

# Canadian Urban Environmental Health Research Consortium

## CANUE Metadata Material and Social Deprivation Index (MSDI)

May 1 - 2019

DATA SET INFORMATION	
Data Set Title:	<b>Material and Social Deprivation Indices for Census Years 1991, 1996, 2001, 2006, 2011 and 2016</b>
Description:	<p>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:  <a href="https://www.inspq.qc.ca/expertises/gestion-et-analyse-de-l-information/diffusion-d-une-information-adaptee/santescope/indice-de-defavorisation">https://www.inspq.qc.ca/expertises/gestion-et-analyse-de-l-information/diffusion-d-une-information-adaptee/santescope/indice-de-defavorisation</a>). The indices were provided in Excel spreadsheets named TableEquivalenceCompleteCanada1991.xls; TableEquivalenceCompleteCanada1996.xls; TableEquivalenceCompleteCanada2001.xls; TableEquivalenceCompleteCanada2006.xls; andTableEquivalenceCompleteCanada2011.xls. Data for 2016 were provided directly to CANUE by INSPQ.</p> <p>The above data are available at:  <a href="https://www.inspq.qc.ca/en/expertise/information-management-and-analysis/deprivation-index">https://www.inspq.qc.ca/en/expertise/information-management-and-analysis/deprivation-index</a></p> <p>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 and added a distance attribute (maximum distance from postal code centroid to boundary of census area).</p>
Theme Keywords:	socioeconomic status, SES, material, social, deprivation, census, dissemination, enumeration
Place Keywords:	Canada national
Data preparation date:	10/16/2017; and April 15, 2019 for 2016 data
File Names	INDMSD_A_91.csv; INDMSD_A_96.csv; INDMSD_A_01.csv; INDMSD_A_06.csv; INDMSD_A_11.csv; INDMSD_A_16.csv
File Type:	Comma separated values (.csv)
Beginning Date:	1991
End Date:	2016
Sampling Frequency of Data:	Every 5 years
Number of Data Files:	5
File Size	Each file is between 60 MB and 77 MB in size. All six files together total 452 MB.
Data Sources:	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
Detection Range or Limit:	N/A
Log of Changes:	<p>2017-11-25: renamed data set and variables to reflect change from Pampalon Index (PMP) to Material and Social Deprivation Index (MSD).</p> <p>2018-01-25: Field name MSDYY_PCODE changed to POSTALCODEYY.</p> <p>2018-01-25: Replaced blanks in numeric fields with -9999.</p> <p>2018-03-05: Field description of MSDYY_MPPR and MSDYY_SPPR updated. Corrected inconsistency with field name ie. MSDYY_MPPR is material factor score and MSDYY_SPPR is social factor score.</p> <p>2018-11-15: Changed field names to standardize with other CANUE datasets</p> <p>2019-04-15: Added 2016 data</p>

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	2019-04-15: NOTE: Due to inconsistency between french and english versions of these data at INSPQ, variables MSDYY_10, MSDYY_11, MSDYY_12 and MSDYY_13 were previously described as quintiles within provinces, when they were actually quintiles based on the full national data. These are now described as quintiles within Canada.
Maintenance Description:	
<b>GEOSPATIAL REFERENCE</b>	
Geographic Coverage	Canada
West Bounding Coordinate	N/A
East Bounding Coordinate	N/A
North Bounding Coordinate	N/A
South Bounding Coordinate	N/A
Geometry Type:	N/A
Point Data Source:	N/A
Coordinates have Z values:	N/A
Geographic Coordinate System:	N/A
Datum	N/A
Unit:	N/A
<b>QUALITY ASSESSMENT</b>	
QA/QC procedures:	CANUE did not assess the quality of the MSDI data. Users should review the documentation provided in the recommended citation, on the INSPQ website, and in the supporting documentation listed below.
Geographic Coordinate Positional Accuracy:	<p>Attribute DIST_DA provides the maximum distance in metres between each postal code location (as per DMTI Spatial Inc. file) and the closest enumeration/dissemination area. In most cases, the distance is zero, indicating the postal code is located within the enumeration/dissemination area. NOTE: this attribute is not calculated for 2016 file.</p> <p>These metrics can be linked to the corresponding annual postal codes files for mapping and analysis purposes, using the 6-digit postal code as a unique identifier in both files. Refer to the following metadata file for additional information on opportunities for assessing the spatial representativeness of postal code locations when these metrics are linked:</p>
	<a href="#">CANUE Metadata Postal Codes.pdf</a>
Vertical Positional Accuracy:	N/A
Attribute Accuracy:	N/A
Data Validity :	NoData = -9999 for numeric fields and NULL for text fields
Associated Files:	N/A
Data Comment:	N/A
Data Comment:	N/A
<b>SUPPORTING DOCUMENTATION</b>	
Additional documentation:	<p>Additional information and citations available at:  <a href="https://www.inspq.qc.ca/expertises/gestion-et-analyse-de-l-information/diffusion-d-une-information-adaptee/santescope/indices-de-defavorisation">https://www.inspq.qc.ca/expertises/gestion-et-analyse-de-l-information/diffusion-d-une-information-adaptee/santescope/indices-de-defavorisation</a></p>
	<p>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:</p>
	<a href="#">MSDI User Guide EN.pdf</a>

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DATA DICTIONARY		
Field Name (YY = last two digits of specific year of data)	Description	Data Type
POSTALCODEYY	6 digit postal code with no space between the FSA and LDU. (i.e. L1R2H2)	Text
MSDYY_01	Maximum distance in metres of postal code position from nearest enumeration/dissemination area, calculated as (distance in decimal degrees * 111,131.75), which considers the length of a degree of latitude at 45 degrees latitude (111, 131.75 meters). Since the length of a degree of latitude decreases toward the north pole, the distance calculated is overestimated for any location higher than 45 degrees north.	Numeric
MSDYY_02	Dissemination Area Population	Numeric
MSDYY_03	Census subdivision, for code list see <a href="http://www5.statcan.gc.ca/olc-ctl/olc.action?ObjId=12-571-X&amp;ObjType=2&amp;lang=en&amp;limit=0">http://www5.statcan.gc.ca/olc-ctl/olc.action?ObjId=12-571-X&amp;ObjType=2&amp;lang=en&amp;limit=0</a>	Text
MSDYY_04	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	Text
MSDYY_05	Region : Atlantic, Quebec, Ontario, Prairies, British Columbia	Text
MSDYY_06	Geographical area: Large CMA, Other CMA, Agglomeration, Rural	Text
MSDYY_07	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.	Text
MSDYY_08	Deprivation index - material factor score	Numeric
MSDYY_09	Deprivation index - social factor score	Numeric
MSDYY_10	Material Factor Score Quintile within Canada (1=lowest, 5 = highest)	Category
MSDYY_11	Social Factor Score Quintile within Canada (1=lowest, 5 = highest)	Category
MSDYY_12	Material Factor Score Percentile within Canada (1 = lowest, 100 = highest)	Category
MSDYY_13	Social Factor Score Percentile within Canada (1= lowest, 100 = highest)	Category
MSDYY_14	Material Factor Score Quintile within Region (1=lowest, 5 = highest)	Category
MSDYY_15	Social Factor Score Quintile within Region (1=lowest, 5 = highest)	Category
MSDYY_16	Material Factor Score Quintile within Zone (1=lowest, 5 = highest)	Category
MSDYY_17	Social Factor Score Quintile within Zone (1=lowest, 5 = highest)	Category
MSDYY_18	Material Factor Score Quintile within CMA(1=lowest, 5 = highest)	Category
MSDYY_19	Social Factor Score Quintile within CMA (1=lowest, 5 = highest)	Category
DATA SET CONTACTS		
Data Support:	Contact CANUE via the email below.	
Email:	<a href="mailto:info@canue.ca">info@canue.ca</a>	
Affiliated Organization:	CANUE (Canadian Urban Environmental Health Research Consortium)	
	Dalla Lana School of Public Health, University of Toronto	
Website:	<a href="http://www.canue.ca">www.canue.ca</a>	

	<b>Canadian Urban Environmental Health Research Consortium</b>
	<b>CANUE Metadata Material and Social Deprivation Index (MSDI)</b>
	<b>May 1 - 2019</b>
City:	Toronto
Prov/State:	Ontario
Country:	Canada

	<b>Canadian Urban Environmental Health Research Consortium</b>  <b>CANUE Metadata Material and Social Deprivation Index (MSDI)</b> <b>May 1 - 2019</b>
Exposure Data Source Contact:	See Institut National de Sante Publique website for current contact information
Email:	<a href="mailto:christine.blaser@inspq.qc.ca">christine.blaser@inspq.qc.ca</a>
Phone:	514-864-1600 #3712
First Name:	Christine
Last Name:	Blaser
Affiliated Organization:	Institut National de Sante Publique
City:	Montreal
Prov/State:	Quebec
Country:	Canada
<b>DATA USE CONDITIONS</b>	
Conditions of Use:	<p>The Data User is REQUIRED:</p> <ul style="list-style-type: none"> <li>(i) to acknowledge data sources listed under Acknowledgement(s);</li> <li>(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; and</li> <li>(iii) complete and sign the CANUE Data Use and Sharing Agreement (available at <a href="http://canue.ca/data/">http://canue.ca/data/</a>), in which the name and signature of the researcher/analyst who takes responsibility for ensuring all conditions are met.</li> </ul>
Data Sharing Restrictions:	<p>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.</p> <p>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.</p>
Required Citation:	<p>Include the following references in any publications resulting from the use of these data:</p> <ol style="list-style-type: none"> <li>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, <a href="http://www.jstor.org/stable/41995684">www.jstor.org/stable/41995684</a>.</li> <li>2. CanMap Postal Code Suite v2015.3. [computer file] Markham: DMTI Spatial Inc., 2015.</li> </ol>
Acknowledgment:	<p>Include the following acknowledgements:</p> <ol style="list-style-type: none"> <li>1. Material and Social Deprivation Indices (MSDI), indexed to DMTI Spatial Inc. postal codes , were provided by CANUE (Canadian Urban Environmental Health Research Consortium);</li> <li>2. Material and Social Deprivation Indices (MSDI) used by CANUE were provided by: Institut National de Santé Publique du Québec (INSPQ). Indiceses were compiled for 1991, 1996, 2001 and 2011 Census data by the Bureau d'information et d'études en santé des populations (BIESP). [online] [<a href="https://www.inspq.qc.ca/en/expertise/information-management-and-analysis/deprivation-index">https://www.inspq.qc.ca/en/expertise/information-management-and-analysis/deprivation-index</a>]</li> </ol>