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Supplemental Material

Integrated Social-Behavioral and Ecological Risk Maps to Prioritize Local Public Health Responses to Lyme Diseases

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Figure S3. Map of significant ($p < 0.05$) spatial clusters and outliers of survey participant level global risk perception score (GK) in Montérégie, Canada (2012).

Table S1. Cross validation results for each social-behavioral risk factor (only the Mean and Root Mean Square Error results are available for IDW).

For figures S1 to S3, we used the local spatial association (LISA) test (i.e. local Moran's I) to detect the presence and significance of local clusters and outliers. Positive significant clusters or outliers (High-High or Low-Low) means there is local clustering of similar values whereas negative ones (High-Low or Low-High) means there is local clustering of dissimilar values. We used inverse distance weighting (IDW) for determining spatial weights in the LISA analysis.

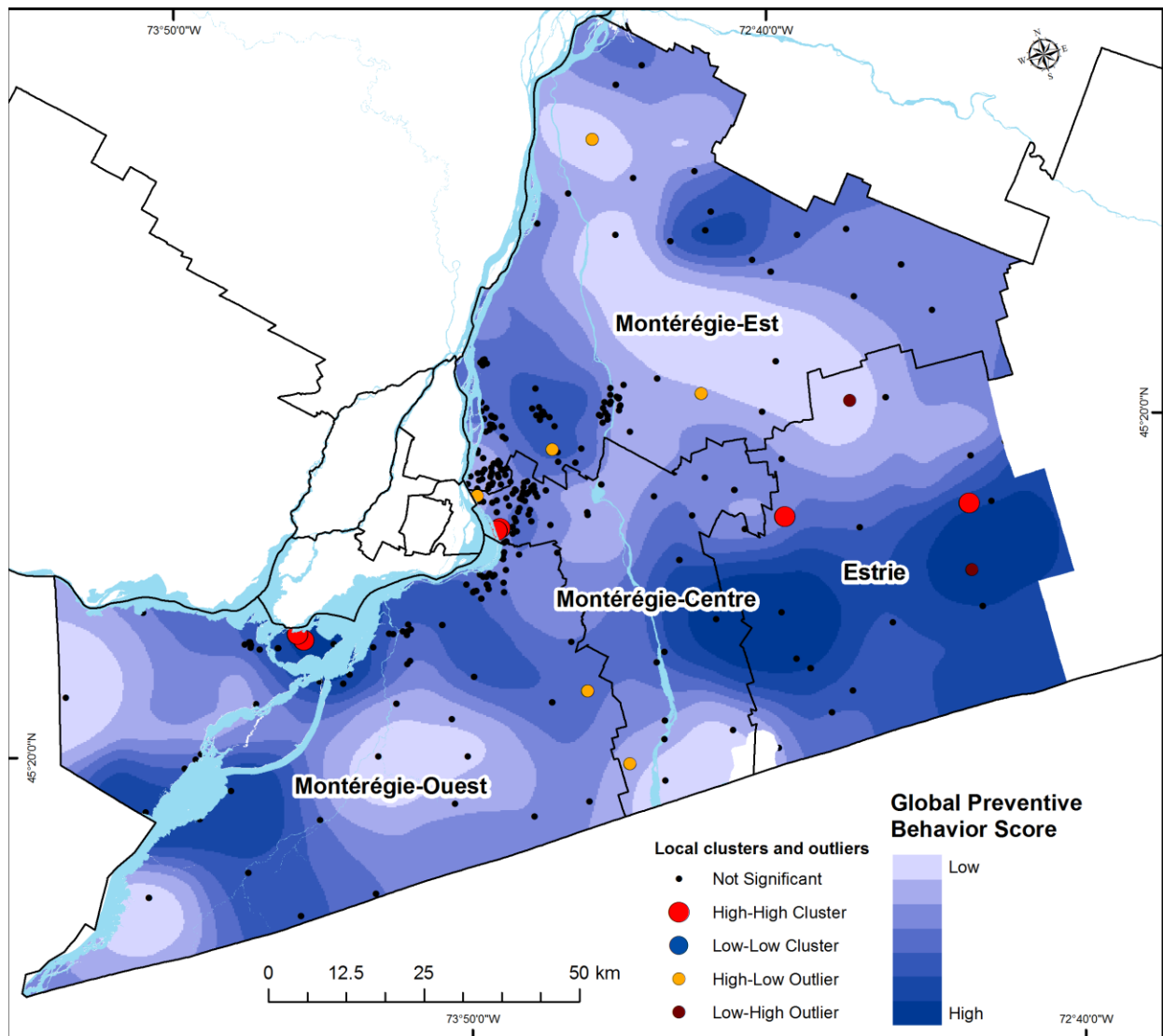


Figure S1. Map of significant ($p < 0.05$) spatial clusters and outliers of survey participant-level global preventive behavior score (GPB) in Montérégie, Canada (2012).

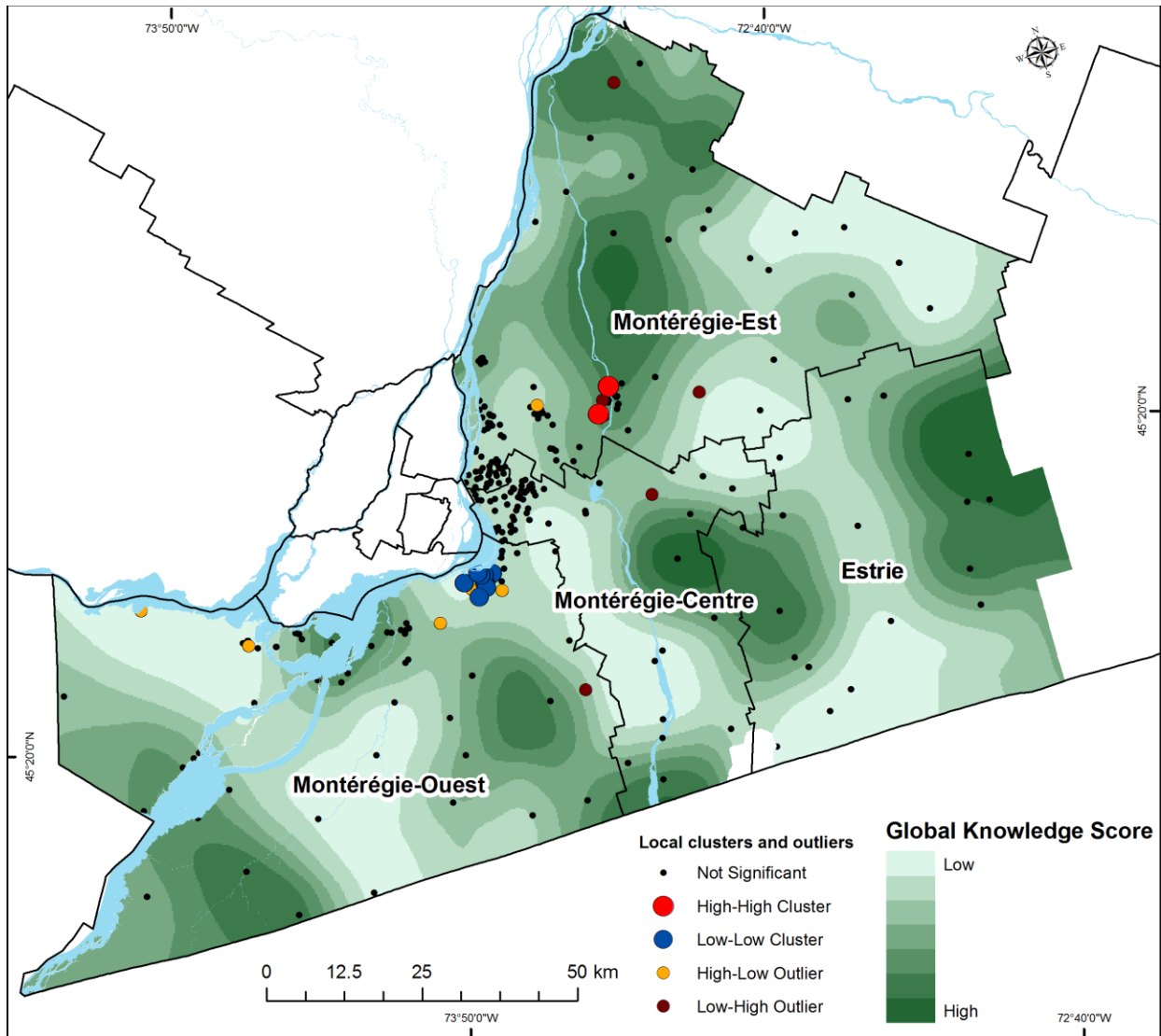


Figure S2. Map of significant ($p < 0.05$) spatial clusters and outliers of survey participant level global knowledge score (GK) in Montérégie, Canada (2012).

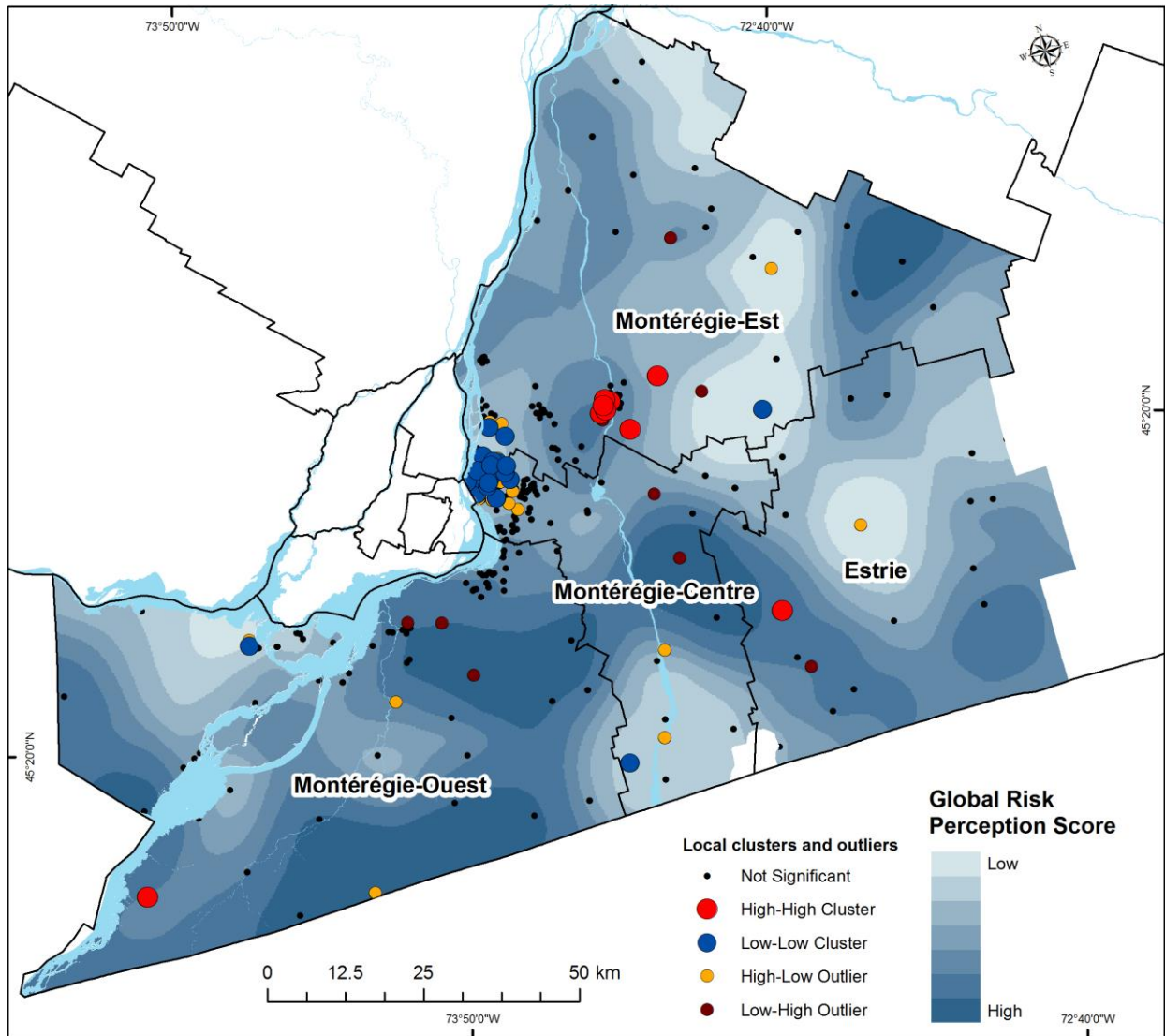


Figure S3. Map of significant ($p < 0.05$) spatial clusters and outliers of survey participant level global risk perception score (GK) in Montérégie, Canada (2012).

To validate our inverse distance weighting (IDW) interpolation parameterisations we used a cross-validation statistics to confirm that training and validation datasets produced interpolated maps that varied within an acceptable range of the underlying variable.

Table S1. Cross validation results for each social-behavioral risk factor (only the Mean and Root Mean Square Error results are available for IDW)

Social-behavioral risk factors	Mean error ^a	Root Mean Square Error ^b
GPB	-0.02	0.85
GK	0.0008	1.17
GRP	0.02	1.21

^aMean Error: The averaged difference between the measured and the predicted values.

^bRoot Mean Square Error: Indicates how closely your model predicts the measured values. The smaller this error, the closer predicted and measured values are.