## Canada's "Flattened Curve": A Geospatial Temporal Analysis of Canada's Amelioration of the Sars-COV-2 Pandemic Through Coordinated Government Intervention

**Authors**: John Ahluwalia

Abstract: As an affluent first-world nation, Canada took swift and comprehensive action during the outbreak of the SARS-CoV-2 (COVID-19) pandemic compared to other countries in the same socio-economic cohort. The United States has stumbled to overcome obstacles most developed nations have faced, which has led to significantly more per capita cases and deaths. The initial outbreaks of COVID-19 occurred in the US and Canada within days of each other and posed similar potentially catastrophic threats to public health, the economy, and governmental stability. On a macro level, events that take place in the US have a direct impact on Canada. For example, both countries tend to enter and exit economic recessions at approximately the same time, they are each other's largest trading partners, and their currencies are inexorably linked. Why is it that Canada has not shared the same fate as the US (and many other nations) that have realized much worse outcomes relative to the COVID-19 pandemic? Variables intrinsic to Canada's national infrastructure have been instrumental in the country's efforts to flatten the curve of COVID-19 cases and deaths. Canada's coordinated multi-level governmental effort has allowed it to create and enforce policies related to COVID-19 at both the national and provincial levels. Canada's policy of universal healthcare is another variable. Health care and public health measures are enforced on a provincial level, and it is within each province's jurisdiction to dictate standards for public safety based on scientific evidence. Rather than introducing confusion and the possibility of competition for resources such as PPE and vaccines, Canada's multi-level chain of government authority has provided consistent policies supporting national public health and local delivery of medical care. This paper will demonstrate that the coordinated efforts on provincial and federal levels have been the linchpin in Canada's relative success in containing the deadly spread of the COVID-19 virus.

Keywords: COVID-19, Canada, GIS, temporal analysis, ESRI

Conference Title: ICVGISGD 2022: International Conference on Volunteered Geographic Information Systems and

Geospatial Data

Conference Location: Barcelona, Spain Conference Dates: December 15-16, 2022