## ABSTRACT

Communication and information technology are critical in facilitating the processes in which public health stakeholders understand and utilize health information. Spatial visualization enables public health practitioners to effectively present geographic phenomena and detect spatial patterns in maps that may remain otherwise undiscovered in tabular form. Although there are many public health practitioners integrating spatial visualization into their work, there are few resources dedicated to instructing how to best visualize health data. Mapmakers will find that, among the wealth of resources on cartography and visualization best practices, few are specific to how health data can be best spatially visualized. Communication of such data is critical in understanding public health issues and developing prevention and intervention programs. This study aimed to 1) document best practices for visualizing public health data using thematic mapping techniques and 2) demonstrate how spatial visualization can be integrated into public health studies to facilitate understanding and communication of findings. A process for identifying suitable thematic mapping techniques for public health studies is discussed, in addition to best practices for employing such techniques, which includes choropleth, proportional symbol, dot density, and nominal point mapping techniques. A case study is presented to demonstrate how spatial visualization can be successfully integrated into public health studies; sociodemographic risk factors of uninsurance were identified using principal component analysis and later mapped using choropleth mapping best practices. Best practices for visualizing health outcomes, social determinants of health, and health care access, key areas of concern in improving public health, are also provided. This study addresses the gap in cartographic resources for the public health industry and aids public health practitioners in their ability to spatially visualize their data and improve communication of their findings.