

An aerial photograph of Niagara Falls and the surrounding area, including the suspension bridge, the falls themselves, and the surrounding forest and buildings. The image is overlaid with a dark blue diagonal shape that contains the text.

Niagara  Region

Health Impact Assessment

Guidebook **2023**

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Special thanks to:

The Health Equity Informed Planning Team who contributed to the success of this project.
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Citation:

Niagara Region Public Health & Emergency Services (2023).
 Health Impact Assessment Guidebook, November 2023. Thorold, Ontario.

Cover Photo:

Niagara Falls Tourism

INTRODUCTION

Background

Health Impact Assessments began as part of the Health Equity Informed Planning strategic project at Niagara Region that spanned from 2019-2022. This project aligned with strategic priorities within the Region's strategic plan during this term. Health Impact Assessments are integrated into planning processes and decisions to assess and address the impacts on health and health inequities in the community.

What is a Health Impact Assessment?

A **Health Impact Assessment** (HIA) is a practical approach used to judge the potential health effects of a policy, program or project on a population, particularly on vulnerable or disadvantaged groups.¹ HIAs are most commonly used to assess proposals outside of the traditional health sector, which do not target health as their principal goal.

HIAs have many advantages, including

- To identify health-related harms and benefits of proposed projects that may not have been considered otherwise
- To reduce social inequities in health stemming from a project's action by implementing recommendations
- To enhance positive health outcomes and decrease unintended negative health outcomes
- To promote cross-sectional cooperation; a collaborative approach and sustainable development
- A standardized process of high rigour, neutrality and transparency

HIAs have been utilized in projects in a wide array of sectors, including: built environment; transportation; natural resources and energy; agriculture and food; housing; and education.

HIAs evaluate potential positive and negative health impacts before the implementation of a project. They are built on the following key foundations:

1

Acting upon the social determinants of health

Aim to act before health outcomes occur to prevent illness or other health issues by influencing public policy or root causes of ill-health

2

A shared responsibility for health

Recognizes the importance of social, economic and cultural influences on population health

3

Decision-making informed by reliable information

Provides scientific evidence regarding mid and long-term consequences of decisions made

Overall, HIAs are supported by the assumption that the health of a population is closely tied to the conditions in which people live, work, learn, and play. As such, all sectors share responsibility for the health of the population.

¹ World Health Organization (2023) *Health Impact Assessment*.

Retrieved from: https://www.who.int/health-topics/health-impact-assessment#tab=tab_1

What is Health Equity & the Social Determinants of Health?

Health Equity is defined as a state where all people have the opportunity to reach their full health potential and are free from the barriers and differences that exist due to unfair social, economic, demographic or geographic conditions². Health equity approaches recognize that health is not distributed equally. As such, some people may need different or additional services than others to be healthy. Therefore, health equity is more than just equality, see Figure 1 for an illustration of these concepts.

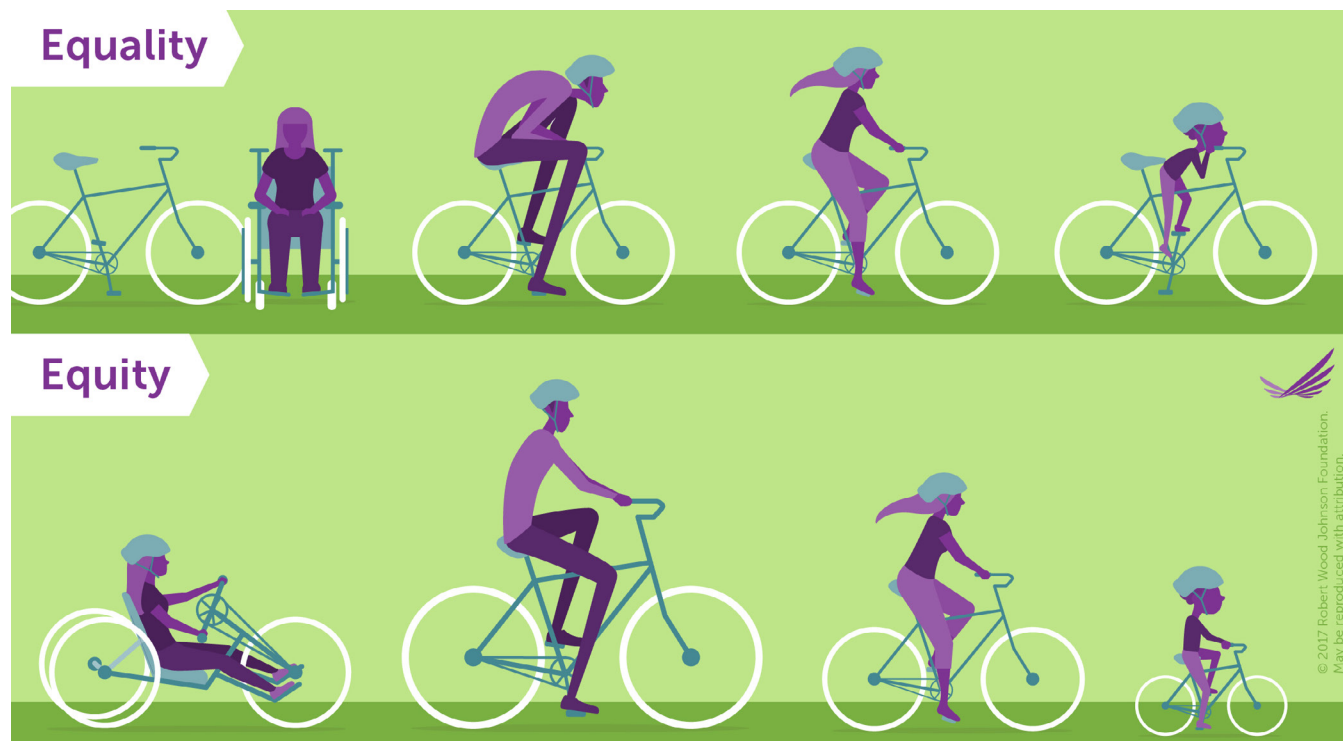


Figure 1: *Equality vs Equity*³

The Social Determinants of Health (SDOH) are non-medical factors that influence health outcomes. It is now recognized that the health of a population is dependent on the conditions in which individuals are born, grow, work, live and age.⁴ It has been demonstrated that the social determinants can have a bigger influence on health than even individuals' behaviours or health systems.⁴ Social determinants of health include income, education, housing, working conditions, social support and more.⁴

² World Health Organization (2023) *Health Equity*. Retrieved from: https://www.who.int/health-topics/health-equity#tab=tab_1

³ Robert Wood Johnson Foundation (2017) *Visualizing Health Equity: One Size Does Not Fit All Infographic*. Retrieved from: rwjf.org/en/insights/our-research/infographics/visualizing-health-equity.html

⁴ World Health Organization (2023) *Social determinants of health*. Retrieved from: [who.int/health-topics/social-determinants-of-health#tab=tab_1](https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1)

Figure 2 illustrates the link between the social determinants of health, HIAs and health equity. We address the social determinants of health by completing the five steps of a health impact assessment to understand the impacts and make project recommendations to achieve health equity.



Figure 2: *Putting it Together*

What does an HIA consider?

An HIA identifies and considers three things: project impacts, health determinants and health-related outcomes.

Project Impacts

- Every project generates activities that may impact health determinants
- Impacts can be direct or indirect
 - ▶ An example of a direct impact would be a project releasing pollutants into the air or soil
 - ▶ An example of an indirect impact could be how a project influences an individual's transportation options in their community

Health Determinants

- Individual and community health is shaped by the social determinants of health, including:
 - ▶ Environmental Determinants (i.e. air, water, topography and natural heritage)
 - ▶ Transportation
 - ▶ Housing
 - ▶ Working Conditions
 - ▶ Neighbourhood Safety
 - ▶ Education
 - ▶ Access to Public Services
 - ▶ Built Environment
 - ▶ Social Supports
 - ▶ Family
 - ▶ Food Security
 - ▶ Economic Development

See Figure 3 for an illustration of how these levels of social determinants interact with one another to impact health.

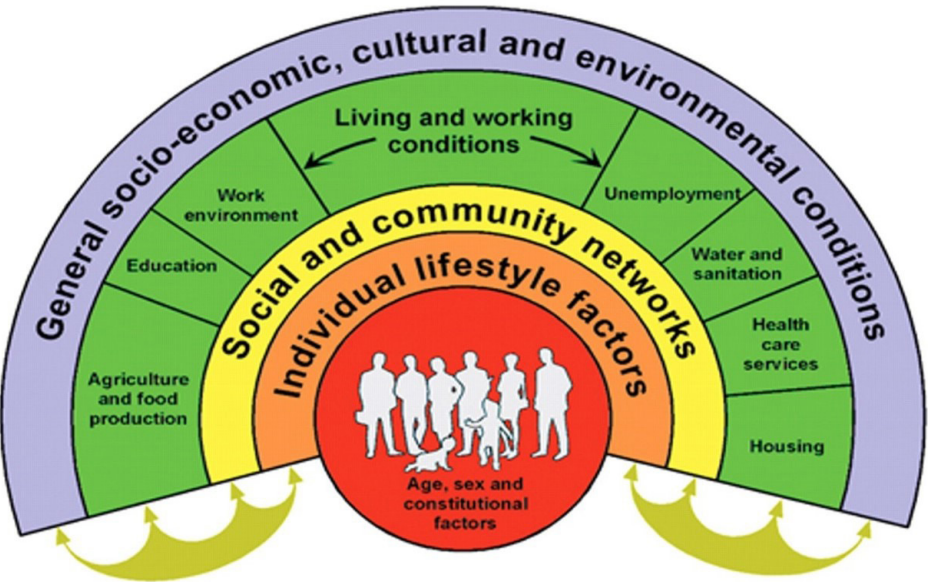


Figure 3: Social Determinants of Health⁵

Health-Related Outcomes

- Project activities and health determinants impact the health status of individuals and groups within a population
- Project activities can have positive or negative long-term impacts on health outcomes, such as:

 Morbidity	 Cardiovascular mortality
 Respiratory Health	 Obesity
 Stress	 Mental Health

⁵ Dahlgreen and Whitehead (1991) *The Dahlgreen-Whitehead rainbow*. Retrieved from: <https://webarchive.nationalarchives.gov.uk/ukgwa/20220208115302/https://esrc.ukri.org/about-us/50-years-of-esrc/50-achievements/the-dahlgren-whitehead-rainbow/>

What does completing an HIA look like?

Within a project lifecycle, HIAs are best suited to be completed within the planning process. This is done to meet the aim of predicting the potential effects of a policy proposal and to make recommendations that limit negative health effects before a project starts. HIAs allow for a health perspective and insight into project planning that may not be present otherwise. This brings information forward that may not generally be taken into account outside of the health sector. At the end of the HIA, a report will be provided to decision-makers who will choose which recommendations to implement. It is important to note that in certain circumstances the HIA process can be completed following the planning process. This should only occur if absolutely necessary, and in these scenarios, recommendations should be customized to the context of the project. For example, recommendations may be focused on education or advocacy post-implementation rather than focusing on project design.

Step 1 will determine whether or not the project requires an HIA. Subsequently, Step 2 will determine the level of HIA required for the project. This result will determine the time commitment and scope of the HIA and will guide the remainder of the HIA activities.

Regardless of the level of HIA to be completed, there are five steps to the process.

- 1 Screening
- 2 Scoping
- 3 Assessment (Appraisal)
- 4 Recommendations
- 5 Monitoring



How to use this guidebook

This guidebook provides details on each of the five steps noted above. It provides an overview of the activities required in each step, referencing associated supplementary resources to support completing the HIA, included as appendices. For further support and regional tools to support the completion of an HIA, please contact HIA@niagararegion.ca.



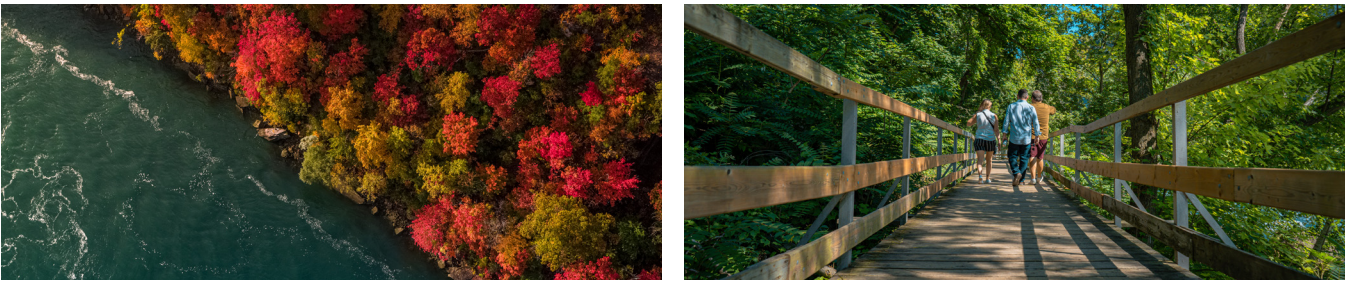
STEP 1: SCREENING

Process

The first step of the HIA process involves determining whether or not an HIA is necessary for the identified project. It involves a high-level examination of the project activities to gauge their potential impacts on the health of a population. Projects may not have significant enough impacts on health to warrant an HIA. If this is the case, the HIA process begins and ends with the first step. This may occur if the timing of an HIA is not feasible (i.e. it is too late for an HIA to make actionable recommendations), if a project is unable to receive adequate resources to complete an HIA or if other processes are already considering impacts to health.

Within the first step, two sections need to be completed, the Project Summary and Screening Tool. The Project Summary will be completed to identify the project name, project manager and to break down the key action areas or project activities. The Screening Tool will score the determinants of health that could be impacted by the project actions. The resulting score will dictate the next steps in the HIA process.

Photo Credit: Niagara Falls Tourism



1.1 Project Summary

The project summary provides a reference page with the key details of the project and the HIA results. **The following can be completed before filling out the Screening tool:**

Project Name	Project Description
Project Number	Key Action Areas
Project Manager	

The project description may be found in the project business case or project documentation. The description should be brief, consisting of 1-2 sentences describing the key purpose of the project. If known, an estimated project start and end date can be included based on the best information available and can be updated if timelines change.

The project action areas should reflect the key steps of what the project seeks to accomplish. These do not need to be associated with health but may have associations with health outcomes. For example, the key action areas for a road rehabilitation could be:

- Reconstruction of the new road platform
- Paving of the road surface
- Implementation of a roundabout at the intersection
- Addition of bike lanes, illumination improvements and sidewalks

The remainder of the project summary sheet can be filled as subsequent steps are completed. It provides a one-page reference to project information, screening and scoping results and the top prioritized recommendations for the project. Appendix A provides a template for the Project Summary sheet.



1.2 Project Screening Tool

Purpose and Considerations

The HIA screening tool is designed to indicate whether or not an HIA is appropriate given the impacts of the project activities on the social determinants of health. The screening tool used at Niagara Region was designed to be completed jointly by the Project Manager and the HIA Lead. There may be occasions where a project is eliminated from the HIA process during screening by the project manager if it is determined that the project is not appropriate for an HIA.

A score will be given for each of the social determinants of health included in the tool, with a 0 given for determinants which a project will not impact. When completing the screening tool, the scores should be applied given the impact of the project at completion, not during the design, construction, consultation or any other interim phases. The scores should indicate the impact should the project be completed, not the impact if the project does not occur.

It is important to consider that although a project will make a positive impact overall, there may still be areas with negative impacts. The HIA seeks to identify areas where there may be negative impacts that have not been previously considered. The screening tool is designed to be used across departments, where differing processes occur (i.e. may involve an environmental assessment). As such, some areas may have been considered or addressed in other planning processes within the project already.

The existence of identified negative impacts on determinants of health does not indicate that the project should not proceed, or that the project will have an overall negative effect. The aim is that through the HIA, recommendations will be provided to mitigate those potential negative impacts so they do not occur, or have a lesser impact.

Scoring

It is important to consider both positive and negative impacts when completing the screening tool. The consideration of positive impacts allows for recommendations in subsequent phases of the HIA that will ensure the largest positive influence on the target population. For example, a positive impact may lead to the recognition of the importance of interdisciplinary collaboration between transportation and public health when launching new active transportation facilities.

Table 1: *Screening Tool Scoring*

Score	Level of Impact	Type of Impact
-3	Significant	Negative
-2	Moderate	
-1	Minor	
0	None	None
1	Minor	Positive
2	Moderate	
3	Significant	

For each determinant of health, a score will be given ranging from -3 to +3.

Another key insight is the use of a certainty scale when quantifying impacts. When completing the score for a determinant, consider what the level of certainty is that the impact will occur. This consideration can be applied to both positive and negative impacts. If an impact is possible, it would receive a (+/-) 1. If an impact is probable, it would receive a (+/-) 2. If an impact is definite, it would receive a (+/-) 3. This logic can be applied to both the impact on a project action and the ripple effect. As such, impacts do not need to be carried out by the project itself, impacts stemming from the action can also be considered.

When determining how far-reaching the impacts should be considered, the length is dependent on the project itself. If a construction project increases access to more fast food stores, an HIA could consider that the impact on poor food choices (and thus chronic disease) is possible result. If a project led to pollution of water or air, an HIA could predict that long-term impacts are probable and should be considered. Lastly, if a project is providing water or a roadway to a new subdivision, it is definite that it will lead to new housing and access to public services (depending on the type of housing planned and other services nearby). To aid in this process, it is beneficial to review relevant documents and policies associated with the project area. This may include local official, secondary and district plans, as well as other regional or municipal projects that are in progress or planned to occur.



Some projects may have an activity that positively impacts one area of a determinant, while negatively impacting another. In these cases, the score for the negative impact should be highlighted to ensure that this possibility is not lost. This means that scores should not cancel one another out, and even if the positive impact is higher, the score should remain as the negative. Scores given to each determinant are weighted as absolute values in the screening tool, where negative scores are weighted more heavily than positive scores. As such, negative scores will lead to higher total scores towards the HIA level. Potential positive impacts can still be noted in the comments section related to that determinant.

Another consideration when determining a score is the geographical scope of impacts. Some projects will impact a small localized area and population, whereas others may impact multiple municipalities or the entire region. It is important to consider the local benefit or risks versus the impact beyond the localized project area as part of the composite score for each determinant. For example, a project with a small impact on the entire region may warrant the same score as a project with a large impact on a small subset of the region. Appendix B – Screening Tool provides an example of the determinants included in screening a project.

Overall, the paragraphs above offer a variety of factors that should be taken into consideration when determining the appropriate scores for determinants within the screening tool. All of these factors should be considered and discussed in a collaborative setting. For the screening process, it is essential for there to be representation from both public health and the project division. For example, there could be two representatives from different divisions in public health, the project manager and another representative from the project division present. There is no one best way to weigh these considerations in the scoring, instead, they are meant to offer a guide to determine the most accurate scores for each project. They are not exhaustive, and additions can be made if there are other project or department-specific factors that should be considered when selecting scores. If multiple aspects have contradictory scores, use the largest possible score to quantify the impacts within the determinant. See Table 2 for examples of what could be considered within each score. These examples illustrate potential scores but may differ depending on a specific project’s considerations.

Table 2: Scoring Examples

Score	Determinant	Example
-3	Food security - Access to healthy and nutritious food choices, Others	New residential development planned in an area without a grocery store or Farmer’s market, without transportation planned to access nutritious food in neighbouring communities.
-2	Natural Environment – Climate change, land attributes and topography, habitat and animals, protected lands (i.e. wetlands)	Unopen road allowance is adjacent to designated significant wetlands – environmental assessment is being completed, but construction will impact these lands.
-1	Environment - Air, noise and odour	New area allocated as road allowance that will alleviate traffic by establishing an alternate connection. This will lead to some increase in noise/air pollution in the area, but the reduction of congestion is a positive impact on this area as a whole (i.e. the adjacent municipalities). [weighing these two aspects results in a -1]
1	Neighbourhood Safety	Neighbourhood design – crime prevention through environmental design [roads, street lighting, park landscaping]. Unknown impacts to access to alcohol, tobacco and other substances.
2	Environment - Water, Soil, Waste	Currently, the area experiences significant issues with drainage. The project will address the hydraulic capacity of roadside swales to facilitate better connection for drainage. Assessments are to be completed for the entire area with regard to drainage and water/wastewater.
3	Housing	Secondary Plan – adding more mixed-density housing; working with partners to ensure affordability of housing; housing geared towards Indigenous populations; student-specific housing needs being met via new development.



The final section of the screening tool identifies priority populations that may be impacted by the project. Priority Profiles⁶ for Niagara Region were created based on the populations outlined in the Health Equity Impact Assessment (HEIA) tool⁷. They offer demographic and health impact-related information about the following population groups in Niagara:

Age Groups	Linguistic Communities
Disabilities	Low Income
Education	Religion
Ethno-racial & Immigration	Rural & Urban
Homelessness	Sex & Gender
Indigenous	

Once populations that may be impacted by a project are identified, a score must be established. The score for identified populations should be based on a combination of

the number of priority populations impacted and the degree to which the populations are impacted.

- The score should reflect the population with the highest degree of impact. Considerations may include length of impact, number of people in that population impacted and severity of impact.
- For example, a road reconstruction in a rural area that improves the road surface will improve connectivity to services for rural populations. Since this only impacts one population and is only a minor impact, this would warrant a score of 1.
- Another example would be a planning project for a housing subdivision has a requirement for 30% of housing to be affordable, with funding for Indigenous-specific housing within the development. This project impacts both low-income and Indigenous populations directly, and may indirectly impact other priority populations, such as ethno-racial populations and new immigrants. As such, in considering impact and degree, this would warrant a score of 3.

Once the scores in the screening tool are complete, a total score will determine the next steps. The total score is determined through a formula integrated within the screening tool template utilized by Niagara Region. For further information on the tool please contact HIA@niagararegion.ca.

- **If the score from the initial screening is 18 or above**, the project needs to move on to the scoping tool to determine the level of HIA
- **If the score is between 12 and 17**, the scoping tool does not need to be completed and a rapid level HIA is required
- **If the score is below 12** a condensed HIA can be considered, but an HIA is not required

Condensed HIA

- Can be completed for projects that score lower but still have potential health impacts or implications, based on HIA lead and project manager discretion
- Could be beneficial for a project that scores below 12, where the screening scores were almost all positive, however, based on the geographic location or the type of project, there are still implications for certain priority populations and the potential to amplify positive health impacts
- A template for a condensed HIA report can be found in Appendix C – Condensed HIA

⁶ **Niagara Region Public Health** (2023). *Niagara Priority Profile*. Retrieved from: niagararegion.ca/health/equity/priority-profiles.aspx

⁷ **Ontario Ministry of Health** (2012). *Health Equity Impact Assessment*. Retrieved from: health.gov.on.ca/en/pro/programs/hea/tool.aspx



STEP 2: SCOPING

Process

The overarching goal of the scoping step is to determine the scope and scale of the HIA assessment. This answers questions regarding the detail required in the HIA process, what level of stakeholder involvement is required, what level of community involvement is required and how large of a team will be needed to support the work.

Photo Credit: Discover Ontario

This step involves six actions:

- 2.1 Select Determinants
- 2.2 Determine the Level of HIA
- 2.3 Establish the HIA Team
- 2.4 Terms of Reference
- 2.5 Logic Model
- 2.6 Project Charter

2.1 Select Determinants

Given a score on the screening tool that indicates an HIA is required, determinants with the strongest positive and negative impacts will be selected to be the focus of the HIA. The selection of determinants will differ depending on the individual scoring of the project actions, for example, there may be an instance where all the determinants scoring a -2, -3, +2 or +3 should be included. However, **no more than six** determinants should be selected to be focused on in the subsequent steps of the HIA for rapid and intermediate level assessments. Exceptions can be made for comprehensive assessments, given that the appropriate resources are available. As such, some projects may need to be more selective when choosing determinants of focus. One option is to choose not to focus on a determinant that has a high score but is being addressed using another assessment tool (i.e. environment – water, soil, waste being addressed via an environmental assessment). The number of determinants selected may also vary based on the level of resources available for the HIA. It is important to remember that the selection of determinants is flexible. Once the logic model is created, it may be decided to go back and focus on fewer determinants due to the depth and breadth of the impacts to some determinants.

In addition to determinants, any of the populations identified in the screening tool should be captured. The specific impacts that the project may have on these populations will be considered in all subsequent steps of the HIA

2.2 Determine the level of the HIA

Once determinants have been selected, it is necessary to begin to understand the scope of the HIA. To facilitate this, the Scoping Tool will give a score that determines what level of HIA is required for the project. The score is determined through a formula integrated within the Scoping Tool template utilized by Niagara Region. For further information on the tool please contact HIA@niagararegion.ca.

Appendix D – Scoping Tool provides an example of a completed template. **If the initial score during Step 1 was below 18, then this step can be skipped.**

The scoping tool requires establishing a score for several project areas: cost, stakeholders, geographic extent, number of people impacted, and health and safety impacts, along with the score from the screening tool. For each of these areas, five options are given, ranging from no impact to transformative impact. Based on the project the most appropriate score can be selected for each category. This will then be multiplied by a predetermined weight in the tool, to determine the total score for the project.

For each of the areas in the Scoping Tool, the following considerations should be taken:



1. Project Cost

- ▶ Project cost should include the cost of the entire project, including any in-kind or consultant costs



2. Geographic Extent of Project Impacts

- ▶ Geographic extent should be considered when the project is completed- not during construction, design or any interim phase
- ▶ This score may go beyond the footprint of the project itself, to include other impacts (i.e., if the project impacts the tourism sector or provides a new road thoroughfare, it may impact further municipalities beyond the study area)



3. Number of People Impacted

- ▶ Identify how many people are impacted by the project based on the completion of the project



4. Health and Safety Impacts

- ▶ Two scores will be identified for this section
- ▶ The first score is concerned with injury, and the second is concerned with physical and mental illness or chronic conditions. For each of these, both positive and negative impacts will be considered.
- ▶ For these two categories, select the highest score in either the positive or negative column

i.e., if one project element leads to a very minor reduction in injury risk [1] and another element leads to an injury that requires hospitalization [4] select the 4 as the score for this row



5. Screening Score

- ▶ Select the score within this row that corresponds with the score received on the screening tool

To assist in completing the scoping tool, the following information for the study area may be beneficial:

- Background information regarding road sections - i.e., complaints, fatalities etc.
- Any planning documents associated with the study area - i.e., Official Plan, Master Service Plan, District Plan, Secondary Plan etc.
- Local Assets - i.e., elementary schools, secondary schools etc.

Based on the score given via the scoping tool, one of three levels of HIA will be recommended:

- **A score of 1 - 24** indicates a rapid HIA
- **A score of 25 - 36** indicates an intermediate HIA
- **A score of 37 or above** indicates a comprehensive HIA.

Table 3 describes the commitments required for each level of HIA. Time commitments are based on the assumption that the staff lead is working on one project at a time, due to competing priorities and timelines, these may change. If a condensed level of HIA was selected in Step 1, it will take two to four weeks, requiring one part-time coordinator.

Table 3: Required HIA Resources

	Rapid	Intermediate	Comprehensive
Scoping Score	1-24	25-36	37+
Time	4-6 weeks	3-5 months	6-18 months
Data Collection	Existing	Existing and some new data	Existing, extensive new qualitative and quantitative data
Stakeholder Involvement	Limited	Moderate	Extensive and Structured

Based on the recommended level of HIA and the associated resources, it should be determined by the HIA project team members whether any additional support will be required. The team should describe any time, capacity and funding restrictions and work to mitigate these. Based on the identified level of HIA and subsequent requirements, the project team can now begin to plan for completing the HIA.

2.3 Establish the HIA Team

Before proceeding, it is important to identify who should be a member of the HIA project team. The size and time commitments of an HIA team will vary depending on the level of HIA undertaken. A rapid HIA can be completed using the core team that completed the screening tool, whereas intermediate and comprehensive HIAs may require a larger team representing a broader range of relevant skills and expertise. This group may include people from across internal departments as well as any hired consultants or external stakeholder groups, depending on the needs and complexity of the HIA. This means including people with content expertise in health and the project area (i.e., transportation, planning, water), led by an individual providing project management support and HIA understanding. External stakeholders that should be considered include representatives from academia, identified priority populations, local area municipalities and members of committees or action groups. Established at the outset of this planning step, the HIA project team should work together to complete and/or oversee all other steps of the HIA.



2.4 Terms of Reference

Following the establishment of the HIA project team, a terms of reference (ToR) should be created to establish the purpose, scope and authority of the team. The ToR should act as a road map for the team, containing clear information about team organization, goals, meeting frequency, the commitment of each member and other project details. If a ToR already exists for the project, the following elements should be included or added for the ToR to be utilized for the HIA:

- Mandate or purpose of the HIA
- Membership names and roles
- Roles and responsibilities for specific HIA steps
- Decision-making processes
- Term for the HIA Team

If the project does not have an existing ToR, Appendix E provides a ToR template.

2.5 Complete the Logic Model

The next step in the process is to identify potential direct activity impacts that are expected to stem from the project. The team can use the identified project activities from the Project Summary Sheet in combination with the determinants of health selected in the Screening Tool as a starting point to guide this process. The team should concentrate on those impacts that are most likely to occur, with the greatest potential to influence health-related outcomes. This will focus the work and make the best use of resources. It is important to note that additional activity impacts may emerge during this step that were not considered in any previous steps. This is okay, as the HIA is an iterative process, so refinement should occur throughout. Further, some of the identified impacts may not have been of importance to the original team, but are of importance to stakeholders or community members.

When completing the logic model, it is advantageous to have representatives from any departments or divisions that can provide perspectives on the project actions or potential implications to health.

The logic model illustrates the activity under consideration, the anticipated changes to social determinants of health and the resulting health-related outcomes that could be expected as a consequence of the project activity. Within this step, the direct impacts of each project action should be identified. Some project actions will have more than one direct impact or will have different impacts depending on what option is decided upon for the project action. For example, active transportation facilities will have different health outcomes if a segregated lane option is used versus a partially paved shoulder. Each potential impact should be considered separately where needed. These should then be associated with the appropriate determinant of health. The next step is to identify positive and negative health outcomes that may occur as a result of the direct project impact. When considering positive and negative health outcomes, first consider a general impact on health (proximal health outcomes), and then consider the more distal health outcomes. For example, when considering the addition of active transportation facilities, a proximal health outcome would be that the project would increase rates of physical activity. A distal health outcome of increased physical activity rates would then be improved mental health and reduced burden of chronic conditions. The identified proximal and distal health outcomes of the project can be summarized in a table in the HIA report as seen below.

Table 4: *Proximal and Distal Health Considerations*

Proximal Health Outcome	Distal Health Outcome
Physical activity	Mental health, chronic conditions
Social Connection	Mental health, stress and cognitive benefits

The information contained in the logic model and the linkages explored will be used to inform the activities and data collection of the subsequent steps. Appendix F provides an example of how the connection between project actions and health outcomes in the logic model can also be visualized using project management software.

When completing the logic model, it is important to focus on direct outcomes, not strategies, to mitigate these outcomes. Strategies and recommendations may come up in discussion, and it is beneficial to make note of these for future steps while redirecting the discussion to the task at hand.



2.6 Create Project Charter

Once the scope and project activities have been clearly outlined, the project charter will document the reasons for the project, objectives and constraints of the project, the main stakeholders, risks and benefits and a general overview of project cost. To accurately discuss role division and key stakeholders, the project charter needs to be created or refined after the logic model is complete. This allows for a more detailed understanding of the focus of the HIA.

If applicable, an existing project charter may be used, provided that it has the following sections, or can be amended to include the following sections:

- Project information
- Background or purpose of the project
- Key stakeholders and partners
- Scope of the HIA
- Timelines, milestones or deliverables
- Success indicators
- Budget
- Constraints, assumptions and risks



STEP 3: ASSESSMENT (APPRAISAL)

Process

The assessment will describe the current conditions, utilizing qualitative and quantitative data related to the health determinants of interest identified within the scoping phase. Using data and the best available evidence, the assessment will forecast the positive and negative impacts of the project. To do this, it is important to understand the unique profile and needs of the community the project will impact. Further, assessment data needs to be collected via primary or secondary collection methodologies to provide linkages between project actions and health outcomes. This step is the core of the HIA, where the inputs from previous steps are used to lay the groundwork for the HIA process itself.

The assessment consists of three sections:

- 3.1 Community Profile
- 3.2 Collect Assessment Data
- 3.3 Determine Assessment Outcomes

3.1 Create a Community Profile

The community profile is a compilation of available data that details the social, economic and health conditions of the community impacted by the project. This seeks to provide a general overview of the community needs. If a similar study is part of another process related to the project, the existing data can be used as an input or complement to this community profile. However, the categories outlined within this guide must all be discussed. As such, additional data collection may be required to meet these needs. Where possible, data collected in complementary processes should be leveraged. For example, if an environmental assessment is being completed for the project, data collected through this process should be utilized when possible. Data may be presented narratively, in graphs or tables, with a focus on using the most appropriate methods throughout. The following should serve as an outline of the sections that will be discussed within the community profile:

1. General Community Overview

- Broad information about the region and municipalities within the study area should be detailed. This can include population, demographic distribution, public facilities, highways and area maps and photos.
- Where possible, this information should be provided specific to the catchment area. In some circumstances, it may only be feasible to provide information at the municipal level.

Potential Sources of Data:

- ▶ Census data
- ▶ Official Plan, Secondary Plan or District Plan for the study area

2. Community Demographics

- More detailed information should be provided about the demographics of the community(ies) of study. This can include population distribution within the study area, population percentage of Indigenous Peoples for the area and demographic data regarding priority populations identified within the HIA.
- Where possible, data should be presented for the dissemination area(s) (DA) within the study area as well as a comparator population (i.e. municipality or region). Not all indicators are available at the DA level, so in these cases, municipality or region data can be presented.

Potential Sources of Data:

- ▶ Local Profiles of Priority Populations
- ▶ Census data

3. Social and Economic Indicators

- Social and economic indicator data should be provided for the community(ies) of study. Data should be reported at the smallest level of geography possible, recognizing that it may only be available at the municipal level.
 - ▶ This should include data detailing income, employment, education, labour force and home ownership within the study area

Potential Sources of Data:

- ▶ Local Profiles of Priority Populations
- ▶ Census data
- ▶ Other Statistics Canada surveys

4. Health Indicators

- The health outcomes determined during Step 2.3 – Logic Model should serve as an outline for this section
- Health outcomes identified should be discussed in terms of their impact on the priority populations identified for the project, as well as for the study area in general

Potential Sources of Data:

- ▶ Data at the regional level may be available through local public health units or health literature

5. Health Care Services

- A summary should be included detailing available healthcare services in the area. This should include access to Primary Care (including Community Health Centres and physicians), access to acute care (including hospitals and urgent care) and access to walk-in clinics within the study area.

6. Indigenous Peoples

- Information regarding relevant Indigenous populations within the project area and descriptions of how they were or will be consulted through the HIA or project process, when necessary

Once complete, the community profile should be shared with the HIA project team and any identified stakeholders to ensure it is comprehensive and utilizes all best available data. The findings of the community profile will help to guide the remaining activities in the Assessment step.

3.2 Collect Assessment Data

The HIA process is data-driven, so it is important to choose data that is appropriate and feasible for the scope of the HIA. Assessment data needs to be collected to inform the connected health outcomes of the project. This means data is required for both positive and negative impacts that the project actions will have on health. These linkages were outlined in the Logic Model and should guide assessment data collection.

The level of detail and type of required data will depend on several factors. First, data needs will differ based on the level of HIA being conducted: rapid, intermediate or comprehensive.

- In a **rapid HIA**, all data will come from existing sources, meaning no primary data needs to be collected. Data will likely be high-level and will only be needed for areas of interest within the scope of the rapid HIA. Data collection methods will focus on collecting and using existing, accessible data. Completing a rapid literature review is a frequent means used in a rapid HIA to synthesize existing data.
- In an **intermediate HIA**, data will include existing and new data sources, meaning primary and secondary data will be collected. It is advantageous to first look at existing data sources and identify any gaps that need to be filled by primary data collection. Primary data should be collected from stakeholders and priority populations as needed and feasible, with a focus on qualitative data. A literature review is a good place to start to synthesize existing data, with planned community engagement filling in the gaps where primary data is needed. When identifying potential stakeholders, review the priority populations identified in Step 1a – Screening, to ensure they are represented in all discussions.
- In a **comprehensive HIA**, substantial primary data will be needed. Once again, existing data should be considered first, with more extensive qualitative and quantitative primary data being collected to fill identified gaps. A comprehensive review of the literature is required, with substantial planned community and stakeholder engagement to supplement.

Within each level of an HIA, data needs will differ based on the linkages identified in the logic model, the priority populations identified, the determinants selected and the areas of need identified in the community profile. Assessment data should be collected at a level that meets these needs and can reaffirm and explore these connections. Community and stakeholder engagement will play an integral role in collecting primary data to inform the HIA process. Where possible, Regional staff whose work focuses on the action areas of the project can support this process by leveraging their data sources. For example, the HIA team should connect with Public Health staff who focus on Active Transportation for projects where sidewalks and cycling lanes will be added.

The level of required engagement will differ based on the level of HIA, how much data is existing and the project needs. **When possible, community and stakeholder engagement**

should align with any project or environmental assessment activities. For example, in a Class C Environmental Assessment, the HIA team can attend Public Information Centres to garner community feedback. The level of engagement selected should be customized based on the project’s needs.

Existing systematic reviews or literature reviews should be utilized. Additionally, nongovernmental research and publications, peer-reviewed journals and databases and previously completed HIAs can be valuable data sources. Table 5 provides a starting point to guide primary and secondary data collection efforts.

Table 5: *Data Sources*

Existing Data sources
Public Health Ontario - Virtual Library
Niagara Region Priority Profiles
Government Reports (regional planning documents, provincial and federal reports)
Census Program Data Viewer
Grey Literature Search Tool
National Collaborating Centre for Healthy Public Policy – List of publications
National Collaborating Centre for Determinants of Health - Resource library
CDC Social Determinants of Health
Public Health Agency of Canada - Social Determinants of Health - Best Practice Portal
Canadian Institutes of Health Research
Government of Canada - Health Inequalities Data Tool
Health Impact Assessments
Wellesley Institute Publications
Community Toolbox
Public Health Ontario – Health Equity
Public Health Ontario – Planning & Evaluation Tools
World Health Organization – Health Impact Assessments
National Collaborating Centre for Environmental Health – Health Impact Assessments

Once the level of required data for the project has been determined, a data collection plan should be created. The plan should detail who is responsible for the collection of data, the timelines associated with data collection, the sources used and any primary data collection materials developed. A focus needs to be made on ensuring all of this data is valid, reliable and credible. Data should be reviewed and confirmed by the HIA project team.



3.3 Determine Assessment Outcomes

Once all assessment data is collected, the impact of project actions on health, both positive and negative, need to be discussed. This helps to establish the cause-and-effect relationships that the HIA recommendations must consider. The table below breaks down a framework in which to consider the outcomes found through the assessment.

Photo Credit: Niagara Falls Tourism

Table 6. *Assessment Outcomes*

Section	Description
Project Action	Key project action areas identified in the screening tool
Details	Additional description of each project action
Determinants of Health	Determinants of health from the logic model; add any determinants of health that have been made apparent since the logic model was completed
Proximal Health Outcomes	Potential health outcomes from logic model; add any health outcomes that have been made apparent since the logic model was completed
Distal Health Outcomes	Potential health outcomes from logic model; add any health outcomes that have been made apparent since the logic model was completed
Overall Health Outcomes	Identify which key health outcome(s) of focus the project actions are associated with
Likelihood of Positive or Negative Impact (low, medium, high)	Consider how likely is it that the anticipated outcomes will occur. This likelihood can be high (definite), medium (probable) or low (speculative).
Severity or Significance of Impact (low, medium, high)	How significant or severe are the potential health outcomes? Can the negative impacts be quickly and easily managed? Are there outcomes that are irreversible, chronic or fatal? How long-lasting are the impacts? Severity can be high (irreversible or long-lasting), medium (moderate suffering) or low (easily reversible).
Populations Affected	First, consider priority populations affected, then include all populations impacted by the determinant of health. Think about what proportion of the population is likely to be affected and what sub-groups are more affected than others.
Primary Data	Detail all evidence used to make the associations and decisions described above (i.e., the health outcome, likelihood and severity). Detail the type of data and the sources used, as well as the quality of these sources, this can include a search of existing literature or collection of data as explained in Step 3.2. If needed, this section can be split into primary and secondary data.

The assessment section of the HIA report includes a written overview connecting the key project actions to the associated health outcomes. The data collected through the assessment can be summarized in this section to outline and explore the evidence of the associated positive or negative health impacts of the project actions. This written section provides the basis for the determination of the HIA recommendations.



3.4 Assessment Scoring

Assessment scores can be assigned based on the data presented above, regarding the connections between project actions and health outcomes. Table 7 provides an example of summarizing the scores for the impact of each project action on each health outcome from low to high. This score takes into consideration both the likelihood of a positive impact occurring, as well as the significance of this potential impact.

Table 7. Health Outcome Scoring

Project Actions	Health Outcomes	
	Physical Activity	Accessibility
Active Transportation Facilities – Multi-use path	High	Medium
Active Transportation Facilities – Sidewalks	Medium-High	Medium



STEP 4: RECOMMENDATIONS AND REPORTING

Process

The recommendation step actions the results of the assessment step. The logic model and assessment outcomes provide the foundation for creating recommendations. Recommendations will be cost-effective and reasonable measures that seek to maximize the positive health impacts and mitigate negative health impacts. They must be feasible within the scope and purview of the project and organization.

Recommendations will be themed into categories and will also be prioritized based on several factors, which will ensure that the recommendations with the most potential impact are actioned first. Lastly, within this step, the HIA report is written.

This step consists of:

- 4.1 Creating & Theming Recommendations
- 4.2 Prioritizing Recommendations
- 4.3 Writing the HIA Report

4.1 Creating & Theming Recommendations

The first task of Step 4 is to create recommendations that maximize positive health outcomes and mitigate negative health outcomes identified within Step 3. It is essential to provide at least one recommendation for each project action. Recommendations can include things such as support for a specific alternative to the decision, modifications to the proposed project action, mitigation measures or cross-sectional actions.

Recommendations need to be supported by evidence of feasibility, effectiveness, acceptability and efficiency. The creation of recommendations may require skills and expertise from outside of the HIA project team. It may be pertinent to engage with other staff and stakeholders to formulate comprehensive recommendations. As in past phases, this level of consultation needed will differ based on the level of HIA being conducted. In a Rapid HIA, they would be developed by the HIA team, whereas in an intermediate or comprehensive HIA, increased engagement may be needed. In intermediate and comprehensive HIA projects, the development of recommendations should involve varied stakeholders.

Utilizing the findings from the assessment phase, the recommendation step begins by considering the project actions and determinants of health from the Logic Model. These should be matched with their associated positive and negative health outcomes. For each project action, recommendations will be drafted to either maximize positive impacts or mitigate negative impacts. In some cases, project actions may have more than one recommendation, especially where there are impacts on multiple determinants of health.

In writing recommendations, it is important to pay attention to the legal and policy context in which they would be implemented. For each recommendation, descriptions should be provided as to how the health outcome would be improved. Recommendations should be concise and action-oriented and supported by achievable and realistic actions. The following criteria should be used in developing recommendations:

- Responsive to predicted impacts
- Specific and actionable
- Evidence-based and effective
- Can be monitored
- Technically feasible
- Economically efficient
- Relative to the purview and scope of project

Once recommendations have been brainstormed for each project action, they should be themed and levelled up where appropriate. For example, if three recommendations that each impact a different project action discuss education aimed at students, they can be levelled up into one recommendation. The recommendations can then be divided into the following themes, or additional common themes can be identified if they do not fit within one of the following categories.



Design & Accessibility:

Recommendations focus on modifying decisions within project design and execution, and work to increase accessibility considerations within project actions. Recommendations in the design category should be implemented ahead of project completion.

Education & Promotion:

Recommendations focus on targeting populations to encourage behaviour change to help recognize the full health benefits of the project. Recommendations encourage the usage of new services and increase project recognition through advertising. Recommendations in the education and promotion category should be implemented shortly before and following project completion.

For each recommendation, implementation considerations need to be discussed. Outline internal or external partners that will need to be consulted or will be required to play a key role in implementation planning and execution of the recommendation. To strengthen implementation planning, it is suggested that a comprehensive list of partners be considered. Lastly, additional considerations including cost, funding sources, risk, the capacity of identified divisions or partners and length of time needed to implement the recommendation should be outlined. This information will be used to prioritize recommendations in the subsequent phase.



Partnership & Community Engagement:

Recommendations focus on leveraging partnerships to best engage audiences impacted by the project. Partnerships should be established before project completion to ensure adequate time to prepare and execute the recommendations.

Service Provision:

Recommendations focus on expanding services to further support audiences impacted by the project. Services should be provided following project completion.

Internal Alignment:

Recommendations focus on engaging partners who work with populations impacted by the project to ensure a consistent approach and strategy. Recommendations in the internal alignment category should be implemented shortly before and following project completion.

4.2 Prioritizing Recommendations

In many cases, it will be necessary to compare the potential health-related outcomes of each identified recommendation. In these scenarios, recommendations must be prioritized. There are a few scenarios where this needs to happen.

1. When there is more than one distinct alternative being considered. For example, when adding active transportation facilities to a new road, there may be debate as to whether a multi-use path or paved shoulder approach should be used.

2. When there are mutually exclusive recommendations. For example, in a planning project where a piece of land can be used for a new plaza or as greenspace, but not both.
3. When there are constraints (time, money, capacity) on how many recommendations can be implemented and there is a need to prioritize the most impactful.

4. In more complex HIAs, there may be significant uncertainties, consequences and trade-offs that require a robust and defensible rationale for the selection and implementation of recommendations.

When developing the recommendations, implementation considerations (cost, risk, capacity, timing, etc.) were considered. At this point, these considerations should form the basis for the prioritization of recommendations. Needs and considerations will differ between departments, divisions and projects to prioritize recommendations and different approaches may need to be used for different projects. Below is a list of potential areas to consider in prioritization, as well as standardized frameworks that could be employed.

Potential considerations:

- Difficulty or ease of implementation (easy, medium, hard)

▪ Certainty and level of impact on health outcome (possible, probable, definite)

▪ Buy-in and political climate of the recommendation (low, medium, high)

▪ Cost of implementation (low, medium, high)

▪ Capacity of staff to implement
- recommendation

▪ Feasibility of recommendation

▪ Time to realize benefit from recommendation (short, medium or long-term)

▪ Risk of recommendation (low, medium or high-risk)

Provide the selected prioritization criteria and methods within the HIA report for internal and external stakeholders to understand the methodology used. Rank recommendations from 1-5, with 1 being the highest ranking. The HIA report will include tables with the theming, implementation considerations and prioritization of the recommendations.



4.3 Writing the HIA Report

The documentation completed throughout the HIA process will aid in the writing of the HIA report. Capitalizing on the existing completed templates will reduce the time commitment of writing the HIA report.

When writing the report, consider the following:

- Keep wording concise and where possible support statements with evidence collected throughout the HIA process

▪ Be transparent about how decisions were made at each stage, including what tools and guidance were used

▪ Be transparent about who was engaged in each step of the process
- Keep the report as short as possible while still including necessary detail

▶ Report length will differ based on the level of HIA utilized

▪ Meet all AODA requirements to ensure the report is accessible and can be shared externally

STEP 5: MONITORING AND EVALUATION

Process

The last step of the HIA process focuses on measuring and monitoring whether the HIA made successful impacts within decision-making processes, i.e., were the recommendations integrated into the project actions? Further, if these recommendations were integrated, it is essential to evaluate whether or not project changes stemming from the HIA recommendations have the intended health impact. **The activities within this step will continue after the HIA report and project are complete.** Step 5.1-Process and Impact Evaluation focus on the evaluation of the HIA project itself and can be completed directly following the completion of the HIA Report, with updates made as the project progresses. Step 5.2 should not begin until the recommendations have been integrated into the project and the corresponding project actions are complete. At this point, the evaluation of the HIA outcomes can begin.

This step consists of:

- 5.1 Process and Impact Evaluation of HIA
- 5.2 Evaluation of HIA Outcomes

Photo Credit: Discover Ontario

5.1 Process and Impact Evaluation

Step 5.1 centres around evaluation of the HIA process itself. Evaluation is essential for the timely identification of successes or failures. It includes process and impact evaluation of the HIA work to better understand the effectiveness and applicability of the HIA process on the project at hand. The following questions should act as a guide to brainstorming the focus of this evaluation. The process and impact evaluation frameworks in Tables 8 and 9 will be completed to guide these activities.

Process Evaluation

1. Did the process unfold as expected?
2. Did the HIA meet expectations?
3. What were the operational objectives for the HIA? Were they met?
4. Did the HIA take the amount of time allocated during initial planning?
5. Did the HIA require more resources (financial, temporal, human) than planned for during scoping?
6. What evidence was used?
7. Who participated? How did the participants view their experience?
8. Were all relevant stakeholders included from the beginning?
9. How were inequalities assessed?
10. How were recommendations formulated?

It is essential for both process and impact evaluation to occur. The process evaluation is focused specifically on the HIA activities, templates, tools and process. The goal of this evaluation is to facilitate continuous quality improvement of the integration of the HIA process. These findings will allow for the process to continuously be refined. The impact evaluation is focused specifically on the outcomes of the HIA process, including any impacts on partnerships, the community and to the project itself. The goal of this evaluation is to understand how to maximize or improve the impacts that the HIA process can have. Together, these two streams of evaluation help to continue to strengthen the HIA process.

Impact Evaluation

1. Were new relationships established between sectors?
2. Were relationships with the community improved?
3. Were the recommendations taken into consideration during decision making?
4. Were they or will they be implemented and if so, how and by whom?
5. Were the recommendations modified? By whom?
6. Was something new learned about health impacts?

5.2 Evaluation of HIA Outcomes

Step 5.2 involves outcome evaluation. The goal of this step is to evaluate the impacts of the HIA recommendations on the health determinants and outcomes of interest. The evaluation process will determine whether or not the HIA recommendations are achieving the desired health-related outcomes, how efficiently and effectively the recommendations are achieving them and whether or not any of the recommendations need to be revised. To fulfill this, Table 10: Outcome Evaluation should be completed for each of the desired health outcomes.



Table 8. *Process Evaluation*

Theme	Evaluation Question	Measure / Indicator
HIA Goals and Process	To what extent was the HIA part of the project's decision-making process?	Likert Scale [1= strongly disagree to 5=strongly agree]
		Were the goals and objectives of the HIA clearly stated?
		Did the process unfold as expected?
		Did the HIA process meet the agreed-upon timelines?
		Were the operational objectives for the HIA met?
		Were all relevant parties included within the HIA process? (internal staff and stakeholders)
		Were relevant resources available to facilitate the HIA process? (financial, temporal, human)
		Were you satisfied with the HIA process?

Table 9. *HIA Impact Evaluation Framework*

Theme	Evaluation Question	Measure / Indicator	Data Source	Analysis Procedure	Time Frame & Resources Required
Adoption (fidelity)	Were the HIA recommendations adopted as intended? Why/why not?	Checklist Assessment (Wisman et al., 2007) ⁸ • Direct (leads to changes in decision) • General (raises awareness but no specific changes are made in decision) • Opportunistic (a favourable decision would have been made anyway) • Ineffective (HIA ignored in decision)			
Implementation	What were the resources available to implement HIA recommendations?				

Table 10. *HIA Outcome Evaluation Framework*

Evaluation Question	Desired Outcomes	Measures / Indicators	Data Source	Baseline (if applicable)	Time Frame & Resources Required
What was the Health Impact?					
What was the Equity Impact?					
What was the Community Impact?					

Wisman et al., (2007). *Is HIA effective? A synthesis of concepts, methodologies and results.*



CONCLUSION

The Health Impact Assessment processes are flexible and can be modified to reflect the needs of the individual or organization utilizing the tools and completing the assessment. The processes at Niagara Region are subject to change as more HIAs in various divisions and departments are completed. Moving forward, Niagara Region will incorporate the use of HIAs into program and project planning processes across the corporation to support Niagara to become one of the top 25 healthiest communities in Canada. This will work to result in changes to decision-making processes and support the implementation of programs and projects across the corporation to enhance health and reduce health inequities.

Photo Credit: Discover Ontario



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