



The Canadian Urban Environmental Health Research Consortium

Canue Metadata - Neighborhood Active Living Environments

2021-02-15

DATA SET INFORMATION

Dataset Code: ALE_A_YY

Description:

The Canadian Active Living Environments (Can-ALE) database is a geographic-based set of measures that represents the active living friendliness of Canadian communities. The primary envisioned use for Can-ALE is research and analysis of the relationship between the way communities are built and the physical activity levels of Canadians. Each of the measures was selected from fourteen potential measures identified by a literature review. Several considerations were weighed in deriving the Canada-wide set of measures, including: (1) the suitability of each measure across different Canadian regions and built areas (e.g., urban, suburban, rural areas); (2) the incorporation of high-quality, open and free-to-use data sources; and (3) the strength of the association between the derived measures with walking rates and active transportation (i.e., walking, cycling, and public transit use). Public transit use is included in the definition of active transportation, as public transit is shown to generate physical activity via walking to and from transit stops. The Can-ALE data were developed by Dr. Nancy Ross, Thomas Herrmann and William Gleckner, with funding from the Public Health Agency of Canada. Can-ALE measures have been developed for 2006 and 2016 census dissemination areas. Users are discouraged from performing longitudinal analyses using data from both the 2006 and 2016 datasets, as the derivation methodologies and census geographies changed between the reference years. ArcGIS was used by CANUE staff to associate the single link DMTI Spatial postal codes to the Statistics Canada dissemination areas boundary files, and then join the Access to Employment data to the postal codes, using dissemination area unique identifiers. There may be many postal codes within a single dissemination area - these will have the same index values and may not be suitable for summation, etc. Please refer to the Supporting Documentation.

Keywords: neighbourhood environments|physical activity|walkability|active living environment

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 Active Living Environment 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 are discouraged from performing longitudinal analyses using data from both the 2006 and 2016 datasets, as the derivation methodologies and census geographies changed between the reference years. There may be many postal codes within a single dissemination area - these will have the same index values and may not be suitable for summation.

DATA SOURCE

Data Source

Geo-Social Determinants of Health Research Group, Department of Geography, McGill University (Can-ALE data); DMTI Spatial Inc (postal codes); Statistics Canada (enumeration/dissemination area boundary file). See Supporting Documentation.

Spatial Resolution: Source data are produced for Census dissemination areas.

Data Preparation Date: 2019-01-23

Beginning Date: 2006

End Date: 2016

Sampling Frequency of Data: Annual 2006 and 2016 only

Years Available:

2006 - 2016

MAINTENANCE

Description: N/A

File Type: Comma separated values(.csv)

File Size: Each file is between 50 MB to 90 MB in size.

Number of Data Files: 2

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] Ross, N., Wasfi, R., Herrmann, T., and Gleckner, W., 2018. Canadian Active Living Environments Database (Can-ALE) User Manual

Include the following acknowledgements:

1. Canadian Active Living Environments Index (Can-ALE), indexed to DMTI Spatial Inc. postal codes, were provided by CANUE (Canadian Urban Environmental Health Research Consortium).

SUPPORT DOCUMENTATION

1 - CanALE User Guide (http://canue.ca/wp-content/uploads/2018/03/CanALE_UserGuide.pdf)

2 - Postal Code metadata (<https://canue.ca/wp-content/uploads/2019/09/CANUE-Browser-Metadata-PostalCodes.pdf>)

VARIABLES

ALEYY_01 - Unique identifier of the dissemination area

Unique identifier of the dissemination area (eight digits)

ALEYY_02 - Intersection Density

Intersection density - number of 3-way intersections per square kilometre in the buffer around a dissemination area centroid

ALEYY_03 - Dwelling Density

Dwelling density - number of dwellings per square kilometre in the buffer around a dissemination area centroid

ALEYY_04 - Z-score of the Intersection Density Measure

Z-score of the intersection density measure

ALEYY_05 - Z-score of the Dwelling Density Measure

Z-score of the dwelling density measure

ALEYY_06 - ALE Index

ALE Index - sum all z-scores

ALEYY_07 - ALE Class

ALE Class - categorical value characterizing the favourability of the ALE on a scale from 1 (very low) to 5 (very high)

ALEYY_08 - Points of Interest

Points of interest - number of points of interest in the buffer around a dissemination area centroid

ALEYY_09 - Z-score of the Points of Interest Measure

Z-score of the points of interest measure

ALEYY_10 - Transit Stops

Transit stops - number of public transit stops or stations in the buffer around a dissemination area centroid

ALEYY_11 - Z-score of the Transit Measure

Z-score of the transit measure

ALEYY_12 - ALE Transit Index

ALE TRANSIT Index - sum of the z-score of the intersection density, dwelling density, points of interest, and transit measures

ALEYY_13 - ALE Transit Class

ALE TRANSIT Class - categorical value characterizing the favourability of the ALE in CMAs on a scale from 1 (very low) to 5 (very high)

SUPPORT CONTACT

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Affiliated Organization:

CANUE (Canadian Urban Environmental Health Research Consortium)

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