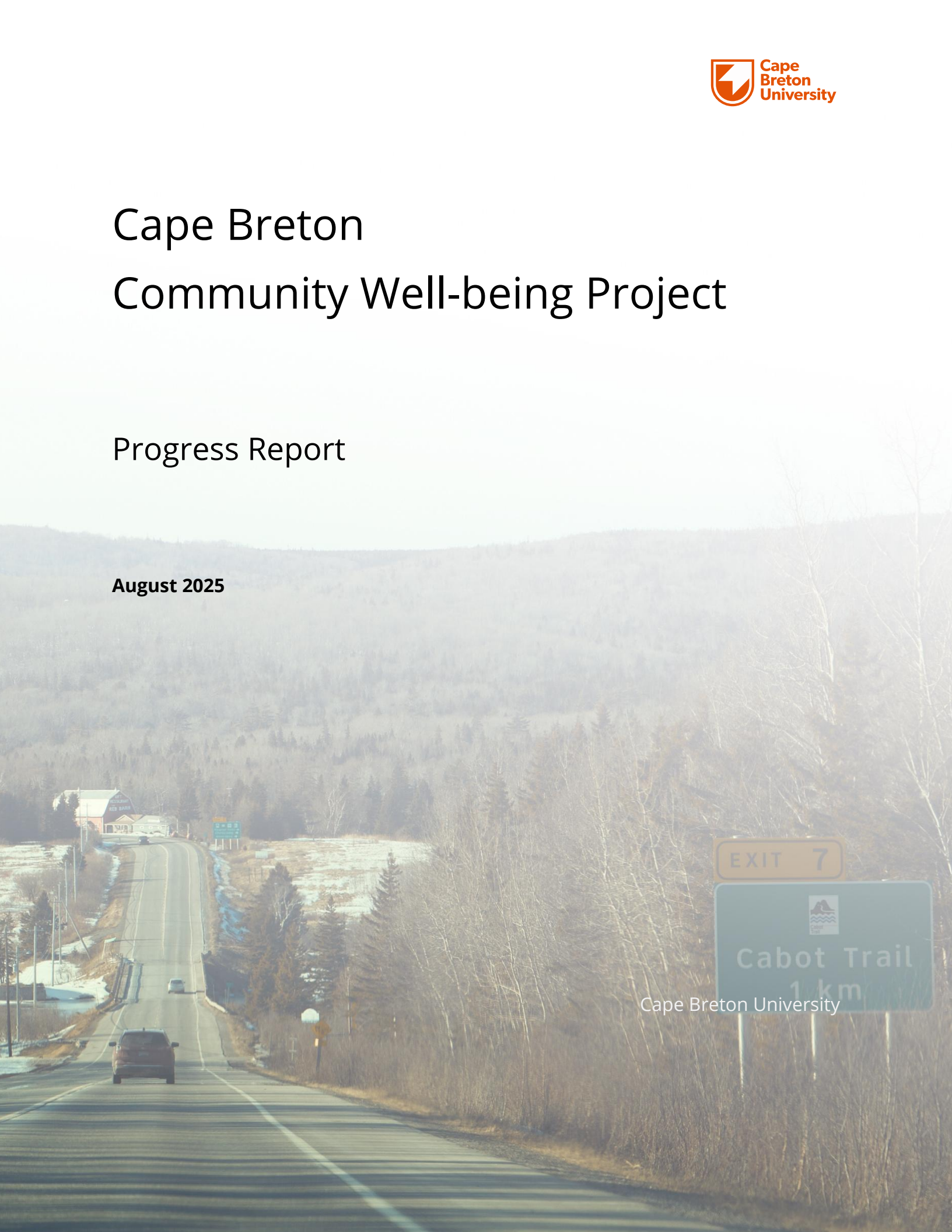
Cape Breton Community Well-being Project

Progress Report

August 2025



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Overview

Nova Scotia is one of Canada's smaller provinces by population, which also contributed to its pronounced rural character, especially in regions like Cape Breton. The island is home to a diverse range of communities, most of which have populations under 5,000 people. Despite the somewhat sparse population, these rural areas cover the majority of Cape Breton's landmass and are vital to the region's – and ultimately, its residents' – social, economic, cultural, and environmental well-being. However, despite their significance, rural communities in Cape Breton often lack access to localized data necessary for informed decision-making. While urban centers typically have more resources, infrastructure, and institutional support to collect and utilize detailed local information, rural areas face systematic barriers to data access, resulting in a data gap that hinders planning and policy development.

Cape Breton University (CBU) and its partners have developed a Community Well-being Dashboard (CWD) to improve access to information for rural decision-making and storytelling. The dashboard features a standard set of indicators and centralizes data from various sources into a user-friendly digital tool that is freely available to the public. Indicators provide a holistic perspective of well-being and cover a wide range of topics, including demographics, economics, housing, health, society, and environment. The information presented in the dashboard can be used by municipal councils and staff, community-based organizations, non-profits, and academic researchers to improve the quality of life and well-being in Cape Breton's rural communities.

This report provides a summary of the progress of the CWD project up until August 2025. This phase of the project involved collecting data needed to replicate indicators used in the Rural Ontario Institute's (ROI) Rural Community Well-being (RCWB) project. This similar initiative inspired the development of CWD. This phase was funded by Cape Breton University, the Social Sciences and Humanities Research Council of Canada, and Research Nova Scotia, and we are grateful to our partners, including ROI, for their valuable help throughout this project.

Project timeline

- Phase 1 (April 2025 – September 2025)
    - Select a subset of indicators and identify data sources
    - Create pilot dashboard
    - Engage partners and communities
- Phase 2 (September 2025 – November 2025)
    - Develop the Well-Being Canada website
    - Populate the Well-Being Canada website with all data
- Phase 3 (December 2025 – March 2026)
    - Disseminate the dashboard within Cape Breton
    - Gather community feedback on usability
    - Integrate feedback into dashboard updates
    - Translate the Well-Being Canada dashboard into French

Introduction

Rural areas face many new challenges and opportunities related to COVID-19, global economic trends, climate change, extreme weather events, and demographic shifts. To comprehend and respond effectively to these challenges and opportunities, rural communities require easy access to accurate data that facilitates the translation of information into understanding and understanding into action. However, rural data is often missing or hard to find.

Where available, rural data is often collected at a broader scale, which means that local data is usually not available for strategic planning. Some rural communities may have the capacity to collect and analyze their own data. Still, the absence of guidelines and standards means that the results may not be comparable across jurisdictions. Many systems attempt to standardize data and produce indicators of community well-being; however, most of these have been developed for urban areas or larger regions and are generally not applicable in rural contexts.

Cape Breton University, along with its partners, are therefore improving access to data through our Community Well-being Dashboard. We selected 53 indicators from the ROI's RCWB project, which used CSA Standard R113-22 as a foundation, and made adaptations to the Cape Breton context where necessary. The dashboard will be launched in January 2026 and will be freely available to anyone. The website will also include numerous resources to help people understand the indicators used, their definitions, the sources of our data, and how frequently the dashboard will be updated.

The information presented in the dashboard can help communities establish a baseline, develop effective policies, set clear goals, measure progress, and effectively communicate their stories. The dashboard can also be used to develop briefing materials, business cases, and research studies. By building the dashboard, we aim to provide a freely available tool that ensures communities in Cape Breton have access to a common foundation of evidence for informed decision-making. Furthermore, for communities with limited capacity to gather and/or analyze data, the dashboard can help reduce costs associated with consultant reports or studies. It can serve as a starting point for information gathering, ensuring the strategic and efficient use of resources to fill gaps rather than duplicating existing efforts or datasets. The dashboard also provides communities with a comparable platform that can be used to identify others who may be experiencing similar situations and explore opportunities to learn from each other or work together toward common goals.

This report explains our work from the initialization of the project up until August 2025, including early consultation, data sourcing, and dashboard development. Throughout this report, we use the term 'community' to mean census subdivisions, municipalities, or areas treated as municipal, such as unorganized territories.

Review of Well-being Systems

A review of well-being systems revealed that CSA R113-22 is to date the best standard to quantify the well-being of rural communities.

Canadian Index of Well-being

The Canadian Index of Well-being (CIW) uses data from surveys conducted by Statistics Canada or by CIW staff. These are primarily opinion surveys that may or may not reflect objective measures of community conditions. Statistics Canada generally does not release the data from these surveys for geographies smaller than a Census Division, which means that community-level data is often not available. In addition, the CIW features a composite well-being index based on a complex calculation that is not made public. The final number produced by the index may not provide helpful information about individual components of well-being at the community level.

Vital Signs

Community Foundations generally have good track records for involving local organizations and citizens in the production of a Vital Signs report. However, the general and flexible nature of the research guidelines results in a wide variation in the quality of local research. Since each Vital Signs report is a unique local snapshot, it is not possible to integrate data across communities or track changes in a single community over time. The primary data source is usually Census Profile data compiled by the Census Division, which may overlook important differences between neighbouring municipalities. Work is underway to align this system with the Sustainable Development Goals, which could enable community comparisons across Canada and globally.

Sustainable cities and communities (ISO 37120)

On the international scene, ISO 37120 provides indicators for city services and quality of life and supports reporting against some of the Sustainable Development Goals. However, some indicators do not apply to communities with small populations. For example, many of the indicators are calculated with units per 100,000 inhabitants, which is not relevant in the context of rural communities where the population is often far fewer than 10,000 people. In addition, many indicators apply to specific urban issues not shared by many rural communities, such as access to parks and green spaces, or quality of public transit systems. While some of the quality-of-life dimensions represented in ISO 37120 are relevant to rural communities, the analytical approaches are so complex that expert consultants are usually required to produce an assessment. Such complex well-being assessment systems may not be suitable for small communities with limited resources and capacity.

About CSA Standard R113-22

The Canadian Standards Association (CSA) has developed a new standard to help address these challenges. Standard R113-22 includes a set of indicators that can be used to identify and measure quality of life and well-being in rural communities. The CSA indicators provide a standardized approach to assess well-being using readily available data sources, common definitions and

methods, and a rural focus. The standard will enable communities to establish a baseline, measure progress over time and compare themselves to similar rural communities across Canada.

Comparators and benchmarks

A thorough understanding of trends requires context. Comparisons can be helpful in contextualizing data and statistics. The ability to make meaningful comparisons depends on the consistent use of indicators over time, using standardized methods, definitions, and criteria. An examination of how indicators change over time can produce a good understanding of potential problems in the community or emerging opportunities.

In addition to following trends within a community, it is also important to examine a community in relation to a broader regional context, such as the local geographic region (e.g., census division) or a defined area relevant to the indicators under consideration (e.g., public health district).

The use of consistent indicators can also enable the comparison of communities that share common features, such as coastal communities, mining towns, or retirement destinations. Over time, the consistent use of a set of indicators will enable the identification of benchmarks that are associated with healthy, prosperous, and sustainable communities.

Field test of CSA R113-22

Although the publication of the first edition of this standard is a significant step toward improved understanding of rural well-being, additional work is needed to field test the usability of the indicators and to develop tools to facilitate data access and analysis.

Indicators are grouped into 7 broad categories: economic, environmental, health, housing, institutional, population, and society. The standard recommends gathering data primarily from government sources (e.g., Statistics Canada). A large number of indicators are supported by data from the Census profile, which is helpful for standardization and comparison. However, Census data is only available every 5 years, and some data are not available at the community level. It can be difficult for communities to obtain and analyze local data from such large datasets.

Many indicators will be useful for understanding and addressing rural community well-being, if appropriate data sources can be identified, and some guidelines for data interpretation can be provided.

Why Digital Dashboard?

The product of most well-being systems is usually a report that provides a snapshot of well-being at a specific point in time. These periodic reports are commonly produced every 5 years. The length of the reporting period can depend on update cycle for indicator data. Longer update schedules can result in a substantial amount of work due to the volume of new data that must be collected and analyzed.

Reports are a necessary and important culmination of the assessment process. However, it is possible to enable more flexibility if a digital product supports a reporting system. An online indicator platform can allow more frequent reporting because indicators can be easily, or even automatically, updated as new data becomes available. This distributes the workload more evenly over time. Additionally, a digital data platform enables targeted reporting on emerging priorities, as updated data is readily available for analysis when issues arise.

Utilizing CSA standard-compliant indicators, our dashboard will provide communities with a simple and interactive presentation of indicators and data. Specifically, we design our dashboard to enable communities to:

1) Notice what stands out for their community;
2) Compare themselves with their neighbours and the broader region; and
3) Track now things are changing over time.

As an additional benefit, communities can use the dashboard – whose data are constantly updated – to produce reports at any time or interval relevant to them. Later on in the project, we plan to develop guidelines and knowledge mobilization resources that will help communities use the dashboard to complete their assessment and prepare well-being reports.

Project Team

Cape Breton University partnered with ROI and Island Data Portal to carry out initial consultations in April 2025 to identify priorities and goals for experimental adoption of the idea of ROI's RCWB in the Cape Breton context.

We are grateful to various external team members, including but not limited to those listed below, for their help spanning multiple aspects of the project:

- Danielle Letang, Rural Ontario Institute, Manager of Data Strategy (retired April 2025, providing contract support)
- Kezia Cowtan, Rural Ontario Institute, Manager of Data Programs
- Eric Leviten-Reid, New Dawn Enterprises, Data Analyst
- Peri Dworatzek, York University, Data Analyst

Work Done in Phase 1

Consultation

We partnered with ROI and Cape Breton Island Data Portal (IDP) to conduct initial consultations and identify priorities and objectives. IDP, an affiliate organization of New Dawn Enterprises (NDE), has

already set up an online portal where data of certain well-being indicators are aggregated and displayed; however, it did not include mapped visualizations.

During the consultation, ROI shared with us about the obstacles they encountered selecting indicators with maximum relevance, collecting data, as well as technical details facilitating the set-up of the dashboard, including web hosting, programming, and data visualizations. Sample datasheets and ongoing support was provided by ROI.

Indicator assessment & selection

We selected a subset of ROI's deployed CSA-compliant indicators that were supported by readily available data sources. A total of 54 indicators were selected for inclusion in our prototype dashboard, and 41 of them were obtained from the 2021 Statistics Canada Census Profile. Other data sources included ClimateData.ca (6 indicators), national and provincial Open Data Portals (6 indicators), IDP (1 indicators), and proprietary databases (1 indicators). Some of the data sources were used in an aggregated manner.

Phase 1 indicator category list

Table 1 Summary of indicator status and data sources in Phase 1

Category	Number of indicators	Data sources
Demographics	7	2021 census profile
Economics	15	2021 census profile; open data portal
Housing	11	2021 census profile
Health	5	2021 census profile; open data portal
Society	6	2021 census profile
Environment	10	ClimateData.ca; 2021 census profile; open data portal
Total	54	

For a comprehensive list of phase 1 indicators, including their definitions, see Appendix 1.

Dashboard development & design

Our dashboard is hosted at ruralwell-being.ca and will launch in January 2026. Access to view the site in its current state is available to funders upon request.

Appendix 1

List of indicators, definitions, and data sources

No.	Category	Theme	Indicators	Definitions	Source
1	Demographics	Age characteristics	Age distribution	The proportion of people in age groups, by gender in 2021.	StatCan, Census Profile 2021, characteristic members 8-33
2			Median age	The median age of the population in 2021. Half of the values are below this age and half are above.	StatCan, Census Profile 2021, Characteristic Member 40 ("Median age of the population")
3		Population	2021 Population	The number of people in 2021.	StatCan, Census Profile 2021, Characteristic Members 1, 2, and 3 ("Population, 2021", "Population, 2016", and "Population percentage change, 2016 to 2021")
4			Population Change 2016-2021	The percentage change in population between 2016-2021.	StatCan, Census Profile 2021, Characteristic Members 1, 2, and 3 ("Population, 2021", "Population, 2016", and "Population percentage change, 2016 to 2021")
5			Population density	The number of people per square kilometre in 2021.	StatCan, Census Profile 2021, Characteristic Member 6, "Population density per square kilometre"
6			Population change - young adults	The percentage change in the population of young adults between 2016-2021. Young adults are people aged 25-44.	StatCan, Census 2016 and 2021, characteristic members 16, 17, 18, and 19
7			Population dependency ratio	A ratio of the number of economically dependent people (i.e., children and seniors) per 100 working age people in 2021. A higher ratio indicates there are more dependent people in the community, which could signal workforce issues or the need for increased	StatCan, Census Profile 2021, characteristic members 9, 13, and 24

				social supports for people who are not working.	
8	Economics	Employment	Did not work	The proportion of people who did not work for pay or self-employment in 2020.	StatCan, Census Profile 2021, characteristic member 2232 ("Did not work")
9			Casual employees	Casual employee, seasonal employee, or persons employed for a contract of less than one year from their start date.	StatCan, Census Profile 2021, characteristic member 2244 ("Casual, seasonal or short-term position (less than 1 year)")
10			Worked from home	The proportion of the employed labour force who worked from home in 2021.	StatCan, Census Profile 2021, characteristic member 2594 ("Worked at home")
11			Jobs by industry/% change by industry 2023-2024	The total number of employed persons within each industry sector (e.g., healthcare, construction, manufacturing) and the percentage increase or decrease in employment within each sector between the years 2023 and 2024.	StatCan, Census Profile 2021, characteristic members 2249-2258
12			Working age population	The number of people aged 15-64 in 2021.	StatCan, Census Profile 2021, characteristic member 13
13			Local employment	The proportion of people who commuted to work within their census subdivision of residence.	StatCan, Census Profile 2021, characteristic member 2599
14			Labour force participation	Labour force participation is the percentage of the working-age population (typically ages 15–64) that is either employed or actively seeking work.	StatCan, Census Profile 2021, characteristic member 2228
15			Unemployment rate	Unemployment refers to the share of the labour force that is not employed but is actively seeking and available for work.	StatCan, Census Profile 2021, chcracteristic members 2230

16			Employment rate	Employment rate is the proportion of the working-age population that is currently employed.	StatCan, Census Profile 2021, chcracteristic members 2229
17		Income	Median household income	Median household income in 2020, after taxes. Half of the reported incomes are above the median income and half are below.	Island Portal, "Median Income"
18			Household income distribution	The distribution of after tax, median household income by income categories.	StatCan, Census Profile 2021, chatacteristic members 281-300
19			Median individual Income	Median individual income in 2020, after taxes. Half of the reported incomes are above the median income and half are below.	StatCan, Census Profile 2021, characteristic member 115
20			Low-income measure (individual)	The proportion of people in low income. Based on the Statistics Canada low income measure, after tax (LIM-AT). In the 2021 Census, a person is considered to be in low income when their unadjusted after-tax income falls below the threshold for their household size in 2020.	StatCan, Census Profile 2021, characteristic member 340
21		Internet	Households with 50/10 broadband service	The proportion of households with broadband internet speeds of 50/10 megabits per second as of November 2023.	Open Data Portal, National Broadband Data, https://open.canada.ca/data/en/dataset/00a331db-121b-445d-b119-35dbbe3eedd9
22			Households without internet	The proportion of households without internet service as of November 2023.	Open Data Portal, National Broadband Data, https://open.canada.ca/data/en/dataset/00a331db-121b-445d-b119-35dbbe3eedd9
23	Housing	Core housing need	Inadequate housing	Inadequate housing refers to dwellings that are in poor physical condition, lacking basic facilities such as plumbing, heating, or structural integrity.	StatCan, Census Profile 2021, characteristic members 4 and 1451

24			Unaffordable housing	Unaffordable housing describes housing that costs more than 30% of a household's gross income, making it financially burdensome.	StatCan, Census Profile 2021, characterisric members 50 and 1467
25			Unsuitable housing	Unsuitable housing means a dwelling that does not have enough bedrooms for the size and composition of the household, based on the National Occupancy Standard.	StatCan, Census Profile 2021, characteristic member 1439
26			Core housing need	The proportion of households that fall below at least one of the indicator thresholds for housing adequacy, affordability or suitability, and would have to spend 30% or more of its total before-tax income to pay the median rent of alternative local housing that is acceptable.	StatCan, Census Profile 2021, characteristic member 1480
27		Dwellings	Shelter costs	The median shelter costs for dwellings that are owned or rented by a household member. Shelter costs are the monthly total of all shelter expenses, including mortgage payments, property taxes, condominium fees, rent, and utilities.	StatCan, Census Profile 2021, characteristic members 1486, 1494, and 1498
28			Usual residents	The proportion of dwellings occupied by usual residents in 2021. A high proportion of usual residents indicates that most people live in the community on a permanent basis. A low proportion would signal more seasonal or temporary residents.	StatCan, Census Profile 2021, characteristic members 4 and 5
29			Dwelling size	Dwelling size refers to the number of rooms or bedrooms in a housing unit, used to assess space adequacy for its occupants.	StatCan, Census Profile 2021, characteristic member 50

30			Dwelling type	A set of living quarters with a private entrance either from outside the building or from a common hall, lobby, vestibule or stairway inside the building. The entrance to the dwelling must be one that can be used without passing through the living quarters of some other person or group of persons.	StatCan, Census Profile 2021, characteristic members 41-49
31		Households	Household type	Household type classifies households based on their composition, such as one-person households, couple families, or lone-parent families.	StatCan, Census Profile 2021, characteristic member 1482
32			Household size	The number of people per private household in 2021. Calculated by dividing the 2021 population by the number of households.	StatCan, Census Profile 2021, characteristic members 1, 57, and 100
33			One-parent households	One-parent households are households where a single parent lives with one or more dependent children, without the presence of a spouse or partner.	StatCan, Census Profile 2021, characteristic member 86
34	Health	Access to health services	Number and types of health facilities	The number and type of health service provider locations in 2023.	NS Data Portal, https://data.novascotia.ca/Health-and-Wellness/Hospitals/tmfr-3h8a/about_data?referrer=embed
35		Long term care	Proportion of residents aged 85+	The number of people aged 85 or older in 2021.	StatCan, Census Profile 2021, characteristic member 29
36			Number of long term care homes	Facilities that are designed for people who require the availability of 24-hour nursing care and supervision within a secure setting. These homes are owned and operated by various organizations, including private corporations, municipal councils, and non-profit corporations.	NS Open Data Portal, Long-term Care and Residential Care Facilities, https://data.novascotia.ca/Health-and-Wellness/Long-term-Care-and-Residential-Care-Facilities/x76a-axw2/about_data

37			Number of spaces	The capacity of long term care facilities.	
38			Long term care ratio	The number of long term care spaces for every 100 people aged 85 and over.	https://data.novascotia.ca/Health-and-Wellness/Long-term-Care-and-Residential-Care-Facilities/x76a-axw2/about_data; StatCan Census Profile 2021
39	Society	Education	High school diploma	The proportion of people aged 25-64 with a high school diploma in 2021.	StatCan, Census Profile 2021, characteristic member 2000
40		Population Diversity	Knowledge of languages	The proportion of the population who can conduct a conversation in a language other than English or French.	StatCan, Census Profile 2021, characteristic member 1082
41			Indigenous identity	The proportion of people who identified with the Indigenous peoples of Canada in the 2021 Census. This includes those who identify as First Nations (North American Indian), Métis and/or Inuk (Inuit).	StatCan, Census Profile 2021, characteristic member 1403
42			Immigration	The proportion of people who have been granted the right to permanently live in Canada on or prior to May 11, 2021. Includes immigrants who have obtained Canadian citizenship by naturalization.	StatCan, Census Profile 2021, characteristic member 1527
43			Racialized groups	The proportion of people who identified as South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean, or Japanese in the 2021 Census.	StatCan, Census Profile 2021, characteristic member 1684
44			Religion & spirituality	The proportion of people who reported having a connection or affiliation with a religion or system of belief in the 2021 Census.	StatCan, Census Profile 2021, characteristic member 1949

45	Environment	Climate change	Hottest day	The hottest day describes the warmest daytime temperature in a year. This indicator notes the difference in the temperature of the hottest day between the simulated historical average (1971-2000) and the future (2041-2070) based on SSP2-4.5, a moderate emissions scenario. A positive number means that the hottest day of the year is getting hotter.	https://climatedata.ca/variable//tx_max
46			Coldest day	The coldest day describes the lowest nighttime temperature in a year. This indicator notes the difference in the temperature of the coldest day between the simulated historical average (1971-2000) and the future (2041-2070) based on SSP2-4.5, a moderate emissions scenario. A positive number means that the coldest day of the year is getting warmer.	https://climatedata.ca/variable/tn_min/
47			Length of winter season	The winter season length, also known as frost days, is the number of days where the coldest temperature of the day is lower than 0°C. This indicator notes the difference in the winter season length between the simulated historical average (1971-2000) and the future (2041-2070) based on SSP2-4.5, a moderate emissions scenario. A negative number means that the winter season is getting shorter.	https://climatedata.ca/variable/frost_days/

48			Days with Humidex >35	Humidex days are the number of days where the Humidex rating is greater than 35. This indicator notes the difference in the number of humidex days between the simulated historical average (1971-2000) and the future (2041-2070) based on SSP2-4.5, a moderate emissions scenario. A positive number means that more days with humidex above 35 are occurring.	https://climatedata.ca/variable/hxmax35/
49			Length of growing season	The approximate growing season length, also known as the frost-free season, is the number of days between the last spring frost and the first fall frost, equivalent to the number of consecutive days without any daily minimum temperatures below 0°C. This indicator notes the difference in the approximate growing season length between simulated historical average (1971-2000) and the future (2041-2070) based on SSP2-4.5, a moderate emissions scenario.	https://climatedata.ca/variable/frost_free_season/
50			Total precipitation	Total precipitation is the total amount of precipitation (rain and snow combined) that falls in a year. This indicator notes the difference in the total precipitation amount between the simulated historical average (1971-2000) and the future (2041-2070) based on SSP2-4.5, a moderate emissions scenario. A positive number means that there is more precipitation.	https://climatedata.ca/variable/prcptot/
51		Transportation	Main mode of commuting	The main mode of transportation a person used to travel to their place of work in 2021.	StatCan, Census Profile 2021, characteristic member 2603-2610

52			Long commute	Proportion of people with a commute of 45 minutes or longer in 2021.	StatCan, Census Profile 2021, characteristic member 2615-2616
53			Local commute	Proportion of people who commuted to work within their census subdivision of residence in 2021.	StatCan, Census Profile 2021, characteristic member 2599
54		Water safety	Boil water advisories	Drinking water advisories are public health protection messages about real or potential health risks related to drinking water. This indicators tracks the total number of times such advisories are issued.	Open data portal, https://data.novascotia.ca/Environment-and-Energy/Boil-Water-Advisories/7t68-9xmm/about_data

Appendix 2

Abbreviations and acronyms used in this report

CBU	Cape Breton University
CBWP	Cape Breton Community Well-being Project
CIW	Canadian Index of Well-being
CSA	Canadian Standards Association
CWD	Community Well-being Dashboard
IDP	Island Data Portal
NDE	New Dawn Enterprises
RCWB	Rural Canada Well-being Project
ROI	Rural Ontario Institute
StatCan	Statistics Canada