**📊 Project Title:**

**“Unequal Realities: A Quality-of-Life Dashboard for Evidence-Based Decisions in Canada”**

**📘 Narrative Overview**

This dashboard presents a human-centered exploration of Canada's Quality of Life, grounded in the federal framework and visualized through five key dimensions: Prosperity, Health, Society, Environment, and Good Governance.

Our goal is to support evidence-based decision-making by highlighting how economic hardship, mental health, social connection, perceptions of local environments, and exposure to crime and public safety concerns intersect — shaping the everyday experiences and outcomes of Canadians in the post-COVID era.

**🧩 Dimension-Wise Storyline**

**🟦 Prosperity → Poverty Rate**

We begin with the most critical economic foundation — poverty. This indicator reflects Canadians' ability to afford essential needs such as food, housing, and utilities. Economic insecurity not only affects material well-being but also limits access to health, education, and social opportunities, forming the root of many quality-of-life disparities.

**🟩 Health → Self-rated Mental Health**

Mental health captures how Canadians perceive their emotional and psychological well-being — a reflection of both personal experiences and broader social conditions. Financial stress, isolation, and uncertainty during the pandemic have made this indicator especially relevant in understanding post-COVID resilience and recovery.

**🟨 Society → Sense of Belonging to Community**

Feeling connected to one’s community is essential for mental and emotional health. This indicator explores whether Canadians feel a strong sense of belonging — a critical component of social cohesion. When belonging is absent, individuals are more likely to experience isolation and reduced trust in others and institutions.

**🟧 Environment → Satisfaction with Local Environment**

The environment we live in directly shapes our quality of life. This indicator measures how satisfied Canadians are with their local surroundings — including neighborhood livability, access to green space, walkability, and general aesthetics. It highlights how place-based perceptions reflect broader equity and livability issues.

**🟥 Good Governance → Crime Severity Index**

Public safety is a vital component of effective governance and trust in institutions. The Crime Severity Index provides an objective measure of both the volume and seriousness of police-reported crime. Higher crime severity can reduce neighborhood satisfaction, heighten stress, and undermine overall well-being — especially in already vulnerable communities.

**🎯 Conclusion**

Rather than viewing each domain in isolation, this dashboard uncovers the interconnected nature of challenges faced by Canadians — from poverty and mental health to safety and social inclusion. It is designed as a tool for policymakers, researchers, and citizens to better understand disparities, monitor recovery, and advocate for a Canada where quality of life is truly inclusive and equitable.

# Project timeline

|  |  |  |  |
| --- | --- | --- | --- |
| Topic | Date | Start | End |
| Dimension topic selection | 29/03/2025 | 10:00 PM | 10:40 PM |
| Dimension dataset selection | 29/03/2025 | 10:45 PM | 12:00 AM |
| Data Modeling | 31/03/2025 | 09:30 PM | 12:00 AM |
| DAX and Measures | 1/01/2025 | 05:45 PM |  |

# Quality of Life

## Prosperity:

### Economic security and deprivation: Poverty

📌 **11-10-0135-01 – Low income statistics by age, sex and economic family type**

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110013501>

## Health:

### Healthy people: Self-rated mental health

📌 **13-10-0096-03 – Perceived mental health, by age group and province**

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310009603>

## Society:

### Social cohesion and connections: Sense of belonging to local community

📌 **45-10-0052-01 – Sense of belonging to local community by gender and province**

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310009615>

## Environment:

### Environment and People: Satisfaction with local environments

📌 **45-10-0070-01 – Satisfaction with local environment, by gender and province**

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=4510007001>

## Good Governance:

### Safety and Security: Crime Severity Index

📌 [**35-10-0026-01 – Crime severity index and weighted clearance rates, Canada, provinces, territories and Census Metropolitan Areas**](https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510002601)

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510002601>

# Data Dictionary

## fact\_Environment:

* Date
* Gender\_ID
* Indicator\_ID
* Region\_ID
* Unit\_ID
* Value

## fact\_Society:

* Date
* Gender\_ID
* Indicator\_ID
* Region\_ID
* Unit\_ID
* Value

## fact\_Health:

* Age\_Group\_ID
* Date
* Gender\_ID
* Indicator\_ID
* Region\_ID
* Unit\_ID
* Value

## fact\_Prosperity:

* Age\_Group\_ID
* Date
* Gender\_ID
* Indicator\_ID
* Region\_ID
* Unit\_ID
* Value

## fact\_Good\_Governance:

* Date
* Indicator\_ID
* Region\_ID
* Unit\_ID
* Value

## dim\_Unit:

* Unit
* Unit\_ID

## dim\_Region:

* Region
* Region\_ID

## dim\_Gender

* Gender
* Gender\_ID

## dim\_Calendar\_Table:

* Date
* Day
* Month
* Month\_Num
* Quarter\_Num
* Week
* Week\_Day
* Week\_Num
* Year

## dim\_Indicator:

* Indicator

## indicator\_Environment:

* Indicator

## indicator\_Good\_Governance:

* Indicator

## indicator\_Health:

* Indicator

## indicator\_Prosperity:

* Indicator

## indicator\_Society:

* Indicator

## dim\_Age\_Group:

* Age group
* Age\_Group\_ID

## dim\_group\_Prosperity:

* Age group

## dim\_ group\_Health:

* Age group

## dim\_Scalar\_Multiplier:

* Multiplier
* Scalar\_ID

# Measures

**✅ 1. % Change in Index (KPI)**

% Change in Index (KPI) =

VAR Value2022 =

    CALCULATE(

        SUM(fact\_Governance[Value]),

        fact\_Governance[Date] = 2022

    )

VAR Value2021 =

    CALCULATE(

        SUM(fact\_Governance[Value]),

        fact\_Governance[Date] = 2021

    )

RETURN

    IF(

        NOT(ISBLANK(Value2021)) && NOT(ISBLANK(Value2022)),

        DIVIDE(Value2022 - Value2021, Value2021) \* 100,

        BLANK()

    )

This measure calculates the **percentage change** in the crime severity index between **2021 and 2022**.

**🔍 How it works:**

* It first stores the total value for **2022** and **2021** using VAR.
* Then it checks if both values are **not blank** (data is available).
* If data exists, it calculates the percentage change using this formula:

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AI-generated content may be incorrect.

**🧠 Why it’s useful:**

This measure is used in the **Governance dashboard** KPI card to **quickly show the change** in crime severity year-over-year. It helps decision-makers see if crime rates are increasing or decreasing.

**🧾 2. Index Value 2022**

Index Value 2022 =

CALCULATE(

    SUM(fact\_Governance[Value]),

    fact\_Governance[Date] = 2022

)

This measure simply **sums the crime severity values** for the year **2022**.

**🔍 How it works:**

It filters the data where the Date is 2022 and adds up the Value column from the fact\_Governance table.

**🧠 Why it’s useful:**

This is shown on the **Governance dashboard** to highlight the **total crime index** for 2022.

**🧾 3. Index Value 2021**

Index Value 2021 =

CALCULATE(

    SUM(fact\_Governance[Value]),

    fact\_Governance[Date] = 2021

)

Similar to the previous one, this measure sums up the **crime severity values** for the year **2021**.

**🧠 Why it’s useful:**

This lets us **compare 2021 and 2022** directly and is also used inside the % Change in Index measure.

**🔹 1. Summary Page – Unequal Realities**

**Key Insights:**

* **Poverty** is highest in **Ontario** (approx. 2.1M), followed by **Quebec** and **Prairies**.
* **Health values** also peak in **Ontario**, indicating a potential population-driven demand for health services.
* **Crime Index** data for Alberta shows slight fluctuations, and the **Youth Crime Severity Index** is notable.
* People reported **highest satisfaction** in life, access to health providers, and sense of belonging.
* In terms of **environment**, “satisfaction with local environment” shows wide variation among regions.

**🔹 2. Health – "Mind Over Matter"**

**Key Insights:**

* **Elderly population (65+)** represents the **highest count** of health-related indicators (both male and female).
* **Ontario** leads with the **highest average health indicator values** (~2.07M), likely due to population.
* **Top health indicators** include:
  + Regular healthcare access
  + Mental and physical health perception
  + Life satisfaction
  + Influenza vaccination
  + BMI and arthritis data
* **Women** generally report **higher values** in health-related categories.

**🔹 3. Prosperity – "Economic Roots: Canada’s Poverty Rate"**

**Key Insights:**

* **Ontario** again leads with the highest poverty numbers (~0.42M avg), followed by the **Prairies** and **BC**.
* **Gender split** shows that **males (52.13%)** slightly exceed females (47.87%) in poverty numbers.
* The highest poverty numbers are concentrated in urban and populous provinces.

**🔹 4. Governance – "Security in Numbers: Crime Severity Index"**

**Key Insights:**

* British Columbia shows an increase in the **Crime Severity Index**:
  + From **96.44 (2021)** to **100.37 (2022)** → a **4% rise**.
* You have included a KPI visual clearly showing this % change.
* Filter options for **different types of crime indicators** (violent, non-violent, clearance rates) allow for detailed governance analysis.

**🔹 5. Society – "We’re in This Together: Sense of Belonging"**

**Key Insights:**

* **Strong sense of belonging** reported by **18 to 34 year-olds** most frequently (~0.30M).
* **Top 5 Indicators** for society satisfaction include:
  + Life satisfaction
  + Having a healthcare provider
  + Sense of belonging
  + Good health & mental health
* Gender distribution: **Females (49.22%)**, **Males (50.78%)** — relatively balanced.
* Maps show **regional distribution**, highlighting provinces where belonging is stronger.

**🔹 6. Environment – "We’re in This Together: Sense of Belonging" (Environment)**

*(Note: same title, different content, inferred from chart type and indicators)*

**Key Insights:**

* Gender distribution again nearly balanced: **Women: 49.21%**, **Men: 50.79%**.
* Environmental satisfaction is highest in the most populous and urbanized regions.