



The Canadian Urban Environmental Health Research Consortium

Canue Metadata - Neighborhood Material and Social Deprivation Index

2025-05-05

DATA SET INFORMATION

Dataset Code: INDMSD_A_YY

Description:

The National Material and Social Deprivation Indices (MSDI) for all Canadian Census enumeration areas (now called dissemination areas) were downloaded July 21, 2017 by CANUE staff from the INSPQ website. The indices were provided in Excel spreadsheets named TableEquivalenceCompleteCanada1991.xls; TableEquivalenceCompleteCanada1996.xls; TableEquivalenceCompleteCanada2001.xls; TableEquivalenceCompleteCanada2006.xls; and TableEquivalenceCompleteCanada2011.xls. Data for 2016 were provided directly to CANUE by INSPQ. Data for 2021 was downloaded from the INSPQ website. ArcGIS was used by CANUE staff to associate the single link DMTI Spatial postal codes to the Statistics Canada enumeration/dissemination area boundary file, and then spatially join the MSDI data to DMTI single link postal codes using enumeration or dissemination area as a unique identifier. There may be many postal codes within a single enumeration or dissemination area - these will have the same index values. CANUE staff translated the variable names from French to English. A variable was added for a distance attribute (maximum distance from postal code centroid to boundary of census area) for 2011 and earlier.

Keywords: socioeconomic status|SES|material|social|deprivation|census|dissemination|enumeration

Place Keywords: Canada|national

GEOSPATIAL REFERENCE

Upper Left Corner: 65.14N , -141.02W

Lower Right Corner: 41.68N , -52.62W

Coordinate System: GCS_WGS84 - EPSG:4326

Geometry Type: POINT - Units: Decimal Degree

Geometry Data Source: DMTI Spatial Inc. (postal codes)

QUALITY ASSESSMENT

QA/QC Procedures:

CANUE did not assess the quality of the MSDI data. Users should review the supporting documentation and any recommended citations.

Geographic Coordinate Positional Accuracy:

These metrics are linked to the corresponding annual postal codes files for mapping and analysis purposes. Refer to the postal code metadata file in Supporting Documentation for more information.

Vertical Positional Accuracy: N/A

Attribute Accuracy: N/A

Data Validity: NoData = -9999 (for numeric fields) - NoData=null (for category fields) - Data insufficient to calculate value = -1111

Associated Files: N/A

Data Comment:

Users should refer to the User Guide before working with the MSDI data as it explains which version (provincial, regional, zone) is to be used when making comparisons. It also shows how to combine the material and the social quintiles into combined quintiles. There may be many postal codes within a single enumeration or dissemination area - these will have the same index values and may not be suitable for summation.

DATA SOURCE

Data Source

INSPQ - Institut National de Sante Publique (MSDI data); DMTI Spatial Inc (postal codes); Statistics Canada (enumeration/dissemination area boundary file).

Spatial Resolution: Census enumeration / dissemination areas

Data Preparation Date: 2019-04-15

Beginning Date: 1991

End Date: 2021

Sampling Frequency of Data: Annual - census years only

Years Available:

1991 - 1996 - 2001 - 2006 - 2011 - 2016 - 2021

MAINTENANCE

Description: N/A

File Type: Comma separated values(.csv)

File Size: Each file is between 60 MB and 77 MB in size

Number of Data Files: 6

DATA USE CONDITIONS**The Data User is REQUIRED:**

- (i) to acknowledge data sources listed under Acknowledgement(s)
- (ii) cite the publication(s) listed under Recommended Citation(s) as the providers and source of these data when using them in support of research, analysis, operations, policy decision or any other undertaking including publication
- (iii) complete and sign the CANUE Data Use and Sharing Agreement (available at <http://canue.ca/data/>), in which the name and signature of the researcher/analyst who takes responsibility for ensuring all conditions are met.

Data Sharing Restrictions:

These data files are provided solely for the purposes stated in the CANUE Data Sharing and Use Agreement and should not be re-distributed for any reason. These data also contain proprietary postal code data and may only be used for the project named in the CANUE Data Sharing and Use Agreement. Data can be shared only within a project team for the exclusive purposes of teaching, academic research and publishing, and/or planning of educational services in accordance to DMTI End User Agreement associated with the Spatial Mapping Academic Research Tools (SMART) Program.

Include the following references in any publications resulting from the use of these data:

- [1] Pampalon, Robert, et al. "An Area-Based Material and Social Deprivation Index for Public Health in Québec and Canada." Canadian Journal of Public Health / Revue Canadienne De Santé Publique, vol. 103, 2012, pp. S17-S22. JSTOR, JSTOR, www.jstor.org/stable/41995684.
- [2] CanMap Postal Code Suite v2015.3. [computer file] Markham: DMTI Spatial Inc., 2015.

Include the following acknowledgements:

N/A

SUPPORT DOCUMENTATION

- 1 - NSPQ Data Source Link (<https://www.inspq.qc.ca/en/expertise/information-management-and-analysis/deprivation-index>)
- 2 - User Guide (http://canue.ca/wp-content/uploads/2017/11/MSDI_UserGuide_EN.pdf)
- 3 - Additional information (<https://www.inspq.qc.ca/expertises/gestion-et-analyse-de-l-information/diffusion-d-une-information-adaptee/santescope/indice-de-defavorisation>)
- 4 - Postal Code metadata (<https://canue.ca/wp-content/uploads/2019/09/CANUE-Browser-Metadata-PostalCodes.pdf>)

VARIABLES

MSDYY_01 - Maximum Distance of Postal Code Position from Nearest Enumeration/Dissemination Area

Maximum distance in metres of postal code position from nearest enumeration/dissemination area, calculated as (distance in decimal degrees)

MSDYY_02 - Dissemination Area Population

Dissemination Area Population

MSDYY_03 - Census Subdivision

Census subdivision, for code list see <http://www5.statcan.gc.ca/olc-cel/olc.action?ObjId=12-571-X>

MSDYY_04 - Province

Province: 10 Newfoundland and Labrador; 11 Prince Edward Island 12 Nova Scotia 13 New Brunswick 24 Quebec 35 Ontario 46 Manitoba 47 Saskatchewan 48 Alberta 59 British Columbia

MSDYY_05 - Region

Region : Atlantic, Quebec, Ontario, Prairies, British Columbia

MSDYY_06 - Geographical Area

Geographical area: Large CMA, Other CMA, Agglomeration, Rural

MSDYY_07 - Census Metropolitan Area

Census Metropolitan Area - only three largest CMAs are identified, coded as Toronto, Montreal or Vancouver for 1991 - 2011 files. 2016 file includes a 3-digit CMA code for all records.

MSDYY_08 - Deprivation Index - Material Factor Score

Deprivation index - material factor score

MSDYY_09 - Deprivation Index - Social Factor Score

Deprivation index - social factor score

MSDYY_10 - Material Factor Score Quintile within Canada

Material Factor Score Quintile within Canada (1=lowest, 5 = highest)

MSDYY_11 - Social Factor Score Quintile within Canada

Social Factor Score Quintile within Canada (1=lowest, 5 = highest)

MSDYY_12 - Material Factor Score Percentile within Canada

Material Factor Score Percentile within Canada (1 = lowest, 100 = highest)

MSDYY_13 - Social Factor Score Percentile within Canada

Social Factor Score Percentile within Canada (1= lowest, 100 = highest)

MSDYY_14 - Material Factor Score Quintile within Region

Material Factor Score Quintile within Region (1=lowest, 5 = highest)

MSDYY_15 - Social Factor Score Quintile within Region

Social Factor Score Quintile within Region (1=lowest, 5 = highest)

MSDYY_16 - Material Factor Score Quintile within Zone

Material Factor Score Quintile within Zone (1=lowest, 5 = highest)

MSDYY_17 - Social Factor Score Quintile within Zone

Social Factor Score Quintile within Zone (1=lowest, 5 = highest)

MSDYY_18 - Material Factor Score Quintile within CMA

Material Factor Score Quintile within CMA (1=lowest, 5 = highest)

MSDYY_19 - Social Factor Score Quintile within CMA

Social Factor Score Quintile within CMA (1=lowest, 5 = highest)

SUPPORT CONTACT

Data Set Support Contact: info@canue.ca

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