at Royal Tropical Institute, the Netherlands in 2011. He has published several articles with different disciplines, such as epidemiology surveys, social determinants, and community behavior change.

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