

The Image of COVID Occurrence – Administrative Entities and Spatial Resolution

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In an early phase of the pandemic Covid-19 diffusion in Sweden, a group of eight geographers attempted to contribute to the intensive debate in the media by writing an article, suggesting a consistent high-resolution spatial approach to the disease occurrence on a detailed level and in a geographical context of demographic, socioeconomic, built environment and transportation structure.

The text was not accepted by any of the papers and journals, to which it was offered.

At the time, it had already been pointed out by the German Medical Geography Working Group that by sheer accidents, ‘hot spots’ might occur, like concentrations of cases e.g. in certain workplaces, skewing the spatial impression of the disease occurrence on a lower resolution level. This exemplifies the Modifiable Areal Unit Problem, the MAUP, which refers to the fact that summary values (e.g., totals, rates, proportions, densities) are influenced by both the shape and scale of the areal units on which aggregations are based.

Occasional similar observations had been made in Sweden. As is well known, sheltered accommodations for the elderly have been severely hit by the disease. Whether such ‘hot spots’ have affected the geographical picture of occurrence on a lower resolution level is not known. However, restrictions for domestic as well as Nordic cross-border mobility have been based on regional incidence and mortality data.

There will be structural processes within a country where covid will more naturally spread. Such as low SES areas where essential workers live, high density housing, high occupancy housing, where it can spread more easily and indeed, areas where elderly care homes live, who are more vulnerable, and who are mainly cared for by the aforementioned low SES workers.

During the Covid-19 pandemic, Sweden has been pointed out as deviant with high incidence and mortality levels. It was suggested in the abovementioned article that a geographically more precise analysis of the spatial distribution, also in comparison with other Nordic countries, might elucidate the process.

The purpose of this venture is to investigate, in retrospect, how spatial accuracy of cases in combination with relevant, accessible data of the spatial context might provide a modified picture of the occurrence of cases and circumstances affecting the spread of the virus. Data will be used from Denmark, Iceland, and Sweden.
