
Ministry of Health

2020 Annual Service Plan and Budget Submission

Board of Health for:
the City of Hamilton, Public Health Services

Version 1.0

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Introduction and Instructions

Introduction

The Annual Service Plan and Budget Submission (the "Annual Service Plan") is prepared by boards of health to communicate their program plans and budgeted expenditures for a given year. Information provided in the Annual Service Plan will describe the programs and services boards of health are planning to deliver in accordance with the Ontario Public Health Standards: Requirements for Programs, Services, and Accountability (the "Standards"), based on local needs and budgets at the program level.

As part of the Annual Service Plan, boards of health will describe the needs of the population they serve using the most recent available data. There is an opportunity for boards of health to provide high-level indices of the population they serve along with more specific data for unique sub-populations with common indicators of risk. This information is critical to prioritizing programs and services for the community as a whole and ensuring identified populations receive tailored support as required. The knowledge gained from implementation of the Foundational Standards will inform the preparation, implementation, and monitoring of the Annual Service Plan.

The Standards allow for greater flexibility in program delivery in several Program Standards including, but not limited to, Chronic Disease Prevention and Well-Being; Healthy Growth and Development; School Health; and, Substance Use and Injury Prevention. In the Annual Service Plan, boards of health will identify local priorities within each individual program area, and provide a summary of the data used to support their assessment of community need and their program delivery decisions, while also meeting all requirements under the Standards.

Please note that boards of health are required to include budget information and program plans on Ministry of Health (ministry) funded programs only (both cost-shared and 100% funded programs), and must include 100% of budgeted expenditures (municipal and provincial portions) for these programs. In order to support budget planning for 2020, public health units can use a planned funding change to bring the municipal share to 30% for public health programs and services effective as of January 1, 2020. The cost-sharing change is intended to apply to all cost-shared and 100% ministry funded programs, with the exception of the Ontario Seniors Dental Care Program, Unorganized Territories (including Indigenous Communities Programming), and the Medical Officer of Health/Associate Medical Officer of Health Compensation Initiative.

The deadline to submit the 2020 Annual Service Plan is **March 2, 2020**.

In order to assist boards of health in completing the Annual Service Plan, instructions and a glossary of terms have been provided in this worksheet. Also, a section outlining technical instructions on how to navigate through the Annual Service Plan worksheets is included as part of the Cover Page section of the template.

Instructions

The Annual Service Plan is organized according to the order of the Standards. Boards of health are required to provide narrative details and budgeted financial data for each Foundational Standard, and for all programs and services planned under each Program Standard. For a list of admissible expenditures that can be included in the Annual Service Plan, refer to the current versions of the Public Health Funding and Accountability Agreement and Program-Based Grants User Guide.

The Annual Service Plan includes multiple worksheets that are accessible from a menu on the left-hand side of the Annual Service Plan workbook. In each worksheet, cells that require input have been colour-coded blue. Cells that are pre-populated with data previously inputted are colour-coded white.

Annual Service Plan Structure

This worksheet sets the structure of the Annual Service Plan and requires each board of health to specify the number of programs to be delivered under each Program Standard, program titles, the number of interventions per program, intervention titles, number of one-time funding requests including type/category of request and their titles, number of board of health members, and number of obligated municipalities to complete the apportionment worksheet. Space to enter titles for programs, interventions, and one-time funding requests will be visible once the board of health specifies the number required for each. These titles will automatically populate all appropriate sections in the Annual Service Plan (this worksheet must be completed/updated by boards of health prior to completing the Annual Service Plan).

Boards of health can input a number value of up to 20 programs and up to 10 interventions under each Program Standard (Substance Use and Injury Prevention has been allocated space for up to 15 interventions). Information pertaining to the Foundational Standards is not required on this worksheet. Please refer to the Glossary for definitions and sample examples of programs and interventions.

The ministry acknowledges that boards of health continue to use different program names for similar services, and there is a variation in the way boards of health group activities into programs. In order to address these challenges, the ministry is continuing to move forward with further standardization of categories as part of the 2020 Annual Service Plan.

The ministry is requesting that boards of health provide program descriptions based on the following standardized categories:

Program Standard	Standardized Program Name	Applicable Requirements	Examples of Activities
Chronic Disease Prevention and Well-Being or Healthy Growth and Development	Non-Mandatory Oral Health programs		Oral health services and activities provided outside of the requirements related to Healthy Smiles Ontario, the Ontario Seniors Dental Care Program, and School-based screening.
Chronic Disease Prevention and Well-Being	Ontario Seniors Dental Care Program	See Schedule B of the most recent Accountability Agreement.	See Schedule B of the most recent Accountability Agreement.
	Community Based Immunization Outreach (excluding vaccine administration)	• Work with community partners to improve public knowledge and confidence in immunization programs and services; • Provide consultation to community partners on immunization and immunization practices; • Work with school boards and schools to identify opportunities to improve public knowledge and confidence in immunization for school-aged children; and, • Assess, maintain records, and report on immunizations administered at board of health-based clinics.	• Community outreach, consultations and partnerships on immunization and immunization practices; • Activities to improve public knowledge and confidence in immunization programs and services; and, • Activities to improve health professional knowledge and understanding of immunization and the Ontario immunization schedule.
	Immunization Monitoring and Surveillance	• Conduct epidemiological analysis of surveillance data for vaccine preventable diseases, vaccine coverage, and adverse events following immunization, including monitoring of trends over time, emerging trends, and priority populations; • Have a contingency plan to deploy board of health staff capable of providing vaccine preventable diseases outbreak management and control; • Promote reporting of adverse events following immunization by health care providers to the local board of health; and,	• Data entry and management of clinics, including Universal Influenza Immunization Program (UIIP); • Monitoring, investigating, and documenting, as appropriate, adverse events following immunization (AEFI); • Promotion of reporting of AEFIs by health care providers to the local board of health; • Epidemiological analysis of surveillance data for vaccine preventable diseases, vaccine coverage, and AEFI, including monitoring of trends over time, emerging trends, and priority populations; and,

Immunization	Immunization Monitoring and Surveillance	• Monitor, investigate, and document all suspected cases of adverse events following immunization that meet the provincial reporting criteria and promptly report all cases.	• Outbreak management (excluding immunization clinical services). Excludes activities related to the Immunization of School Pupils Act (ISPA)/ Child Care and Early Years Act (CCEYA) data collection, entry, monitoring and reporting.
	Vaccine Administration	<i>Immunization Standard</i> • Provide provincially funded immunization programs and services to eligible persons in the board of health. <i>School Health Standard</i> • Provide provincially funded immunization programs to eligible students in the board of health through school-based clinics.	• Vaccine administration for provincially funded immunization programs for eligible persons in the board of health, including: School-based clinics for Hepatitis B, Human Papillomavirus and Meningococcal ACYW; community-based clinics and other catch-up immunization services (not school-based); and, UIIP clinics.
	Vaccine Management	• Provide comprehensive information and education to promote effective inventory management for provincially funded vaccines; • Promote appropriate vaccine inventory management: (a) Prevention, management, and reporting of cold chain incidences, b) Prevention, management, and reporting of vaccine wastage; and, • Ensure that the storage and distribution of provincially funded vaccines is in accordance with the Vaccine Storage and Handling Protocol, 2018 (or as current).	• Provision of information and education to promote effective inventory management for provincially funded vaccines; and, • Activities related to the storage, handling and distribution of vaccines.
Infectious and Communicable Diseases Prevention and Control	Vector-Borne Diseases Program	• See the Infectious Diseases Protocol, 2018 (or as current).	• See the Infectious Diseases Protocol, 2018 (or as current).
Safe Water	Small Drinking Water Systems Program	• See the Small Drinking Water Systems Risk Assessment Guideline, 2018 (or as current).	• See the Small Drinking Water Systems Risk Assessment Guideline, 2018 (or as current).
School Health (Oral Health)	Healthy Smiles Ontario Program	• See the Oral Health Protocol, 2018 (or as current) (sections 9, 10 and 11).	• Program Eligibility Assessment and Client-Level Oral Health Navigation (e.g., clinical and financial eligibility determination, client enrollment support into the various streams of Healthy Smiles Ontario, assistance with finding a dental home); • Post-Screen Notification and Follow-up; • Oral Health Service Delivery (e.g., clinics/mobile buses providing oral health services to Healthy Smiles Ontario clients); • Promotion and Education (i.e., Oral Health and Healthy Smiles Ontario); and, • Other, if applicable.

	Oral Health Assessment and Surveillance	• See the Oral Health Protocol, 2018 (or as current) (sections 2a, 2b, 2c, 3 and 4).	• Pre-Screen Notification (e.g., liaising with school boards, issuing pre-screen notification letters); • School Risk Level Determination; • Screening and Surveillance; and, • Other, if applicable.
School Health (Immunization)	Immunizations for Children in Schools and Licensed Child Care Settings	• Enforce the ISPA; and, • Assess, maintain records, and report on: the immunization status of children enrolled in licensed child care settings, and the immunization status of children attending schools in accordance with the ISPA.	• Maintenance of records, assessment and reporting on the immunization status of children in schools and licensed child care centres; • ISPA suspension process; and, • ISPA education sessions. Excludes all activities related to vaccine administration such as school clinics and catch-up clinics for ISPA vaccines. Those activities should be included under "Immunization/Vaccine Administration."
School Health (Vision)	Child Visual Health and Vision Screening	• See the Child Visual Health and Vision Screening Protocol, 2018 (or as current) (sections 3a and 3b).	• Parent Notification Form-A (PNF-A): Notifies the parents/guardians of children who have been screened and identified in need of visual health services and/or treatment within two business days of completing the screening. This form shall include a referral to an optometrist for a comprehensive eye exam. • Parent Notification Form-B (PNF-B): Notifies the parents/guardians of all other children who have been screened. This notification shall encourage parents/guardians to book an appointment with an optometrist for a comprehensive eye exam. • Child Vision Screening Reminder Letter: Sent 20 business days after the PNF-A to remind parents to book an optometrist appointment. • Vision Screening Assessment Form: Used by boards of health for each child screened, to record the results of each of the three vision screening tests and indicate whether the overall result is pass, refer or automatic referral. This form is kept for board of health records and not issued to the student.
		Implement Comprehensive Tobacco Control under the pillars of "prevention", "protection" and "cessation", including enhanced knowledge translation, coordination/collaboration among boards of health, and with a focus on priority populations. Prevention: • Initiatives to prevent individuals from becoming daily	Prevention: • Broad-based public education and awareness initiatives on youth vaping. • Peer-to-peer youth engagement activities to address tobacco use and vaping. Protection: • Activities related to the enforcement of the SFOA,

Substance Use and Injury Prevention	Smoke-Free Ontario	(and nicotine dependent) users of tobacco and vapour products; including primary (initiation) and secondary (escalation) prevention of the use of tobacco and vapour products. Protection: • Enforcement of the <i>Smoke-Free Ontario Act, 2017</i> (SFOA, 2017) and its regulation. • Initiatives to protect individuals from second-hand exposure to tobacco, vapour products, the smoking and vaping of cannabis (medical and recreational) and other emerging products. Cessation: • Initiatives to motivate, encourage and support efforts to quit the use of tobacco and vapour products. • Initiatives to educate that focus on the harms of tobacco and vapour product use. • Referrals to Telehealth Ontario and regional health partners (e.g., primary health care; community agencies) to increase access to cessation services.	2017. • Local policy development that is beyond the SFOA, 2017 (e.g., smoke-free housing, smoke and vape-free workplace policies; smoke and vape-free campuses). Cessation: • Maintaining an integrated network of community partners in smoking cessation. • Broad-based public education and awareness initiatives on the harms of tobacco and vapour product use. The ministry does not support advocacy activities targeting provincial and federal governments.
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The standardized programs listed above have been added to the Annual Service Plan Structure worksheet under the relevant Program Standard. Interventions must also be identified for each of these standardized programs in the Structure worksheet. Boards of health that deliver other programs under the above mentioned Program Standards may still include these programs as long as there is no duplication or overlap in the activities and services provided. In order to add additional programs under a Program Standard, boards of health must update the total number of programs under a Program Standard in the Structure worksheet.

It is also important to note the following:

- Programming related to substance use prevention (i.e., alcohol, cannabis, opioids, illicit and other substances, including tobacco) and harm reduction (i.e., Needle Exchange Program, Harm Reduction Program Enhancement) should be reflected under the Substance Use and Injury Prevention Standard. Program and/or intervention descriptions should clearly state which substance(s) are being targeted. A program may target multiple substances or a specific substance.
- Programming related to menu labelling should be reflected under the Chronic Disease Prevention and Well-Being Program Standard.
- Some public health programs may be delivered under multiple Standards. Boards of health are required to allocate these programs across all of the applicable Standards.

Community Assessment

Boards of health are required to provide a high-level description/overview of the communities within their public health unit on this worksheet.

Information entered in the Community Assessment worksheet should provide sufficient detail to enable the ministry to understand program and service delivery decisions and appreciate unique priorities, opportunities, and challenges. This will provide the broad context within which all programs and services are delivered.

Content in this section is intended to provide a "big picture" overview of the communities within the public health unit area and is not expected to duplicate, but to complement, content inputted under the Foundational and Program Standards. There should be a clear linkage between the community assessment and program and service delivery decisions made by the board of health under the Standards.

Program Plans

This group of worksheets requires boards of health to provide a narrative on all programs and services they plan to deliver under each Standard. These program plan worksheets will be pre-populated based on the number and titles of programs and interventions entered in the Annual Service Plan Structure worksheet.

There is a worksheet for the Foundational Standards and for each Program Standard (the School Health Program Standard worksheet includes four (4) sections for Oral Health, Vision, Immunization, and Other). The Program Plan worksheets are organized as follows:

- **Foundational Standards** – Boards of health are required to describe how they plan to implement each of the four (4) Foundational Standards, and for the Emergency Management Foundational Standard describe the objectives and key partners/stakeholders.
- **Program Standards** – Within each Program Plan worksheet, boards of health are required to provide summary narrative details on community needs/priorities, key partners/stakeholders, and programs/services that boards of health plan to deliver in 2020, including objectives that include timelines, and a description of all public health interventions within each program.

For the Ontario Seniors Dental Care Program (OSDCP), boards of health are required to provide the following details as part of their program description:

- 1) Community Needs/Priorities - a short summary of the key data and information which demonstrates your communities' needs for public health interventions under the OSDCP and the your board of health's determination of the local priorities for programs of public health interventions under the OSDCP; and,
- 2) Key Partners/Stakeholders - a high level summary of the specific key internal and external partners you will collaborate with to deliver the OSDCP, including a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement.

Boards of health must complete all sections of all program plans and are not permitted to refer to content previously inputted under a different Standard. If there is duplication of narrative details in programs under the same Standard, boards of health may avoid duplication by referring to another program where the information has already been provided. Please refer to the "How to Use the ASP Template" section for tips on copy/pasting content effectively.

Budget Allocation and Summaries

Includes a set of worksheets to allocate staffing and other expenditures for each Foundational Standard, and for all programs under each Program Standard as identified in the Annual Service Plan.

Boards of health are required to identify sources of funding in the allocation of expenditures worksheet, which have been streamlined for the purposes of the 2020 budget submission process. For 2020, the sources of funding include:

1. *Mandatory Programs*, which refer to the public health programs and services boards of health are required to deliver in accordance with the *Health Protection and Promotion Act (HPPA)* and the Standards.
2. *Ontario Seniors Dental Care Program*, which provides comprehensive dental care to eligible low-income seniors to help reduce unnecessary trips to the hospital, prevent chronic disease and increase quality of life for seniors.
- 3a. *Unorganized Territories*, which refer to public health programs and services boards of health are required to deliver in unorganized territories (areas without municipal organization) in accordance with the HPPA and the Standards. Only boards of health that received base funding from the ministry for the delivery of this program in 2019 will have the option to identify this as a funding source.
- 3b. *Unorganized Territories: Northern Fruit and Vegetable Program*, which ensures a coordinated approach to increasing consumption and awareness of fresh fruits and vegetables in combination with healthy eating and physical activity education to school-aged children and their families in Northern Ontario. Only boards of health that received base funding from the ministry for the delivery of this program in 2019 will have the option to identify this as a funding source.
- 3c. *Unorganized Territories: Indigenous Communities*, which refer to the public health programs and services for Indigenous Communities (on reserve). Only boards of health that received base funding from the ministry to assist with Indigenous programming in 2019 will have the option to identify this as a funding source.

Funding received for the MOH/AMOH Compensation Initiative should not be included in the Annual Service Plan.

Please note that sources of funding must be identified for programs to which they are applicable.

The Budget worksheets are organized as follows:

- **Staff Allocation to Programs** – Boards of health are required to input the total number of full-time equivalents (FTEs) and total budget for each position title under each Standard in the light blue cells. The total FTEs and total budget are inputted in the same row as the title for that Standard. For Program Standards, boards of health are then required to allocate the total FTEs and budget to each program listed under that Program Standard. Cells will be yellow until all FTEs and budgets have been allocated. Data inputted in this worksheet will pre-populate salaries and wages in the Allocation of Expenditures worksheet. Boards of health are also required to allocate a budget for each Foundational Standard. Position titles added to this worksheet include Social Determinants of Health and Infection Prevention and Control Nurses. The ECA Inspector position title has been removed.

- **Medical Officer of Health & Administrative Staff** – Boards of health are required to input the total FTEs and total budget for the Medical Officer of Health position and each administrative position in this separate worksheet. Data inputted in this worksheet will pre-populate salaries and wages in the Allocation of Expenditures worksheet, in the indirect costs section.

- **Allocation of Expenditures** – Salaries and wages will pre-populate from the staffing worksheets. Benefits are calculated based on the average percentage (%) of benefits entered for the entire organization at the top of this worksheet. Benefits can also be entered directly in each cell as benefits cells have been left unlocked for this purpose. All other expenditure categories should be manually allocated in each Foundational Standard and each program under the Program Standards. Costs associated with the Office of the Medical Officer of Health, administration and other overhead/organizational costs are to be inputted in the section at the end of this worksheet as an indirect cost and are not to be allocated across the Standards. Sources of funding must be identified for each Foundational Standard and each program under the Program Standards. Sources of funding are populated by selecting from a drop down menu. Please refer to the "How to Use the ASP Template" section from the Cover Page for any troubleshooting help with the budget worksheets.

- **Budget Summaries** – This worksheet includes three budget summaries that reflect budget data at 100% (municipal and provincial portions): 1) Budget Summary by Funding Source that summarizes budget data; 2) Summary of Expenditures; and, 3) Summary of Staffing. A print option is available at the top right of this worksheet by clicking on the "Print" button.

One-Time Funding Requests

Any requests for one-time funding must be identified in the one-time funding requests worksheet in this workbook. Prior to completing the one-time request worksheet, boards of health must input the total number of one-time requests in the Annual Service Plan Structure worksheet, and include the category/type of project and title for each request. This information will then pre-populate the One-Time Requests worksheet. A Summary worksheet automatically populates total one-time funding requested.

Given the current fiscal environment, there is a limit of up to five (5) one-time funding requests for the following categories:

1. Capital – the ministry will consider one-time funding requests for minor capital and infrastructure improvement projects. The projects must meet the following criteria: be a very urgent and minor infrastructure renewal project that can be completed by March 31, 2021; is not part of an existing approved project that is funded by the ministry; is a tangible Asset or capital leased Asset that will have a useful life extending beyond one year and is intended to be used on a continual basis; extends the useful life of the Asset or improves the facility's quality or functionality; is capitalizable; costs between \$5,000 and \$1.0M, inclusive; does not require an increase to the operating budget; and, the board of health is not planning to move to a new site over the next 24 months.

2. New Purpose-Built Vaccine Refrigerators – the ministry will consider one-time funding requests for new purpose-built vaccine refrigerators. The one-time funding request should include costs for peripheral devices (e.g., temperature monitoring and recording device, voltage safeguard, alarm), freight, refrigerator setup, warranty and applicable taxes. Please ensure that the request includes: a rationale as to why a new purpose-built vaccine refrigerator is required (e.g., refrigerator failure or imminent likelihood of failure, new sub-office, refrigerator capacity, currently using non purpose-built refrigerators, etc.); the size of the refrigerator(s) (in cubic feet); and, the number of refrigerators required.

3. Public Health Inspector Practicum Program – The ministry will consider one-time funding requests for one (1) or more practicum position(s). Each practicum position is eligible for up to \$10,000 in one-time funding to cover student salaries, wages and benefits, transportation expenses associated with the practicum position, equipment, and educational expenses. A maximum of 25 practicum placements may be supported under this program. Please ensure that the request for one-time funding includes: the ability of the hosting board of health to comply with the requirements of the Canadian Institute of Public Health Inspectors (CIPHI) Board of Certification (BOC) for field training for a 12 week period; and, the availability of a qualified supervisor/mentor to oversee the practicum student's term.

4. Extraordinary Costs – The ministry will consider one-time funding requests for extraordinary costs incurred or expected to be incurred by a board of health over and above the approved budget associated with the provision of the Standards (i.e., infrequent and unexpected costs incurred over and above regular business/programming, such as outbreak costs).

Please note that one-time requests for Nicotine Replacement Therapy (NRT) will not be considered for 2020-21.

Approval of one-time requests must not be assumed and will be dependent upon the availability of ministry funding. Please note that if the ministry does not approve a one-time request, boards of health will be responsible for 100% of the one-time and ongoing costs associated with the request. Similarly, if a board of health's approved budget for any one-time request exceeds the ministry's approved funding, then the board of health is responsible for those extra costs.

All one-time funding requests will be considered by the ministry at 100% and for the 12 month period of April 1, 2020 to March 31, 2021.

To help provide stability as municipalities begin to adapt to the change in cost-sharing arrangements, the ministry has committed to provide one-time mitigation funding to assist boards of health and municipalities to manage increased costs for the 2020 calendar year. While final confirmation of 2020 funding will be provided through the 2020 budget approval process, we expect that all municipalities will be protected from any cost increases resulting from the cost-sharing change that exceed 10% of existing costs. As provincial one-time mitigation funding is expected to be calculated based on actuals previously reported; boards of health are not required to request one-time funding for these changes through the 2020 Annual Service Plan budget submission process.

Board of Health Membership

Boards of health are required to provide details on board of health membership on this worksheet. Boards of health must enter the total number of board of health members in the Annual Service Plan Structure worksheet, which will provide sufficient space to complete details for each member.

Apportionment of Board of Health Costs

New for 2020, boards of health are required to provide information on how their costs are apportioned to obligated municipalities, totalling 100%. A worksheet has been added to the 2020 Annual Service Plan template. This information was previously requested as part of the Program-Based Grants budget submission process.

Key Contacts and Certification by the Board of Health

Boards of health are required to provide key contact details and indicate when the completed Annual Service Plan and Budget Submission was approved by the board of health on this worksheet. Do not include personal contact information. Contact information (e.g., emails, phone numbers and mailing addresses) should be those of the board of health or public health unit office. Boards of health are no longer required to sign the completed Annual Service Plan and Budget Submission.

Glossary

Standard – The term "Standard" in the Annual Service Plan refers to each of the Foundational Standards and Program Standards as identified in the Ontario Public Health Standards: Requirements for Programs, Services, and Accountability. The Standards articulate public health programs and services that boards of health are required to provide, including a broad range of population-based activities designed to promote and protect the health of the population as a whole and reduce health inequities, program outcomes and specific requirements. Please note that in the Annual Service Plan, the School Health Program Standard has been divided into four sections for Oral Health, Immunization, Vision, and Other.

Program/Activity – For the purposes of completing the Annual Service Plan, a “program” is a strategy or plan implemented and operationalized by the board of health to address a particular issue, challenge and/or opportunity identified as a need in their public health unit area, and includes goals, objectives and a logical grouping of interventions to meet the intent of the program. A program may be disease specific, topic specific, or population/age specific, or other.

Public Health Intervention – For the purposes of completing the Annual Service Plan, a public health intervention is an organized set of public health actions designed to produce behaviour changes or improve health status among individuals or an entire population. May be delivered in single or multiple locations.

Examples of Programs and Interventions

Standards	Examples of Programs/Activities	Examples of Interventions
Chronic Disease Prevention and Well-Being	Healthy Eating	Public Awareness and Education
		Inspections of Food Premises

Food Safety	Food Safety	Education and Training (Safe Food Handler)
Healthy Environments	Health Hazards	Monitoring and Surveillance
Healthy Growth and Development	Breastfeeding	Engagement with Community Partners
Immunization	Immunization Monitoring and Surveillance	Outbreak Management
Infectious and Communicable Diseases Prevention and Control	Infection Prevention and Control	IPAC complaints investigation and follow-up
Safe Water	Small Drinking Water Systems	Inspections and Surveillance
School Health - Oral Health	Healthy Smiles Ontario	Oral Health Service Delivery
School Health - Vision	Child Visual Health and Vision Screening	Vision Screening Awareness and Education
School Health - Immunization	School Immunization Program	Awareness and Education
School Health - Other	Mental Health	Promotion and Support
Substance Use and Injury Prevention	Tobacco, Vapour Products, medical cannabis, and cannabis related enforcement Other Substances Needle Exchange Harm Reduction Program Enhancement	Public Awareness and Education Enforcement For Harm Reduction Program Enhancement, specifically: • Local opioid response; • Naloxone distribution and training; and, • Opioid early warning and surveillance.

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Annual Service Plan Structure

NOTE:

The Annual Service Plan Structure worksheet must be completed prior to completing the rest of worksheets.

Chronic Disease Prevention and Well-Being

		# Programs	3
P 1)	Ontario Seniors Dental Care Program	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
P 2)	Built Environment	# Interventions	2
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
P 3)	Food Strategy and Community Health	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Inspection		

Food Safety

		# Programs	1
P 1)	Food Safety	# Interventions	5
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Monitoring and Surveillance		
i 4)	Inspection		
i 5)	Investigation and Response		

Healthy Environments

		# Programs	2
P 1)	Health Hazards	# Interventions	6
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		

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i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
i 5)	Inspection		
i 6)	Investigation and Response		
P 2)	Air Quality and Climate Change	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Monitoring and Surveillance		
i 4)	Investigation and Response		
Healthy Growth and Development		# Programs	2
P 1)	Healthy Growth and Development	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
P 2)	Health Promotion	# Interventions	3
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Monitoring and Surveillance		
Immunization		# Programs	4
P 1)	Community Based Immunization Outreach (excluding vaccine administration)	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		

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P 2)	Immunization Monitoring and Surveillance	# Interventions	6
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Monitoring and Surveillance		
i 4)	Inspection		
i 5)	Investigation and Response		
i 6)	Inventory Management		
P 3)	Vaccine Administration	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
P 4)	Vaccine Management	# Interventions	6
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Monitoring and Surveillance		
i 4)	Inspection		
i 5)	Investigation and Response		
i 6)	Inventory Management		
Infectious and Communicable Diseases Prevention and Control		# Programs	3
P 1)	Vector-Borne Diseases Program	# Interventions	6
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		

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NOTE:

The Annual Service Plan Structure worksheet must be completed prior to completing the rest of worksheets.

i 5)	Inspection		
i 6)	Investigation and Response		
P 2)	Infectious Disease Program	# Interventions	6
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
i 5)	Inspection		
i 6)	Investigation and Response		
P 3)	Sexual Health Program	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
Safe Water		# Programs	2
P 1)	Small Drinking Water Systems Program	# Interventions	6
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
i 5)	Inspection		
i 6)	Investigation and Response		
P 2)	Safe Water Program	# Interventions	6
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Annual Service Plan Structure

NOTE:

The Annual Service Plan Structure worksheet must be completed prior to completing the rest of worksheets.

i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
i 5)	Inspection		
i 6)	Investigation and Response		
School Health - Oral Health		# Programs	2
P 1)	Healthy Smiles Ontario Program	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
P 2)	Oral Health Assessment and Surveillance	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
School Health - Vision		# Programs	1
P 1)	Child Visual Health and Vision Screening	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
School Health - Immunization		# Programs	1
P 1)	Immunizations for Children in Schools and Licensed Child Care Settings	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Annual Service Plan Structure

NOTE:

The Annual Service Plan Structure worksheet must be completed prior to completing the rest of worksheets.

i 3)	Screening, Assessment and Case Management		
i 4)	Investigation and Response		
School Health - Other		# Programs	1
P 1)	School Health	# Interventions	3
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Monitoring and Surveillance		
Substance Use and Injury Prevention		# Programs	5
P 1)	Smoke-Free Ontario	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
P 2)	Harm Reduction	# Interventions	4
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
i 4)	Monitoring and Surveillance		
P 3)	Substance Use Prevention	# Interventions	3
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Monitoring and Surveillance		
P 4)	Mental Well-Being	# Interventions	3
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Annual Service Plan Structure

NOTE:

The Annual Service Plan Structure worksheet must be completed prior to completing the rest of worksheets.

i 3)	Monitoring and Surveillance		
P 5)	Injury Prevention	# Interventions	3
i 1)	Strategic and System Initiatives		
i 2)	Promotion, Awareness, Education and Knowledge Translation		
i 3)	Screening, Assessment and Case Management		
One-Time Funding Requests		# Requests	1
O1 Type	New Purpose-Built Vaccine Fridges		
O1 Title	Vaccine Fridges		
Board of Health Membership		# Members	16
Apportionment of Board of Health Costs		# Municipalities	1

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Community Assessment

A. Community Needs and Priorities

Describe the process your board of health uses to understand your community's population health needs and priorities. Include information on how you assess whether your community's population health needs are changing and whether your board of health's programs and interventions have been adapted to address changes in the community's population health needs.

Population Health Assessment Process: To determine local health priorities, the City of Hamilton Public Health Services (PHS) has developed a standardized assessment process for multi-criteria evidence-informed decision analysis of population health measures. The assessment process ('Health Check') was developed according to recommended practices by the National Collaborating Centre for Methods and Tools (NCCMT), the National Association of County and City Health Officials (NACCHO), and the Institute for Health Metrics and Evaluation (IHME). The assessment process considers the following weighted population health measurements across 38 health outcomes: 1) morbidity rates (incidence, emergency department visits, and hospitalization); 2) mortality rates (including potential years of life lost); 3) comparison of local morbidity and mortality rates to Ontario; and, 4) local trends in morbidity and mortality rates. Best-available data is populated into a weighted-criteria scoring tool which produces a prioritized list of health outcomes that are burdening the health of the local population. Based on mortality measurements, population attributable fractions are estimated to determine the burden of risk factors. This process is mirrored by a secondary assessment process ('Equity Counts') that determines health inequalities in the local population to inform priority population selection for public health programs. This process is based on the NCCMT's evidence-informed decision making framework and synthesizes health equity evidence for 49 health outcomes and risk factors across three domains: 1) quantification of local health inequalities for morbidity data; 2) quantification of political and community priorities related to health inequalities by reviewing key strategic documents; and, 3) a systematic search for equity-related meta-analyses in the research literature. The three domains of evidence were synthesized together using weighted scoring criteria. This evidence was populated into a multi-criteria decision-making matrix that informed the selection of priority population during facilitated session with leadership from each public health program. Each of these overarching processes will be refreshed with new data every 3-5 years to align with Hamilton's Population Health Assessment and Surveillance Strategy (see Population Health Assessment plan).

Local Population Health Issues: The Hamilton PHS has identified three priority areas based on evidence-informed decision making and population health assessment: 1) mental health and addictions; 2) healthy weights; and, 3) health equity. Each priority issue is described in further detail below, including programs and interventions that have been adapted to addresses these priority needs.

Mental Health and Addictions: This represents a significant local health burden. Mental illness accounts for 21% of the disability-adjusted life years in Hamilton. Suicide is a leading cause of death for those under 45 years of age and self-harm is increasing among young females. Opioid deaths have increased exponentially from 26 in 2005 to 124 in 2018, and over 80% of opioid deaths are working-age males. Rates of suicide and drug use are higher in lower Hamilton. Addiction to tobacco also has a large burden on population health, primarily driving health outcomes such as lung cancer and COPD. Tobacco use is higher among low income (25% smoke), single parent (29% smoke), and Indigenous (87% smoke) Hamiltonians. It is estimated that 553 deaths are attributed to tobacco smoke annually in Hamilton. To address these priority needs, Hamilton PHS will carry out the following actions in 2020:

- Continue to identify and implement evidence-based programs to address stigma related to mental health and substance misuse;
 - Develop a public health initiative to address community violence and identify strategies to reduce violence and the trauma associated with it;
 - Incorporate a trauma-informed approach into Hamilton PHS' programs and practices;
 - Collaborate with school boards to deliver Positive Parenting Programs with a focus on parents of children with externalizing behaviours; and,
 - Identify opportunities to increase social connectedness for children and youth outside of the school setting.
- More detailed information about these actions can be found in the program plans under the School Health and Substance Use and Injury Prevention Standards.

Healthy Weights: This is another priority issue in Hamilton where overweight and obesity affects 2 in 3 adults locally. Men, middle-aged adults, and low income households report more sedentary behaviour and poorer nutrition. These health behaviours reflect a significant burden of chronic diseases in all local morbidity and mortality data. For example, each year in Hamilton it is estimated that 290 deaths are attributed to high body-mass index, 590 deaths are attributed to dietary risks, and 103 deaths are attributed to low physical activity. Many of these deaths are considered preventable and Hamiltonians living in the most materially deprived areas are more likely to die prematurely from these preventable chronic risk factors. To address these priority needs, Hamilton PHS will carry out the following actions in 2020:

- Continue implementation of priority actions within Hamilton's Food Strategy;
- Continue development of built and social environments that enable physical activity;
- Implement actions from Hamilton's Vision Zero plan in collaboration with Public Works (City of Hamilton) and community partners; and,
- Continue providing programs that promote healthy lifestyles during preconception, prenatal/postnatal periods, and early years.

More detailed information about these actions can be found in the program plans under the Chronic Disease Prevention and Well-Being, Healthy Growth and Development, and School Health Standards.

Health Equity: In Hamilton, 45% of local deaths under age 75 are preventable. Many of these preventable deaths are linked to social disparities which have resulted in significant health inequities. Those living in Hamilton's most materially deprived areas are 3-times more likely to die prematurely from a potentially avoidable cause compared to those living in the least materially deprived areas; this inequity is widening and it is the highest in Ontario. A similar difference exists for the sexes in Hamilton whereby males are 1.7-times more likely to die prematurely from a potentially avoidable cause compared to females. Furthermore, the top income quintile of our population lives 14 years longer than the bottom income quintile of our population. To address these priority needs, Hamilton PHS will carry out the following actions in 2020:

- Continue using population health data and evidence to identify health inequities and determine effective interventions to reduce those inequities across all program areas;
- Develop an Indigenous Health Strategy by developing relationships and engaging with Indigenous communities to address health inequities;
- Provide Indigenous Cultural Competency Training for all Hamilton PHS staff; and,
- Work with system partners through the provision of health intelligence and collaborate on strategies and program delivery.

More detailed information about these actions can be found in the Health Equity program plan.

B. Priority Populations

Provide a high-level description of the priority populations (including Indigenous populations) within your public health unit area.

Materially-deprived populations and children and youth (age 0-19) were the most common priority populations selected for targeted interventions by Hamilton's public health programs. These two priority populations, in addition to Indigenous populations, are described in further detail below. Other priority populations selected by Hamilton's public health programs include lone parents, pregnant persons, people with limited social supports, seniors, adults, institutionalized residents, people who inject drugs, LGBTQ+, visible minorities, and new immigrants.

Materially-deprived populations: Hamilton's concentration of urban poverty is among the highest in Canada. Material deprivation is the inability of individuals to afford or attain basic material needs (e.g., deprivation of income, employment, education, housing). Hamiltonians living in areas with the highest material deprivation are 3-times more likely to die prematurely from an avoidable cause compared to the least materially deprived populations in our city. This disparity is among the highest in Ontario and this gap is widening. Hamiltonians living in materially-deprived neighbourhoods are more likely to die from infections, cancer, circulatory disease, respiratory disease, suicide, and substance overdoses. Low income Hamiltonians were more likely to have a metabolic condition (e.g., hypertension, diabetes) and report being a current smoker, which are two major drivers of avoidable mortalities in Hamilton. Almost all programs at Hamilton PHS have identified materially-deprived populations as a priority population for targeted interventions.

Children and youth (age 0-19): Adverse childhood experiences (ACEs) are potentially traumatic events that can have negative, lasting effects on health and well-being. In Hamilton, 2% of children are born into a family with 4 or more ACEs-like risk factor which significantly increases the risk of negative health outcomes. Furthermore, nearly 1 in 3 (31%) children are vulnerable in early childhood development at school entry. Children and youth residing in marginalized areas were observed to have greater health risks. Overall, following a life course approach for improving health, upstream interventions will aim to reduce long-term health risks among children and youth, especially those from marginalized households. Most of Hamilton's public health programs will target either children or youth as priority populations.

Indigenous: Hamilton is located next to Six Nations of the Grand River, the most populous Indigenous reserve in Canada. The 2016 census counted 12,130 Indigenous Hamiltonians, but research shows over 80% of urban Indigenous do not participate or do not identify themselves in the census (Rotondi et al., 2017). Hence, Hamilton's Indigenous population may be as high as 24,000 to 48,000. The 'Our Health Counts' survey of 790 Indigenous Hamiltonians found 78% earn less than \$20,000 annually, 69% receive social assistance, 57% of adults have not completed high school, and 1 in 8 reported being homeless or living in precarious housing. Hamilton's Indigenous people face significantly higher rates of infectious and chronic diseases. For example, diabetes rates are 3-times greater and Hepatitis C rates are 10-times greater among urban Indigenous compared to the general population. Substance use was more frequently reported among Hamilton's urban Indigenous: 87% currently smoke tobacco, 1 in 5 (19%) report misuse of prescription opioids, and 55% report heavy drinking episodes (twice the Hamilton rate). Mental health was also a major concern with 42% of urban Indigenous reporting a psychological or mental disorder diagnoses by a health care provider. Over 1 in 10 urban Indigenous (10.6%) are frequent users of the emergency department (>5 visits per 24 months) which is 7-times greater than the Hamilton average (1.6%). The following public health program areas have identified Indigenous people as a priority population: comprehensive tobacco control, substance use prevention, harm reduction, and school health. Foundational standards programs will also focus on the Indigenous population as a priority.

C. Unique Challenges and Risks

Describe any unique challenges, issues, and/or risks that are being faced by your communities which are influencing the work of your board of health, including details on any health issues where local rates are higher than the provincial rate and linkages to programming and service delivery decisions.

Comparison to provincial rates: Compared to provincial rates, Hamilton has higher morbidity rates for: colorectal cancer, lung cancer, COPD, respiratory or direct contact diseases, hypertensive disease, overexertion injuries, fall injuries, transport-related injuries, burn injuries, object-related injuries (cut/piece, struck by or against), anxiety disorders, disorders of adult personality and behaviour, self-harm, and unintentional poisonings (substance overdoses). Compared to provincial rates, Hamilton has higher mortality rates for: lung cancer, ischemic heart disease, diabetes, and opioid overdoses. Many of these morbidity and mortality outcomes are being addressed by Hamilton's priority focus on mental health and addictions and healthy weights.

Unique challenges: Hamilton is challenged by a high concentration of urban poverty, housing instability, and extreme health inequities. Hamilton's concentration of urban poverty is among the highest in Canada. In the downtown centre, nearly half (47%) of children live in low income households and over 1 in 5 families (23%) have no employment income. Further, 45% of Hamilton tenants spend over 30% of their income on shelter costs. In some areas, 28% of children have moved twice before school entry and 90% of Indigenous Hamiltonians have moved in the past 5 years. Single parents with children are more likely to experience poverty than almost all other demographic groups. Nearly 1 in 5 (19.2%) families in Hamilton are led by a single parent which is greater than Ontario (17.1%). In Hamilton, 44.4% of single parents with children live in low income households which is greater than the Ontario average (38.6%) and 3.5-times greater than a couple with children (12.8%). These social determinants are associated with many of the most burdening health outcomes in Hamilton, including infections, cancer, circulatory disease, and respiratory disease. Hamiltonians are burdened by higher rates of mental health outcomes. Morbidity measures for anxiety disorders, disorders of adult personality and behaviour, and self-harm were higher in Hamilton compared to Ontario. Mental health issues account for over one-fifth (21%) of disability-adjusted life years in Hamilton, making it the third largest driver of poor health in our community (just behind chronic disease and injuries). As of 2012, suicide was the leading cause of death among Hamiltonians under 45. Self-harm morbidity among female youth in Hamilton has more than doubled over the past decade. Local morbidity and mortality data demonstrate that Hamilton is challenged by a greater frequency of substance use. Hamilton has higher morbidity rates for substance overdoses and this rate is increasing. There were 124 opioid-related deaths in Hamilton in 2018, which translates to one of the highest rates in the province (greater than the Ontario rate). In Hamilton, 1 in 5 residents are current tobacco smokers and 1 in 5 Hamiltonians exceed the low risk drinking guidelines for chronic disease. It is estimated that over 600 deaths in Hamilton were attributed to substance use (alcohol, tobacco, and drugs) in 2012. For infectious diseases, chlamydia and invasive Group A streptococcal infections continue to trend upwards in Hamilton. Lung cancer and COPD are among the most burdening health outcomes in Hamilton. Morbidity rates for lung cancer and COPD are higher in Hamilton when compared to Ontario. These health outcomes are largely attributed to tobacco smoke, radon, and air pollution. It's estimated that 5% of local homes have high levels of radon gas and that 45 lung cancer deaths are attributed to radon exposure annually in Hamilton. Studies of the City of Hamilton's outdoor air quality have shown a higher 98th percentile 24 hour fine particulate matter concentration, a higher 50th percentile 24 hour fine particulate matter concentration, a higher maximum 8 hour ozone concentration, and a higher 50th percentile 8 hour ozone concentration compared to the City of Toronto. In addition, 40% of the Hamilton population resides in a traffic-related air pollution zone.

Risks: The Hamilton population is aging rapidly. The number of seniors (age 65+) will nearly double by the year 2041 whereas the number of children and youth (age 19 or under) will only increase by 24% during the same period. For the first time in its recorded history, Hamilton has more seniors than children and youth. Population dependency is increasing (ratio of seniors/children relative to working age population) and is being exacerbated by premature deaths in the working-age population (e.g., opioids). The prevalence of smoking tobacco cigarettes has reduced significantly in Hamilton from 26.2% in 2000/2001 to 18.8% in 2013/2014; however, this positive trend is vulnerable as vaping e-cigarettes has quickly become popular among youth with one-third (33%) of high school students in Hamilton reporting e-cigarette use in the past year (OSDUHS, 2019).

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Foundational Standards

Population Health Assessment

Description

Please describe how the board of health plans to implement this Standard, including:

a) A list and description of any planned evaluations or research projects the board of health is planning.

The Epidemiology & Evaluation (E&E) Program supports and delivers Population Health Assessment and Surveillance services to all program areas within Hamilton Public Health Services (PHS). The E&E Program has a Population Health Assessment and Surveillance (PHAS) Strategy that is used to implement this Standard. The PHAS Strategy has four priorities:

Priority 1 - Understand the Health of Hamiltonians: Use data to measure, monitor, and report on the health status of our population including determinants of health, health inequities, and risk. This includes the design and maintenance of surveillance systems. This will be accomplished by leveraging existing and new data sources, developing PHAS products using different communication platforms (presentations, reports and web-based interactive data visualization products) that identify public health priorities and priority populations unique to Hamilton, including Health Check Report, Equity Counts Tool, Community Health Profiles, and Life Course Models.

Priority 2 - Share Intelligence with our Partners: Collaborate with Hamilton PHS programs and health system/community partners to understand their data needs. Share PHAS products with other Hamilton PHS programs, health system/community partners, and the public to inform effective decision-making and public health action.

Priority 3 - Focused Investment: Engage Hamilton PHS programs and health system/community partners so that they use PHAS intelligence to inform public health action, while ensuring resources are allocated effectively to reflect public health priorities. This is accomplished by identifying synergies and opportunities to collaborate, developing and strengthening partnerships, conducting information sessions, and promoting PHAS products for evidence-informed decision making; including the alignment of PHA with PHS' internal performance management system and budget processes.

Priority 4 - Strengthen our Community: Develop, implement, and maintain a performance management system (using the Results-Based Accountability framework) that measures, monitors, and reports on public health performance through the achievement of public health priorities and program objectives. Hamilton PHS' performance management system is intended to assess the impact our services have on health outcomes in the community, including identification of areas for continuous quality improvement in public health programming.

In 2020, Hamilton PHS, with the support from the E&E Program, plan on collaborating, coordinating, planning, and implementing the following evaluations:

1) 'Use Your Instincts' vaping awareness campaign for PHS Smoke-Free Ontario Program and the Central West Tobacco Control Area Network; 2) Hamilton Community Foundation's dental investment (Senior's Denture Supplement and Smile with Confidence) for PHS Dental Program/Ontario Works; 3) Breastfeeding Telehealth Pilot for PHS Health Promotion Program; 4) Breastfeeding Virtual Visits for PHS Health Promotion Program; 5) Child & Adolescent Services Mental Health Walk-in Pilot; 6) Coordinated Supports for Families Pilot; 7) Certified Food Handler Evaluation; 8) Harm Reduction Clinic Services Review; 9) Infectious Disease-Environmental Health Surveillance Reporting Review; 10) Infectious Diseases Surveillance Data Analysis Continuous Quality Improvement Project; 11) Vaccine Program School Clinics Continuous Quality Improvement Project; 12) Tuberculosis Medications Continuous Quality Improvement Project; 13) Vaccine Audits Continuous Quality Improvement project; 14) Evaluation of Vanier Towers programs and services for City Housing Hamilton; 15) Vision Screening and Health Promotion Evaluation; 16) Triple P Pilot Evaluation; 17) School Motor Skill Evaluation; 18) VID-KIDS Healthy Babies Healthy Children Implementation Evaluation (co-investigator); and, 19) Trauma and Violence Informed Care Review.

b) The role of the board of health in research activities (e.g., contributor/participant, working groups/committees, principal researcher).

A list of planned research activities for 2020 is provided below as well as the role of Hamilton PHS:

- Principle Investigator: 1) Audience analysis of vaping product use among youth (age 11-14) and their caregivers in Central-West Ontario.
- Co-Investigator: 1) Emotion Dysregulation During Perinatal Period; and, 2) Chronic Stress and Child Adiposity: Testing a Bio-Behavioural Model.
- Contributor: 1) Healthy Life Trajectories Initiative (HeLTI) – Canada
- Advisory: 1) A Study to Assess Home Radon Levels in the City of Hamilton; and, 2) The Art of Creation Project.

c) How the board of health plans to engage with health care and other partners.

Hamilton PHS will continue working with partners across the health and social sectors and within the community. To support these partnerships, Hamilton PHS provides population health assessment information, including information about health inequities, that is necessary to identify shared priorities and determine where to focus efforts in order to achieve the greatest collective impact. A good example of this was the Child & Youth Health Atlas that was developed in partnership with local school boards. The Atlas provides an overview of the health and well-being of school-age children using key population health indicators. It has been used by Hamilton PHS and school board partners to develop shared priorities and actions to achieve a collective impact.

Another example was the development of a 911 Paramedic Services User Profile that used population health data to better understand the demographic and health status characteristics of repeat 911 callers in the community. This user profile was instrumental in informing the 2019 Paramedic Master Plan.

Hamilton PHS will also continue contributing to the Hamilton Health Team by providing local population health data and public health expertise to inform planning and service delivery decisions across the health continuum.

Health Equity

Description

Please describe how the board of health plans to implement this Standard, including:

a) How a health equity approach will be incorporated throughout all programs and services.

All programs, through the Equity Counts Tool, used population health data and other relevant evidence to identify priority populations in 2019. In 2020, this information will be used to review and consider the appropriateness of current interventions for the populations they serve.

b) How effective local strategies to reduce health inequities will be identified.

As described in section a) above, information from the Equity Counts Tool will be used as the foundation to determine effective interventions for priority populations identified by programs. If gaps are identified with respect to effective interventions, an evidence review process will be conducted to identify additional interventions. Hamilton PHS will work with system partners through the provision of health intelligence and collaborate on strategy development and program delivery. An Indigenous Health Strategy that is focused on engaging in relationships with Indigenous communities to address health inequities will be developed.

c) The role of the social determinants of health nurses in this work, if applicable.

The social determinants of health public health nurses will be involved as required with the intent to be engaged in advocacy and policy activities. The social determinants of health public health nurses are also supporting workforce competency development related to Indigenous health, Trauma and Violence Informed Care, and financial empowerment in collaboration with internal and external stakeholders and partners.

Effective Public Health Practice

Description

Please describe how the board of health plans to implement this Standard related to the following under Effective Public Health Practice:

a) Program Planning, Evaluation, and Evidence-Informed Decision-Making.

In 2020, there will be a focus on engaging staff in continuous learning and competency development to enhance foundational knowledge and practice in evidence-informed decision making, population health assessment, equity assessment, results-based accountability, and performance management. Competency development in these areas will help support and strengthen future development of program plans in the Annual Service Plan & Budget. In addition, work is underway to further define and enhance Hamilton PHS' Performance Management System. This will be accomplished through integration of existing performance and monitoring processes, measures, and tools into an overarching Performance Management System. This system will be in alignment with public health priorities and program objectives that enable Hamilton PHS to demonstrate accountability, increase transparency, and make timely and evidence-based decisions to inform program planning and monitor program efficiency and effectiveness on an ongoing basis to fulfil reporting requirements and ensure continuous quality improvement.

b) Research, Knowledge Exchange, and Communication.

There will be a continued focus on fostering diverse multi-sectoral partnerships to integrate public health knowledge and research into practice, while ensuring measurable collective impact. Stakeholder engagement will be built into ongoing program planning with targeted engagement strategies for consultation in areas identified as public health priorities, including healthy weights, mental health and addictions, and health equity. In addition, Hamilton PHS will work to enhance awareness of public health's role, expertise, and achievements through Board of Health presentations, evaluations, population health assessment and surveillance reports, and collaboration. Emphasis will be placed on strengthening Board of Health knowledge of evidence and population health assessment through presentations and reports, and future self-evaluations. Hamilton PHS is currently working to develop indicators to measure impact, effectiveness, and efficiency of knowledge exchange activities.

For 2020, priorities for staff competency building and development are continuing in the areas of Indigenous Cultural Competency Training, continuous quality improvement, and Trauma and Violence Informed Care. In order to continue to build and maintain competency for staff who have already completed Evidence-Informed Decision Making training, a community of practice will be restarted. The full Hamilton PHS Departmental Learning & Development Plan has not been finalized for 2020 and will be revised as additional competency development areas emerge during the year. The plan, however, will align with ongoing work across PHS to continue to meet learning needs related to identified priority areas.

c) Quality and Transparency.

The Board of Health will comply with all monitoring and reporting requirements in the Annual Service Plan & Budget including program activities, and outcome and performance measures. Public disclosure of all public health inspections (as per protocols) are available on the City of Hamilton website. Continued education and support for owners/operators and the public with respect to disclosure is also provided. Continued implementation of the Public Health Continuous Quality Improvement Framework with a focus on introductory competency development in quality improvement as well as public health wide support in identifying and conducting quality improvement projects.

Emergency Management

A. Description

Please describe how the board of health plans to implement this Standard related to emergency management. The following details should be included in the description:

a) The emergency management planning activities you will conduct, including how you will engage key stakeholders in the development and implementation of these activities.

Implementation of the Emergency Management Standard will occur through ongoing emergency preparedness work in accordance with the requirements of the Emergency Management Guideline. In addition, response and recovery operations consistent with the Incident Management System (IMS) will be implemented during any emergency with a potential public health impact. This will accomplish the goal of having a ready and resilient health unit.

The focus of planning efforts for 2020 will be on a comprehensive infectious diseases plan to complement the mass immunization plan from the previous year. Input for the plan will be sought from key program areas including the Infectious Diseases Program and Epidemiology & Evaluation Program, along with departmental leadership, the Emergency Management Advisory Committee and community stakeholders that may play a role (e.g., hospitals, paramedic services, Community Emergency Management Coordinators). Review and revision of the Public Health Emergency Control Group roles and responsibilities and existing plans with applicable stakeholders will continue as normal operations.

b) The processes you plan to put in place (and/or update) for recovering health services identified as time critical.

Business continuity plans will continue to be reviewed and updated as needed. There will be an increased focus in 2020 on continuity planning for core information technology applications and programs in the event of a network outage or other technological failure.

During an emergency Hamilton Public Health Services (PHS) will continue to use existing response and continuity plans to minimize impact on day to day operations and ensure all critical services continue to operate. A review of the plan will occur after each use to make any necessary revisions.

c) The communication modes that will be used to disseminate information during responses (i.e., 24/7 processes).

Hamilton PHS will leverage the media, social media, City of Hamilton websites, other responding agencies, existing program networks, the Emergency Management Communication Tool and other communication methods during emergencies to push out public health information. Hamilton PHS will also set up the public health inquiry telephone line during emergencies to answer health related questions from the public. The City's Customer Contact Call Centre will continue to have on-call staff available 24/7 to respond to any emerging, time sensitive situations.

d) How you will communicate hazard information to your staff and your community.

Annual updates are done to the Public Health Services Emergency Plan and Hazard Identification Risk Assessment (HIRA). Documents are made available to staff to ensure awareness of hazards and responsibilities. Regular engagement with the Community Emergency Management Coordinators and other members of the Emergency Program Advisory Committee (including local police, fire, paramedic services, hospitals, schools) for all preparedness, response, and recovery initiatives ensures that partners are aware of public health threats and plans within our department. Hamilton PHS also provides health related information to the City's HIRA to ensure it is up to date.

e) Emergency management learning/practice/training opportunities you plan on delivering in order to build capacity (include the planned audience for these opportunities).

Hamilton PHS will continue to participate in the annual City Emergency Operations Centre emergency exercises (2 per year). In addition, the Emergency Response Coordinator will develop and implement multiple public health exercises for all Public Health Emergency Control Group members to ensure all members have a chance to participate.

f) How you plan on incorporating lessons learned from previous or future exercises/events into your program for the upcoming year.

After Action Reports are developed after all Public Health Emergency Control Group activations (exercise and real events) to identify corrective actions. Reports are shared with all applicable staff. Progress of corrective actions is tracked by the Emergency Response Coordinator with semi-annual updates to the leadership team.

B. Objectives

Please describe the objectives and what the board of health expects to achieve through the delivery of this Standard. Only describe those objectives that will not also be reflected in other program plans in this template.

1) To be ready to respond to and recover from new and emerging events or emergencies with public health impacts:

- 100% of all Public Health Emergency Control Group members participate in either an exercise, actual emergency activation or training by the end of 2020

2) To reduce negative health impacts to Hamilton residents in the event of emergencies with public health impacts:

- 100% of short-term corrective actions are completed within 12 months of identification
- 100% of long-term corrective actions are completed within 24 months of identification

C. Key Partners/Stakeholders

Provide information on the internal (e.g., board of health program areas) and external partners (e.g., health care and other providers) the board of health will collaborate with to carry out programs/services under this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), planned frequency of engagement, and any collaboration in the development and implementation of emergency management planning activities.

Emergency Management Advisory Committee: This is an internal committee with divisional management representation that act as a conduit to their respective divisions for emergency management related planning initiatives, consultation, and information updates. The committee meets on a quarterly basis.

Emergency Preparedness Advisory Committee: This is an external committee led by the City of Hamilton's Emergency Management Coordinators consisting of community partners committed to emergency planning. The committee meets bi-annually with representation from police, fire, paramedic services, hospitals, Public Works, local social service providers, schools, rail, transit, Hamilton Conservation Authority, etc. The committee allows for networking and planning opportunities amongst members.

Health Sector Emergency Management Committee: This is an informal committee of Hamilton health system partners for collaboration on health-related emergency planning and response. The group comes together on an ad-hoc basis when a situation warrants collaboration and consists of representation from hospitals, primary care providers, and paramedic services.

Ontario Public Health Emergency Managers Network: This is a network of emergency planners from all public health units created to assist with resource sharing and support the continued advancement of emergency management programs across all health units. The group meets twice per year. A sub-working group has been developed that will have a focus on business continuity planning that can be adapted by all health units. The sub-working group meets on a monthly basis.

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Chronic Disease Prevention and Well-Being

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address risk and protective factors for chronic disease prevention and well-being.

Chronic disease is one of the largest causes of death and disability in Hamilton, accounting for 32% of disability-adjusted life years in 2012. Based on a comprehensive assessment of health outcome priorities, it was determined that lung cancer, chronic obstructive pulmonary disease (COPD), ischemic heart disease (IHD), diabetes, and colorectal cancer are among the top most burdensome diseases in Hamilton. The most current data indicate that there were 5,417 hospitalizations (2017) and 1,197 deaths for selected chronic conditions (2012). In 2017, there were 1,868 new cases and 666 deaths due to preventable cancers. The burden of many of these diseases in Hamilton is higher than the province including lung cancer, COPD, colorectal cancer, IHD mortality, and diabetes-related mortality. New cases of lung cancer and hospitalization for COPD have also increased in most recent years (Health Check 2018). Much of this burden is driven by poor diet, high body mass, and low physical activity levels.

Local data shows that 60% of adults 18+ years and 25% of youth age 12-17 in Hamilton are overweight or obese. Males are more overweight or obese than females in Hamilton (CCHS 2015-16). Twenty-two percent (22%) of people age 12+ years and 12% of adolescents (age 12-19) reported activity levels below the recommended Canadian Physical Activity Guidelines (CCHS 2015-16). In Hamilton, 71% of people age 12+ years and 72% of adolescents (age 12-19) consume vegetables or fruit less than five or more times per day (CCHS 2015-16). Based on local mortality data from 2012, it is estimated that 984 deaths were attributed to metabolic risks (e.g., BMI, hypertension, high cholesterol), 590 deaths were attributed to poor diet, and 103 deaths were attributed to low physical activity levels (Health Check, 2018). These risk factors are the major drivers of preventable deaths in Hamilton.

Low income seniors (age 65+) have very poor access to dental care in our community. It is estimated that there are 10,230 low income seniors in Hamilton, with approximately 90% living in private dwellings (ODB, 2018). Of the low income seniors in Hamilton, only 24% have dental insurance (compared to 80% among high income seniors) and 40% visit the dentist regularly (compared to 82% among high income seniors) (CCHS 2013-14). Many seniors report that they skip routine dental visits due to perceptions regarding need (e.g., not needed if wearing dentures) and the out-of-pocket cost (CCHS, 2013-14). In Hamilton, nearly half (47%) of seniors wear dentures and 2 in 5 seniors (39%) report experiencing oral pain or discomfort in the past year. Hamilton seniors are increasingly seeking dental care from local hospital emergency departments. Between 2004 and 2018 the rate of dental-related emergency department visits doubled from 78 visits per 100,000 seniors to 171 visits per 100,000 seniors, and 81% of this increase occurred during standard business hours (9:00am to 5:00pm). Further, seniors living in low income areas were twice as likely to visit the emergency department compared to seniors living in high income areas (IntelliHealth 2015-2017). Geographically, 78% of low income seniors are clustered in three areas in Hamilton: downtown, east end, and the mountain. According to census data, approximately 2% of low income seniors are either Francophone, new immigrants, or Indigenous (Census, 2016). Lastly, the number of seniors in Hamilton is the fastest growing demographic due to an aging population and this population is expected to increase by 72% over the next 20 years (OMF, 2018).

b) Your board of health's determination of the local priorities for programs of public health interventions that addresses risk and protective factors for chronic disease prevention and well-being with consideration to the required list of topics identified in the Standards.

The local priority focus for the Ontario Seniors Dental Care Program (OSDCP) is the 10,230 eligible low-income seniors in the City of Hamilton. Single seniors who make less than \$19,300 and couples who make less than \$32,300 annually will be eligible for the OSDCP. Community Health Centers (CHC) and Hamilton PHS clinic sites are situated in cluster areas to reduce access barriers. Assisting low income seniors to complete the application forms through oral health navigation at CHC's and PHS clinic sites will reduce barriers to care. One thousand of the 10,230 eligible seniors in Hamilton live in long-term care (LTC) facilities. PHS and LTC staff will pilot a mixed model of care with dental hygiene assessments in the LTCs and restorative treatment provided on the dental health bus.

For the Built Environment Program, the following areas have been identified as local priorities:

- 1) Active and Sustainable School Travel (ASST): Planning, implementation, and evaluation including the Ontario Active School Travel funded project with a newly developed Parent Engagement Strategy in place. Work will continue on School Site Design Guidelines in collaboration with the Public Works Department and it is anticipated that close to 100% of School Travel Plans will be completed by end of 2020. The program will also focus on increasing development of active transportation policies in schools. Support from a CIHR funded Health Systems Impact Fellowship and a senior leadership steering committee, will intensify work and outcomes in 2020. In 2020, Hamilton Public Health Services (PHS) will celebrate 20 years of ASST, 10 years of the School Travel Planning, and 5 years of the ASST Charter.
- 2) Sedentary Behaviour Project: Foundational work including literature reviews on sedentary behaviour in the workplace and school settings as well as auto dependence have been completed. Resources were also developed for these targeted settings based on findings from the review. The focus for 2020 will be the practical application in collaboration with the CityLab of Hamilton.
- 3) Physical Literacy: To provide physical literacy education and training to stakeholders, the program will continue carrying out the Hamilton Moves Trillium funded project and will implement the Physical Literacy Summit.
- 4) City Land Use Planning and Physical Activity: Hamilton PHS staff will continue to provide input on local plans with a public health, physical activity, and health equity lens.
- 5) Age Friendly Updated Plan: Hamilton PHS staff will engage in community outreach to inform updates to the Age Friendly Plan.

For the Food Strategy & Community Health Program, the following areas have been identified as local priorities:

- 1) Hamilton Food Strategy aimed at ensuring the availability of healthy, sustainable, and just food for all;
- 2) Recreation Healthy Food & Beverage Plan; and,
- 3) Food Literacy & Food Skills.

c) A description of how other topics for consideration not addressed in the Annual Service Plan were assessed or considered under Chronic Disease Prevention and Well-Being.

In assessing the needs of the community, efforts were made to quantify and prioritize the health outcomes and health behaviours for the City of Hamilton. Population health assessment, disease prevalence, rate of morbidity, rate of mortality along with a comparison of Hamilton to the province and the direction of local trends were considered. Additionally, other services available in Hamilton and the quality of evidence were considered in helping to determine where best to focus public health efforts. Healthy sexuality is addressed in the Infectious and Communicable Diseases Prevention and Control Standard. Sleep is not explicitly covered in programs under the Chronic Disease Prevention and Well-Being Standard; however, it is covered via Hamilton PHS' work on healthy eating, physical activity, sedentary behaviour, and reduction of screen time, which contribute to healthy sleep patterns. Oral health is also addressed under the School Health Standard. Substance use is considered in programs under the Chronic Disease Prevention and Well-Being Standard by addressing overall risk factors for chronic disease and is more thoroughly described in programs under the Substance Use and Injury Prevention and School Health Standards.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

- **Active and Sustainable School Transportation Hub:** This is a partnership that includes both internal and external members that meet monthly to support the coordination of regional ASST.
 - **Age Friendly Collaborative Governance Committee:** This is an external partner committee with representation from the Hamilton Council on Aging, Seniors Advisory Committee, and City of Hamilton staff. The monthly committee meeting provides a forum for guidance, consultation, advocacy, decision-making, actions, monitoring, and awareness raising.
 - **Bike for Mike:** This is an external partner organization that promotes and supports a culture of cycling in Hamilton. Communication and collaboration take place on an ad hoc basis.
 - **City of Hamilton's Macassa and Wentworth Lodges:** This is an internal partnership to address the needs of seniors in LTC facilities. Continued and expanded engagement with the broader long-term care sector and organizations providing services to seniors is planned based on the pilot process and outcome evaluation. Communication and collaboration take place on an ad hoc basis.
 - **CityLab:** This is a combined internal and external partnership that includes ad hoc meetings with members from Mohawk College, McMaster University, Redeemer University, and City of Hamilton staff. CityLab focuses on innovation and collaboration between students to co-create solutions that support the City's Strategic Priorities. Communication and collaboration take place on an ad hoc basis.
 - **City Service Provider Immigrant and Refugee Network:** This is a network of service providers from respective City of Hamilton departments and divisions who interface with immigrant and refugees in their work. The Network collaborates to improve co-ordination of services, facilitate access, address barriers, and increase cultural competence. Network meetings are held 3 times a year with email correspondence throughout the year. Representation includes: Public Health, Recreation, Paramedic Services, Hamilton Housing, Ontario Works, Planning and Economic Development, and Hamilton Immigration Partnership Council.
 - **Community Food Advisors:** This group meets monthly to provide food programming in various community spaces.
 - **Community Health Centres (CHC):** These include Centre de santé Communautaire, Compass Community Health Centre, Hamilton Urban Core Community Health Centre, and De dwa da dehs nye>s Aboriginal Health Centre. Hamilton PHS engages in shared service delivery planning with CHC partners based on local population data and targeted low income CHC populations in the community. Service level agreements will guide service delivery expectations with Centre de Santé Communautaire and Urban Core Community Health Centre.
 - **Community Health Worker Network:** This external partnership committee provides networking and mutual support for the CHWs through teleconferences every six weeks.
 - **Food Advisory Committee:** The goal of this partnership is to support and advise on the implementation of the Hamilton Food Strategy and other food-related City of Hamilton initiatives through monthly meetings and working groups as needed, email input and review, as well as hosting or co-hosting events.
 - **Hamilton Burlington Trails Council:** This is an external advisory committee that meets 4-6 times per year to promote the health benefits of recreational trail use and serve as a trail alliance for a well-connected trail.
 - **Hamilton CREW network:** This is an external steering committee that meets monthly to discuss how to build resistance for climate change.
 - **Hamilton Food Literacy Network:** This partnership provides the opportunity to advise and collaborate on the development and implementation of food literacy programs for Hamiltonians and includes offering, organizing, or co-organizing food related events/learning opportunities.
 - **Hamilton Health Sciences Juravinski Cancer Centre:** This external partnership is intended to provide a forum for sharing resources (monthly emails) as well as facilitating the provision of CHW client accompaniment to the centre approximately 2-4 times per year for support services.
 - **Hamilton PHS Smoke-Free Ontario Program:** This internal partnership meets 1-2 times per year to provide consultation on smoking cessation.
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- **Hamilton Public Library (HPL):** This is a combined internal and external partnership to support community engagement, health promotion resources, and strategic linkages through weekly meetings. Community Food Advisors provide presentations on healthy eating at libraries and Food Strategy staff work with library managers to include food literacy programming throughout the HPL system.
 - **Hamilton Wentworth District School Board (HWDSB) / Hamilton Wentworth Catholic District School Board (HWCDSB) Parent Engagement:** This is an external committee that meets monthly to discuss active school travel advocacy.
 - **IBI:** This is an external consultant group working with Hamilton PHS and Public Works on developing the School Site Design Guidelines for 2020.
 - **Immigrant Workers Centre:** This ongoing external partnership offers Quit Smoking Clinics to the public as well as a focus on health promotion. Consultation takes place as needed.
 - **Interdepartmental Food Strategy Steering Committee:** This internal (City of Hamilton) partnership includes representatives from various City of Hamilton departments to: 1) develop, implement, and support the Hamilton Food Strategy; 2) liaise and connect department/section to food strategy work; and, 3) lead or co-lead Hamilton Food Strategy actions relevant to their department/section such as the Recreation Healthy Food & Beverage Action Plan.
 - **MacChangers:** This is an external committee comprised of McMaster University staff and Hamilton PHS staff with the aim of offering student support, consultation, and knowledge translation. This committee meets twice per year.
 - **McMaster Institute for Research on Aging:** This is an external committee that meets on an ad hoc basis with a focus on research coordination, knowledge translation, and consultation on aging with key stakeholders. There is representation from various City of Hamilton departments as well as McMaster undergraduate and graduate students.
 - **Mobility Lab:** This is an internal and external partner committee that meets 4 times per year to co-create solutions to transportation challenges in the city.
 - **Mobility Resource Group:** This is an external resource partnership that meets twice per year to facilitate the development of a multi-modal transportation system.
 - **Muslim Women's Association:** This external partnership meets monthly to engage Muslim women in health promotion.
 - **Neighbour 2 Neighbour (N2N):** This external committee includes the CHW and N2N collaboration on community events to plan and implement weekly physical activity programs, intercultural food events, and plan and deliver joint tobacco cessation clinics for immigrants. This group meets 4-5 times per year.
 - **Neighbour 2 Neighbour Community Food Centre:** This external partnership provides internal and external representation on the Food Advisory Committee and the Food Literacy Network. The work includes annual service agreements, quarterly reporting, development and delivery of healthy and safe food training to volunteers and partner agency staff, delivery of food programming that increases food knowledge and skills, promotion of healthy local food, and increases access to healthy food (e.g., meals, markets, gardens).
 - **Neighbourhood Hubs:** This is an external partnership that has monthly neighbourhood planning meetings. This partnership focuses on health messages for neighbours to share.
 - **New Hope Community Bikes:** This is an external partner organization that promotes and supports a culture of cycling in Hamilton. Communication and collaboration take place on an ad hoc basis.
 - **North Hamilton Community Health Centre:** This external partnership assists immigrants in connecting with mental health counselling services. Meetings take place 3-5 times per year.
 - **Parent Engagement Committee:** This is an internal committee that meets weekly with the Traffic Management Program to discuss parent engagement.

- Ontario Works Special Supports program and the Hamilton Community Foundation (HCF): These partners provide services to low income seniors, many of whom would be eligible for the new OSDCP. These partners were engaged to discuss potential impacts on programming. Communication and collaboration take place on an ad hoc basis.
- Recreation Food Service & Facilities Division (City of Hamilton): This is an internal partnership to establish and implement Recreation's Healthy Food & Beverages Action Plan.
- Recreation Programming Division (City of Hamilton): This is an internal partnership that meets quarterly (and more often as needed) to provide support to residents via the CHW initiative. This partner provides space within recreation facilities for women's programs related to the CHW initiative to take place.
- Seniors Advisory Committee: This City of Hamilton committee provides input about increasing awareness of and registration for the program. Communication and collaboration take place on an ad hoc basis.
- Seniors At-Risk Community Collaborative – Food Access Workgroup: This partnership includes community service providers (urban and rural), food banks, a grocery delivery program, and City of Hamilton Housing. The work includes facilitating, supporting, and participating in initiatives to improve the nutritional status of community dwelling at-risk seniors. Communication and collaboration take place on an ad hoc basis.
- Smart Commute: This is both an internal and external partner committee, that meets 4 times per year to support and promote Smart Commute in the workplace.
- St Charles Adult Education: This external partnership includes monthly visits by public health nurses and CHWs to English as a second language classrooms in Hamilton. It also supports joint education delivery with the YMCA 1-2 times per year.
- Women's Centre: This external partnership offers clients 4-6 group sessions per year that focus on self-empowerment training for immigrant women.

P 1) Ontario Seniors Dental Care Program

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

Low income seniors are the priority population for targeted services in this program. In Hamilton, only 23% of low income seniors have dental insurance compared to 80% of high income people (CCHS, 2013-14), and seniors from low income neighbourhoods were 2-times more likely to seek dental care through hospital emergency departments (IntelliHealth, 2015-2017).

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

Please see above.

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Oral health is inextricably linked to overall health; it affects physical, mental, and behavioural health. The effects of poor oral health on mental health and social outcomes include poor self-esteem and social isolation. Overall health promotion about the importance of good oral health and providing direct client services to restore seniors' oral health improves both physical and mental well-being through increasing self-esteem, social connectedness, and a person's ability to confidently smile.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Increase the proportion of eligible low-income seniors who have optimal oral health
 - More than 40% of low-income seniors reporting regular dental visits
- 50% of new clients enrolled in OSDCP program will be enrolled through the navigation process in Hamilton
- 40% of eligible seniors in Hamilton enrol and access oral health care through the OSDCP program in public health or community health center dental clinics over the next 5 years

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Hamilton PHS engaged in shared service delivery planning with CHC partners (see list in Section B: Key Partners/Stakeholders) based on local population data and targeted to low income CHC populations in the community.
- Service level agreements will guide service delivery expectations with Centre de santé communautaire and Urban Core Community Health Centre.
- Discuss potential impacts on programming with Ontario Works Special Supports program and the Hamilton Community Foundation. These partners provide services to low income seniors, many of whom would be eligible for the new OSDCP.
- Input from Seniors Advisory Committee will provide insights to increase awareness of and registration for the program.
- Consult and develop a pilot plan with City of Hamilton's Macassa and Wentworth Lodges to address the needs of seniors living in long-term care. Continued and expanded engagement with the broader long-term care sector and organizations providing services to seniors is planned based on the pilot process and outcome evaluation.
- Partnership agreements for denture lab work and oral surgery will be initiated.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Promote good oral health by increasing access and reducing barriers to dental care.
- Promote regular preventive and treatment dental care by assisting seniors and families to establish Hamilton PHS or a CHC as a dental home.
- Develop targeted communication/education strategies to low income seniors in conjunction with community partners.
- Develop and distribute newsletters, emails, and promotional items to the public to increase awareness of OSDCP.
- Seek and maintain internal and external (e.g. community) contacts/partners.
- Distribute promotional materials and applications to community partners.
- Target health promotion campaign within high needs areas identified through mapping to increase awareness of the program and the importance of good oral health.
- Increase awareness of good oral health and the OSDCP through the oral health navigator role and outreach in the community.

i 3) Screening, Assessment and Case Management

- Support eligible seniors who have dental treatment needs to enroll in the program.
- Provide dental preventive, restorative, and denture treatment services based on the schedule of services.
- Provide counselling on diet, oral self-examination, and tobacco cessation (as needed). Clients are also referred to the Hamilton PHS' Smoke-Free Ontario Program if needed.

i 4) Monitoring and Surveillance

- Monitor relevant program data to inform and direct continuous quality improvement activities.

P 2) Built Environment

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

This program aims to reduce incidence, morbidity, and mortality from chronic diseases of public health importance across the lifespan, including cardiovascular disease, Type 2 Diabetes, and certain cancers. The work within this program area aims to prevent chronic disease by increasing physical activity and reducing sedentary behaviour by influencing public policy development and addressing the design of the built environment. This program will provide universal interventions across the lifespan for the City of Hamilton population.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

Some health promotion interventions will be targeted to priority populations including those with low income, low education, visible minorities, and adults aged 65+. Locally, visible minority populations are 1.4 times less likely to meet recommended physical activity guidelines (2015-16 CCHS). Low income populations were 4 times more likely to be hospitalized for diabetes (2015-17 IntelliHealth) and 40% of low income Hamiltonians had at least 1 metabolic condition (hypertension, high blood cholesterol/lipids, osteoporosis, or diabetes) compared to 26% of high income Hamiltonians (2015-16 CCHS).

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Hamilton PHS' work in promoting healthy built environments advocates for physical activity opportunities that are affordable, safe, accessible, and appealing for all across the life span. By promoting healthy built environments, we aim to increase the amount of physical activity that residents can/will participate in (both recreational and functional/incidental) and decrease the levels of sedentary behaviour. Physical activity promotes not only physical health, but mental health as well. Positive outcomes of physical activity include not only increased strength and fitness, and decreased risk of chronic diseases, but also decreased stress, improved sleep, positive self-esteem, social connectedness, and a connection with nature. The latter having positive mental health impacts. The Built Environment Program works with the general population, but also delivers interventions targeted to vulnerable populations such as children and youth, and older adults. Settings include elementary and secondary schools and workplaces.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- 100% of the ASST Parent Engagement Strategy Pilot Project activities and deliverables are completed by June 2020
- Initiate the finalized ASST Parent Engagement Strategy and Tools at 10 English elementary schools by December 2020
- Complete the HWCDSB active classroom pilot including distribution of tent table cards that promote a mix of sitting, standing and moving during meetings (targeted to educators and staff) and classes (targeted to students) in 5 HWCDSB pilot schools by December 2020
- Increase the number of HWCDSB and HWDSB elementary and secondary schools with School Travel Planning Level 1 Certification to 76% to achieve more active travel and less sedentary time in support of Hamilton PHS' healthy weights strategic priority by December 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Advocate for activity friendly communities through regular input into Planning Policy & Zoning By-Law Reform, Community Planning, and Transportation Planning projects and plans.
- Inform people about health risks associated with sedentary behaviour, their time spent in sedentary behaviour, and ways to reduce sedentary behaviour based on the Ecological Models of Four Domains of Sedentary Behavior framework.
- Provide decision-makers with evidence and best practices and help advocate for environmental and policy action changes in various settings and domains to decrease levels of sedentary behaviour.
- Update the 2020 – 2025 Age Friendly Hamilton Plan to include chronic disease prevention, injury prevention and health equity lenses.
- Advocate for health equity principles in local, regional, provincial, and national policies, plans, and projects related to active transportation with a physical activity, health and health equity lens.
- Develop a comprehensive plan for active recess (including guides and training sessions) in collaboration with HWDSB staff and City of Hamilton public health nurses.
- Provide selected stakeholders with targeted messaging regarding sedentary behaviour, sitting less often, and moving more.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Using a population health approach, apply a range of health promotion actions including public policy, supportive environments, community action/capacity, and education/awareness to increase physical activity and reduce sedentary behaviour.
- Disseminate best practices for decreasing sedentary behaviour and increasing physical activity to key stakeholders
- Promote physical activity opportunities and evidence informed initiatives related to the built environment to key stakeholders
- Provide Ontario Physical Literacy Summit registration information to all Hamilton PHS Program Managers and staff who have portfolios that intersect with school health and/or physical activity/physical literacy to prepare children and youth to be physically active inside and outside of school, by September 2020

P 3) Food Strategy and Community Health

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

This program aims to reduce incidence, morbidity, and mortality from chronic diseases of public health importance across the lifespan including cardiovascular disease, Type 2 Diabetes, and cancers of the breast, cervix, colon/rectum, and skin. The work within this program aims to prevent chronic disease by increasing healthy eating through influencing public policy development, and the creation of supportive food environments as well as increasing food literacy to promote healthy eating behaviours, support local food, and advocate for a healthy, sustainable, and just food system for all. The Community Health Workers (CHW) peer model aims to improve health system navigation and promote healthy behaviours in priority populations including healthy eating, physical activity, decreasing sedentary behaviour, and increasing access to health services.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

This program will provide universal programming across the lifespan for the City of Hamilton population. Some health promotion interventions will be targeted to priority populations including those with low income, low education, and visible minorities. Locally, body mass and diet did not differ significantly in socially-defined sub-populations (2015-16 CCHS). Low income populations were 4 times more likely to be hospitalized for diabetes (2015-17 IntelliHealth) and 40% of low income Hamiltonians had at least 1 metabolic condition (hypertension, high blood cholesterol/lipids, osteoporosis, or diabetes) compared to 26% of high income Hamiltonians (2015-16 CCHS).

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Realizing that a healthy diet is strongly associated with improved mental health and well-being, the program promotes healthy food and nutrition behaviours and environments through a health and well-being approach that minimizes potential harm. For example, healthy eating and nutrition is embedded within school mental well-being strategies, community gardens, and cooking programs are related to decreased social isolation and food literacy. Additionally, poverty is linked to poor mental health. Reducing poverty and enhancing food security and as a result improving mental wellness is embedded in program work such as monitoring food affordability and promoting food access and food literacy. Specific initiatives to promote mental health include:

- 1) Promotion of The National Standard for Psychological Health and Safety in the Workplace and its supporting resources to Hamilton workplaces through the Healthy Workplace Bulletin. Assistance will be provided to workplaces upon request.
- 2) Facilitation, support, and participation in The Seniors At-Risk Community Collaborative - Food Access Workgroup that addresses challenges experienced by this target population that can affect their mental well-being.
- 3) Provision of chronic disease prevention related to mental health for immigrants through the CHW initiative. This initiative supports mental well-being by connecting immigrants to health services and promoting mental health messages. Social connectiveness is foundational to all CHW work. De-stigmatization and trauma informed approaches are part of creating awareness.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Increase awareness of the importance of healthy eating and food literacy for health promotion and disease prevention:
 - Deliver 15 presentations on Canada's Food Guide to promote healthy eating and the Health Canada website at various locations in the community by the end of 2020
- Increase the capacity of community agencies to offer healthy and safe, food and nutrition programming to Hamiltonians thereby increasing food literacy programming to community members:
 - 75% of Hamilton Food Literacy Network members will have organized and delivered a community food literacy event or program by the end of 2020
 - 50% of Hamilton Food Literacy Network partners will report that members are achieving more together than they could alone to promote food literacy, offer food programming or meet their organizational goals by the end of 2020
 - Provide 3 Food Handler Certification review sessions in English, Chinese, and Arabic in collaboration with Hamilton Community Food Centre with the aim of 90% success rate for the participants completing the Food Handler Exam by the end of 2020
- Within City of Hamilton recreation facilities and schools, increase access to and promotion of healthy foods and beverages, free municipal tap water, and nutrition information:
 - 15% of total food items on single arena concession menus will fit the green choice guideline set out in the Recreation Healthy Food & Beverage Action Plan by the end of 2020
 - 20% of twin arena concession menus will fit the green choice guideline set out in the Recreation Healthy Food & Beverage Action Plan by the end of 2020
 - 20% of snack vending items in recreation facilities will fit the green and yellow choice guidelines by the end of 2020
- Monitor food affordability:
 - 20% of community partners on the distribution list report using the information in the knowledge translation product "How much Does Healthy Eating Cost in Hamilton" by the end of 2020
- 35% of immigrant population enrolled since 2017 in the mobile Quit Smoking Clinic through Hamilton PHS and who completed the STOP evaluation will quit smoking by the end of 2020
- 70% of targeted immigration service providers report using the information disseminated in the e-health communique for action or decision-making by the end of 2020
- 40% of immigrant English as a second language students surveyed indicate that they have used or shared health information received during monthly health helper messages by the CHW program by the end of 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Support development and implementation of the City of Hamilton Recreation's Healthy Food and Beverage Action Plan (3-year plan) to increase the amount of healthy, local food in publicly owned facilities to make the healthy choice the easy choice.
- Refine City of Hamilton recreation food and beverage guidelines and marketing, source and increase selection of nutritious options, assist with staff training, conduct community engagement, monitor indicators, and continue to explore partnership with food services.
- Strengthen advocacy to eliminate poverty by providing community partners with access to food costing, housing, and income information with an aim to improve individual and household food security.
- Use the Nutritious Food Basket information to assist various partners in advocating for basic income, living wage, and social assistance reform to improve individual and household food security.
- Collaborate with the School Health Program and local school boards to increase opportunities for education and training among school board staff related to the implementation of food literacy education. Opportunities will include the completion and dissemination of Canada's Food Guide Teacher Tips, development and dissemination of curriculum support web-tutorials, and ad hoc support to schools applying for community food literacy grants.
- Support partnership with Food Access Workgroup of the Seniors At-Risk Community Collaborative.
- Work with community partners to identify and address opportunities to strengthen access to community gardens in order to enhance the mental and physical health benefits of community gardens.
- Continue to collaborate with partners to improve health system navigation for priority populations via the CHW initiative.
- Continue to develop the peer support model within the CHW initiative to promote healthy lifestyle behaviours within priority populations.
- Advocate for health equity principles in local, regional, provincial, and national policies, plans, and projects related to the CHW initiative.
- Work with neighbourhood hubs and associations to address identified health needs in priority neighbourhoods.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Using a population health approach, apply a range of health promotion actions including public policy, supportive environments, community action/capacity, and education/awareness to promote healthy eating. These actions will contribute to a healthy community and improved quality of life.
- Disseminate food literacy best practices to key partners (e.g., schools, networks, internal city departments).
- Co-ordinate and support the activities of the Hamilton Food Literacy Network.
- Collect, calculate, and disseminate Nutritious Food Basket costing information in format suitable for general audience and develop and disseminate knowledge translation products via website and partner list.
- Integrate food literacy and food systems training and education where residents live, learn, work, and play by providing healthy and safe food and nutrition program training for volunteers and staff at various community agencies.
- CHWs and Community Food Advisors to provide education, awareness, and training focused on healthy eating to priority populations in Hamilton.
- Collaborate with school boards upon release of revised PPM 150 (Provincial School Food & Beverage Policy) to update board policies and support full implementation.
- CHWs will provide education and awareness activities for immigrant populations focused on healthy eating, physical activity, tobacco cessation, Low Risk Drinking Guidelines, UVR exposure, and cancer screening using a peer to peer model.
- Provide health system navigation for priority populations via the CHW initiative.
- CHWs to facilitate connections to services that promote wholistic health and improve coping and quitting smoking.
- CHWs to promote healthy lifestyle behaviours and mental well-being within priority populations. Creating awareness and providing information through individual contacts, partnership initiatives, and community education strategies (this includes tailored resources and education of partners interfacing with immigrants).
- Create awareness of resources to support physical and mental health for immigrant populations through dissemination of mental well-being resources, the navigation care pathway resource (dissemination plan for 2020), and health emails to immigrant service providers across sectors.
- Build capacity among immigrant populations for healthy living behaviours that support physical and mental well-being and coping through physical activity at recreation centres, food skills at community programs, socialization for community connectiveness at libraries/recreation centres, Hamilton Housing, and community groups.

i 3) Screening, Assessment and Case Management

- Disseminate information regarding breast, cervical, and colorectal screening programs and services to priority populations in the context of integrated chronic disease prevention.
- Disseminate provincial campaign materials for breast, cervical, and colorectal cancer screening programs.
- Support under- and never-screened individuals to make cancer screening appointments through the CHW initiative. This service is provided in English, Chinese, Hindi, Punjabi, and Urdu.
- Collaborate with the Hamilton PHS' Smoke-Free Ontario Program to provide newcomer smoking cessation clinics through the CHW initiative.

i 4) Inspection

- Conduct complaint-based investigations and inspect newly established food service premises for compliance with the Healthy Choices Menu Act – these activities are carried out by public health inspectors from the Food Safety Program.

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Food Safety

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address food safety.

An estimated 100,000 cases of food-borne illnesses occur each year in Ontario (PHO, 2014). Among those, 42% of reported food-borne illnesses were contracted in a private home setting. In Hamilton, 318 enteric, food, and waterborne disease cases were reported in 2018 and the morbidity rate was 55.06 per 100,000 population. Enteric, food, and waterborne mortality count in 2012 was 10 for a mortality rate of 1.85 per 100,000 population (Health Check, 2018). A study has shown that infectious gastrointestinal cases in Hamilton are under-reported. For each case reported to public health, there is an average of 313 additional unreported cases in the community. Based on this average, there were an estimated 99,000 infectious gastrointestinal cases in Hamilton in 2018 (Majowicz et al., 2005). Hamilton residents were more likely to report that they thought food-borne illness was more likely to occur in restaurants (33.3% $\pm$ 3.2), followed by special events (26.9% $\pm$ 3.0), food vending carts (17.6% $\pm$ 2.6), and a private home (12.8% $\pm$ 2.3) (RRFSS, 2010). There is increasing variation in food service models in the community including sharing economy (i.e., food sales/service from private homes) and business out of a box (i.e., temporary/transient seasonal food premises) which may be further contributing to food-borne illness in the home setting.

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses food safety.

Local priorities include reducing food-borne illness in food-handling at home, especially among higher-risk populations. Children are more likely to be diagnosed with food-borne illness and adults age 65 or older are most likely to be hospitalized or die because of a food-borne illness infection (PHO, 2014).

c) Your boards of health's approach to disclosure of inspection results (onsite posting and website posting) and evaluation of the program.

All required inspection results have been posted on the City of Hamilton's website at www.hamilton.ca/healthinspections. The details posted for each type of inspection / conviction is in accordance with the disclosure section of the relevant protocols. A multi-component communication plan has been implemented to raise awareness about the disclosure requirements among premise owners / operators, general public, and City of Hamilton staff.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

Interdepartmental Food Strategy Steering Committee: This partnership committee includes representatives from various City of Hamilton departments to develop, liaise, and connect department/section to food handler training opportunities. Communication and collaboration takes place on an ad hoc basis.

Special Events Advisory Committee: This internal (City of Hamilton) committee's activities include hosting or co-hosting events, supporting and advising the implementation of the Hamilton Food Strategy and other food-related City initiatives. The mechanisms for engagement are bi-weekly meetings, working groups as needed, and email input and review.

Specific Food Safety Projects: This includes meetings on an ad hoc basis to support food safety disclosure, annual service agreements, quarterly reporting, collaboration on development and delivery of food handler education and training of City of Hamilton residents, volunteers and partner agency staff in the delivery of food safety education that increases food safety knowledge and skills. Meetings take place on an ad hoc basis.

Additional collaborations and partnerships include: Hamilton-Wentworth District School Board (ad hoc), Hamilton-Wentworth Catholic District School Board (ad hoc), Taste Buds Student Nutrition Collaboration (quarterly meetings), Immigrants Work Center food handler training (ad hoc meetings), Culinary Academy food handler training (annually), Central West Food Safety Meetings (quarterly meetings) and Building and Licensing Department (quarterly meetings).

P 1) Food Safety

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Food Safety Program inspects food premises, manages, and responds to food-borne illness and outbreaks 24/7, increases food handler and public awareness of safe food handling practices, responds to food recalls, consumer complaints and other food related issues, reports food safety data to the Province, and provides information to the public on food premise compliance.

There are 3,400 fixed food premises (number of food premises by risk-level include unassessed = 78; low = 1079; moderate = 1610; high = 633). There are over 400 special events in the City of Hamilton each year. Of these, 265 events serve food to the public. All special events serving food to the public are risk assessed by Hamilton Public Health Services and approximately 61 special events receive a food safety inspection. This results in over 1,000 additional food safety inspections annually. There are 244 transient food premises (food trucks/trailers) and 12 farmers markets operating in the City of Hamilton that are also inspected. In addition, there is increasing variation in food service models including sharing economy (i.e. food sales/service from private homes) and business out of a box (i.e. temporary/transient seasonal food premises) as well as an increased frequency for requests for food handler training in various languages.

With the identified local priority of children and adults age 65 or older in the home setting, program planning has been geared towards health messaging to address unsafe food practices and methods of prevention including proper hand hygiene, avoiding cross-contamination, storing food at appropriate temperatures, and following safe cooking / preparation practices.

Individuals residing in long-term care facilities, retirement homes and institutional serveries have been identified as a priority population. Average yearly estimates by Health Canada (2019) show approximately 4 million (1 in 8) Canadians are affected by domestically acquired food-borne illness. Of these, there are about 11,600 hospitalizations and 238 deaths. In Ontario, individuals aged 65 years or older are most likely to be hospitalized or die because of a food-borne illness (PHO, 2014). The Ministry of Health specifically lists this population as a priority in their food safety recalls, highlighting the need for public health action among facilities that cater to this group. In other words, if not inspected, recalled food products may cause food-borne illness of elderly or immunocompromised individuals residing in these facilities leading to hospitalization and possibly death.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- 100% compliance with food safety programs and mandated inspection frequency targets for food premises inspections, re-inspections, special events, farmers markets
- Increase the proportion of high-risk food premises who lowered their risk assessment categorization from high to moderate – target will be established in 2020
- Increase the proportion of moderate-risk food premises that lowered their risk assessment categorization from moderate to low – target will be established in 2020
- Decrease the proportion of special events inspected as a result of a completed risk assessment by 2% by the end of 2020
- Decrease the proportion of year-round high and moderate-risk food premises requiring re-inspections due to food safety concerns by 5% by the end of 2020
- Increase the proportion of food handler exam writers who successfully complete the exam by 3% by the end of 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Apply the LEAN process to map and identify efficiencies within the food safety special events team.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Offer Food Safety and Food Handling Certification with 33 self-study exams and 11 courses in 2020. Continue to offer courses and self-study exams outside of the regularly offered options to organizations upon request.
- Provide on-site education and consultations on food handling practices.
- Determine the top three food handling issues in Hamilton annually to focus health promotion messages and food handler education in order to increase awareness about safe food handling.
- Develop and deliver health messaging to priority populations (e.g., children and adults 65 years of age and older in the home setting) that addresses unsafe food practices and promotes methods of prevention including proper hand hygiene, how to avoid cross-contamination, storing food at appropriate temperatures, and following safe cooking and preparation practices.

i 3) Monitoring and Surveillance

- Collect reportable disease case data via iPHIS (suspected and confirmed food-borne illnesses) as well as food premise inspection data via Hedgehog. Hamilton PHS has access to other multiple sources of data provided by the Ministry of Health (e.g., IntelliHealth, CCHS) and partners (e.g., Canadian Food Inspection Agency) to support this program area.
- Monitor, analyze, and interpret food premise inspection data to inform public health actions.
- Continue to ensure the systematic monitoring of trends over time, emerging trends, and priority populations.

i 4) Inspection

- Maintain an inventory of food premises within the City of Hamilton.
- Conduct routine inspections of all fixed food premises.
- Conduct inspections of special events, transient / temporary food premises, and farmers markets.
- Conduct pre-opening and liquor licence inspections.
- Conduct re-inspections as required.
- Provide additional inspections and necessary re-inspections of high risk food premises (e.g., long-term care facilities, day nurseries, hospitals).
- Provide afterhours high, moderate, and low risk fixed premises inspections and re-inspections as necessary.
- Conduct risk assessments of food premises, farmers markets, and special events.
- Assist owners/operators of new food premises in becoming compliant with food safety legislation.
- Conduct inspections, re-inspections (as required), and risk assessments of special events within the City of Hamilton.

i 5) Investigation and Response

- Receive and respond to reports on a 24/7 basis using the on-call system.
- Respond and act on food related complaints within 24 hours of notification.
- Respond to public inquiries through Customer Contact Centre via direct phone extensions, emails, and walk-ins at Hamilton PHS' reception.
- Support Ministry of Health and Ministry of Long-Term Care food-recalls.
- Respond to and provide case management of reportable diseases associated with food-borne illness.
- Respond and act on reported suspect or confirmed food-borne outbreaks.
- Continue to ensure 24/7 availability to receive reports of and respond to complaints.

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Healthy Environments

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address healthy environments.

Cancer of the lung and bronchus as well as chronic lower respiratory diseases are two of the top five leading causes of mortality in the City of Hamilton. Chronic lower respiratory diseases including bronchitis, emphysema, chronic obstructive pulmonary disease (COPD), and asthma are among the top five leading causes of mortality for those aged 65 years and older, whereas lung and bronchus cancer is seen as a leading cause of mortality in Hamiltonians aged 45 years and older (Life Course, 2008-2012). In addition, morbidity and mortality rates due to lung or bronchus cancer in Hamilton are significantly higher compared to Ontario (Health Check, 2018). It is estimated that 90 deaths are attributed to indoor/outdoor air pollution annually in Hamilton (Health Check, 2018).

Surveillance for radon exposure shows that 13.6% of lung cancer deaths in Ontario can be attributed to radon (PHO, 2014). In 2012, approximately 45 lung cancer deaths were attributable to residential radon in Hamilton (Health Check, 2018). Studies of the City of Hamilton's outdoor air quality have shown a higher 98th percentile 24-hour fine particulate matter concentration, a higher 50th percentile 24-hour fine particulate matter concentration, a higher maximum 8-hour ozone concentration, and a higher 50th percentile 8-hour ozone concentration compared to the City of Toronto (Ministry of the Environment and Climate Change, 2016).

In terms of climate change and extreme weather, a crude rate of 18.9 emergency department visits per 100,000 population in 2012 were related to extreme weather (heat or cold) in Hamilton (PHO, 2014). The populations that experienced the highest rates of extreme weather-related emergency department visits were males, those living in more deprived neighbourhoods, and those living in neighbourhoods with the most dependency (i.e., neighbourhoods with more children and seniors) (PHO, 2014).

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses healthy environments with consideration of the required list of topics identified in the Standards.

The following areas have been identified as local priorities: 1) increasing capacity to respond to the rising demands posed by climate change; and, 2) focusing on the actions necessary to address air pollution including health outcome modelling, risk communication, and enforcement of by-law(s) to reduce pollutants.

c) Your boards of health's approach to disclosure of inspection results of recreational camps (onsite posting and website posting) and evaluation of the program.

All required inspection results have been posted on the City of Hamilton's website at www.hamilton.ca/healthinspections. The details posted for each type of inspection / conviction is in accordance with the disclosure section of the relevant protocols. Given that online disclosure of health inspections is a relatively new practice for Hamilton Public Health Services (PHS) and premise owners / operators in Hamilton, a multi-component communication plan has been implemented. The overall goal of the communication plan is to raise awareness about the new disclosure requirements among premise owners / operators, general public, and City of Hamilton staff.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

Bay Area Climate Change Partnership: Members include Mohawk College Centre for Climate Change Management and City of Burlington. This collaborative partnership was initiated to accelerate climate action across Hamilton and Burlington. This partnership sets regional climate priorities for implementation. Engagement takes place through committee meetings and Memorandum of Understanding Agreements. The project team meets on a bi-weekly basis.

Building Division (City of Hamilton): This is an internal partner that meets 6 times per year to discuss opportunities for supporting education and awareness of radon as a health hazard and to discuss building code enforcement.

City of Hamilton Corporate Climate Change Task Force: This is a multi-departmental committee that is conducting a corporate-wide gap analysis for existing and future work plans that address climate change regarding mitigation and adaptation. Hamilton PHS provides a secretariat function and coordinates bi-weekly meetings that are overseen by the City Manager.

Clean Air Hamilton: This group helps deliver health promotion initiatives to increase awareness of air quality and climate change among the Hamilton population. Engagement takes place through a committee (monthly meetings), sub-working groups, and Task Forces (e.g., Air Quality Task Force).

Hamilton Community Heat/Cold Response Committee: This is an external group comprised of City of Hamilton staff and community partners who inform/educate about hazards related to extreme temperatures (heat and cold) and develop response plans with local stakeholders. The committee meets 4 times per year (2 meetings for cold season; 2 meetings for heat season). Members include Hamilton PHS, Hamilton Paramedic Services, Salvation Army, local shelters, and local mission services.

Health Canada: Hosts monthly conference calls to discuss best practices across Ontario and Canada regarding air quality and climate change. Health Canada is also beginning a Community of Practice (COP) for climate adaptation planning. They host conference calls and run online webinars for educational value. Conference calls are monthly, frequency of Community of Practice meetings to be determined.

Local Environmental NGO's (Environment Hamilton, Green Venture, Sustainable Hamilton Burlington): Hamilton PHS staff meet with local NGO's on a variety of committees and working groups to share information on air quality and climate for NGO's to then further inform the population of Hamilton. Engagement takes place through a variety of local committees and working groups including: Clean Air Hamilton, Community Liaison Committees, and Air & Trees Task Force. Most of the committees and working groups meet on a monthly or quarterly basis.

Local large steel companies (ArcelorMittal Dofasco, Stelco Canada and Ruetgers Canada): These companies share information with public health staff on the work being done to reduce air pollution and meet the Ministry of Environment, Conservation and Parks (MEOCP) more stringent standards. Community Liaison Committees that are associated with these companies meet on a quarterly basis.

Ministry of Environment, Conservation and Parks (MEOCP): Enforces O.Reg 419/05 Local Air Quality that regulates a variety of emission sources to help protect local air quality. Staff engage with MEOCP through several avenues including committee meetings and working groups. MEOCP also shares air quality data with Hamilton PHS. Meetings occur on a monthly basis through a variety of committees.

Public Health Ontario: Provides research on health impacts including pre-mature mortality and burden of disease for air quality across Ontario to raise awareness of the issue. Public Health Ontario hosts webinars, conference calls, and provides presentations during other scheduled meetings. Webinars and conference calls are setup as needed, usually following the completion of research.

Take Action on Radon (TAOR): This is an external group comprised of The Lung Association and Scout Environmental with support from Health Canada that meets 3 times per year.

Traffic Related Air Pollution Source (TRAPS) Working Group: This working group consists of public health units across Ontario including City of Toronto, Halton Region, Peel Region, York Region, and the City of Ottawa. The purpose of this working group is to share best practices and develop a work plan to undertake collective actions to reduce exposure to TRAPS. The working group meets quarterly in person with several conference calls and other meetings throughout the year to discuss the work plan.

Transition 2050 FCM Pilot Program for Sustainable Neighbourhood Action Planning: A collaboration with the Toronto Region Conservation Authority and Ontario Climate Consortium provides public health staff with the expertise and resources to form a multi-departmental planning committee and complete the project. These partners meet on a bi-weekly basis.

P 1) Health Hazards

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Health Hazards Program is aimed at promoting healthy environments through decreasing radiation exposure, decreasing air pollutant exposure, and notifying the public in extreme weather conditions. Air pollutants and radiation exposure are both in the top two for magnitude of need and impact on health outcome among residents of the City of Hamilton. This program uses a 24/7 health hazard management system to identify, assess, and manage health hazards in the environment in collaboration with the lead government agencies with primary responsibility for the environmental issue and/or other relevant agencies or experts. Health hazards include: asbestos, Diogenes syndrome, environmental lead, mould, pesticides, discarded needles, chemical contaminants, sewage, among others.

The following groups have been identified as priority populations for the Health Hazards Program: older adults (65+ years), those living in multi-residential dwellings without access to cooling, and low income Hamiltonians. Rates of emergency department visits were highest in older seniors (80+ years) compared to other age groups (PHO, 2014). Also, residents living in the most deprived neighbourhoods (as defined by the Ontario Marginalization Index) visited the emergency department more often than those living in the least deprived neighbourhoods because of extreme weather (PHO, 2014). Similarly, those living in neighbourhoods with the most dependency (e.g., not participating in the work force) also visited the emergency department more often due to extreme weather compared to those living in neighbourhoods with the least dependency (PHO, 2014).

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- 75% of Hamilton residents participating in the Hamilton Radon Prevalence Study submit their radon monitors by the end of Q2 2020 for laboratory analysis to determine radon level
- Complete the Hamilton Radon Prevalence Study in Q4 2020
- Identify vulnerable areas at a high risk for heat-related illness by end of Q1 2020
- Collate a list of landlords of multi-residential dwellings with seniors by end of Q2 2020 to inform outreach initiatives

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Develop Airborne Particulates by-law.
- Continue with radon education, awareness, and home testing.
- Collaborate with community partners to locate additional access to cooling places during extreme heat events.
- Collaborate with community partners regarding access to warm places during extreme cold events.
- Collaborate with landlords of multi-dwelling residence/apartment buildings with seniors to ensure access to a “cooling room” within the building.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Implement a radon awareness campaign and conduct a radon prevalence study of Hamilton.
- Provide free radon test kits to encourage testing of homes in Hamilton.
- Communicate risks via mass notification system regarding extreme heat events to key stakeholders in order to encourage individuals who do not have access to A/C to access cooling stations.
- Communicate risks via mass notification system regarding extreme cold events to key stakeholders in order to encourage individuals to stay out of the cold (especially those who do not have shelter).
- Implement the radon awareness campaign and evaluation. As part of the program, radon detection units will be lent to the public via the Hamilton Public Library.

i 3) Screening, Assessment and Case Management

- Participate as a stakeholder in Environmental Assessments if initiated.

i 4) Monitoring and Surveillance

- Continue to use the Hamilton Airshed Modelling System to monitor the nature and contribution of various local and non-local sources of pollutants impacting air quality in Hamilton.

i 5) Inspection

- Inspect recreational arenas for compliance with indoor air quality guidelines and assess exposure levels from common indoor pollutants (i.e., CO, NO₂, Ultrafine particulates).
- Inspect recreational camps for compliance with O. Reg. 503/17.

i 6) Investigation and Response

- Respond to complaints/inquiries about indoor air quality, mould, odours, asbestos, radon, sewage, pesticides, electromagnetic frequencies, housing, Diogenes, and physical hazards in the environment.

P 2) Air Quality and Climate Change

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Air Quality and Climate Change Program is aimed at promoting healthy environments through decreasing air pollutant exposure and addressing climate change and extreme weather. Air pollution is in the top two for magnitude of need and impact on health outcome among residents of the City of Hamilton. The program promotes a coordinated effort in governance to address climate change and take action to address air pollution through health outcome modelling, risk communication, and enforcement of by-laws to reduce pollutants. Currently, there is a need to increase public health capacity to respond to rising demands posed by climate change.

The following groups have been identified as priority populations for the Air Quality and Climate Change Program: 1) “at-risk” populations as defined by Health Canada including adults 65+ years, young children, and individuals with pre-existing respiratory and/or cardiovascular conditions; and, 2) populations exposed to areas of higher air pollution concentrations identified via monitoring and/or modelling in the City of Hamilton. Research shows young children are more vulnerable to air pollution due to their anatomical and physiological characteristics (Ries et al., 2010) compared to the general population. Also, seniors are at greater risk of illness and death as result of exposure to air pollution because of cardiovascular and respiratory diseases and pre-existing health conditions (Makri et al., 2008; Simoni et al., 2015). Residents with low socioeconomic status have been found to live closer to air pollution sources (major roads and highways) and are at greater risk of illness and death from air pollution (Boehmer et al., 2013).

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Engage over 100 people through climate change workshops on climate mitigation and climate vulnerability and risk assessment by the end of 2020
- Complete the Sustainable Neighbourhood Action Plan in the north end neighbourhood to decrease greenhouse gas (GHG) emissions and improve climate resiliency at the neighbourhood level by the end of 2020
- Identify all sub-regions in Hamilton that have higher concentrations of PM_{2.5} above the Canadian Ambient Air Quality Standard by Q2 2020
- Increase knowledge of air quality among 50% of Upwind Downwind Conference participants

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Implement strategic corporate and community actions to address climate change in the Hamilton community using the Community Climate Change Action Plan and Bay Area GHG Inventory and Forecasting model.
- Provide secretariat and facilitation support for corporate climate change actions and coordinate policy responses and programs among City of Hamilton departments to respond to climate change.
- Coordinate and manage the biannual Upwind Downwind Conference for Clean Air Hamilton and the City of Hamilton. The aim is to educate, inform policy, and develop partnerships and collaborations regarding air quality, public health, climate change, and planning using the latest science and policy.
- Provide input into local municipal planning documents regarding air quality (reducing exposure) and climate change (reducing emissions, preparing for climate impacts) in Secondary Plans, Site Plans, Transportation Master Plan, Stormwater Master Plan, and individual Site Plan Applications for development including schools, big box stores, and sports parks.
- Provide input around dust management and requested inclusion of dust management plans in construction and demolition site permits to reduce outdoor PM_{2.5} and PM₁₀ exposure to local residents.
- Lead collaborative action on climate change through the Corporate Climate Change Task Force and the Bay Area Climate Change Partnership to identify and execute projects that mitigate GHG emissions and adapt to the impacts of climate change. Work through the Building Adaptive and Resilient Communities Initiative to identify the likelihood and impact of extreme weather events to inform a City-wide Climate Adaptation Plan.
- Collaborate with Public Health Ontario and other public health units in the Greater Toronto-Hamilton Area to develop best practices for estimating health outcomes based on local airshed model data.
- Develop risk communications to encourage adoption of the Air Quality Health Index.
- Collaborate with Clean Air Hamilton and other partners including the Ministry of Environment, Conservation and Parks and the TRAPs working group to improve air quality in Hamilton.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Support and coordinate the work of Clean Air Hamilton that includes academics, citizens, industry, non-profits, consultants, federal, provincial, and municipal government.
- Coordinate, support, and maintain the Climate Change Hamilton website (www.climatechangehamilton.ca) that provides community information regarding climate change information and action in Hamilton including programs, events, reports, and the Community Climate Change Action Plan.
- Promote information and raise awareness regarding the City's Idling By-law for vehicles through installed signage in public facilities including parks, recreation centres, and parking lots.
- Lead the community and corporate work on climate change mitigation and adaptation planning. Hamilton PHS leads workshops on climate change vulnerability and risk assessment with corporate and community members to inform them of projected climate changes and discuss risk associated with local impacts.
- Report annually on the progress of the community in addressing climate change, the GHG emissions reductions, and the risks of climate impacts and adaptation actions.
- Support development of a city-wide community energy and water conservation plan in partnership with Planning and Economic Development Department that examines energy and water consumption trends across the City. The plan will include innovative actions and policies to reduce energy and water consumption to improve sustainability and energy security, with a focus on high energy users and vulnerable populations.
- Implementation of Airshed Model findings to identify sources and concentration of air pollutants in Hamilton.

i 3) Monitoring and Surveillance

- Develop a surveillance plan to assess health impacts related to climate change in accordance with the Healthy Environments and Climate Change Guideline.

i 4) Investigation and Response

- Respond to community inquiries and complaints regarding air emissions or climate change concerns that were forwarded by City call line, Council office, or direct calls to staff.

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Healthy Growth and Development

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address healthy growth and development.

Every year close to 5,600 babies are born in the City of Hamilton (BORN, 2018). A total of 7% of babies are born at a low birth weight and 8% of babies are born preterm (BORN, 2018). Although overall teen pregnancy rates are declining, rates remain higher than the provincial norm. Almost one-quarter of children less than 6 years old live in low income households (Census, 2016). Forty-three percent (43%) of Hamilton children are born into families with at least one risk factor for adverse childhood experiences (ISCIS, 2018). Thirty-one percent (31%) of children start school with a developmental vulnerability; children in the lowest income quartile show double the vulnerability of children in the highest. The Early Development Instrument (EDI) shows decreasing resilience in social competency and emotional maturity (EDI, 2015). There is a steady decline in exclusive breastfeeding rates from intention to 6 months postpartum (BORN, 2018; PHS Infant Feeding Surveillance, 2018). Only one in four 5 year old children consume the recommended daily servings of fruits and vegetables (KPS, 2010). Forty-six percent (46%) of pregnant women in Hamilton have a pre-pregnancy BMI classifying them as overweight or obese and 37% of pregnant women gained weight above the recommended amount; 17% gained below recommended amount (BORN, 2018). Nineteen percent (18.6%) of Hamilton moms had at least one mental health concern during their pregnancy (BORN 2018). Considering prenatal exposure to drugs or substance, more Hamilton moms (3.5 % drugs, 2.8% alcohol) report exposure during pregnancy compared to Ontario (2.5% drugs, 2.4% alcohol) (BORN 2018). Alcohol, tobacco and substance misuse, mental health, and unsafe sexual practices are linked to mental wellness and resilience in children in the early years and can be risk factors for preconception health, which is critical for healthy birth and growth and development outcomes.

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses healthy growth and development with consideration of the required list of topics identified in the Standards.

Local priorities by magnitude of need based on a prevalence assessment include: 1) breastfeeding; 2) preconception health; 3) physical activity; 4) childhood nutrition; 5) parenting; 6) oral health; 7) healthy pregnancies; 8) early childhood development; and, 9) mental well-being.

Given the impact of early childhood experiences on lifelong mental health and well-being, this is an opportune time for us to focus for the specific needs of infants and young children ages 0-6 and their families.

c) A description of how other topics for consideration not addressed in the Annual Service Plan were assessed or considered under Healthy Growth and Development.

In assessing the needs of the community, efforts were made to quantify and prioritize the health outcomes and health behaviours for the City of Hamilton. Population health assessment, disease prevalence, rate of morbidity, rate of mortality along with a comparison of Hamilton to the province and the direction of local trends were considered. Additionally, other services available in Hamilton and the quality of evidence was considered in helping to determine where best to focus public health efforts. One topic for consideration not addressed in program plans under the Healthy Growth and Development Standard is pregnancy counselling; however, this topic is currently being addressed by primary care, community-based agencies, and Student Health Centres at post-secondary institutions (Mohawk College, McMaster University) in Hamilton. Visual health is addressed under the School Health Standard. Oral health is addressed under the Chronic Disease Prevention and Well-Being Standard and the School Health Standard.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

Coordinated Supports for Sole Support Families: This is a pilot project that provides coordinated supports for sole support parents from Hamilton Public Health Services (PHS) public health nurses and other City programs and departments (e.g., Ontario Works, Childcare, Employment, Housing, Recreation, and Paramedic Services). This pilot offers lone parent families (with children 0-6 years of age) integrated supports, including home visits, access to child care, Ontario Works, employment supports, and recreation to improve timely access to services and quality of life outcomes. The mechanism for engagement for this partnership includes a steering committee that meets 2-3 times per year and monthly project meetings to monitor progress and targets.

Infant Early Years Mental Health Systems Support: This is a collaboration with external partners (e.g., Infant Mental Health Promotion – Hospital for Sick Children, Hamilton Health Sciences, Early Years service providers, local school boards, children’s mental health service providers, child protection agencies, Indigenous service providers) and the City of Hamilton to facilitate an evidence-informed, integrated, and coordinated approach to cross sector planning for infant and early years mental health services. The goals are to: 1) promote public awareness of infant and early years mental health; 2) strengthen programming and build system capacity; 3) identify/adopt infant screening tools and develop system pathways; and, 4) ensure education and training supports professional competency. The mechanism for engagement for this partnership includes a System Support Committee and workgroup tables with key stakeholders for key projects that meet monthly.

A new partnership for infant early years mental health was initiated in 2020 with Western University School of Nursing, University of Calgary, and the University of Washington School of Nursing (Barnard Centre). Hamilton PHS public health nurses are participating in evaluating the implementation of a new intervention called “Vid Kids”. This is an evidence-based brief video-based intervention targeting women at risk for postpartum mood disorders. The mechanisms of engagement and frequency for this newly established partnership are to be determined.

Safe Transitions Strategy: This is a strategic and systems initiative between Hamilton PHS staff and both external (hospitals, primary care, midwives, board of education, youth and young parent services, Wesley Centre) and internal partners in program delivery. The goal is to achieve optimal maternal and newborn health through the development of an integrated system approach to maternal-newborn care in the City of Hamilton. This inter-sectoral collaborative advisory has developed and is in the process of implementing a strategy to enhance services offered to new parents and newborns that are integrated, high quality, and comprehensive. The mechanisms for engagement include a Safe Transitions Advisory Group and three workgroups (including Healthy Babies Healthy Children Prenatal Screening, Hamilton Breastfeeding Coalition, and Transitioning Home) that meet monthly or bimonthly.

Youth Sexual Health Collaborative: Hamilton PHS staff work with both external partners (school boards, youth and young parent services, St. Joseph’s Healthcare Hamilton, Diocese of Hamilton, post-secondary institutions, and community members) and internal partners (Youth Strategy, Neighbourhood Strategy, Indigenous Strategy). The Youth Sexual Health Collaborative focuses on collective capacity building to strengthen key messages and evidence-based initiatives to educate and empower youth to achieve healthy sexuality/relationships. The mechanisms for engagement include quarterly Youth Sexual Health Collaborative meetings.

P 1) Healthy Growth and Development

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

The programs under the Healthy Growth and Development Standard are designed to enable all maternal, newborn, child, youth, and families to attain and sustain optimal lifelong health and developmental potential. Programming is aimed at effectively managing the different life stages and their transitions for families with children aged 0-6 years. This is achieved through public health interventions that reflect diverse work at both the individual and population levels with a focus on prevention, upstream interventions, and societal factors that influence health. For 2020, the Healthy Growth & Development Program will continue to provide universal and targeted services to support the following priorities: breastfeeding, preconception, physical activity, childhood nutrition, parenting, healthy pregnancies, early childhood development, and mental well-being.

Barriers will be reduced through one-to-one and systems interventions so children at risk of poor health and developmental outcomes are supported and referred to services prior to school entry and priority populations are linked to child/family health information, programs, and services as early as possible.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

In reference to Section A - community needs and applying a health equity lens, the following groups have been identified as priority populations for programming: young parents, lone parents, people living in areas with low social supports, low income, low education levels, and high housing needs. Local data analysis shows that young pregnant people have lower rates of optimal folic acid use, health care provision in the 1st trimester, and higher rates of reported substance exposure during pregnancy (BORN BIS 2018). Locally, areas with a high proportion of lone parents, low social support, low income, low education levels, and higher housing need (Census 2016) all have higher rates of low birth weight babies (BORN BIS 2018), adverse childhood experiences (ISCIS 2014-17), and a higher proportion of children with developmental vulnerabilities (EDI 2015). Local data analysis and research evidence did not identify typically disadvantaged groups when examining breastfeeding initiation and duration.

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Mental health promotion strategies are embedded in the Healthy Growth & Development interventions as each one aims to reduce the potential for adverse childhood experiences and promote protective factors. Targeted mental health approaches and strategies include the following:

- 1) Vid Kids: Home visiting public health nurses will participate in the evaluation of the implementation of a new intervention called “Vid Kids” within the Hamilton community. “Vid Kids” is an evidence-based, brief video-based intervention targeting women at risk for postpartum mood disorders with the aim of promoting secure attachment.
- 2) Triple P Feasibility Pilot: Hamilton PHS has partnered with the Hamilton Wentworth District School Board (HWDSB) to pilot the delivery of the Triple P Parenting Program to parents and caregivers of HWDSB students (ages 6 to 12 years) who have demonstrated externalizing behaviours. The connection with the HWDSB mental health strategic planning is to increase availability and improve accessibility for parent education programs for at-risk students.
- 3) Prenatal Curriculum Enhancement: In 2020, Hamilton PHS will review prenatal programming with a focus on strengthening the infant and early years mental health components. The prenatal curriculum will be enhanced to include: 1) a focus on the mental health and well-being for both mother and baby (beyond 3 months postpartum); and, 2) a focus on the importance of the parent-child relationship across the lifespan.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Breastfeeding initiation rates are maintained at 75% in 2020
- Increased rates of exclusive breastfeeding at hospital discharge and at 6 months of age
- 50% of children between 18 months and 5 years of age who are enrolled in the Healthy Families Division home visiting program have a NutriSTEP tool completed for them between January 1 to December 31, 2020 reporting twice per year
- 100% integration of partners of the Coordinated Support for Families program
- Utilizing a survey, 95% of client participants reported an increase in knowledge, skills and/or confidence on all session objectives following child health/reproductive health education (e.g., group session)
- 18% of Hamilton’s birth cohort receive a Healthy Babies Health Children prenatal screen

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Develop and prioritize continuous quality improvement activities in response to local need, client feedback, partner engagement, and opportunities for enhanced efficiency and effectiveness.
- Continue pilot for Coordinated Supports for Sole Support Parents to offer lone parent families with children aged 0-6 years integrated supports between home visiting, child care, Ontario Works, employment, and recreation in order to improve timely access to service.
- Collaborate with service providers across sectors to better understand, enhance awareness, and support alignment of healthy growth and development services with a focus on mental well-being and healthy weights for children from infancy to the early years (e.g., Infant and Early Years Mental Health System Support Committee, EarlyON Child and Family Centre Advisory and Operations Committees, Safe Transitions, Breastfeeding Coalition).

i 2) Promotion, Awareness, Education and Knowledge Translation

- Continue to provide services via the Healthy Families Hamilton Facebook page, Health Connections phone line, and the City of Hamilton website. On these platforms staff: 1) provide key messages and opportunities for clients to connect with peers; and, 2) respond to questions about pregnancy, breastfeeding, parenting, child safety, growth and development, healthy eating, and self-care.
- Increase community partner knowledge about resources and effective programs for the promotion of healthy growth and development and healthy pregnancies, through education sessions for internal and external professionals. Provide education for Hamilton Family Health Team staff, EarlyON Child and Family Centre's staff, young parent centre staff, Children's Aid Society / Catholic Children's Aid Society staff, child care supervisors, and other relevant health and social service providers.
- Explore opportunities to promote use of NutriSTEP with health care providers.

i 3) Screening, Assessment and Case Management

- Continue to deliver the Nurse-Family Partnership Enhancement, an intensive home visiting program for at risk first-time parents 21 years of age and under.
- Provide breastfeeding home visits, virtual visits, and telephone support.
- Provide Health Connections phone line service including screening and assessment, information, education, and referrals to community resources.
- Continue secondment of a public health nurse to the Hamilton Family Health Team.
- Provide parenting groups and discussion topics.
- Deliver car seat clinics.
- Provide Check It Out interprofessional drop-in sessions for parents offering access to public health nurses, speech and language pathologists, mental health workers, resource teachers, early childhood educators, and dental hygienists to screen, assess, and refer children at risk for poor growth and developmental outcomes.
- Provide increased access for priority populations to public health nurses and/or registered dietitians screening, assessment, and referral at weekly Canada Prenatal Nutrition Program (CPNP) groups, EarlyON Child and Family Centres, and/or prenatal education sessions.
- Continue to recruit and provide service to the Coordinated Supports for Sole Support Parents Pilot.
- Provide universal prenatal in-person classes and online education and targeted programs at Young Parent Centres.
- Continue with Minimal Contact Intervention policy and referral to Prenatal Smoking Cessation Incentive Program (in partnership with the Hamilton PHS Smoke-Free Ontario Program).
- Continue to utilize NutriSTEP and Nutri-eSTEP through existing services (e.g., home visiting, EarlyON Child and Family Centres, CPNP).
- Participate in the "Vid Kids" evaluation of the intervention, delivered through 5 home visits and aimed at improving parent-child attachment.

i 4) Monitoring and Surveillance

- Continue to monitor program indicators and surveillance data.
- Refine program indicators as needed through a results-based accountability lens.
- Continue the evaluation of ongoing pilots including Coordinated Supports for Sole Support Parents Pilot. This evaluation will inform continuous improvement and assess impact of intervention.

P 2) Health Promotion

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

The programs under the Healthy Growth and Development Standard are designed to enable all maternal, newborn, child, youth, and families to attain and sustain optimal lifelong health and developmental potential. For 2020, the focus of the Health Promotion Program will be to promote both universal and targeted services, and support system planning related to the following priorities: breastfeeding, preconception, healthy pregnancies, early childhood development, and mental well-being.

Barriers will be reduced through system planning so children at risk of poor health and developmental outcomes are supported and referred to services prior to school entry and priority populations are linked to child/family health information, programs, and services as early as possible. Some of the system improvements include: shared key messages, developing care pathways with streamlined referral criteria, and increased prenatal screening opportunities.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

In reference to Section A - community needs and applying a health equity lens, the following groups have been identified as priority populations for programming: young parents, lone parents, people living in areas with low social supports, low income, low education levels, and high housing needs. Local data analysis shows that young pregnant people have lower rates of optimal folic acid use, health care provision in the 1st trimester, and higher rates of reported substance exposure during pregnancy (BORN BIS 2018). Locally, areas with a high proportion of lone parents, low social support, low income, low education levels, and higher housing need (Census 2016) all have higher rates of low birth weight babies (BORN BIS 2018), adverse childhood experiences (ISCIS 2014-17), and a higher proportion of children with developmental vulnerabilities (EDI 2015). Local data analysis and research evidence did not identify typically disadvantaged groups when examining breastfeeding initiation and duration.

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Mental health promotion strategies are embedded in the interventions as each one aims to reduce the potential for adverse childhood experiences and promote protective factors. One of the main strategies that the Health Promotion Program supports is the Infant Early Years Mental Health Systems Supports. The goals of this committee are to: 1) promote public awareness of infant and early years mental health; 2) strengthen programming and build system capacity; 3) identify/adopt infant screening tools and develop system pathways; and, 4) ensure education and training supports professional competency. One of the key projects for this committee is the ASQ-SE Community Screening Pilot and referral pathway. The target population for this pilot includes families within the Hamilton community involved with select EarlyON Child and Family Centres, child care centres, and Child Protection Services. The intervention is intended to identify children under 5 years at risk for social, emotional, and developmental concerns and connect them with community supports.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- 85% of eligible clients accessed virtual visiting services for breastfeeding support
- 85% increase in monthly calls to Telehealth Ontario for breastfeeding support from Hamilton residents
- Increased access to first newborn visit pilot completed Q2 2020 and recommendations for system change implemented
- Contribute to piloting a screening tool and referral pathway for 0-6 year olds at high risk of social-emotional needs by end of Q2 2020
- Identify a plan with provincial and local partners to develop and implement a communication campaign targeting people of reproductive age about healthy behaviours that contribute to optimal preconception health by the end of 2020
- 25% of health care providers within the Hamilton Family Health Team with clients 18 months and 5 years of age are aware of the NutriSTEP/Nutri-eSTEP tools by the end of 2020 (e.g., Family Physicians, Nurse Practitioners, Registered Nurses, and/or Registered Dietitians)
- Develop a plan with early years partners to increase the awareness of the NutriSTEP/Nutri-eSTEP tools for all licensed child care centres by the end of 2020 measured by the completion of the plan

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Build capacity across the community to enhance system planning and integration through development of shared tools/policies, screening, assessment, and cross-sector education.
- Develop and prioritize continuous quality improvement activities in response to local need, client feedback, partner engagement, and opportunities for enhanced efficiency and effectiveness.
- Support Safe Transitions Strategy, an intersectoral collaborative working to develop and implement a strategy to enhance services offered to new parents and newborns that are integrated, high quality, and comprehensive aimed at building parental confidence and access to resources to achieve optimal maternal and newborn health.
 - o In 2020, the program will plan, implement, and evaluate two breastfeeding pilots:
 - 1) Telehealth Ontario Breastfeeding Pilot - using Telehealth's Specialized Breastfeeding Services as a central point of access for breastfeeding support and triaged referral to Hamilton breastfeeding services;
 - 2) Virtual Visiting Pilot - integrates virtual visiting into existing breastfeeding support services to increase access to timely breastfeeding support.
- Collaborate with service providers across sectors to better understand, enhance awareness, and support alignment of healthy growth and development services with a focus on mental well-being and healthy weights for children from infancy to the early years (e.g., Infant and Early Years Mental Health System Support Committee, EarlyON Child and Family Centre Advisory and Operations Committees, Safe Transitions, Breastfeeding Coalition).
- Build awareness of preconception health (PCH) as an important determinant of health, working with primary care, and health care system partners to increase screening and education during preconception years.
- Collaborate as a member of Ontario Public Health Association PCH workgroup on 2 provincial initiatives: 1) development of a preconception health campaign; and, 2) advocacy for a PCH billing code.
- Collaborate with early years partners to develop a plan to increase the awareness of NutriSTEP/Nutri-eSTEP tools for all licenced child care centres.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Implement promotion, awareness, education, and knowledge translation strategies via various platforms to ensure a broad reach tailored to meet specific audiences.
- Continue promotion and implementation of two breastfeeding pilot programs: Telehealth Ontario Pilot and Virtual Visiting Pilot.
- Increase community partner knowledge about resources and effective programs for the promotion of healthy growth and development and healthy pregnancies, through education sessions for internal and external professionals. Provide education for Hamilton Family Health Team staff, EarlyON Child and Family Centre's staff, young parent centre staff, Children's Aid Society / Catholic Children's Aid Society staff, child care supervisors, and other relevant health and social service providers.
- Explore opportunities to promote use of NutriSTEP with health care providers.

i 3) Monitoring and Surveillance

- Continue to monitor program indicators and surveillance data.
- Refine program indicators as needed through a results-based accountability lens.
- Continue to evaluate the ongoing pilots including Telehealth Ontario and Virtual Visiting Breastfeeding pilots. These evaluations will inform continuous improvement and assess impact of the interventions.

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Immunization

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address immunization.

Hamilton Public Health Services (PHS) monitors immunization status of all children and youth attending child care centres and schools in Hamilton. Annually, more than 54,000 people have their immunization records assessed through over 100 child care centres and 200 schools. There is currently a 3-year backlog in vaccine reporting. In response, the program has prioritized addressing the backlog with children entering school. In 2016-17 school year, there were 82,772 students enrolled in Hamilton elementary and secondary schools. Hamilton PHS provided immunizations to 19,000 students across 125 schools. About 1,400 had philosophical vaccine exemptions (1.7% of those enrolled). The school-based vaccine coverage rate of Grade 7 students in Hamilton is higher than Ontario (Hep B: 74.4% vs. 68.6%; Meningococcal: 83.3% vs. 79.6%; HPV: 63.4% vs. 56.3%). From Dec 8, 2016 to Jan 18, 2017, 2,600 students received an overdue vaccination letter. Of these students, 1,858 received vaccines and 742 reported their previous vaccination to Hamilton PHS (28%). Hamilton's immunization coverage rate for Immunization for School Pupils Act (ISPA) is higher among 7 years old, but lower among 17 years old compared to Ontario. Approximately 430 pharmacists and physician sites provide Board of Health funded vaccines in Hamilton. In 2017, 355 refrigerators were in operation and inspected. The compliance rate was 95.4%. Hamilton PHS distributed 297,282 publicly funded vaccines throughout the city in 2017. The overall vaccine wastage was 6.7%. From 2012-2016, the incidence rates of vaccine preventable disease per 100,000 population were similar or lower in Hamilton than Ontario except for Hepatitis B (1.6 vs. 0.7), Influenza (117.4 vs. 76.0), and Streptococcus pneumoniae invasive (10.5 vs. 8.0). The annual number of confirmed adverse events following immunization (AEFI) fluctuated from a low of 20 in 2015 to a high of 36 in 2017, with an annual average of 28 AEFI from 2012-2017. The Outbreak Response Plan was implemented 4 times between 2015-2017. Nursing staff were redeployed related to measles twice either to staff the hotline or assist in contact tracing.

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses immunization with consideration of the required list of topics identified in the Standards.

Populations with low vaccine uptake and/or reporting rates as determined through local surveillance and the Vaccine Program review was identified as a local priority. Research literature suggests vaccine hesitancy in middle to upper income populations and lower reporting among populations with language barriers and lower socio-economic status.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

Central West Vaccine Program Managers: Quarterly meetings to collaborate/discuss program issues.

Child Care Providers: Hamilton PHS liaises with child care providers to ensure effective records management and education around immunization policy, provide annual daycare package regarding vaccine requirements for children and providers. Ad hoc presentations are also provided to discuss vaccine requirements for entry into child care setting

Family Health Teams: Ad hoc meetings are held to discuss voluntary reporting of vaccines and to improve vaccine reporting to Hamilton PHS.

Health care providers (individuals): Ongoing collaboration with health care providers who administer vaccine to ensure compliance with legislation and best practice. Communication is provided as needed to discuss reported AEFIs. Medical advisories are released as needed to provide updates on changes to legislation and/or provide education related to vaccine-preventable diseases.

International Schools: Ad hoc presentations are given to provide general vaccine information including reporting and ISPA legislation.

Local school boards: Ongoing communication via email, board notifications, and letters to provide updates regarding grade 7 immunization program, high school catch-up clinics, and ISPA process/issues including the promotion of suspension clinics. Quarterly meetings are held to improve collaborative efforts and provide face-to-face updates.

Ministry of Health: Mechanisms of engagement include monthly teleconferences, the ICON working group, Vaccine Program Managers meetings, Universal Influenza Immunization Program meetings (during flu season), and consultation regarding Panorama best practices.

Parents: Ongoing education through vaccine fact sheets, ISPA education sessions, website updates, and the information line. Parents also receive ISPA screening and suspension letters through mail.

Refugee/Newcomer Centres: Ad hoc meetings/presentations are held to provide general vaccine information including reporting requirements.

School principals and staff: Ongoing communications via fax, phone, board mail, and STIX providing information on or requesting consultation regarding school clinics and the ISPA process.

P 1) Community Based Immunization Outreach (excluding vaccine administration)

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

Through the Community Based Immunization Program, Hamilton PHS engages with community partners, including school boards, to improve knowledge and confidence in vaccines and public health immunization programs and services. The program works collaboratively with school boards and schools to improve parental knowledge of immunizations for school-aged children. The program will target: 1) schools in low income neighbourhoods (to reduce suspension rates/duration); 2) students attending alternative education institutions (including youth correctional facilities); and, 3) influenza immunization among low income seniors.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Complete a situational assessment by end of 2020 to determine health care providers' knowledge regarding the publicly funded immunization schedule including collection of data and development of strategies to address issues identified by the assessment
- Work collaboratively with school boards and schools to improve parental knowledge of immunizations for school-aged children:
 - o Maintain the non-medical exemptions rate at less than 3% by the end of Dec 2020
- Increase access to immunizations administered at Hamilton PHS-based clinics

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Ongoing communication and engagement with schools regarding the importance of vaccines and to ensure student records are reported to Hamilton PHS.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Provide annual recommendations to operators of child care centres with respect to immunizations required for client enrollment and attendance, including: information on accessing immunization services, the immunization schedule, and resources to follow-up for further information.
- Provide parents and guardians with information letters for all new enrollments that clarify: 1) why Hamilton PHS collects immunization information; and, 2) Hamilton PHS' role in ensuring access to publicly funded vaccines through community health care providers or community clinics.
- Provide ISPA parent education sessions (as required by ISPA legislation) to increase awareness regarding vaccine safety.
- Provide education and support to health care providers that administer publicly funded vaccines to strengthen knowledge and confidence in vaccines.
- Working with CANimmunize to adopt the digital health immunization repository (DHIR) reporting mechanism to increase reporting of vaccines to public health as well as provide parents with easy access to vaccine information.
- Provide community presentations as requested (including international schools, long-term care, residency programs, and refugee services).

i 3) Screening, Assessment and Case Management

- Provide a community clinic monthly to assist parents with assessment of vaccine records and administer vaccines as needed.

i 4) Monitoring and Surveillance

- Implement updates to ICON as required.

P 2) Immunization Monitoring and Surveillance

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The program is responsible for comprehensive immunization monitoring and surveillance of vaccine preventable diseases, vaccine coverage, and adverse events following immunization (AEFI).

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Epidemiological analysis of vaccine preventable diseases, vaccine coverage, and adverse events following immunization including monthly reporting to monitor ongoing and emerging trends
- Reporting, monitoring, investigating, and documenting all adverse events following immunization in accordance with the Health Protection and Promotion Act:
 - o 100% of AEFI cases are entered into iPHIS within 5 days of receipt
 - o Completion of AEFI investigation within one month of entering case into iPHIS
- Provision and management of orders of exclusion for an outbreak or risk of an outbreak of a designated disease
- Development of a contingency plan to deploy PHS staff capable of providing vaccine preventable disease outbreak management and control:
 - o 100% of Hamilton PHS nurses who are to be deployed in the event of an IMS incident will attend 3 school-based immunization clinics and provide grade 7 vaccines as per the appropriate medical directive
 - o 100% of Hamilton PHS nurses who are to be deployed in the event of an IMS incident will receive required training materials prior to attending school-based immunization clinics

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Conduct continuous improvement initiatives to improve vaccine tracking and inventory management to improve vaccine wastage rates.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Data entry and management of community clinics, suspension clinics, and secondary and grade 7 school clinics.
- Assessment of vaccine records to ensure compliance with the Publicly Funded Immunization Schedule.

i 3) Monitoring and Surveillance

- Complete follow-up on all reported AEFI cases and input data into iPHIS for monitoring and surveillance purposes.

i 4) Inspection

- Inspect all pharmacy and health care provider sites that store publicly funded immunizations as per the Vaccine Storage and Handling Protocol.

i 5) Investigation and Response

- Follow an emergency response plan if necessary.

i 6) Inventory Management

- Panorama is used for vaccine inventory management on an ongoing basis, including reports to inform decisions.
- Enhance inventory monitoring for vaccines stored internal and external to the Board of Health. Provide education to health care providers regarding physical inventory counts, monitoring expiration dates, filling vaccine orders, and removing vaccines based on expiration dates.
- Review historical orders from physicians and pharmacies to address challenges in maintaining a two-month vaccine supply.

P 3) Vaccine Administration

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The program administers publicly funded vaccines to eligible persons as per provincially funded immunization program. The program will target: 1) schools in low income neighbourhoods (to reduce suspension rates/duration); 2) students attending alternative education institutions (including youth correctional facilities); and, 3) influenza immunization among low income seniors.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Provide Hepatitis B, HPV, and Meningococcal ACYW vaccines to eligible students through school-based immunization clinics:
 - o Improve vaccine uptake of Hepatitis B vaccine to 75% by 2025
 - o Improve vaccine uptake of HPV vaccine to 65% by 2025
 - o Improve vaccine uptake of Meningococcal ACYW vaccine to 90% by 2025
- Reduce suspension rate by 5% at identified high-risk schools in 2020
- Increase the number of immunizations provided during the 2019/2020 school year by 25%
- Ensure wastage of flu vaccine is no greater than 2% in 2020
- 90% of students interested in participating in the Pathseeker Program (led by Hamilton Wentworth Catholic School Board and Hamilton PHS School Health Program) are immunized prior to the enrollment date

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Ongoing collaboration with School Health Program including the board liaison public health nurses to strengthen partnership with school boards.
- Ongoing collaboration with schools to promote school-based IMMS clinics (elementary and secondary).
- Ongoing collaboration with community health care providers to ensure adherence to the Publicly Funded Immunization Schedule.
- Collaborate with City of Hamilton Paramedic Services to provide influenza immunization to low income seniors through community paramedic clinics.
- Collaborate with Hamilton Wentworth Catholic School Board and the Hamilton PHS School Health Program to ensure students interested in participating in the Pathseeker Program receive required immunizations to allow for enrollment in the program.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Provide educational materials on vaccines to parents and students regarding vaccines to be administered in schools.
- Provide education to parents regarding the importance of reporting vaccines to Hamilton PHS.
- Ensure community health care providers are aware of the local ISPA screening and suspension plan.
- Develop targeted interventions to reduce suspension rates at identified schools.

i 3) Screening, Assessment and Case Management

- Continued entry of vaccine doses administered at public health clinics into Panorama.
- Ongoing use of m-IMMs to improve efficiency of data entry into Panorama while in the school clinics.
- Assessment of vaccine records to ensure compliance with ISPA and the Child Care and Early Years Act.

i 4) Monitoring and Surveillance

- Monitor percentage of Hep B, HPV, and Menactra vaccines given at school vaccine clinics with the goal of improving rates to improve vaccination rates within the next five years.
- Identify schools with high suspension rates through Panorama reporting.
- Use data to further determine the reason for higher suspension rates (i.e., English as a second language and low literacy pose challenges as information is conveyed to parents via a written letter).

P 4) Vaccine Management

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Vaccine Management Program aims to ensure proper storage, handling, and distribution of publicly funded vaccines. There are no priority populations for the Vaccine Management Program.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Education will be provided to health care providers that store publicly funded vaccine to promote optimal vaccine inventory management resulting in decreased vaccine wastage:
 - o Vaccine wastage indicator of no more than 5% of total vaccine distributed by the end of 2020
- Proper ordering, storage, and distribution of publicly funded vaccines to all health care providers to ensure compliance with the Vaccine Storage and Handling Protocol, reducing excess vaccine in the community and resulting wastage:
 - o Vaccine wastage indicator of no more than 5% of total vaccine distributed by the end of 2020
- 100% of all fridges storing publicly funded vaccine receive an annual inspection by the end of 2020
- 100% of inspected vaccine storage locations meet storage and handling requirements by the end of 2020
- Ensure follow-up of all cold chain incidences:
 - o Public health staff will follow up on all cold chain incidences within 48 hours (health care providers are aware that vaccines cannot be used until investigation is complete)

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Monthly reporting of vaccine utilization in the community to monitor health care providers ordering and returns. Data will be used to inform and improve vaccine inventory management.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Promote storage and handling of publicly funded vaccines as per the Vaccine Storage and Handling Protocol to health care providers during routine inspections.
- Intake line available for HCPs to provide support and education regarding the Vaccine Storage and Handling Protocol.

i 3) Monitoring and Surveillance

- Ongoing monitoring of vaccine inventory to ensure no more than a 2-month supply of vaccine is stored in Hamilton PHS fridges and to decrease the risk of unnecessary vaccine wastage.
- Implement fridge temperature monitoring software into urgent protection of vaccines process. Use digital fridge monitoring to improve the effectiveness and cost efficiency for the urgent protection of vaccines after hours.

i 4) Inspection

- Inspect all pharmacy and physician sites that store publicly funded vaccines as per the Vaccine Storage and Handling Protocol.
- Adoption of Hedgehog documentation software for the inspection of fridges as per the Vaccine Storage and Handling Protocol. The software will enable improved program monitoring and accountability for cold chain inspections.

i 5) Investigation and Response

- Investigate all cold chain incidences and implement increased monitoring if necessary.

i 6) Inventory Management

- Panorama will be used for vaccine inventory management on an ongoing basis, including the option to export reports to inform decisions.
- Enhance inventory monitoring for vaccines stored internal and external to Hamilton PHS. Provide education to health care providers regarding physical inventory counts, monitoring expiration dates, filling vaccine orders, and removing vaccines based on expiration dates.
- Review historical orders from physicians and pharmacies to address challenges in maintaining a two-month vaccine supply.

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Infectious and Communicable Diseases Prevention and Control

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address infectious and communicable diseases.

The City of Hamilton has approximately 200 child care and 750 personal service setting (PSS) sites with routine annual inspections required, along with additional inspections for complaint response or non-compliance.

Diseases of Public Health Significance: Approximately 5,000 confirmed cases of reportable diseases and 132 outbreaks (128 institutional; 4 community) were reported in Hamilton in 2019. The top 5 disease burdens include: chlamydia, gonorrhoea, Hep B, Hep C, and Campylobacter. The list of priority diseases identified based on the disease burden and importance are: Tuberculosis (~20 Tuberculosis cases/year), Hep B (~7 cases/year), invasive group A Streptococcus (~60 cases/year), and sexually transmitted infections (STI) (~2,000 cases/year). Chlamydia is the most common type of STI diagnosed followed by gonorrhoea and syphilis in the City of Hamilton. Local rates of STIs are trending upwards, and the trend of invasive group A Streptococcus has been increasing since 2013.

Rabies: Investigations related to rabies continue to rise, with the 2019 investigation totals (1,675) outpacing the total number of investigations for 2018 (1,530).

Lyme Disease: The number of local black legged ticks are increasing, as are the number of human Lyme Disease cases; Hamilton was declared a Lyme Disease risk area in 2018.

West Nile Virus (WNV): In 2019, the City of Hamilton had 4 mosquito pools test positive for WNV and 2 confirmed human cases of WNV. Dating back to 2014, WNV in the City of Hamilton has been stable and similar to the provincial incidence rate.

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses infectious and communicable diseases.

The rabies outbreak in Hamilton and Ontario is expected to continue for at least 2 more years. Chlamydia, gonorrhoea, syphilis, and invasive group A Streptococcus are all trending upwards in Hamilton. More human cases of Lyme Disease are expected now that Hamilton has been identified as a risk area for Lyme Disease.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

Animal Services (City of Hamilton): Ongoing collaboration with their staff around the area of rabies to provide training, outreach, rabies investigations and collaborate on rabies related responses. Mechanisms of engagement include bi-monthly meetings via Hamilton Halton One Health Committee and annual meetings for the rabies interagency meeting. Hamilton PHS also partners with Animal to collect bats involved in human exposures for testing, collect dead or sick wildlife to support raccoon rabies surveillance, and confine cats and dogs.

Canadian Food Inspection Agency: This is an external partnership to conduct rabies testing as needed.

Canadian Wildlife Health Centre: This is an external partnership to conduct preliminary non-animal, non-human exposure animal testing as needed.

Child Care Systems Coordination Committee: Membership from various partners providing services in or directed to child care including: Hamilton Public Health Services' (PHS) staff (Dental Program, Injury Prevention Program, Infectious Diseases Program) as well as community services programs within the City of Hamilton. The purpose of the committee is to build awareness of services and resources for child care facilities and to support communications between service providers and licensed child care facilities.

City of Hamilton Tick Management Committee: Internal and external membership with bi-annually meetings to discuss local risk and resources. Membership includes City Planning, Parks, Hamilton PHS, Municipal Law Enforcement, Risk, Communications and external partners from the Royal Botanical Gardens, and all three Conservation Authorities.

Entomogen: Contractual partner that provides services for mosquito identification and viral testing. Meetings take place on a bi-annual basis.

Hamilton-Burlington SPCA: Partnership with One Health Committee and Hamilton Community Cat Network. Consultation and meetings take place as needed.

Hamilton Region Long-Term Care Homes and Community Sector Infection Prevention and Control Committee: This committee consists of public health and long-term care staff who collaborate on infection prevention and control (IPAC) issues associated with long-term care homes and their community partners. Committee meetings take place on a quarterly basis.

Licensing Division (City of Hamilton): Hamilton PHS meets with the Licensing Division twice per year to collaborate on enforcement strategies where premises are found to not be in compliance with IPAC practices or personal services settings regulation. Ad hoc communications are used as needed to share inventory of Licensed Personal Services Settings across Hamilton.

Ministry of Agriculture, Food and Rural Affairs: The aim of this partnership is to coordinate responses for animal to animal exposures. Meetings take place via the annual rabies interagency meeting.

Ministry of Health: Partnership to consult with veterinarians regarding human exposures and related animal confinement, release, and testing. Consultations take place as needed.

Ministry of Natural Resources and Forestry: The purpose of this partnership is to conduct provincial raccoon rabies surveillance and control measures. Meetings are held via teleconference every six weeks for the Northeast Rabies Update. Meetings are also held annually for the rabies interagency meeting and ad hoc meetings, when needed.

Mohawk, Niagara, and Conestoga Colleges: Partnership to assist and support through co-op programs (WNV Tech recruitment). Meetings take place on a bi-annual basis.

One Health: Hamilton has an active One Health Committee where Hamilton PHS' staff work closely with the medical community and veterinary/animal health. This group meets on a bi-monthly basis.

Ontario Association of Veterinary Technicians: The purpose of this partnership is to coordinate and prepare animals involved in human exposures for submission to Canadian Food Inspection Agency. Meetings are held bi-monthly via the Hamilton Halton One Health Committee and annually via the rabies interagency meeting.

Pestalto: Contractual partner that provides services for mosquito/larval control through larviciding. Meetings are held annually.

Regional Infection Prevention and Control Committee: This is a monthly committee chaired by Hamilton Health Sciences with membership from surrounding local health units and hospitals (Brant, Halton/Burlington, Niagara, Hamilton) to promote a regional approach for effective prevention and control of infections across hospital community health care partners.

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

This program provides vector-borne disease surveillance and management, including: WNV monitoring and control activities; 24/7 rabies investigations; tick surveillance for Lyme Disease; and, other vector-borne diseases as they emerge. Priorities established through local surveillance include:

1) Rabies: A growing number of suspect rabies exposure investigations reaching over 1,600 with increasing number of cases requiring rabies post exposure prophylaxis. There is currently a rabies outbreak with over 330 rabid animals reported within Hamilton since 2015. The raccoon rabies outbreak in Hamilton and Ontario is expected to continue for at least 2 more years. A local Rabies Contingency Plan has been implemented and is reviewed annually. The rabies program has been evaluated and recommendations have been implemented.

2) Lyme Disease: Active tick surveillance in 2019 determined Hamilton is a risk area for black legged ticks with expectation of increased occurrence of human cases. Other tick-borne diseases may increase in Ontario, including Powassan and Rocky Mountain Spotted fever.

3) Mosquito Borne Disease Monitoring: In 2019, 4 positive mosquito pools and 2 confirmed human cases of WNV were reported in Hamilton. Hamilton PHS continues to monitor for WNV and potential development of other emerging mosquito borne diseases.

4) Pests: Hamilton PHS inspectors receive pest complaints, investigate, and inspect homes for pests and require homeowners take corrective action aimed at reducing pests.

The following groups have been identified as priority populations for the Vector-Borne Disease (VBD) Program: 1) residences in geographical neighbourhoods identified via surveillance with high positive mosquito pools for WNV; and, 2) low income residents who have a pet and are not able to pay for the rabies vaccine. Mosquito-based surveillance is an integral part of a vector management program and serves to quantify WNV transmission and human risk (Moore et al., 1993). The VBD Program uses this information to determine the risk in the community and make decisions on appropriate prevention and control interventions. In Hamilton, a continued rabies outbreak has resulted in a health promotion campaign with a targeted intervention aimed at pet owners who are not able to afford to vaccinate their pets with the rabies vaccine. The VBD Program will continue to offer low cost rabies vaccination clinics or other low-cost options in areas of the city where residents are of low income status.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Initiate a rabies awareness campaign in all schools by end of Q1 2020
- 70% of unvaccinated animals after release from confinement are up-to-date on their vaccines upon closure of the case
- Minimum of 4 sites are actively surveyed twice per year to determine risk of emerging tick-borne illnesses and the introduction of new species of ticks
- Minimum of 25 adult mosquito traps are set and monitored throughout the summer months for new species of mosquitos and mosquito vectors of concern

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Work with other City of Hamilton departments to maintain the Tick Management Plan through working with external stakeholders.
- Continue to work with the Hamilton/Halton One Health Committee on vector-borne related disease and share information to the group and outside of the group via One Health Newsletters to local veterinarian community.
- Apply a continuous improvement lens to all processes and improve program delivery and outcomes.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Continue to use the Rabies is Real campaign to increase rabies awareness among residents. Implement evaluation findings to utilize the most common or most referenced form of media. Share resources, videos, and education plans with local schools to educate students. Use social media to share key messages around rabies prevention and control.
- Use social media with newly created campaign and increase Lyme and WNV awareness and preventative strategies.
- Increase outreach to trail users and outdoor enthusiasts.
- Increase awareness and prevention messaging to the population to reduce their risk of illness whenever an elevated risk is present in the community for Lyme Disease, WNV, or rabies.

i 3) Screening, Assessment and Case Management

- Screen each Ministry of Natural Resources and Forestry rabies positive to rule out human exposure. As per the Rabies Prevention and Control Protocol, conduct a risk assessment on every suspect rabies exposure investigation (approximately 1,500). Follow the Ministry of Health's Guidance Document for the Management of Suspected Rabies Exposures to ensure rPEP is administered or recommended when needed.
- For WNV, conduct surveillance of water sites and recommend controls when larvae are found. Monitor mosquito traps for positive pools and implement controls when positives pools are identified.
- Identify ticks through passive and active surveillance and inspect for possible high-risk areas for future surveillance.

i 4) Monitoring and Surveillance

- Implement a WNV monitoring plan informed by an evaluation and internal audit. This plan will include a weekly risk assessment from May to October, a semi-annual update on tick surveillance to the Board of Health, and two annual reports to Ministry of Health outlining actions and outcomes of WNV and Lyme Disease management and related program cost breakdown.
- Identify mosquito breeding sites in Hamilton and implement controls to reduce WNV risk.
- Conduct surveillance of rabies locally, regionally, and provincially to anticipate and respond to increased risk and trends.
- Identify and monitor Lyme Disease risk areas in Hamilton using a combination of active and passive surveillance.

i 5) Inspection

- Conduct visual confinements and releases of all domestic cats, dogs, and ferrets involved in animal exposures.
- Conduct visual inspections and ground truthing around any positive mosquito traps.
- Investigate and inspect all standing water complaints and require compliance actions with Standing Water By-law.
- Inspect all pest complaints for pests or pest activity and require homeowners/landlords to implement integrated pest management in order to reduce infestations.

i 6) Investigation and Response

- Investigate 100% of reported rabies exposures (average 1,200-1,500 /year).
- Perform quality assurance checks for completeness of investigations and PEP files, and ensure corrections are made. A risk assessment is completed for each report. Rabies exposures follow organizational policy, Canadian Immunization Guidelines, and Ministry of Health and rabies guidance documents. PEP delivered on 24-hour basis.
- Ensure after hours response is provided by a rotating team on weeknights, weekends, and holidays (as per protocols). On-call schedules are developed annually and unexpected vacancies are filled the same day to ensure 100% coverage. After hours organizational policy and guidelines have been developed to ensure effective and immediate after-hours response for reportable diseases, Mandatory Blood Testing Act, outbreaks, and rabies exposure.

P 2) Infectious Disease Program

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Infectious Disease Program provides case, contact, and outbreak management programs, as well as health education to prevent or reduce the spread, morbidity, and mortality of infectious diseases. The program completes infection control inspections of settings associated with risk of infectious diseases of public health importance. The Infectious Disease Program also investigates infection prevention and control complaints in practices of regulated health professionals and in settings for which no regulatory bodies exist.

New immigrants and people who inject drugs have been identified as priority populations for the Infectious Disease Program. In the City of Hamilton, Tuberculosis and Hepatitis B are highest amongst new immigrant populations, while Hepatitis C and invasive group A streptococcus (iGAS) are highest amongst people who inject drugs.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Decrease the proportion of long-term care facilities outbreaks with a “high” respiratory outbreak duration – 2020 data to inform 2021 target
- Decrease the proportion of long-term care facilities outbreaks with a “high” gastroenteritis outbreak duration – 2020 data to inform 2021 target
- Complete continuous quality improvement project to increase surge capacity within program by end of June 2020
- Develop and implement a communications plan (including social media) to increase awareness of infectious diseases, infection prevention and control, and Tuberculosis by end of Q1 2020
- Increase flu outreach and promotion at local events

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Work with long-term care homes on the Outbreak Management Quality Improvement Initiative designed to provide long-term care homes with indicators on outbreak management, and to identify gaps/challenges and areas of strength to improve overall outbreak management in institutions.
- Develop standard operating procedures to respond to infection diseases and improve consistency of services across Hamilton PHS.
- Work with local school boards and the Child Care Systems Coordination Committee to increase compliance and consistency in before and after school programs.
- Work with TB clinic, Wilson Medical Center, and local family physicians to promote and increase treatment rates for latent Tuberculosis infections in the community.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Provide education to institutions (hospitals, long-term care facilities, daycares) on IPAC including hand hygiene and respiratory etiquette. Public Health Inspectors and the Infectious Disease Prevention Specialist sit on infection control committees at all long-term care homes to support this work.
- Participate as requested on other institutional infection control committees including but not limited to licensed day care nurseries and the Hamilton Wentworth Detention Centre.
- Offer 1/2 day workshops (in person or online) targeting aesthetic service provider regarding infection control practices. In-service workshops have been offered annually since 2011 and have been well received by operators.
- Provide hand hygiene presentations to schools through collaboration with the School Health Program as well as the public at events by Infectious Disease Program staff (e.g., Safe Water Festival).
- Education sessions offered to community groups as requested if request is specific to IPAC issues.
- Bi-annual education sessions provided to co-op high school students.
- Physician outreach to share information with health care providers through education sessions, one health sessions, and webinars.
- Hand hygiene and respiratory etiquette among the general population as well as priority groups (e.g., child care facilities, long-term care and retirement homes, schools).
- Partner with Hamilton PHS' Sexual Health and Harm Reduction Programs to ensure shared delivery of consistent harm reduction and health teaching messaging for clients who inject drugs.

i 3) Screening, Assessment and Case Management

- Follow-up on all reported cases of diseases of public health significance as per Protocols to limit secondary cases through investigation of sources of infection and contact tracing as applicable. Further, program Policies and Procedures and/or Guidelines are developed and maintained in conjunction with Appendix A&B of the Infectious Disease Protocol, and are utilized to ensure case, contact, and outbreak management is in line with the Protocols. In addition, iPHIS cleansing reports ensure required elements for surveillance and reporting are captured.

i 4) Monitoring and Surveillance

- Cases of diseases of public health surveillance are investigated to determine risk factors and potential sources of exposure. Analysis of case data identifies where case counts exceed expected thresholds for a given disease or identifies cases associated by geographic place or time, warranting further investigation into possible commonalities and epi-links between case clusters.
- Conduct enhanced surveillance for people who inject drugs as risk factor among iGAS and Hep C cases to identify “hot spots” for targeted interventions, such as increased cross program health teaching and increasing geographic access for mobile point of care HIV testing.

i 5) Inspection

- Conduct inspections as per protocol in personal service settings and licensed child care settings. Hedgehog inspection reports and program policies have been developed to ensure a consistent approach to inspection for required Infection Control compliance elements as per O. Reg 136/18 Personal Services Settings, Ministry of Health Personal Service Settings Best Practices Document, Public Health Services Child Care Facilities Manual, and/or the Provincial Infectious Disease Advisory Committee Best Practices, as applicable.
- Inspection reports disclosed publicly via City of Hamilton website.

i 6) Investigation and Response

- Investigate 100% of all reported institutional gastrointestinal, respiratory, and clostridium difficile infections (CDI) outbreaks. Work with infection control and/or administrative staff to recommend and implement outbreak control measures. Settings include but are not limited to hospitals, long-term care homes, retirement homes, schools, licensed day nurseries, and residential care facilities. Collaborate with facility IPAC and administrative staff including acute and long-term care settings. Ensure appropriate IPAC measures are in place during all CDI outbreaks to reduce or prevent morbidity and mortality associated the outbreak. Prevent or mitigate future outbreaks through early reporting and ongoing communication resulting in decreased numbers of cases of CDI.
- Investigate 100% of all reported gastrointestinal outbreaks in community settings including food poisoning investigations. Implement outbreak control measures in the event of a possible foodborne illness outbreak. Identify source of outbreak.
- Investigate IPAC complaints to identify if and where IPAC lapses have occurred. If lapses are identified notification activities may include posting to the City of Hamilton website, distribution of media releases or medical advisories, and/or patient trace-back activities to advise of potential exposures, risk, and provide health teaching.
- On-call schedules are developed annually and unexpected vacancies are filled the same day to ensure 100% coverage. After hours response, as per Protocols is provided by a rotating team on weeknights, weekends, and holidays. After hours Policies & Procedures and Guidelines have been developed that identify required after hours response for reportable diseases, MBTA, and outbreaks.

P 3) Sexual Health Program

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Sexual Health Program offers prevention, case management, and harm reduction services to prevent or reduce the spread, morbidity, and mortality of infectious diseases. The Sexual Health Program prevents infection and spread of sexual transmitted infections (STI) through health promotion and education to the public, clients, community partners, and internal and external stakeholders. The program also provides comprehensive sexual health clinical services at clinical sites to provide treatment to reduce the spread of sexually transmitted infections and encourage prevention of acquisition of sexually transmitted infections.

Low income individuals and men who have sex with men (MSM) have been identified as priority populations for the Sexual Health Program. In addition, low income male and female youth (aged 13-19 years old) have been identified as a priority population specifically for the contraceptive promotion component of the program. Aside from not using a condom, sex with a same sex partner has been identified as a key risk factor of males diagnosed with gonorrhea (26%), syphilis (81%) and HIV (56%) in Hamilton. A recent survey of self-identified MSM in Hamilton revealed only 15% would always be tested for any STI after a sexual risk event and many would refrain from accessing health care and testing services due to fear of being identified. Further, current program review activities have identified rates of diagnoses are highest among residents of low-income neighborhoods, emphasizing the importance of targeting individuals within these groups as priority populations for sexual health. Recent analysis of teen pregnancy rates also showed geographic clustering in low income neighborhoods. In order to improve access to contraception, sexual health promotion and services will be targeted to low income male and female teenagers 13-19 years of age.

For priority populations within City of Hamilton, outreach testing services are offered to increase access to testing for at-risk populations. This includes injection drug users and the MSM community.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Multi-year trend of reduced incidence rate of chlamydia, gonorrhea, and HIV (measured annually)
- Multi-year trend of reduced teen pregnancy rate (age 14-19) (measured annually)
- Increase the number of agencies distributing condoms to priority populations by 10% by end of 2020
- Evaluate evidence-informed approaches to increase testing rates among youth aged 13-19 by end of Q1 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Implement findings from the continuous quality improvement project conducted in 2019 to assist in streamlining case management practices.
- Collaborate with external agencies to increase STI and blood borne infection (BBI) testing for priority populations in outreach settings.
- Engage university and college campuses within Hamilton to increase testing and access to sexual health services.
- Work with infectious disease physicians to increase access and referral to HIV treatment and prevention (PrEP).

i 2) Promotion, Awareness, Education and Knowledge Translation

- Provide education to community physicians on treatments for chlamydia, HIV, syphilis, and gonorrhea (antibiotic resistance and appropriate treatment) including Family Medicine residents.
- Educate health care providers to ensure STI cases are managed according to the guidelines following distribution of medical advisories.
- Offer and promote HIV testing via sexual health clinics and to priority populations in outreach settings (e.g. youth and MSM).
- Review effective strategies for comprehensive health promotion to reduce incidence of sexually transmitted infections and promote supportive environments to promote healthy sexual practices based upon our local population health assessment.
- Collaborate with community agencies to ensure condoms are accessible for priority populations.

i 3) Screening, Assessment and Case Management

- Provide health teaching on risk reduction practices for priority populations.
- Provide sexual health clinical services at sexual health clinics and outreach locations.
- Provision of immunization for high risk groups.
- Provision of low-cost contraception and emergency contraception.
- Testing and treatment for reportable STIs.
- Liquid nitrogen for anogenital HPV and molluscum and antivirals for Herpes.
- Complete effective case management of reportable STIs to reduce transmission and decrease secondary cases.

i 4) Monitoring and Surveillance

- Provide reports in compliance with the Health Protection and Promotion Act and current protocols.
- Provide monthly, quarterly, and yearly infectious disease reports to internal and external audiences.
- Use surveillance and epidemiological analysis to monitor ongoing and emerging trends to inform planning.

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Safe Water

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address safe water.

Hamilton disease incidence rates (per 100,000 population per year) where water is the source of illness were Cryptosporoidosis = 0.2, Giardiasis = 1.1, Legionellosis = 2.3, and VTEC = 0 in 2017 (iPHIS, 2017). There are an estimated 10,000 Hamilton residences that operate their own wells, cisterns, and rain or lake water systems with only 24% (2385) submitting water samples in 2017 (WTISEN 2017). Between 2007-2017, the number of private well water samples tested decreased by 48%, 4,650 tests in 2007 and 2,424 tests in 2017 (WTISEN 2017). In comparison, at the provincial-level, the number of private well water samples decreased by 38% (PHO) over the same time. There are a total of 233 recreational water facilities (including non-regulated facilities) in Hamilton (Hedgehog, 2016). In 2016, the proportion of recreational water facilities with an infraction was 31.3% of Class A public pools, 44.7% of Class B public pools, and 14.7% of inspected public spas (Hedgehog, 2016). As per the Recreational Water Protocol, the revised Public Pool Regulations (effective July 1, 2018) create a need to revise current educational and training material for owners and operators of public pools regarding applicable regulations.

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses safe water.

Local priorities include: 1) increasing the number of water samples submitted by Hamilton residences that operate their own wells, cisterns, and rain or lake water systems; and, 2) developing a training program for owners/operators of recreational water facilities.

c) Your boards of health's approach to disclosure of inspection results (onsite posting and website posting) and evaluation of the program.

All required inspection results have been posted on the City of Hamilton's website at www.hamilton.ca/healthinspections. The details posted for each type of inspection / conviction is in accordance with the disclosure section of the relevant protocols. Given that online disclosure of health inspections is a relatively new practice for Hamilton Public Health Services (PHS) and premise owners / operators in Hamilton, a multi-component communication plan has been implemented. The overall goal of the communication plan is to raise awareness about the disclosure requirements among premise owners / operators, general public, and City of Hamilton staff.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

Bay Area Restoration Council: This partner is a member of Hamilton Harbour Beach Management Group and provides input into improving recreational water issues. The mechanisms of engagement include meetings twice per year or more frequently as needed.

Central West Public Health Units Water Program Group (aka Wetnet): This group provides consultation regarding all aspects of recreational and drinking water program delivery, issues risk assessment, and interpretation/application of legislation. The mechanisms of engagement include formal meetings twice per year as well as ad hoc communication and correspondence about specific topic areas.

Environment Canada: This partner is a member of Hamilton Harbour Beach Management Group and provides input into improving recreational water issues. The mechanisms of engagement include meetings twice per year or more frequently as needed.

Facilities Management Division (City of Hamilton): The Facilities Management Division is an internal partner that operates the 22 small drinking water systems owned by the City of Hamilton. Hamilton PHS provides operational education to this Division as needed.

Halton and Hamilton Conservation Authorities: This partner provides consultation and development of Source Water Protection Plans and operates recreational water facilities. The mechanisms of engagement include ad hoc meetings and webinars as needed.

Hamilton Water Division (City of Hamilton): This internal partner is a member of the Hamilton Harbour Beach Management Group and provides input into improving recreational water issues in the City of Hamilton. Hamilton PHS liaises with the Hamilton Water Division twice annually and consults with them regarding planning applications and Source Water Protection as needed.

Ministry of Environment, Conservation and Parks (MOECP): Hamilton PHS liaises twice annually with the MOECP as required in Drinking Water Protocol. This partner provides consultation regarding drinking water issues and fulfills requirements in the Memorandum of Understanding between the MOECP and Ministry of Health pertaining to Drinking Water. The MOECP also provides consultation regarding recreational water quality issues and hazards as needed.

Ministry of Health: Consultation on development and interpretation of legislation, funding, and Protocols. The mechanisms of engagement include ad hoc meetings and webinars as needed.

Parks Maintenance Division (City of Hamilton): This internal partner provides input on improving recreational water issues in the City of Hamilton. The Parks Maintenance Division also oversees the operation of municipal public beaches. Hamilton PHS liaises with the Parks Maintenance Division twice annually as a member of the Hamilton Harbour Beach Management Group.

Public Health Ontario: This partner provides consultation (as needed) regarding risk/hazard assessments of drinking water and recreational water issues, interpretation of documents/literature, and lab support for the Safe Drinking Water and Fluoride Monitoring and Recreational Water Protocols.

P 1) Small Drinking Water Systems Program

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Small Drinking Water Systems Program is designed and operated to deliver the Safe Drinking Water and Fluoride Monitoring Protocol to the people who live, work, or visit within the City of Hamilton via:

- 1) inspection of small drinking water systems;
- 2) collaboration with the City of Hamilton, Ministry of the Environment, Conservation and Parks (MOECP), Hamilton Conservation Authority, Bay Area Restoration Council, and Environment Canada regarding sustainability and threats/issues pertaining to drinking water quality and quantity; and,
- 3) receipt and response to reports of adverse drinking water quality or adverse observations for drinking water systems regulated under Regulation 170, 243 under the Safe Drinking Water Act and Regulation 319 under the Health Protection and Promotion Act.

The Small Drinking Water Systems Program is a universal program therefore a priority population was not identified for additional public health intervention; however, private well owners were identified as a priority population for the Safe Water Program as a whole. The program will continue to monitor data (e.g., population health, risk factor, inspection, and sociodemographic) to identify priority populations.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Increase the proportion of high-risk small drinking water systems where the risk assessment categorization was lowered to moderate-risk to 100% by the end of 2020
- Increase the proportion of moderate-risk small drinking water systems where the risk assessment categorization was lowered to low-risk to 100% by end of 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Meet semi-annually with Ministry of the Environment, Conservation and Parks to review: 1) drinking water issues; 2) drinking water systems (including those that add fluoride); 3) applications to issue, amend, suspend, or revoke an approval, permit, or license of a drinking water system; and, 4) regulatory oversight and sharing expertise regarding the inspection of drinking water systems.
- Meet semi-annually and collaborate with Central West Public Health Units regarding implementation of the Safe Drinking Water and Fluoride Monitoring Protocol.
- Train Hamilton PHS public health inspectors regarding small drinking water system risk assessments, regulation compliance, and update policies and procedures and guidelines as necessary.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Make information and/or educational material available regarding safe drinking water practices to private citizens and owners/operators of drinking water systems who provide potable water under the Health Protection and Promotion Act.
- Make information and/or educational material available to owners/operators of small drinking water systems regarding training programs, relevant public health legislation and regulations, and Directive requirements.
- Make sample bottles, forms, and information provided by the Public Health Ontario Laboratories available for owners of private water supplies for private/personal use to promote water sampling and testing.
- Assist in the interpretation of water analysis reports and information on potential health effects.
- Disclose inspection results as required in the Safe Drinking Water and Fluoride Monitoring Protocol.

i 3) Screening, Assessment and Case Management

- Assess trends in data to determine impact on service delivery such as the apparent increase in adverse drinking water quality incidents between 2017 and 2018 due to revised Reg 243 (July 2017) that requires all schools and child care facilities to sample and test the lead concentration at drinking water taps within 3 years (2020).

i 4) Monitoring and Surveillance

- Collect reportable disease data and inspection data for drinking water systems. Monitor relevant morbidity, mortality, and risk factor/behaviour data (IntelliHealth, CCHS) to support this work within the Safe Water Standard. Hamilton PHS collects some sociodemographic and risk factor data for related infectious diseases through iPHIS.
- In Hamilton several water quality parameters might exceed the maximum acceptable concentrations (MAC) in the Ontario Drinking Water Quality Standards for groundwater drinking water systems. When performing a small drinking water systems risk assessment groundwater is collected and test by the public health inspector for arsenic, barium, fluoride, lead, nitrates, and sodium. When the MAC is exceeded the Directive is written to contain testing and treatment requirements.
- Monitor the laboratory results management application to determine whether or not the 126 small drinking water systems that are required to "sample and test" are doing so and verify the 43 seasonal small drinking water systems do not distribute water to users prior to verifying/ensuring water is potable.

i 5) Inspection

- Assess the risk of 178 small drinking water systems and inspect for compliance with Reg 319 according to the frequencies set out in the Safe Drinking Water and Fluoride Monitoring Protocol.
- Conduct site-specific risk assessments (using RCAT) and compliance inspections for each small drinking water system in the City of Hamilton, according to the frequency for the assigned risk category, as required in the Safe Drinking Water and Fluoride Monitoring Protocol for small drinking water systems.
- Follow the Small Drinking Water Systems Risk Assessment Guideline for conducting risk assessments and issuing directives. Issue directives based on the risk assessment. Issue a compliance inspection report and follow up/resolve non-compliance issues.

i 6) Investigation and Response

- Receive and respond to complaints and lab test reports regarding drinking water concerns.
- Staff a Safe Water Emergency and Info Line for drinking water system operators to report adverse drinking water lab results or observations.
- Ensure staff are available 24/7 to receive and respond to reports of safe water issues.
- Receive and respond to reports or observations of adverse water quality. Follow policies and procedures for adverse drinking water quality incidents, watermain disinfection, and issuing and lifting boil/drinking water advisories.

P 2) Safe Water Program

Program Description:

Describe the program including the population(s) to be served. If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Please identify the specific requirements under the Standards that the program will address, describe how a health equity lens has been incorporated, how barriers will be removed or addressed for priority populations, and include a linkage to identified community needs and priorities

The Safe Water program is designed and operated to deliver the Recreational Water and Drinking Water Protocols to the people who live, work, or visit within the City of Hamilton via:

- 1) inspection of public pools, public spas, public beaches (232), potable water haulage trucks (27), and migrant farm worker housing (96);
- 2) Cooling Tower Registry Bylaw that requires owners of cooling towers to register their equipment with Hamilton PHS, update registration information annually, have a risk management plan for Legionella control, and a log book for recording repairs and maintenance. There are 309 cooling towers in Hamilton that are assessed on-site once every 4 years.
- 3) Promotion of availability of private well water testing services and awareness of local well water quality issues/concerns.
- 4) Collaboration with the City of Hamilton, MOECP, Hamilton Conservation Authority, Bay Area Restoration Council, and Environment Canada regarding sustainability and threats/issues pertaining to drinking water and recreational water quality and quantity.
- 5) Receipt and response to reports of adverse drinking water quality or adverse observations for drinking water systems regulated under Regulation 170, 243 under the Safe Drinking Water Act and Regulation 319 under the Health Protection and Promotion Act
- 6) Monitoring fluoride in municipal drinking water.

Private well water owners have been identified as a priority population to provide safe well water knowledge, education, and bacterial testing of private wells. Approximately 3 million people in Canada rely on a private well for their drinking water according to Health Canada (2019). In Hamilton, well testing submissions inform the Safe Water Program of where private water systems exist and where unsafe submissions are present in the community. From 2013 to 2017, a total of 13,245 samples were submitted for testing. Excluding samples not suitable for testing (1,186 or 9%), 81.7% (9,849) passed, and 18.3% (2,210) did not pass.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Decrease the proportion of recreational water premises requiring re-inspections due to water safety concerns to 20% by the end of 2020.

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Participate in Harbour Beach Water Quality Improvement Projects as implemented by Canadian Centre for Inland Waters, Hamilton Harbour Remedial Action Plan, Bay Area Restoration Council, and Public Works Department (City of Hamilton).
- Meet semi-annually with Ministry of the Environment, Conservation and Parks regarding drinking water issues.
- Meet semi-annually with Hamilton Water Division (City of Hamilton) regarding municipal drinking water issues.
- Provide professional development for staff to attend pertinent training opportunities to improve / refresh their professional training.
- Meet semi-annually with Ministry of the Environment, Conservation and Parks to review: 1) drinking water systems that add fluoride; 2) applications to issue, amend, suspend, or revoke an approval, permit, or license of a drinking water system; and, 3) regulatory oversight and sharing expertise regarding the inspection of drinking water systems.
- Meet semi-annually and collaborate with Central West Public Health Units regarding implementation of the Safe Drinking Water and Fluoride Monitoring Protocol.
- Train Hamilton PHS public health inspectors regarding wells, drinking water disinfection, regulation compliance, and update Policies and Procedures and Guidelines as necessary.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Communicate with partner agencies to provide timely and clear information to the public regarding the potential risks associated with the use of public beaches including warnings regarding dangerous water quality (post signs, website, Twitter).
- Conduct public education and outreach activities at the Children's Water Festival and World Water Day.
- Disclose inspection results publicly on the City of Hamilton website.
- Provide educational material and/or information to owners/operators regarding the health and safety-related operational procedures applicable to public beaches.
- Provide education materials to owner/operators on regulations.
- Make training materials available to pool and spa operators regarding interpretation and application of the revised pool and spa regulations.
- Make sample bottles, forms, and information provided by the Public Health Ontario Laboratories available for owners of private water supplies for private/personal use to promote water sampling and testing.
- Assist in the interpretation of water analysis reports and information on potential health effects.

i 3) Screening, Assessment and Case Management

- Receive, assess, and respond to reports of municipal sewage system bypass events and combined sewer overflows.

i 4) Monitoring and Surveillance

- Collect reportable disease data, well water testing data, and inspection data on public beaches and recreational water. Relevant morbidity, mortality, and risk factor/behaviour data (IntelliHealth, CCHS) to support this work within the Safe Water Standard. Hamilton PHS collects some sociodemographic and risk factor data for related infectious diseases through iPHIS.
- Maintain an inventory of regulated and non-regulated recreational water facilities.
- Conduct pre-season environmental surveys of Hamilton beaches and routine beach surveillance activities including: collection of water samples, preparation of layouts of the public beach area, and conduct inspections of regulated public pools and spas.
- Monitor and verify the presence of toxic blue green algae at public beaches.
- Review registration information for 309 Cooling Towers and update the registry database regarding changes to ownership and operation contact information.
- Review lab test results for changes in trends regarding number of samples unsafe for drinking and/or clusters of adverse lab test results; target public outreach activities to problem areas as indicated.
- Update and distribute the "Rural Well Water Quality Report" once every 5 years. The next distribution will take place in 2022.

i 5) Inspection

- Inspect 224 seasonal and year-round pools and spas prior to opening or re-opening at the frequencies in the Recreational Water Protocol.
- Inspect 8 public beaches prior to swimming season and assess for hazards on an ongoing basis when collecting water samples.
- Inspect 27 water haulage trucks annually.
- Inspect up to 96 migrant farm worker residences upon request from the farmer according to the Guidelines and Service Canada's inspection frequency requirements.
- Inspect 309 cooling towers; receive and review registration information annually; on-site assessment of risk management plan and compliance with Bylaw once every four years.

i 6) Investigation and Response

- Receive and respond to complaints and lab test reports regarding recreational water and drinking water concerns.
- Staff a Safe Water Emergency and Info Line for drinking water system operators to report adverse drinking water lab results or observations and for the public to discuss and get advice regarding lab test results for their private residential water supply and discuss/report other concerns regarding drinking water or recreational water.
- Ensure staff are available 24/7 to receive and respond to reports of safe water issues.
- Receive and respond to reports or observations of adverse water quality. Follow policies and procedures for adverse drinking water quality incidents, watermain disinfection, and issuing and lifting boil/drinking water advisories.

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Board of Health for the City of Hamilton, Public Health Services

School Health

School Health - Oral Health

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address oral health.

In 2018/2019, a total of 16,862 students were screened at schools in Hamilton and about 1 in 12 students (8.2%) required urgent dental care. There were 26,400 Healthy Smiles Ontario eligible children in Hamilton in 2016/2017; but nearly 1 in 3 (n=8,100) did not enroll in the Healthy Smiles Ontario program and nearly 60% (n=15,400) did not use the service (MOHLTC, 2017). Young children from low income households is a priority population within schools; 24% of those under 6 years of age live in low income in Hamilton (Census, 2016). Based on a comprehensive assessment completed in 2016/2017, the following results were observed for 17,537 screened students (JK-8): 6,039 (34.4%) were eligible for preventative services (either one or more of professionally applied fluoride treatment (PAFT), pits and fissures sealants (PFS), or scaling); 4,870 (27.8%) were eligible for PATF, 1,147 (6.5%) eligible for PFS, and 1,646 (9.4%) eligible for scaling; 22,420 decayed, missing/extracted, or filled teeth were observed. Compared to the 2016/2017 Hamilton average (9.2%), prevalence of children requiring urgent dental care was higher among those in areas with low income families (15.6%), single parent families (15.3%), and recent immigrants (14.0%) (OHISS, 2016-2017).

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses oral health.

Local priority focuses on children living in low income families in Hamilton. Nine of the 134 elementary schools (6.7%) where screening took place in 2018/2019 were high intensity facilities ($\geq 14\%$ of students had multiple decayed teeth) (OHISS, 2016-2017). Of those, 6 schools (66.7%) were located in lower Hamilton. The need for urgent dental care was associated with the following social determinants of health: recent immigrants, low parental education, lone parent households, low income households, and households with no net earned income (Ministry of Education, 2017).

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

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Children's Aid Society / Catholic Children's Aid Society: Ongoing collaboration to ensure children receive the oral health care they need through HSO-Emergency & Essential Services Stream.

External Partners where Screening / Assessment is provided upon request (e.g., Arrell, St. Martin's Manor, Grace Haven, Private Schools, Early ON Centres): Collaboration to increase access to oral health assessments for priority populations and collaboration to promote the uptake of Health Smiles Ontario. Communication and collaboration take place on an ad hoc basis.

Hamilton Wentworth District School Board (HWDSB) / Hamilton Wentworth Catholic District School Board (HWCDSB): Ongoing consultation and direct collaboration with staff to arrange school screening dates, times, and locations and share student and parent/guardian contact info for pre-and post-screen notification and follow-up.

Internal Hamilton Public Health Services Programs (e.g., School Health Program, Healthy Growth & Development Program): Ongoing collaboration to coordinate promotion and delivery of public health programs and services for individuals aged 0-17 and their families.

McMaster Children's Hospital (Hamilton Health Sciences site): Ongoing consultations and presentations to support collaboration to set-up referral pathways for oral health assessments and promote oral health services to pediatricians in Hamilton.

Ontario Works: Internal City of Hamilton partner through the Youth Strategy and Financial Empowerment Strategy to develop coordinated support for Health Smiles Ontario.

Wesley Urban Ministries: Ongoing consultation, presentations, and workgroups to facilitate access to community clinics for newcomers and coordinate support for Healthy Smiles Ontario.

P 1) Healthy Smiles Ontario Program

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

The Healthy Smiles Ontario Program provides preventive, routine, and emergency dental services for children and youth under 18 years of age from low-income households. In Hamilton, Healthy Smiles Ontario dental services are provided through 3 public health unit clinics and community dental providers. Children and youth with dental needs are identified by dental screening and offered Healthy Smiles Ontario if eligible. The oral health navigators connect with internal and external partners to promote Healthy Smiles Ontario, improve access, and reduce barriers to care as well as communicate the importance of good oral health.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

Low income children are a priority population for targeted oral health promotion. In Hamilton, children from low income neighbourhoods were 3.6-times more likely to require urgent dental care compared to children from high income neighbourhoods (OHSS, 2016-17).

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Oral health is linked to overall well-being and mental health. Pain and appearance of poor oral health, including dental decay, can negatively impact a child's self-esteem and confidence, which in turn may adversely affect healthy relationships, social connectedness, and school performance. Health promotion activities that encourage good oral hygiene habits and services to restore good oral health will have a positive impact on a child's mental health and overall well-being.

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Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Children from low income families have access to oral health care through the Healthy Smiles Ontario program in public health unit dental clinics or community:
 - Increase the proportion of eligible children enrolled in Healthy Smiles Ontario who accessed preventive and treatment services in public health unit clinics in Hamilton by 10% by the end of 2020
- Increase the proportion of children who are caries free to over 71% by the end of 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Collaborate with community partners (e.g., EarlyON Child and Family Centres system collaborative, newcomer groups, school events, Children's Aid Society / Catholic Children's Aid Society, Ontario Works, and alternative schools) to provide outreach to priority populations to link them to oral health and Healthy Smiles Ontario information, programs, and services.
- Review and improve the referral process to Healthy Smiles Ontario program to increase enrollment and utilization.
- Develop partnerships with primary care to raise awareness of Healthy Smiles Ontario and promote oral health and access to services.
- Develop a strategy to reach child/family populations prior to school entry by engaging physicians to improve oral health and increase utilization of Healthy Smiles Ontario for eligible families.
- Provide in school preventive services at high-risk schools to reduce barriers to care and increase access for preventive services only children.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Promote good oral health by increasing access and reducing barriers to dental care.
- Promote regular preventive and treatment dental care by assisting families to find a dental home.
- Target communication/education strategies to priority populations.
- Develop and distribute newsletters, emails, and promotional items to the public.
- Distribute Teacher Resource Kits (curriculum-based).
- Deliver oral health presentations (formal and informal), workshops, and demonstrations.
- Seek and maintain internal and external (e.g. community) contacts/partners.
- Distribute dental materials to community partners.
- Support the Hamilton PHS Healthy Families Facebook page with information on oral health behaviours and promotion of Healthy Smiles Ontario.
- Target health promotion campaign to high needs areas identified through mapping.
- Increase awareness of good oral health and the Healthy Smiles Ontario program through the Oral Health Navigator role.

i 3) Screening, Assessment and Case Management

- Identify children with urgent dental treatment needs who are eligible for Healthy Smiles Ontario.
- Directly enroll children in the Healthy Smiles Ontario program.
- Provide Preventive Dental Clinics, oral health assessments, and anticipatory guidance concerning oral health resources and programs.
- Provide preventive dental services (e.g., fluoride, scaling, sealants, and instructions about oral self-care).
- Provide counseling on diet, tobacco cessation, and oral self-exam (as needed).
- Provide Dental Treatment Clinic and direct client services for treatment and prevention.

i 4) Monitoring and Surveillance

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Board of Health for the City of Hamilton, Public Health Services

School Health

- Monitor relevant program statistics to inform and direct continuous quality improvement activities.

P 2) Oral Health Assessment and Surveillance

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

Children and youth with urgent and preventive dental needs are identified by dental screening as outlined in the Oral Health Protocol. They are offered the Healthy Smiles Ontario program if eligible.

This program will provide universal dental screening for Kindergarten and Grade 2 students in schools and targeted screening of students in Grades 4, 6, 8 based on high dental risk.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

Low income children are a priority population for targeted oral health promotion. In Hamilton, children from low income neighbourhoods were 3.6-times more likely to require urgent dental care compared to children from high income neighbourhoods (OHISS, 2016-2017).

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Oral health is linked to overall well-being and mental health. Pain and appearance of poor oral health including dental decay, can negatively impact a child's self-esteem and confidence, which in turn may adversely affect healthy relationships, social connectedness, and school performance. Health promotion activities that encourage good oral hygiene habits and services to restore good oral health will have a positive impact on a child's mental health and overall well-being.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Increase the proportion of children who are caries-free to over 71% by the end of 2020
- Provision of timely and effective detection and identification of children at risk of poor oral health outcomes, their associated risk factors, and emerging trends:
 - Achieved by annual dental screening at all schools and strict adherence to the Oral Health Protocol timelines for follow up with lower than 10% referral rates to Children's Aid Society / Catholic Children's Aid Society
- Provide preventive services in 6 high-risk schools by end of 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Partner with school boards and schools to deliver the Oral Health Protocol including Healthy Smiles Ontario.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Provide Healthy Smiles Ontario information in the parent letter notifying parents of the school screening event. Provide Healthy Smiles Ontario postcard at screening event with contact information.
- Raise awareness and provide education about the importance of good oral health. Provide Healthy Smiles Ontario information to families and partners at presentations and community events at various locations throughout Hamilton.

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School Health

i 3) Screening, Assessment and Case Management

- Visit all publicly funded elementary schools and any private and/or high schools (upon request) in Hamilton to conduct oral health assessments.
- Identify children with urgent dental treatment needs and preventive needs through screening.
- Follow-up on all children screened including those who have been identified with urgent dental needs or would benefit from preventive oral health care through a phone call and/or letter and provide Healthy Smiles Ontario information.
- Notify all parents/guardians of individual child screening results.
- Initiate case management on all urgent care cases; provide Healthy Smiles Ontario information and individual navigation in person at clinics and/or over the phone.

i 4) Monitoring and Surveillance

- Conduct surveillance, oral screening, and report data and information in accordance with the Oral Health Protocol and the Population Health Assessment and Surveillance Protocol.
- Identify and monitor oral health status of children aged 0-17 annually. Monitor emerging trends related to poor oral health outcomes and their associated risk factors and emerging trends.
- Collect and report on oral health surveillance data in OHISS for the Ministry of Health.

School Health - Vision

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address vision.

It is estimated that 16% of Hamilton children have a visual impairment (Sabri et al., 2016). In Hamilton, 48% of children had at least one oculo-visual exam before age 6; this varied from 24% to 61% across city wards (IntelliHealth, 2018). Socio-materially deprived wards had the lowest proportion of children who received an eye exam. The Board of Health is directed to provide vision screening for Senior Kindergarten (SK) students in all Hamilton schools annually. There is a new cohort of approximately 5,506 SK students in Hamilton each year (OHISS, 2016-2017).

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses vision.

The best model for conducting early childhood vision screening remains unclear; however, there are 'good practices' reported by screening programs. Risk factors for vision problems include family history, premature birth or low birth weight, and maternal smoking during pregnancy.

There is a privately-owned company, EyeMac, currently providing vision services in partnership with the Hamilton Wentworth Catholic District School Board. The EyeMac program provides comprehensive eye exams to students in the Hamilton Wentworth Catholic District School Board.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

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Given Hamilton Public Health Services (PHS) is responsible for other types of screening in schools through other programs (i.e. Dental), Hamilton PHS will leverage and coordinate existing infrastructure, processes, and community resources for vision screening in schools.

Hamilton Wentworth District School Board (HWDSB), Hamilton Wentworth Catholic District School Board (HWCDSD), Conseil scolaire Viamonde, Conseil scolaire catholique MonAvenir: The contribution of these external partners includes arranging school screening dates, times, and locations, and sharing student and parent/guardian contact info for pre-and post-screen notification and follow-up. The mechanism for engagement is ongoing consultation during the school year.

Internal Hamilton PHS Programs (e.g., School Health Program, Healthy Growth & Development Program): Ongoing collaboration to coordinate promotion and delivery of public health programs and services for individuals aged 0-17 and their families. The mechanism for engagement is monthly workgroup meetings.

Ontario Association of Optometrists: Hamilton PHS collaborates with this external partner to: 1) promote comprehensive eye exams and visual health; and 2) develop communication plans and key messages for Optometrists in Hamilton. The mechanism for engagement is ad hoc consultations.

Primary Care Providers: Collaboration to promote comprehensive eye exams and visual health. The mechanism for engagement is ad hoc consultations.

Private Vendor for Vision Screening: The 2019/2020 vision screening program will be evaluated by April 2020. The vendor has 2 annual terms remaining in the contract. The contribution of this partner to program and service delivery includes the collaboration to implement the screening portion of the Child Visual Health and Vision Screening Protocol. The mechanism for engagement is a contractual agreement.

P 1) Child Visual Health and Vision Screening

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

Through the RFP process EyeMac will implement the vision screening program during the 2019/2020 school year according to the Child Visual Health and Vision Screening Protocol requirements. Evaluation of this model of service will be completed by April 2020.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

This program will provide universal vision screening for SK students in schools. Low income children are a priority population for targeted health promotion. In Hamilton, only 24% of children from the lowest income areas had an eye exam by age 5, which is 2 times lower than the City average of 48% (IntelliHealth, 2015).

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

If undetected and untreated, vision disorders can lead to life-long visual impairments. Poor visual health can also negatively impact a child's social relationships, literacy levels, and academic achievement. Health promotion activities that encourage comprehensive eye exams and access to affordable corrective eye wear may have a positive impact on a child's mental health and overall well-being.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

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School Health

- 100% of SK students receive a vision health assessment in all publicly funded schools
- Support awareness of, access to, and utilization of existing visual health services
 - o Increase the proportion of children ages 2 to 5 who have at least one eye examination to over 53%
 - o Increase the proportion of families assisted in accessing comprehensive eye examinations for their children as recorded in OHIS

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Leverage existing infrastructure, processes, and community resources for vision screening in schools and access to comprehensive eye exam in Hamilton.
- Engage community partners/stakeholders to develop a client-centred referral and communication pathway in Hamilton with clearly articulated roles and responsibilities.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Support children and their families to improve their awareness about visual health, including the importance of early identification of vision disorders, through health promotion and targeted outreach to priority populations and/or communities.
- Promote and increase awareness of school-based vision screening, OHIP-covered comprehensive eye examinations, and available visual health services through health promotion and targeted outreach to priority populations and/or communities.
- Increase awareness of available visual health services among community partners and providers.

i 3) Screening, Assessment and Case Management

- The Request for proposal (RFP) was awarded to EyeMac (vendor) who is providing vision screening in schools September 2019 - January 2020.
- Use 2019/2020 screening data to inform continuous quality improvement for School Health - Vision Program and prioritize use of resources to ensure those children most in need are screened.
- Vendor will coordinate with schools to make prior arrangements regarding the screening dates, time, and locations for 2019/2020 school year. Hamilton PHS will ensure vendor provides pre-screening notification to parents/caregivers in accordance with the Protocol.
- Hamilton PHS will ensure the vendor uses Ministry approved vision screening tools, training, and methods as specified by the Ministry for the purposes of identifying some risk factors for the following: i) amblyopia; ii) reduced stereopsis and/or strabismus; and, iii) refractive vision disorder.
- Ensure the provision of post-screen notification to parents/caregivers in accordance with the Protocol.
- Promote availability of vision health services and OHIP-covered comprehensive eye exams to assist families in accessing an optometrist for comprehensive eye examination.
- Assist families in accessing appointments and treatment as needed based on population health assessment data and through a health equity lens.

i 4) Monitoring and Surveillance

- Collect and record vision screening data as specified by the Ministry post-screening.
- Analyze and interpret vision screening data as specified.
- Improve data collection capabilities to fully inform program measures and ongoing monitoring.

School Health - Immunization

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

School Health

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address school health immunization.

Hamilton Public Health Services (PHS) monitors immunization status of all children and youth attending child care centres and schools in Hamilton. Annually, more than 54,000 people have their immunization records assessed through over 100 child care centres and 200 schools. There is currently a 3-year backlog in vaccine reporting. In response, the program has prioritized addressing the backlog with children entering school. In 2016-17 school year, there were 82,772 students enrolled in Hamilton elementary and secondary schools. Hamilton PHS provided immunizations to 19,000 students across 125 schools. About 1,400 had philosophical vaccine exemptions (1.7% of those enrolled). The school-based vaccine coverage rate of Grade 7 students in Hamilton is higher than Ontario (Hep B: 74.4% vs. 68.6%; Meningococcal: 83.3% vs. 79.6%; HPV: 63.4% vs. 56.3%). From Dec 8, 2016 to Jan 18, 2017, a total of 2,600 students received an overdue vaccination letter. Of these students, 1,858 received vaccines and 742 reported their previous vaccination to Hamilton PHS. Hamilton's immunization coverage rate for the Immunization of School Pupils Act (ISPA) is higher among 7 year-old children, but lower among 17 year-old youth compared to Ontario. Approximately 430 pharmacists and physician sites provide Board of Health funded vaccines in Hamilton. In 2017, 355 refrigerators were in operation and inspected. The compliance rate was 95.4%. Hamilton PHS distributed 297,282 publicly funded vaccines throughout the city in 2017. The overall vaccine wastage was 6.7%. From 2012-2016, the incidence rates of vaccine preventable diseases per 100,000 population were similar or lower in Hamilton than Ontario except for Hepatitis B (1.6 vs. 0.7), Influenza (117.4 vs. 76.0), and Streptococcus pneumoniae invasive (10.5 vs. 8.0). The annual number of confirmed adverse events following immunization (AEFI) fluctuated from a low of 20 in 2015 to a high of 36 in 2017, with an annual average of 28 AEFI from 2012-2017. The Outbreak Response Plan has been implemented 4 times between 2015-2017. Nursing staff were redeployed related to measles twice either to staff the hotline or assist in contact tracing.

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses school health immunization with consideration of the required list of topics identified in the Standards.

Populations with low vaccine uptake and/or reporting rates as determined through local surveillance and the Vaccine Program review was identified as a local priority. Research literature suggests vaccine hesitancy in middle to upper income populations and lower reporting among populations with language barriers and lower socio-economic status.

c) A description of how other topics for consideration not addressed in the Annual Service Plan were assessed or considered under School Health - Immunization.

In assessing the needs of the community, efforts were made to quantify and prioritize the health outcomes and health behaviours for the City of Hamilton. Population health assessment, disease prevalence, rate of morbidity, rate of mortality along with a comparison of Hamilton to the province and the direction of local trends were considered. Additionally, other services available in Hamilton and the quality of evidence was considered in helping to determine where best to focus public health efforts. Topics for consideration for the School Health - Immunization requirements are covered off by the program work within the School Health and Immunization Standards.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

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Central West Vaccine Program Managers: Quarterly meetings to collaborate/discuss program issues.

Child Care Providers: Liaison to ensure effective records management and education around immunization policy and provide annual day care package re: vaccine requirements for children and providers. Ad hoc presentations to discuss vaccine requirements for entry into child care setting

Family Health Teams: Ad hoc meetings are held to discuss voluntary reporting of vaccines and to improve vaccine reporting to Hamilton PHS.

Health care providers (individuals): An ongoing collaboration with health care providers who administer vaccine to ensure compliance with legislation and best practice. Communication is provided as needed to discuss reported AEFIs. Medical advisories are released as needed to provide updates on changes to legislation and/or provide of education related to vaccine-preventable diseases.

International Schools: Ad hoc presentations are given to provide general vaccine information including reporting and Immunization for School Pupils Act (ISPA) legislation.

Local school boards: Ongoing communication via email, board notifications, and letters to provide updates regarding grade 7 immunization program, high school catch-up clinics, and ISPA process/issues including the promotion of suspension clinics. Quarterly meetings are held to improve collaborative efforts and provide face-to-face updates.

Ministry of Health: Mechanisms of engagement include monthly teleconferences, the ICON working group, Vaccine Program Managers meetings, Universal Influenza Immunization Program meetings (during flu season), and consultation regarding Panorama best practices.

Parents: Ongoing education through vaccine fact sheets, ISPA education sessions, website updates, and the information line. Parents also receive ISPA screening and suspension letters through mail.

Refugee/Newcomer Centres: Ad hoc meetings/presentations are held to provide general vaccine information including reporting requirements.

School principals and staff: Ongoing communications via fax, phone, board mail, and STIX providing information on or requesting consultation regarding school clinics and the ISPA process.

P 1) Immunizations for Children in Schools and Licensed Child Care Settings

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

This program aims to be compliant with ISPA which requires assessment of the immunization status of all children and youth attending schools. In collaboration with school boards, the program also aims to promote and improve confidence in immunizations, maintain current vaccine records, and ensure access to vaccines for children and youth. The program administers publicly funded vaccine to eligible persons as per provincially funded immunization programs.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

The program will target schools in low income neighbourhoods (to reduce suspension rates) and students attending alternative education institutions (including youth correctional facilities).

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c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

The program will continue to provide community clinic services for students who are unable to receive vaccines in the school setting due to fear of needles and/or anxieties related to vaccine administration. Community clinics will be provided in the evening hours to decrease barriers for parents and students who are unable to attend day time clinics because of work, school, and other commitments.

The program plans to explore training/learning opportunities for nurses to better address needle phobia and general anxieties related to vaccine administration.

The program currently provides vaccine administration services to students attending alternative education classes while detained in a youth detention centre. The program will explore the possibility of expanding this service to other students enrolled in alternative education.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Immunization education sessions facilitated for parents who request a non-medical vaccine exemption to fulfill new education amendment to ISPA:
 - o Maintain non-medical exemptions rate at less than 3% in 2020
- Promotion and provision of immunizations at school-based clinics to improve overall vaccine coverage rates and reduce the burden of vaccine preventable diseases:
 - o Improve vaccine uptake of Hepatitis B vaccine to 75% by 2025
 - o Improve vaccine uptake of HPV vaccine to 65% by 2025
 - o Improve vaccine uptake of Meningococcal ACYW vaccine to 90% by 2025
- Continue to provide secondary school clinics to ensure access to vaccines thereby reducing suspension rates:
 - o 97.5% of 17-year olds vaccinated for all ISPA designated diseases by 2025
 - o Reduce overall suspension rate by 5% in 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Send letters annually to child care centre operators and schools, providing vaccine information and education.
- Lead mandatory education sessions for all parents who want non-medical exemption for their children as per ISPA.
- Provide Immunization program info line and manage the online immunization reporting tool (ICON) to enable parent and youth access to reporting and education around immunization.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Ongoing communication to health care providers, community partners, school boards, and parents regarding ISPA.

i 3) Screening, Assessment and Case Management

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- Assess immunization records for all registered students (including those at international schools, new to Ontario, and up to 17 years old) as part of Hamilton PHS' screening and suspension process.
- Send screening letters to parents prior to suspension day advising them to report immunization status.
- Provide multiple avenues for public to report immunizations and receive information, including: a phone line open from 8:30-4:30 daily, an online reporting tool (ICON), faxes, and post mail.
- Conduct suspension clinics the day before, day of, and day after elementary school suspension dates.
- Continue to provide 'catch-up' clinics through high schools to address the high number of secondary students who are non-compliant.
- Receive vaccine records from health care providers as per new ISPA legislation (fax, ICON-HC, phix). Ensure records are inputted into Panorama.
- Ensure all children have access to publicly funded vaccines through community health care providers. If child does not have OHIP or IFH, Hamilton PHS provides the vaccines via community clinics.
- Document exemption records for students (both medical and non-medical) in Panorama. Follow up incomplete exemption records.

i 4) Investigation and Response

- Issue order of exclusion for an outbreak or risk of an outbreak of a designated disease managed through relevant policies and procedures. An exclusion order would be documented in Panorama in the instance of an outbreak.

School Health - Other

A. Community Needs and Priorities

Please provide a short summary of the following:

a) The key data and information which demonstrates your communities' needs for public health interventions to address school health.

High risk schools identified by School Boards align with priority wards identified using student health indicators. In high priority wards, inequities among students include: 47% are from low income homes, 23% are from families with no employment income, 31% are from single parent families (Census, 2016), and 28% of Kindergarten students experience unstable housing (frequent moving) (KPS, 2010). The percentage of recent immigrants in priority wards is double the city average (60% are from Asia, primarily Syria, Iraq, Philippines, and India) (Census, 2016). Hamilton student health priorities include:

- 1) Suicide Prevention – Self-harm emergency department visits have doubled for female students since 2006 (primary cause is poisoning with drugs). Suicide is the leading cause of death under age 45 (IntelliHealth, 2016).
- 2) Substance Use – Recently, drug-related disorders among 18 year-old females has increased by 5 times (primary cause is opioids and methamphetamines/amphetamines) (IntelliHealth, 2016).
- 3) Immunization – There is very low vaccine compliance for cancer-causing viruses Hepatitis B and HPV, despite local increase in Hepatitis B cases and rise in HPV-linked cancer in males.
- 4) Healthy Eating – A total of 30% of students in lower Hamilton do not eat breakfast and 70-80% of students do not eat fruit and vegetables daily (KPS, 2010).
- 5) Physical Activity – Over 1 in 5 students in priority wards in lower Hamilton watch TV very frequently (>4 hrs/day) and are less likely to play outdoors on a daily basis (KPS, 2010).
- 6) Healthy Sexuality – The local teen pregnancy rate is higher than the provincial average (IntelliHealth, 2016) and there is a disproportionate clustering of STIs and teen pregnancies in priority wards (iPHIS, 2016).

Significant gaps in student health data limits the scope of population health assessment (Children Count, 2017).

b) Your board of health's determination of the local priorities for a program of public health interventions that addresses school health with consideration of the required list of topics identified in the Standards.

Local priorities among school-aged children and youth include: mental health and addictions (inclusive of suicide risk and prevention); healthy eating; physical activity; sedentary behaviour; and, healthy sexuality.

c) A description of how other topics for consideration not addressed in the Annual Service Plan were assessed or considered under School Health - Other.

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In assessing the needs of the community, efforts were made to quantify and prioritize the health outcomes and health behaviours for the City of Hamilton. Population health assessment, disease prevalence, rate of morbidity, rate of mortality along with a comparison of Hamilton to the province and the direction of local trends were considered. Additionally, other services available in Hamilton and the quality of evidence was considered in helping to determine where best to focus public health efforts. The revised School Health Program service delivery model has resulted in resources being allocated to priority communities focusing on health topics as noted above. Though the School Health Program's model supports knowledge transfer to all City of Hamilton schools (universal services) for all health promotion topics, the program's priorities are noted above. Limited resources are allocated to concussions, injury prevention, and road safety; however, this work is addressed by the Injury Prevention Program under the Substance Use and Injury Prevention Standard. Oral health, visual health, immunization, and infectious disease prevention are also addressed through other Hamilton PHS programs across many Standards.

B. Key Partners/Stakeholders

Please provide a high level summary of the specific key internal and external partners you will collaborate with to deliver on this Standard. Include a description of the contribution/role of these partners in program and service delivery, the mechanism for engagement (e.g., data sharing agreements, committee tables, working groups, etc.), and frequency of engagement. Please also describe any situations where the programming provided by external partners is sufficient so that you have not had to deliver similar programming under this Standard.

The School Health Program work is supported by internal and external partners by using a comprehensive health promotion approach to influence the development and implementation of healthy policies, and the creation or enhancement of supportive environments within school communities.

English-language school board leadership (Hamilton Wentworth District School Board (HWDSB), Hamilton Wentworth Catholic District School Board (HWCDSB)): This partnership contributes to program and service delivery through a strategic committee involving the Medical Officer of Health, PHS Healthy Families Director, School Health Program Managers, Directors of Education, lead Superintendents and school board management to align strategic health and education priorities. This committee meets bi-annually. The HWDSB and HWCDSB partnership also includes steering committees comprised of the School Health Program Managers, public health nurse liaison staff, Superintendents of Education, School Board management leads, and School Principals to support the implementation and operational feasibility of the School Health Program model and services. These steering committees meet on a quarterly basis.

French-language school boards (Conseil scolaire catholique MonAvenir, Conseil scolaire Viamonde): This partnership contributes to program and service delivery by involving School Health Program Managers, French Language Public Health Nurse (PHN), and French School Board Community Liaisons to strengthen relationships and align strategic health priorities achieved through quarterly and ad hoc workgroup meetings and consultations. Additionally, the French Language PHN has developed a regional network of other French Language PHNs providing service to the French School Boards in Ontario. The mechanisms of engagement and frequency for this newly established network are still to be determined.

Internal City of Hamilton Partners for School Health Coordination: Internal partners within Hamilton PHS include the Dental Program, Vaccine Program, School Health - Vision Program, Smoke-Free Ontario Program, Mental Well-Being Program, Harm Reduction Program, Sexual Health Program, Healthy Built Environment Program, and Food Strategy Program. The School Health Program also collaborates with the City of Hamilton Recreation Division and supports the Neighbourhood Development, Youth, and Drug Strategies within the City. The contribution of these partners includes cross-program coordination and strategic delivery of programs and services by departmental program managers/supervisors related to School Health Standard. Other internal PHS programs, including Epidemiology & Evaluation, Child and Adolescent Services, and Healthy Growth & Development, contribute to program delivery through the provision of population health and school-level data to inform health priorities and allocation of resources. The mechanism for engagement is quarterly and ad hoc workgroup meetings and consultations.

School Health Program management and staff also collaborate with several community partners to align services along the health impact pyramid.

P 1) School Health

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

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Schools are a critical setting to build important relationships, promote a positive sense of self, and promote and protect the health and well-being of children and youth. The School Health Program service delivery model strengthens partnerships between public health and local school boards. Key public health staff collaborate with school board leads to review city and ward level indicators and update population health products. The data in these products critically informs student health and well-being at a local level and is used to collaboratively identify needs and priorities within schools.

The School Health Program and school board leadership engage in strategic and operational planning through both a collaborative Senior Leadership Committee and school board-specific steering committees. These committees operate under an established Terms of Reference and meet twice and 3-4 times per year, respectively.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

The School Health Program provides universal services for all publicly funded schools as well as more intensive services to approximately 50 target schools (including alternative education sites), as these target schools have been identified as having the highest level of need. The priority of these target schools was determined by higher rates of health events and social determinants within the student population, in collaboration with school boards. The target schools are within the two largest school boards (HWDSB and HWCDSB) and the 5 French-language schools within the city (CSC MonAvenir and CS Viamonde). For target schools, inequalities in their catchment areas include: up to 47% of households are low income, 31% of families have a single parent (Census, 2016), the teen pregnancy rate is 2-times greater than the city average, the student self-harm rates are 4-times greater than the city average (IntelliHealth, 2016), and vulnerability of early development is up to 50% higher (EDI, 2015). The program will continue to work with school board partners to identify known priority populations to target (e.g., students who are LGBTQ+ and/or Indigenous).

Within the identified target schools, School Health Program PHNs collaborate with school administrators to co-develop an annual school health action plan with clear health related goals and indicators that support identified strategic priorities (e.g. mental health promotion, healthy eating, physical activity).

During implementation of the health action plan, Hamilton PHS staff will work with school staff, students, and parents/caregivers to implement the identified programs and services. Hamilton PHS staff engage other partners and services to assist the school in key areas as needed and identified. Hamilton PHS also collaborates with schools to monitor the work and outcomes to ensure the services are making a difference for the students and school community by applying a results-based accountability framework.

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

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The 50 target schools are the primary setting for delivery of mental health promotion approaches and interventions. The Senior Leadership Committee has identified student mental health, inclusive of bullying prevention and suicide prevention, as the top health priority across all organizations and are using a results-based accountability approach to address this health issue. To date, building social connectedness has been a prioritized focus under mental health promotion, particularly focusing on building healthy relationships between students as well as students and school staff.

Each of the English-language school boards and Hamilton PHS work together to identify and prioritize key evidence-informed actions and interventions for implementation that align with this priority focus area and each organization's mental health and addictions plans. To date, specific actions and interventions include:

- Supporting implementation of the Health & Physical Education Curriculum (i.e., training, consultations, classroom sessions)
- Engaging students:
 - o PHS staff in collaboration with target school staff and other key community partners engage students at the 50 target schools through Health Action Teams (HATs) or other relevant student groups. These HATs or student groups gather youth voice on potential mental health promotion strategies – then adult allies will support youth with planning, implementation, evaluating, and celebrating the success of identified strategies. Hamilton PHS staff will support these student groups in identifying key messages and strategies based on best available evidence. To align with the prioritized focus on social connectedness, most student groups are focusing on planning and implementing strategies that will build social connectedness.
- Engaging parents and caregivers by:
 - o Supporting parents and caregivers through key school events (e.g. Welcome to Kindergarten, Open Houses).
 - o Supporting school councils who are focusing on student mental health as a priority area.
 - o Collaborating with HWDSB to pilot the implementation of the Positive Parenting Program (Triple P) to a target population of parents. Evaluation findings from this pilot will inform future programming and services across the program.
- Building partnerships:
 - o Hamilton PHS will support target school communities in building and maintaining relationships with key community partners as needed to address priority health and well-being needs.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

The School Health Program would like to further enhance its partnership and collaboration with local schools and school boards over the next 1-2 years through:

- Continuing to provide intensive services to approximately 50 target school communities, ensuring that:
 - o 50% of identified priority schools will have incorporated a comprehensive health action plan into their School Improvement/Annual Plan by June 2020 and subsequently on an annual basis
 - o 80% of identified target schools comprehensive action plans will be completed by June 2020 and subsequently on an annual basis
- 100% completion of identified Hamilton PHS/Board-specific priority projects by June 2020 and subsequently on an annual basis

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

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School Health

Hamilton PHS will continue to:

- Maintain a leadership committee with HWDSB and HWCDSB senior leadership that will continue to support implementation of the School Health Standard. Hamilton PHS will continue to secure the commitment from this leadership committee to achieve program and strategic outcomes.
- Maintain school board specific Steering Committees to support alignment with strategic priorities and operational planning of programs and services.
- Share relevant health and education data, and strategic plans with school board partners to identify mutual health priorities, goals, success indicators, and processes for evaluation.
- Collaborate with school boards to plan for intensive and universal resource allocation, inclusive of service coordination of other school based public health services (e.g., School PHNs, immunization services, dental services, vision screening services).
- Provide a PHN School Board Liaison at least 0.5 days per week to both the HWDSB and HWCDSB. The PHN School Board Liaison's role is to identify and support new or existing opportunities for collaboration between Hamilton PHS and the school boards.
- Collaborate with school boards to identify priority projects that address strategic health priorities. Priority projects identified currently include:
 - o Feasibility pilot of a Positive Parenting Program (Triple P) within the HWDSB;
 - o Planning and implementation of Wellness Wednesday events within the HWDSB;
 - o Pathways to Care web-based student resource within the HWDSB;
 - o Planning, implementation, evaluation, and follow-up of the Equity and Inclusion Conference within the HWCDSB; and,
 - o Planning, implementation, and evaluation of a pilot project to address early development vulnerabilities within the HWCDSB.
- Leverage existing partnerships with school boards to enhance capacity building among school staff and communities according to the School Mental Health Ontario 2019 Action Plan. Enhancement opportunities relate to mental health literacy, social-emotional learning, student engagement, and parent/caregiver engagement.
- Liaise with relevant internal and external stakeholders to achieve the outcomes as outlined in the School Health Standard.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Share population health data, facilitate linkages with community resources, consult on emerging health priorities, facilitate other school based public health services (e.g. immunization, dental and vision screening), and promote web-based and health curriculum resources with all Hamilton schools.
- Engage the 50 target school communities (students, parents/caregivers, school staff) in the development, implementation, and evaluation of comprehensive evidence-informed health action plan related to school health priorities.
- Facilitate community networks and partnerships to best meet the identified school health priorities.
- Advise and support implementation of healthy school policies and practices.
- Complete training modules related to Infant and Early Years Mental Health in support of the community Infant and Early Years Mental Health Strategy. Opportunities for enhanced services to be identified and negotiated with school boards upon completion of training.

i 3) Monitoring and Surveillance

- Monitor and report to the strategic leadership committee on the uptake and engagement of target schools in the co-development of school improvement/annual plans related to shared health goals.
- Continue to use shared population health indicators to co-develop, plan, implement, and evaluate strategic initiatives.
- Integrate the use of Ontario Student Health and Drug Use Survey oversampling data to inform collaborative planning once available.

- Contribute to the year one goals of the Hamilton Health Team, Adult – Mental Health and Addictions priority
- Multi-year trend to prevent or delay the age of youth engaging in substance use including alcohol and cannabis (measured every two years)
- Multi-year trend of reduced proportion of Hamiltonians age 19+ who reported exceeding the low-risk drinking guidelines (measured every two years)
- Foster community supports to reduce harms related to substance use
- Develop and facilitate delivery of cannabis use training modules to 100% of Hamilton PHS programs by the end of 2020
- Implement a substance use curriculum in 100% of universal schools by the end of the 2019/2020 school year (June 2020)

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Implement activity plans for the Hamilton Drug Strategy and continue to provide the coordination of the strategy for the community. Comprehensive interventions to be implemented will be targeted to the prevention of substance use, reduction of harms associated with substance use, promotion of social justice and policy, and increasing access to treatment via pathways to connect care.
- Service level agreements for naloxone distribution have been executed to local hospitals, community health centres, and other community agencies to support the distribution of Naloxone via the Naloxone Expansion program.
- Collaborate with City of Hamilton to provide staff education related to cannabis.
- Implement and evaluate comprehensive substance use prevention for youth curriculum within schools related to alcohol, opioids, and cannabis.
- Conduct an evidence review to identify appropriate interventions to delay the age of youth engaging in substance use.
- Conduct an evidence review to identify appropriate interventions to reduce harms of substance use among pregnant persons.
- Conduct an evidence review to identify appropriate interventions to reduce harms of substance use among Indigenous people.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Review the population health data on alcohol use and recommend municipal actions based upon changes to alcohol legislation in Ontario.
- Review local cannabis data and develop further programming and health promotion interventions to reduce the harms associated with cannabis use among youth.
- Explore interventions to engage with Indigenous populations.

i 3) Monitoring and Surveillance

- Support the ongoing opioid surveillance system and early warning system developed within Hamilton PHS.
- Support ongoing monitoring of data related to population and performance accountability measures for the Community Drug Strategy.

P 4) Mental Well-Being

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

This program supports a comprehensive health promotion approach to create or enhance supportive environments to address mental well-being across the lifespan.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

The following groups have been identified as priority populations for the mental well-being program: early and middle years youth and their families, lone parents and their young children, and people living in high needs neighbourhoods who would benefit from further community resilience support. In Hamilton, young people have the highest rates of mental health hospitalizations and self-harm, and many of these rates are showing substantial increases. Locally areas with a higher proportion of lone parents also have higher rates of emergency department visits for self-harm and hospitalization rates for mental health conditions. Current program review activities have identified the middle years as a currently service delivery gap and a crucial period for early intervention. Given that local data identifies that multiple characteristics of high needs neighbourhoods (e.g. high low income, high unemployment, high housing needs) are associated with poor mental health related outcomes, they have been identified as priority area for community resilience building interventions.

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

In 2020, the work of this program will have three key focus areas related to mental health promotion: 1) community violence and trauma; 2) social connectedness; and, 3) reducing stigma associated with mental health. A situational assessment of current Hamilton PHS services that address risk and protective factors for community violence and trauma will be utilized to develop a public health initiative to address community violence and identify strategies to reduce violence and the trauma associated with it. A similar situational assessment is being conducted to identify opportunities to increase social connectedness for children and youth outside of the school setting. Results from this assessment will be implemented and reinforced in collaboration with the School Health Program and local community partners, such as recreation centres. Through identification of gaps and policy and training needs, Hamilton PHS will incorporate a trauma and violence informed approach to PHS' programs and services.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- Implement comprehensive health promotion approaches to improve protective factors and reduce incidence of mental health disorders
- Multi-year decreasing trend in the number of Hamiltonians age 12+ who report a weak sense of community (measured every two years)
- Multi-year decreasing trend in the number of Hamiltonians age 12+ who report that life is stressful (measured every two years)
- Multi-year trend of reduced emergency department visit rate for self-harm among Hamiltonians age 0-19 (measured annually)
- Multi-year trend of reduced hospitalization rate for anxiety disorders among Hamiltonians age 0-19 (measured annually)
- Develop and facilitate delivery of training on Trauma and Violence-Informed Care to 100% of Hamilton PHS programs by end of 2020
- Develop and facilitate delivery of training on anti-stigma for mental health and substance-use to 100% of Hamilton PHS programs by end of 2020
- Complete a situational assessment to identify which Hamilton PHS programs / initiatives are currently addressing the risk and protective factors for community violence and identify gaps by Q2 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Use a comprehensive health promotion approach that addresses mental health and well-being in Hamilton and contributes to Hamilton's Community Safety and Well-Being Plan.
- Implement organizational training and policy changes to ensure departmental programs adhere to a Trauma and Violence-Informed Care approach.
- Review and implement evidence-informed interventions to work toward elimination of stigma related to mental health and substance-use.
- Review and implement evidence-informed interventions to prevent community violence.
- Provide content and resource support to the school setting to assist with the implementation of comprehensive mental well-being interventions in targeted elementary and secondary schools within Hamilton.
- Promote the implementation of School Mental Health Ontario through the provision of resource support to the School Health Program.
- Implement interventions to increase social connectedness amongst youth 6-12 years of age in priority neighbourhoods.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Provide resources that support healthy eating, physical activity, and tobacco use cessation to the community.
- Provide consultation and support for workplaces implementing the National Standard for Psychological Health & Safety in the Workplace.
- Provide support to school program to increase mental health promotion to children and youth across Hamilton.

i 3) Monitoring and Surveillance

- Monitor local surveillance data and prioritized indicators for Mental Health & Addictions strategy and mental well-being program planning.

P 5) Injury Prevention

Program Description:

a) Describe the program including the population(s) to be served. Please identify the specific requirements under the Standards that the program will address. Include a linkage to identified community needs and priorities.

Based on the needs of the Hamilton community, the Injury Prevention Program focuses on providing services focused on fall-related injuries, transportation-related injuries, and concussions. Work to reduce the number of preventable injuries is focused on increasing awareness and providing education to the community and target populations such as youth in amateur sports or low-income populations. Significant effort is put into collaboration with community partners across the health and social sector to support increased awareness of injuries and prevention education. In addition, the program works to influence policy at all levels to create safer environments for all individuals and prevent injuries from occurring.

The following have been identified as priorities for the Injury Prevention Program:

1) Vision Zero: supporting the recommendations of Hamilton's City Council-approved Vision Zero Plan, specifically in the areas of education, engagement, and evaluation. This work is led by the Public Works Department (City of Hamilton) in collaboration with Hamilton Police Services and community partner organizations.

2) Age Friendly Plan: Hamilton Public Health Services (PHS) co-leads the revisions to the City's Age Friendly Plan with a revised plan to be completed by Spring 2020. Injury prevention aspects of the plan include pedestrian and cycling safety, installation of assistive devices in City-managed housing, and recommendations related to falls prevention.

3) Concussion awareness, education, and prevention: In collaboration with internal and external partners, staff are revising and supporting helmet education, working to gather data on adherence to Rowan's Law, and implementing concussion protocols in schools and City affiliated amateur sport organizations. Staff are leading a re-envisioning of the Hamilton Helmet Initiative.

b) If a priority population has been identified for this program, please provide data and informational details that informed your decision, unless previously reported. Describe how interventions were modified and oriented to decrease health inequities for these priority populations.

This program will focus on children and youth (<25 years old) and seniors (>65 years old) as priority populations for injury prevention. Locally, male youth (12-25 years old) have among the highest rates of injuries resulting from transport collisions, assaults, and general injury. Children and seniors have among the highest rates of fall injuries, with seniors being at particularly high risk of fall-related mortality.

c) Describe how mental health promotion will be addressed, including specific approaches, topic of focus (e.g. resiliency building, healthy relationships, social connectedness, etc.), target population, and delivery setting (e.g. schools, community centers, public health units, etc.).

Injury prevention related work (Vision Zero, falls prevention, concussion awareness and prevention) supports individuals to be physically active, in a safe manner. Physical activity promotes mental well-being through improved sleep, self-esteem, improved body image, better academic performance, and social connectedness, all of which support positive mental health. The work of Vision Zero also addresses mental health by addressing preventable injuries and deaths on our roads both of which can inevitably result in mental health challenges for survivors, victims, and their loved ones. Concussion prevention addresses mental health by aiming to prevent head injuries that can result in short or long-term cognitive, mental, and emotional challenges.

Program Objective:

Describe the expected objectives of the program and what you expect to achieve, within specific timelines.

- 90% of target elementary schools in Hamilton will receive the Think First concussion and brain injury awareness presentation by June 2020
- 100% of all elementary schools requesting support around implementation of Rowan's Law and P158 receive support related to identified need by December 2020
- 100% of all Hamilton public schools will have a concussion protocol in place by December 2020
- 100% of the assigned public health related action items in the City of Hamilton's Vision Zero movement will be completed by December 2020
- Contact information on 100% of all child and youth amateur sports organizations affiliated with the City of Hamilton, will be recorded as a baseline for future tracking of concussion protocols in place within said organizations by December 2020
- 100% of pedestrian safety workshops for older adults will be completed in collaboration with City of Hamilton and community stakeholders (~10 workshops reaching 200 older adults) by December 2020

Intervention Descriptions:

Briefly describe the following public health intervention(s).

i 1) Strategic and System Initiatives

- Explore opportunities to advocate for improved injury prevention codes for Canadian homes to reduce burden of injury including stair falls.
- Inform policy development of Canadian National Building Codes as requested.
- Collaborate with Hamilton Council on Aging and Seniors Advisory Council to support implementation of Hamilton's Age Friendly Plan related to falls prevention and pedestrian and cycling safety.
- Support a "complete streets" approach to enhance safety for all road users through advocacy for infrastructure changes such as bike lanes, proper street lighting, and paved surfaces.
- Support policy work in partnership with local schools and amateur sports organizations related to concussions and helmet use (Rowan's Law and P158).
- Support the City of Hamilton's implementation of Vision Zero by achieving zero fatalities or serious injuries on roadways 2025, a global movement transforming the way we use, interact and travel on our roads.
- Investigate the public health role in violence prevention and develop an action plan.

i 2) Promotion, Awareness, Education and Knowledge Translation

- Provide education and awareness around home adaptations for aging in place that focuses on falls prevention.
- Increase concussion awareness within various stakeholders and community partners.
- Promote helmet use in all ages.
- Deliver road safety education for drivers, cyclists, and safe pedestrian measures.
- Investigate ways to increase awareness of injuries due to violence.
- Support development of education, engagement, and evaluation subgroups of the City of Hamilton Strategic Road Safety Committee to implement recommended actions in the Vision Zero plan.

i 3) Screening, Assessment and Case Management

- Support the implementation plan for Return to Learn and Return to Play policies.

Board of Health for the City of Hamilton, Public Health Services

Allocation of Expenditures

% of Benefits															
Population Health Assessment	Expenditures									Sources of Funding					
	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Total Population Health Assessment	595,930	164,440	90	41,060	69,110	2,530		71,620	944,780	944,780					944,780
Health Equity	Expenditures									Sources of Funding					
	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Total Health Equity	484,270	132,650	710	46,020	135,470	120		37,510	836,750	836,750					836,750
Effective Public Health Practice	Expenditures									Sources of Funding					
	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Total Effective Public Health Practice	1,482,570	401,200	220	101,810	163,880	7,520		181,080	2,338,280	2,338,280					2,338,280
Emergency Management	Expenditures									Sources of Funding					
	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Total Emergency Management	156,180	44,200	10	10,300	60,550	30		20,190	291,460	291,460					291,460
Chronic Disease Prevention and Well-Being	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs	Ontario Seniors Dental Care Program				Total Funding Sources
Ontario Seniors Dental Care Program	974,420	220,860	8,380	4,480	6,360	887,920		145,680	2,248,100	-	2,248,100				2,248,100
Built Environment	845,680	226,770	220	60,040	70,170	150		69,730	1,272,760	1,272,760					1,272,760
Food Strategy and Community Health	1,087,160	285,540	570	80,160	93,670	4,450		81,020	1,632,570	1,632,570					1,632,570
Total Chronic Disease Prevention and Well-Being	2,907,260	733,170	9,170	144,680	170,200	892,520	-	296,430	5,153,430	2,905,330	2,248,100	-	-	-	5,153,430

Board of Health for the City of Hamilton, Public Health Services

Allocation of Expenditures

Food Safety	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Food Safety	1,500,760	392,710	25,950	104,350	125,930	3,210	(415,640)	170,860	1,908,130	1,908,130					1,908,130
Total Food Safety	1,500,760	392,710	25,950	104,350	125,930	3,210	(415,640)	170,860	1,908,130	1,908,130	-	-	-	-	1,908,130

Healthy Environments	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Health Hazards	669,820	181,550	6,240	46,740	54,600	1,990		57,290	1,018,230	1,018,230					1,018,230
Air Quality and Climate Change	215,590	59,040	330	14,230	16,620	53,510		12,910	372,230	372,230					372,230
Total Healthy Environments	885,410	240,590	6,570	60,970	71,220	55,500	-	70,200	1,390,460	1,390,460	-	-	-	-	1,390,460

Healthy Growth and Development	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Healthy Growth and Development	2,419,800	671,340	17,180	178,640	208,750	2,770	(14,070)	192,660	3,677,070	3,677,070					3,677,070
Health Promotion	911,050	246,830	900	65,730	76,800	170		60,110	1,361,590	1,361,590					1,361,590
Total Healthy Growth and Development	3,330,850	918,170	18,080	244,370	285,550	2,940	(14,070)	252,770	5,038,660	5,038,660	-	-	-	-	5,038,660

Immunization	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Community Based Immunization Outreach (excluding vaccine administration)	268,630	73,450	1,520	20,810	23,510	50		32,110	420,080	420,080					420,080
Immunization Monitoring and Surveillance	136,770	38,080	820	11,210	12,650	30	(5,500)	7,650	201,710	201,710					201,710
Vaccine Administration	674,780	186,500	3,630	49,610	56,050	120	(72,500)	35,850	934,040	934,040					934,040
Vaccine Management	332,100	96,440	2,340	32,000	36,180	80		39,310	538,450	538,450					538,450
Total Immunization	1,412,280	394,470	8,310	113,630	128,390	280	(78,000)	114,920	2,094,280	2,094,280	-	-	-	-	2,094,280

Board of Health for the City of Hamilton, Public Health Services

Allocation of Expenditures

Infectious and Communicable Diseases Prevention and Control	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Vector-Borne Diseases Program	803,990	208,330	11,960	27,730	87,200	146,000		23,280	1,308,490	1,308,490					1,308,490
Infectious Disease Program	2,956,360	814,900	30,380	203,240	300,330	11,750	(118,990)	188,620	4,386,590	4,386,590					4,386,590
Sexual Health Program	1,468,490	402,460	3,140	111,820	133,110	111,400	(115,000)	137,590	2,253,010	2,253,010					2,253,010
Total Infectious and Communicable Diseases Prevention and Control	5,228,840	1,425,690	45,480	342,790	520,640	269,150	(233,990)	349,490	7,948,090	7,948,090	-	-	-	-	7,948,090

Safe Water	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Small Drinking Water Systems Program	42,630	11,630	360		2,240			180	57,040	57,040					57,040
Safe Water Program	658,440	177,960	14,770	47,230	56,360	2,000	(12,320)	61,860	1,006,300	1,006,300					1,006,300
Total Safe Water	701,070	189,590	15,130	47,230	58,600	2,000	(12,320)	62,040	1,063,340	1,063,340	-	-	-	-	1,063,340

School Health - Oral Health	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Healthy Smiles Ontario Program	697,140	194,930	6,720	2,810	110,220	400		184,290	1,196,510	1,196,510					1,196,510
Oral Health Assessment and Surveillance	296,940	88,330	3,000	28,150	32,920	980		41,100	491,420	491,420					491,420
Total School Health - Oral Health	994,080	283,260	9,720	30,960	143,140	1,380	-	225,390	1,687,930	1,687,930	-	-	-	-	1,687,930

School Health - Vision	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Child Visual Health and Vision Screening	46,350	12,520		3,400	3,950	106,530		19,650	192,400	192,400					192,400
Total School Health - Vision	46,350	12,520	-	3,400	3,950	106,530	-	19,650	192,400	192,400	-	-	-	-	192,400

School Health - Immunization	Expenditures									Sources of Funding					
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Board of Health for the City of Hamilton, Public Health Services

Allocation of Expenditures

Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Immunizations for Children in Schools and Licensed Child Care Settings	609,430	180,070	4,670	59,070	68,590	3,370	(47,930)	62,680	939,950	939,950					939,950
Total School Health - Immunization	609,430	180,070	4,670	59,070	68,590	3,370	(47,930)	62,680	939,950	939,950	-	-	-	-	939,950
School Health - Other	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
School Health	2,055,330	553,540	11,160	146,450	171,140	2,220		182,880	3,122,720	3,122,720					3,122,720
Total School Health - Other	2,055,330	553,540	11,160	146,450	171,140	2,220	-	182,880	3,122,720	3,122,720	-	-	-	-	3,122,720
Substance Use and Injury Prevention	Expenditures									Sources of Funding					
Program	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					Total Funding Sources
Smoke-Free Ontario	1,125,380	303,390	19,890	53,440	106,310	12,310	(99,620)	429,460	1,950,560	1,950,560					1,950,560
Harm Reduction	701,880	190,230	17,930	39,500	51,460	48,950		289,480	1,339,430	1,339,430					1,339,430
Substance Use Prevention	214,030	58,990	310	16,710	19,530	21,850		24,070	355,490	355,490					355,490
Mental Well-Being	209,080	56,550	170	14,860	17,370	7,300		22,240	327,570	327,570					327,570
Injury Prevention	323,270	85,980	60	22,280	26,020	1,680		17,810	477,100	477,100					477,100
Total Substance Use and Injury Prevention	2,573,640	695,140	38,360	146,790	220,690	92,090	(99,620)	783,060	4,450,150	4,450,150	-	-	-	-	4,450,150
Indirect Costs	Expenditures									Sources of Funding					
	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures	Total Expenditures	Mandatory Programs					
Total Indirect Costs	1,426,310	385,460	18,020	107,450	156,070	65,030	(42,510)	124,810	2,240,640	2,240,640				-	2,240,640
Grand Total	26,390,560	7,146,870	211,650	1,751,330	2,553,120	1,506,420	(944,080)	3,025,580	41,641,450						41,641,450

Board of Health for the City of Hamilton, Public Health Services

Budget Summary

Base Funding	
Source of Funding	Budget (at 100%)
Mandatory Programs	39,393,350
Ontario Seniors Dental Care Program	2,248,100
Unorganized Territories	-
Unorganized Territories: Indigenous Communities	-
Unorganized Territories: Northern Fruit and Vegetable Program	-
Total	41,641,450

Summary of Expenditures by Standard									
Standards	Total Board of Health	Salaries and Wages	Benefits	Travel	Building Occupancy	Municipal Charges	Professional Services	Expenditure Recoveries & Offset Revenues	Other Program Expenditures
Direct Costs									
Population Health Assessment	944,780	595,930	164,440	90	41,060	69,110	2,530	-	71,620
Health Equity	836,750	484,270	132,650	710	46,020	135,470	120	-	37,510
Effective Public Health Practice	2,338,280	1,482,570	401,200	220	101,810	163,880	7,520	-	181,080
Emergency Management	291,460	156,180	44,200	10	10,300	60,550	30	-	20,190
Chronic Disease Prevention and Well-Being	5,153,430	2,907,260	733,170	9,170	144,680	170,200	892,520	-	296,430
Food Safety	1,908,130	1,500,760	392,710	25,950	104,350	125,930	3,210	(415,640)	170,860
Healthy Environments	1,390,460	885,410	240,590	6,570	60,970	71,220	55,500	-	70,200
Healthy Growth and Development	5,038,660	3,330,850	918,170	18,080	244,370	285,550	2,940	(14,070)	252,770
Immunization	2,094,280	1,412,280	394,470	8,310	113,630	128,390	280	(78,000)	114,920
Infectious and Communicable Diseases Prevention and Control	7,948,090	5,228,840	1,425,690	45,480	342,790	520,640	269,150	(233,990)	349,490
Safe Water	1,063,340	701,070	189,590	15,130	47,230	58,600	2,000	(12,320)	62,040
School Health	5,943,000	3,705,190	1,029,390	25,550	239,880	386,820	113,500	(47,930)	490,600
Substance Use and Injury Prevention	4,450,150	2,573,640	695,140	38,360	146,790	220,690	92,090	(99,620)	783,060
Total Direct Costs	39,400,810	24,964,250	6,761,410	193,630	1,643,880	2,397,050	1,441,390	(901,570)	2,900,770
Indirect Costs									
Indirect Costs	2,240,640	1,426,310	385,460	18,020	107,450	156,070	65,030	(42,510)	124,810
Total Expenditures	41,641,450	26,390,560	7,146,870	211,650	1,751,330	2,553,120	1,506,420	(944,080)	3,025,580

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

One-Time Funding Requests

1) Request Title:	Vaccine Fridges	
Category	New Purpose-Built Vaccine Fridges	
Description <i>Provide a detailed description and identify issue(s) and/or opportunities that have led to this request (e.g. increased demand for services, legislative changes). Your description should include details on the populations served and any other relevant data/demographics, and how the request relates to government and ministry priorities.</i>	The issues identified that led to this request to replace the current Vaccine Program refrigerators include; ongoing and increasing maintenance issues with the current 'end of life' refrigerators and as a result increasing costs to the program. The current vaccine refrigerators in Hamilton are all over 10 years old and are in need of replacement. Over the last year, we have had to frequently service our refrigerators because of ongoing out-of-range temperatures; this has resulted in service disruption at some of our clinical sites. There is ongoing concern that the risk of imminent failure is high due to the age of the fridges and resulting maintenance issues. This request is being made to ensure Hamilton PHS continues to meet government and industry priorities of delivering vaccine service to the general public , preventing vaccine wastage and remaining in compliance with the Storage and Handling protocol. The purchase of these fridges will ensure that the citizens of Hamilton have access to viable vaccine to prevent vaccine preventable diseases.	
Risks / Impacts <i>Describe the risks and/or direct impacts to programs and services with not receiving any or all of the funding requested.</i>	Public Health Services maintains a supply of various vaccines for delivery of vaccination services to City of Hamilton students and residents. The vaccines must be kept at prescribed temperatures and stored in refrigerators with required specifications for the interior, refrigeration system, door characteristics, thermostat and thermometer as per the Storage and Handling protocol. Failure to store vaccines following these protocols could compromise vaccine inventory which at any given time is within \$0.5M to \$1.0M in value.	
Outcomes <i>What outcome(s) does the board of health intend to achieve with this request/project?</i>	Purchase of new Vaccine Refrigerators which will allow for compliance with the Storage and Handling protocol.	
Can the project be completed by March 31, 2021?	Yes	
Number of new purpose-built vaccine refrigerators being requested. (#)	10	
Size of new purpose-built vaccine refrigerators being requested. (cubic feet)	388 total cubic feet	

Project Cost Item / Description	Cost/Item
Identify the cost items in the cells provided below and provide a description for each item, including how the cost was determined <i>(excluding HST)</i> .	Identify the cost per each item.
10 new purpose-built vaccine refrigerators- based on current cubic square feet and Ministry estimates per sq. feet	188,900
Fridge room fit-up (electrical work, engineering assessments)	6,800
Dismantle and removal of old fridges	2,500
Total	198,200

2) Request Title:	Public Health Inspector Practicum Program	
Category	PHI Practicum	
Description <i>Provide a detailed description and identify issue(s) and/or opportunities that have led to this request (e.g. increased demand for services, legislative changes). Your description should include details on the populations served and any other relevant data/demographics, and how the request relates to government and ministry priorities.</i>	Historically the Ministry of Health annually offers an opportunity to apply for a \$10,000 grant to assist Public Health Units with hiring PHI Trainees. PHI Trainees are graduates from a university or college recognized by the Canadian Institute of Public Health Inspectors that provides the necessary curriculum to become a certified Public Health Inspector. Prior to being eligible to complete the PHI certification process (2 field reports, written test, oral test) the PHI certification candidate must complete a minimum 12 week practicum with a Canadian Public Health Agency, in Ontario this is a local Health Unit. Hamilton Public Health Services traditionally hires 3 PHI Trainees between Victoria Day and Labour Day. 3 has been verified through experience as the minimum number of PHI Trainees to hire – any lesser number will not provide the necessary field training experience to meet the PHI certification requirements. Also, less than 3 PHI Trainees could jeopardize delivering some local public health services. PHI Trainees are responsible doing all the beach sampling program – they collect the water samples and update the public messaging regarding the water quality at the beaches. This takes ~2 ½ to 3 days per week during the summer. After training through direct oversight and education by a certified PHI, PHI Trainees inspect public pools, wading pools, splash and spray pads, small drinking water systems, water haulers, migrant farm worker housing, food premises, investigate vector borne disease complaints, such as rats, bed bugs, pests under the pest bylaw, animal bites, mould, air quality, reports of infectious diseases, etc. PHI Trainees receive training in all aspects of the environmental health programs under the Ontario Public Health Standards and Protocols. Hiring PHI Trainees is strategic for the Employer regarding whether or not the PHI Trainee is suitable for future employment as a PHI Trainee with the City of Hamilton. 20% of current PHI's became City of Hamilton staff received their PHI training with Hamilton Public Health Services.	
Risks / Impacts <i>Describe the risks and/or direct impacts to programs and services with not receiving any or all of the funding requested.</i>	Without the \$10,000 grant: - the number of PHI Trainees hired will either need to be reduced to 2; this will make the PHI training program unfeasible due to not enough time spent in all environmental health programs. Basically, 3 or 0 PHI Trainees should be hired each summer. - \$10,000 will be needed from other PHS programs - \$10,000 will be needed from elsewhere The Beach Sampling Program is not feasible. Some mandatory inspections of Pools, Spas, Spray Pads, Food Premises, etc. will not get done.	
Outcomes <i>What outcome(s) does the board of health intend to achieve with this request/project?</i>	Performance Measures: # of PHI Trainees recruited and placed Provide a beach sampling program between Victoria Day and Labour Day – publicly disclose the results of the beach sampling program – i.e. post water quality results on city of Hamilton website (www.hamilton.ca/beaches) 100% completion of inspections of outdoor public pools, spas, wading pool, spray pads, etc.	
Can the project be completed by March 31, 2021?	Yes	
Number of Public Health Inspector Practicum positions being requested. (#)	3	

Project Cost Item / Description		Cost/Item
<i>Identify the cost items in the cells provided below and provide a description for each item, including how the cost was determined <u>(excluding HST)</u>.</i>		<i>Identify the cost per each item.</i>
Student PHI Practicum Wages and Benefits		10,000

Total 10,000



One-Time Requests Summary		Amount
Vaccine Fridges		198,200
Public Health Inspector Practicum Program		10,000
Total One-Time Funding Request		208,200

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Board of Health Membership

#	Member First Name	Member Last Name	Type of Appointment		Identify Municipality (if applicable)
			(Municipal / Provincial)	If Municipal (Council / Citizen Representative)	
1	Fred	Eisenberger	Municipal	Council	City of Hamilton
2	Maureen	Wilson	Municipal	Council	City of Hamilton
3	Jason	Farr	Municipal	Council	City of Hamilton
4	Nrinder	Nann	Municipal	Council	City of Hamilton
5	Sam	Merulla	Municipal	Council	City of Hamilton
6	Chad	Collins	Municipal	Council	City of Hamilton
7	Tom	Jackson	Municipal	Council	City of Hamilton
8	Esther	Pauls	Municipal	Council	City of Hamilton
9	John-Paul	Danko	Municipal	Council	City of Hamilton
10	Brad	Clark	Municipal	Council	City of Hamilton
11	Maria	Pearson	Municipal	Council	City of Hamilton
12	Brenda	Johnson	Municipal	Council	City of Hamilton
13	Lloyd	Ferguson	Municipal	Council	City of Hamilton
14	Arlene	VanderBeek	Municipal	Council	City of Hamilton
15	Terry	Whitehead	Municipal	Council	City of Hamilton
16	Judi	Partridge	Municipal	Council	City of Hamilton

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Apportionment of Board of Health Costs

Method of Apportionment

if Other please explain

#	Municipality Name	% Share
1		
Total: (Must be 100.00%)		0.00%

2020 Annual Service Plan and Budget Submission

Board of Health for the City of Hamilton, Public Health Services

Key Contacts and Certification

Do not include personal contact information. Contact information (e.g., emails, phone numbers and mailing addresses) should be those of the board of health or a public health unit office.

Key Contacts

Position	First Name	Last Name	Phone + Extension	Email	Board of Health / PHU Office Mailing Address	City/Town	Postal Code
Chair, Board of Health	Fred	Eisenberger	905-546-4200	mayor@hamilton.ca	71 Main Street West	Hamilton	L8P 4Y5
Medical Officer of Health	Elizabeth	Richardson	905-546-2424 (3502)	elizabeth.richardson@hamilton.ca	100 Main Street West	Hamilton	L8P 1H6
Chief Executive Officer (if applicable)							
Business Administrator	David	Trevisani	905-546-2424 (6630)	david.trevisani@hamilton.ca	28 James Street North	Hamilton	L8R 2K1

Certification

Position	Date Approved
Board of Health Chair	
Medical Officer of Health / Chief Executive Officer	
Business Administrator (Verifies that the budget data provided in the Annual Service Plan and Budget Submission is accurate)	