Dr. Ying Li Funded to Study Heat-Related Mortality from Global Climate Change

Dr. Ying Li, in the Department of Environmental Health, received funding for a project titled, “Projecting Future Heat-Related Mortality in the United States under Global Climate Change.” Public health effects associated with rising temperatures resulted from global climate change are expected to increase significantly in this century. One of the most significant consequences is the increase in heat-related illnesses and premature deaths. This project will estimate the future excess mortality in the mid-21st century attributable to higher temperatures across the continental United States. In collaborating with Dr. Jason West at the University of North Carolina at Chapel Hill and ETSU Geoscience faculty Dr. Andrew Joyner, this project will compare model projections of future temperature in the years 2048 through 2052 under a high and a low emission scenarios used in the latest IPCC (Intergovernmental Panel on Climate Change) Assessment Report, and apply heat-mortality health functions to estimate potential changes in heat-related mortality under the two scenarios. The health functions will be abstracted from existing literature that examines the relationship between historical temperatures and premature deaths. Data analysis will be conducted using the geographic information system ArcGIS. The outcomes of this project will contribute to the current understanding of future health consequences attributed to warming climate due to human activities.