

02

ASSESSING NEIGHBOURHOOD RESILIENCE



Now that you have formed your team, the next step is to collect data on your neighbourhood's resilience strengths, opportunities and challenges. This process itself will generate foundations of resilience—creating dialogue, unlocking cooperative potential and improving awareness of needs and opportunities.

The Neighbourhood Resilience Assessment contains tools to gather perceptions from community members about strengths and weaknesses and shocks and stresses of your neighbourhood. It is an opportunity to discuss what matters most with your community. The perceptions you glean from this assessment will be the foundation of your Neighbourhood Resilience Action Plan (Module 4 in the toolkit). At the end of this activity you will have a Neighbourhood Resilience Report Card with core strengths, weaknesses, shocks, and stresses that you can address through planning and action.

There are two main components to this process:

COMPONENT 1: SHOCKS AND STRESSES ASSESSMENT

Determining which shocks (sudden events) and stresses (chronic, ongoing challenges) are of greatest concern in your neighbourhood.

Neighbourhoods will likely have different concerns around shocks and stresses, depending on how *likely* they are to happen, and the potential *impact* if they do. There's no way to accurately predict all future shocks, but this assessment helps community members learn more about what they do know, and what challenges they could or currently face.

Remember, while shocks are often described as disasters, stresses can be slow-moving disasters that erode communities over time, such as opioid crises or lack of affordability.

COMPONENT 2: NEIGHBOURHOOD RESILIENCE BASELINE ASSESSMENT

Determining your neighbourhood's current state of resilience, or *baseline*.

TOOLS AND TEMPLATES FOR MODULE 2

1. Neighbourhood Shocks and Stresses Assessment
2. Neighbourhood Resilience Baseline Assessment (Individual)
3. Neighbourhood Resilience Baseline Assessment (Collective)
4. Neighbourhood Resilience Report Card

This tool is designed to understand community perceptions of the conditions foster resilience in the neighbourhood.

Some of the most important foundations of community resilience are:

1. **Community teamwork** – people pursuing common goals, sharing, communicating, cooperating and learning;
2. **Community structures, networks and organizations** – groups of individuals that weave the social fabric of the neighbourhood, and;
3. **Personal resilience of community members** – individual values, perseverance and access to resources.

BASELINES AND QUALITATIVE INDICATORS

A baseline provides a reference point for the condition of something at a moment in time. This assessment focuses on establishing a baseline of resilience within your community, which allows you to track changes over time and determine their size and direction (whether they are improving or degrading).

Information is gathered through survey questions answered by community members. However, a community may decide to include quantitative (e.g., # of hospitals) questions—which can largely be done through *Mapping Neighbourhood Resilience* (Module 3) of this toolkit.

ASSESSMENT PROCESS

STEP 1: CHOOSE YOUR SCOPE

Decide the specific population or geographical area you hope to assess and determine who or what is within the scope of your assessment.

Some questions to help this include:

- What is your organization's mission and who do you serve day-to-day?
- Does your organization serve a specific population or demographic (like women or seniors)? Or does your organization serve an area within the neighbourhood?
- Will you also survey staff and volunteers of your organization, or just service users?
- If your organization serves a geographic area, will you survey people throughout the neighbourhood? Or will you choose a smaller area around your facility like a 10 block radius?

Make sure you consider how to ensure different groups within the community have the opportunity to participate. For example, some people may not use email, or a segment of the population may not speak English. Understanding the demographics of your community will help you design an appropriate assessment process.

STEP 2: DECIDE HOW YOU WILL CONDUCT THE ASSESSMENT AND DETERMINE QUESTIONS

Next, consider how best to gather information from community members. Think of how you will reach the most people and consider how representative of the community those people are. It may be useful to use more than one method. Of course, it is impossible to survey every single person, but an attempt should be made to ensure that the range of community perspectives and experiences will be represented by the responses.

You may also wish to ensure specific people participate because they have particular knowledge or expertise about an issue. These people may be community leaders, neighbourhood members, professionals or representatives of other community organizations.

Some options for collecting responses may include:

- In-person interview or interviews
- Online survey
- Paper survey
- Door-to-door survey
- Workshop
- Informal conversations at events

When deciding which method of evaluation to use, consider the time and resources it will take to gather, enter and analyze responses. Consider whether you will need to print materials, book meeting rooms, or offer translation or child care services.

Your assessment should contain two parts (see Appendix for editable templates):

1. The **Shocks and Stresses Assessment**: These questions gather important community perspectives to help you create high-level goals and objectives in your action plan, and will support your Disaster Support Hub planning in step 5 of this toolkit.
2. The **Neighbourhood Resilience Baseline Assessment**. There are two sets of questions to choose from when designing the assessment. One asks respondents about their frequency of participation in events, the other asks participants to evaluate their neighbourhood to the best of their knowledge. Decide which type of survey you would like to conduct and shorten the assessment to a short-list of questions (known as indicators) which are most important for capturing attributes of resilience for your neighbourhood.

Each of the Assessment Tools ends with a long-form response question to learn more about what people in your neighbourhood value most.

Below are key considerations when drafting the list of survey questions:

- Select a few (2-3) questions from each of the *Resilience Dimensions* (see below). Choose questions that are most important to your organization and neighbourhood. Revise or add to these questions, as needed.
- Keep it relatively short and simple—the less time it takes to complete, the more likely people are to complete it. We suggest using around 21 questions total.
- Test the survey questions with colleagues or friends to ensure questions are easily understood and to determine how long it takes to complete the survey.
- Change the ranking system if you need to—some organizations may choose to use a scale of 1-4. **Tip:** Avoid odd-numbered scales as respondents are likely to choose the middle response instead of thinking more critically about their answer.

NEIGHBOURHOOD RESILIENCE DIMENSIONS



STEP 3: CONDUCT THE SURVEY

WHAT TO INCLUDE

Prepare a short, simple introductory statement that you will use to invite people to participate in the survey. The introduction should include information about your organization and the purpose of the survey.

EXAMPLE INTRODUCTION:

WELCOME TO THE [ORGANIZATION NAME] NEIGHBOURHOOD RESILIENCE SURVEY!

Thank you for taking part in this important survey to measure resilience in [neighbourhood name]. This survey will help us understand some of our opportunities as a community to make our neighbourhood more resilient, and address some of the challenges we face.

The survey should take approximately [length of time] to complete. There are no right or wrong answers: if you don't know answers to some of the questions, respond to the best of your knowledge.

Explain how the results of the survey will be used and provide details about whether or not responses will be kept anonymous. Identifying or personal information is not necessary to collect, but you may choose to have a section for people to provide you with their contact information should they wish to come to future workshops or get involved in building neighbourhood resilience. If so, this information should be kept private.

SENDING THE SURVEY

Ensure you send the survey to people from different backgrounds and perspectives. Consider whether you need to translate the survey, help people to fill it out etc. Consider whether youth, elders, people with disabilities, Indigenous Peoples and People of Colour, newcomers and people with low-incomes are well represented in who you send it to—and how accessible the survey is. Some digital platforms you may wish to use include Survey Monkey or Google Surveys.

Include a deadline by which you expect responses to ensure people complete the survey in time.

Other organizations may be willing to send your survey out so that you can reach a more diverse group of people within your community.

Once the survey is sent, send follow-up requests for responses at least once, and in accordance with a deadline you establish.

STEP 4: ANALYZE AND SUMMARIZE RESULTS

It may be helpful to use guiding questions to help review results. They should be used in conjunction with a more in-depth analysis (described below). These guiding questions below may also be useful in Step 5, Generating your Neighbourhood Resilience Report Card. You may also choose to review survey results from [My Health, My Community](#), which provides an overview of health and wellbeing indicators at the community level.

GUIDING QUESTIONS

1. Do any of these results surprise you? Which ones and why?
2. Do the results reaffirm what you intuitively knew to be true? Which ones and how?
3. Could any of the questions be interpreted differently by different people? If yes, how does that difference in interpretation affect the assessment outcomes?

ANALYSIS

Shocks and Stresses Assessment: Gather responses from all of the Shocks and Stresses Assessment sheets. Respondents may have already indicated the top 3 shocks and top 3 stresses they are concerned about. If not, calculate the top 3 shocks and top 3 stresses by assigning a numerical value (from 0 to 3) next to each response (see table below). Total the points for each section, and select the 3 highest scoring shocks and stresses for each survey. Combine the top ranking shocks and stresses for all surveys and determine the most common 5 shocks and stresses.

How likely do you think it is that each of the following shocks will occur?		How serious would the potential impacts of each of the following shocks be for your community?		How concerned are you about each of the following shocks affecting your community?	
Not at all likely	0 points	Low Impacts	0 points	Not at all concerned	0 points
Not very likely	1 point	Moderate Impacts	1 point	Not very concerned	1 point
Somewhat likely	2 points	Considerable Impacts	2 points	Somewhat concerned	2 points
Very likely	3 points	Extreme Impacts	3 points	Very concerned	3 points

Neighbourhood Resilience Baseline Assessment: A simple analysis of survey responses includes calculating the percentage of respondents who have indicated a particular ranking. This helps you to see how popular a particular answer was, and how many in your community agree. You can do this by assigning points to each response. For example, using the ranking scale mentioned above where 1=strongly disagree and 4=strongly agree, you can count the number of respondents who agree (those who indicate they agree or strongly agree) with a particular indicator. If a majority of respondents circle agree or strongly agree, this is an area of strength in the community. If a majority select disagree or strongly disagree, this is an area for improvement. A community profile can be developed based on these results.

Gather together responses from all of the Baseline Assessment sheets. Calculate the average for each Resilience Dimension. Determine which Resilience Dimension had the most negative ratings (strongly disagree), and which had the most positive ones (strongly agree). Use a scale from 1-4 for “strongly disagree to “strongly agree”, and 0 for “don’t know” (see table below). Add up the numbers for each response. Total the points for each “Resilience Dimension” area. This will help paint a picture of the conditions of resilience in your neighbourhood.

Example

Dimension	Indicator	Response				
e.g. Health and Basic Needs	e.g. My neighbourhood supports programs for children and families	strongly disagree 1	disagree 2	agree 3	strongly agree 4	don't know 0

STEP 5. GENERATE YOUR NEIGHBOURHOOD RESILIENCE REPORT CARD

Use the *Neighbourhood Resilience Report Card* (see Appendix) to capture a summary of the results. This tool can be used to report back to participants on results of the survey, and is an important foundation for your Neighbourhood Resilience Action Plan.

STEP 6: REVISE OR REFINE YOUR NEIGHBOURHOOD RESILIENCE REPORT CARD

Develop a description of the current condition of neighbourhood resilience. The aim is to distill from the summary results with the key resilience characteristics of your neighbourhood across all dimensions of resilience, and identify your top shocks and stresses. This illustrative summary of your neighbourhood constitutes the baseline.

SHOCKS AND STRESSES QUICK FACTS

As you embark on discussions about shocks and stresses in your neighbourhood, it may be helpful to use some of the facts below to highlight the many intersecting risks we face. Our knowledge of our shocks and stresses is constantly changing, but at the time of the development of this toolkit, these facts are accurate.

You could use these facts informally when discussing each element of the process, or in your own materials and worksheets.

EARTHQUAKES	<p>There is a 100% chance Vancouver and the Lower Mainland will be hit by a damaging earthquake; we just don't know when. The last earthquake in our area to register magnitude 9.0 or larger happened in 1700 and was experienced by local First Nations who have oral histories of this event.</p> <p>Less than half of Vancouverites report being prepared for an earthquake.</p> <p>The concentration of earthquakes in this region is due to the presence of active faults, or breaks, on the earth's crust that make up the Pacific Ring of Fire—where approximately 90% of the world's earthquakes occur. The plates that make up the earth's crust are moving constantly at a speed of 2 to 10cm per year—about how fast our fingernails grow.</p> <p>An earthquake occurs when plates slide against each other. The west coast of BC has unique risk because it is one of the few areas in the world where all three types of plate movements occur. Plates either slide past one another, collide towards each other or diverge, each creating different types of earthquakes, which affect buildings differently.</p> <p>Hundreds of thousands of people in the region would be displaced by a major earthquake, with up to \$100 billion in damages.</p> <p>Learn more here: vancouver.ca/home-property-development/earthquake.aspx</p>
SEA LEVEL RISE AND COASTAL FLOODING	<p>Conservative models predict a minimum sea level rise of 1m by 2100 that will impact 13 km² of land in Vancouver—\$7 billion of land, buildings and infrastructure.</p> <p>Sea level rises will also increase the frequency and severity of coastal flooding and storm surges, threatening shoreline habitats, parks and low-lying urban areas and infrastructure.</p> <p>Approximately \$1 billion of flood management infrastructure will be needed to deal with the sea level rise by the year 2100.</p> <p>In 2019, City Council declared a climate emergency and sought appropriate actions to ensure the City of Vancouver is doing our part to mitigate this damage.</p> <p>Learn more here: vancouver.ca/green-vancouver/sea-level-rise.aspx</p>

<p>EXTREME WEATHER AND TEMPERATURES</p>	<p>Climate change is causing hotter, drier summers. By 2050:</p> <ul style="list-style-type: none"> • Warm days will be 4°C hotter and heat waves more frequent. • We will experience double the number of days above 25°C compared to 2019. • There will be 20% less rain, resulting in increasing duration and frequency of droughts that will impact wildlife, vegetation and trees. <p>Climate change is also causing warmer, wetter winters in Vancouver, which includes:</p> <ul style="list-style-type: none"> • Intensity of heavy rainfall increases by 35% • 21% increase in rainfall on wettest days • 58% decrease in snowpack on the north shore • 72% decrease in frost days • Extreme heat and cold are already impacting Vancouverites. <p>Learn more here: vancouver.ca/green-vancouver/climate-change-adaptation-strategy.aspx</p>
<p>FOREST FIRES AND AIR QUALITY</p>	<p>2017 and 2018 were the worst fire seasons recorded in BC.</p> <p>In 2017 alone, 1.2 million hectares of land burned, over \$568 million was spent on fire suppression, and over 65,000 British Columbians were displaced, with many evacuees coming to Vancouver for support and shelter.</p> <p>The number of climate refugees will increase and air quality will worsen for Vancouverites as a result of regional fires, and risk of more localized forest fires will increase.</p> <p>Learn more here: www2.gov.bc.ca/gov/content/safety/wildfire-status</p>
<p>REGIONAL FLOODING</p>	<p>The Lower Mainland is at significant risk of flooding from the Fraser River and coastal storm surge events that threaten significant regional infrastructure and supply chains.</p> <p>Worst case flooding today is estimated to cost \$19 billion for coastal flooding and \$22 billion for riverine flooding. Without active risk reduction measures, this is projected to increase to \$24 and 32 billion respectively by 2100.</p> <p>Parts of the Fraser River have flooded before, in 1894 and 1948, the first of which was the largest Fraser River flood on record. It was caused by rapid snowmelt and flooded between Harrison and Richmond. The 1948 flood was the second largest but caused more damage because of the increase in settlement along the flood plain. This flood triggered the evacuation of 16,000 people, damaged or destroyed 2,000 homes, and cost \$210 million in damages.</p> <p>Learn more here: fraserbasin.bc.ca</p>

<p>OPIOID POISONING CRISIS</p>	<p>The ongoing opioid emergency is one example of a public health emergency. A poisoned opioid supply has resulted in thousands of lives lost and millions of dollars re-directed towards response. Exacerbated by stigma, a shock occurs every time a new poisoned supply is released in Vancouver. Approximately 1,489 people died of drug overdose in B.C. in 2018.</p> <p>Learn more here: vancouver.ca/people-programs/drugs.aspx</p>
<p>OIL SPILLS</p>	<p>Marine and pipeline oil spills increase in likelihood with increased shipping.</p> <p>A worst-case marine oil spill may cost over \$1 billion to the local economy and in clean up, and may expose a significant number of people to toxic fumes.</p> <p>A 2014 study indicates Vancouver’s US\$31 billion brand value could be impaired by US\$3 billion from a major oil spill.</p> <p>Learn more here: vancouver.ca/home-property-development/oil-spill-response.aspx</p>
<p>HAZARDOUS MATERIALS</p>	<p>Hazardous materials move regularly through Vancouver via road, sea and rail. Many are concentrated around port and industrial lands. HazMat incidents contaminate soil, air and water, threatening human and ecological health. For example, in 2015 a container fire spread toxic smoke across parts of East Vancouver for 2 days before being extinguished.</p> <p>Learn more here: www2.gov.bc.ca/gov/content/environment/air-land-water/spills-environmental-emergencies</p>
<p>RESIDENTIAL FIRES</p>	<p>Vancouver Fire and Rescue Services responds to hundreds of fires annually. Each year 20-30 of these require an Emergency Social Services (ESS) response to provide basic needs support to evacuees with no alternative shelter or support networks.</p> <p>Learn more here: vancouver.ca/your-government/vancouver-fire-and-rescue-services.aspx</p>

STRESSES FACT SHEET

AFFORDABILITY	<p>Consistently identified as the least affordable city in North America, unaffordable commercial and residential properties, coupled with low average incomes, and rising costs of food and services fuel the affordability crisis. Employers are challenged to attract and retain talent, while young families are moving away from the city.</p> <p>Learn more here: vancouver.ca/people-programs/housing-vancouver-strategy.aspx</p>
FOOD INSECURITY	<p>In Vancouver 10% of households experience food insecurity, with single mothers having the highest rates of any household type at 34% food insecure (5 times higher than couples with no children).</p> <p>Food insecurity has life-long impacts on health and wellbeing of individuals and communities. Food security is also threatened by a decline in culturally-appropriate foods. For example, 56% of food service retailers in Chinatown were lost between 2009 and 2016.</p> <p>Learn more here: vancouver.ca/people-programs/vancouvers-food-strategy.aspx</p>
HOMELESSNESS	<p>The 2018 homeless count identified 2,181 homeless people in Vancouver. Indigenous people are vastly overrepresented in these numbers.</p> <p>In 2018 and 2019, modular housing has been constructed as a temporary response to this crisis.</p> <p>Learn more here: vancouver.ca/people-programs/homeless-and-low-income-resources.aspx</p>
POVERTY	<p>More than 1 in 5 children in Metro Vancouver live in poverty, including more than 40% of children in single-parent homes.</p> <p>Nearly half of residents in Vancouver do not earn a living wage, while 70% of people in the Downtown Eastside are considered low income.</p> <p>Learn more here: engage.gov.bc.ca/bcpovertyreduction</p>
SOCIAL ISOLATION	<p>According to the 2017 Vancouver Foundation Connect and Engage report, around half of respondents find it difficult to make friends, and approximately 1/4 of respondents find that they are alone more often than they would like.</p> <p>Learn more here: vancouverfoundation.ca/our-work/initiatives/connections-and-engagement</p>

TOOLS AND TEMPLATES

FOR MODULE 2



NEIGHBOURHOOD SHOCKS AND STRESSES ASSESSMENT



NEIGHBOURHOOD RESILIENCE BASELINE ASSESSMENT (INDIVIDUAL)



NEIGHBOURHOOD RESILIENCE BASELINE ASSESSMENT (COLLECTIVE)



NEIGHBOURHOOD RESILIENCE REPORT CARD

The Neighbourhood Resilience Baseline Tool is largely adapted with generous permission from the Communities Assessing Resilience Toolkit (CART) Integrated System¹. We wish to extend our deepest gratitude to Betty Pfefferbaum, Rose Pfefferbaum, and Maggie Montgomery for allowing us to adapt their work. We also wish to extend a heartfelt thank you to Kate Menzies who researched and adapted the CART as part of her practicum placement with the City of Vancouver's Resilience Office.

¹ Pfefferbaum RL, Pfefferbaum B, and Van Horn RL (2011). Communities Advancing Resilience Toolkit (CART): The CART Integrated System. Oklahoma City, OK: Terrorism and Disaster Center at the University of Oklahoma Health Sciences Center