



Impact of Heat Waves on Human Health and its Related Indicators

Ye Dianxiu (1), Yin Jifu (), and Chen Zhenghong ()

(1) China meteorological administration ,National Climate Center, Beijing,China (ydx@cma.gov.cn), (2) Nanjing University of Information Science & Technology, Nanjing,China, (3) Hubei Meteorological Service Center, Wuhan,China

Abstract: Based on the summer (June to August) daily maximum temperature data of geographically representative stations in China in the past 5-12 years and the residents' mortality data of these stations in the same period of time, this study made correlation analysis on the summer daily maximum temperature and mortality. And it used the moving T-test method to calculate the high temperature threshold that can lead to a sudden increase in mortality in summer, and used the U test method to objectively select the 97th percentile of the summer daily maximum temperature to represent the high temperature threshold. On this basis, taking into account the relationship between the high temperature duration and the sudden increase of the excess mortality, m-k test method to calculate the high temperature duration threshold, at least six consecutive heat days. This study developed indicators for the heat wave and gave the heat wave a definition that is suitable for China's actual situation.