



Public Health Ontario

Annual Business Plan 2017-18 to 2019-20

Board approved submission – December 19, 2016

Resubmission May 2017

Executive Summary

Established by legislation as a board-governed provincial agency, Public Health Ontario (PHO) provides scientific advice and support for those working to protect and promote the health of Ontarians. We play a critical role in Ontario's public health and health care systems and serve as a bridge between the health sector and other sectors that influence the broader determinants of health. It takes many partners, working together, to help Ontarians live healthier lives. We link public health practitioners, front-line healthcare workers and researchers to the best scientific intelligence and knowledge from around the world, enabling informed decisions and actions.

Provincial in scope with appropriate links to other local, provincial, national and international organizations, PHO builds partnerships and draws on the best available resources – from local to international – to ensure that all scientific and technical information and knowledge products are of the highest quality, scientifically sound and technically accurate. Our Laboratory network and regional sites extend our reach to all areas of the province. Across 11 laboratory sites, we respond to both provincial and local service needs, conducting over 400 different diagnostic, confirmatory and reference tests to help clinicians make treatment decisions for their patients. Consistent with the mandate of public health laboratories established by the Canadian and American Public Health Laboratory Networks, our laboratory services go beyond the clinical testing role of traditional laboratories and address the broader challenge of infectious disease prevention and control. In the first half of fiscal year 2016-17, our Laboratory performed over 2.5 million clinical laboratory tests and almost a quarter million environmental laboratory tests.

In all that we do, we are guided by our legislated mandate to protect and promote the health of Ontarians and contribute to efforts to reduce health inequities. Our evidence enables informed decisions and actions, whether by a clinician treating a patient, a communicable disease manager seeking to control an outbreak or a medical officer of health addressing the broader public health needs of the local population. We work across boundaries and with partners to monitor, detect, and manage international outbreaks and prepare for their potential impacts to Ontario at provincial and local levels. Our work is responsive to the challenges and opportunities presented by Ontario's changing demographics and fiscal environment, and reflects the needs of the province's health system as well as ongoing and emerging public health issues at all levels from local to global.

An important component of PHO's efforts is the work to support the scientific and technical needs of the Chief Medical Officer of Health (CMOH) and the Population and Public Health Division of the Ministry of Health and Long-Term Care (MOHLTC). PHO is integrated to the daily business of the Ontario public health system: producing a daily situation report; and facilitating an early morning forum to discuss new, emerging and high profile public health issues with our public health partners. This daily forum enhances coordination between PHO and the CMOH and MOHLTC, as well as the network of 36 public health units (PHU) and other health agencies in Ontario, Canada and globally. It strengthens the capacity of Ontario's public health system to monitor, prepare for, detect and respond to new and emerging issues and emergencies.

2016-17 highlights and accomplishments

We continued to deliver on our mandate as Ontario's public health agency in 2016-17. Some examples of PHO's recent accomplishments include:

Keeping Ontarians safe

Every day, we monitor and detect current or potential infectious disease outbreaks or environmental incidents to prevent disease and minimize risks before they cause harm to the public. Whether persisting problems or new and emerging public health threats, our surge capacity is essential to provide greater flexibility in health and public health emergency response. Our efforts in the first half of 2016-17 on a wide range of fronts – including immunization, foodborne illness, institutional outbreaks of disease, antimicrobial resistance, and local environmental issues – demonstrate the critical role we play in keeping Ontarians safe. Our efforts since the emergence of Zika virus in South America in 2015 have continued into the first six months of the 2016-17 fiscal year and are just one example of the critical knowledge and support we provide to Ontario's public health sector. PHO's response to the outbreak continues to be coordinated by the Zika virus incident management system team, brings our many areas of expertise together to address this complex disease: emergency preparedness, vector-borne diseases, laboratory sciences, library services, communications, and media relations. We continue to track the rapidly evolving situation through daily scans of the scientific literature and media reports. Highlights of PHO's Zika response activities, developed through the combined expertise of PHO staff across the organization, include timely, informative web content for public health units and health care providers, up-to-date laboratory testing guidance, informative media interviews, and provision of scientific and technical advice to the MOHLTC. An Ontario-specific rapid risk assessment developed by PHO was implemented for the first time with Zika, and is posted on our website.

Making Ontario healthier

Our work sheds light on what affects health and identifies opportunities to reduce preventable disease and injuries. Ultimately, we find ways for more Ontarians to be healthier longer, and to live active and productive lives. We consider determinants of health and health inequities to assess the needs of the local population and identify those sub-populations that would benefit most from particular public health programs and services. At the request of the MOHLTC, we undertook an initial evaluation of the Rethink Your Drinking (RYD) campaign; a campaign created to increase awareness and education about drinking in excess of the Low Risk Drinking Guidelines. The RYD evaluation is intended to estimate the impact of the RYD campaign on the target population of the program (adults aged 19-44 years), across PHUs with different levels of RYD adoption. Initial findings have been submitted to the MOHLTC and the second component of the evaluation, involving primary data collection, is currently under development.

Information and innovation

We strengthen the understanding of health status and the wide range of factors that influence health in Ontario by integrating data from diverse sources and sectors. Our strong base of information and knowledge that we derived from the data spurs individuals, communities and governments to action.

We continually seek novel approaches to making information more accessible by presenting it in ways that are easy to understand and relevant to public health needs. In partnership with Cancer Care Ontario, we released the *Environmental Burden of Cancer in Ontario*, shedding light on the impact of environmental carcinogens by calculating, for the first time, the annual environmental burden of cancer in Ontario. The report ranks 23 environmental carcinogens according to the estimated annual number of new cancer cases in Ontario that each carcinogen would be associated with at current exposure levels. It is the fifth report in Cancer Care Ontario's Cancer Risk Factors in Ontario series, and the first in the series produced jointly by Cancer Care Ontario and PHO. We also continued to advance integrated population health monitoring in the first half of 2016-17 through the development of datamarts that link and regularly update PHO laboratory data to enable more comprehensive, integrated and rapid public health action to pathogens of public health importance. Datamarts that are in the process of being completed include HIV, foodborne and respiratory pathogens, and *Neisseria meningitidis*. Datamarts with significant progress at the first half of the fiscal year include antimicrobial resistant organisms and hepatitis C.

Professional development and capacity building

We champion leadership development, building skills, capacity and competencies in Ontario's public health workforce. We continue to offer both general education sessions, and expertise-specific capacity building opportunities to our clients across the province. We have expanded our education sessions for our clients and introduced a self-directed online course for public health emergency preparedness. Designed for public health and other emergency management professionals, this course introduces the foundations of public health emergency preparedness, including definitions, concepts, strategies and tools. The series of three interactive modules provides a basis for PHO's in-person Public Health Emergency Preparedness workshops. In the first half of the fiscal year 386 certificates of completion were awarded to participants from across Ontario. We continue to support the next generation of public health professionals with our ongoing focus on professional development and education, offering a diverse range of student placement opportunities in collaboration with academic partners. The number of students/trainees at PHO increases each year and in the first half of the fiscal year we hosted 66 student placements. In response to a suggestion from the public health community, we have made significant headway in developing a cross-organizational professional exchange model to support professional development and capacity building across the public health sector. We are consulting with the field, exploring potential models and gauging the level of interest, with the goal of completing a 'pilot exchange' in the summer of 2017-18.

Leading public health research

Our interdisciplinary scientific staff and depth of partnerships bring a breadth of expertise and opportunities – unique in Ontario, with few peers globally – to address today's increasingly complex public health issues. We generate and share knowledge that has broad impact on clinical practice, public health programs and health policy, making contributions to more than 90 publications in peer-reviewed journals in the first half of 2016-17. Examples of our recent publications include a study assessing the health impacts of the December 2013 ice storm in Ontario and a study exploring the impact of different

types of parental support behaviors on child physical activity, healthy eating, and screen time, published in *BMC Public Health*. Our evaluations of population health interventions continue to fill knowledge gaps in areas that are fundamental to the success of high-impact population health interventions. The findings of our evaluation of the early population impact of Ontario's school-based human papillomavirus (HPV) vaccination program, published in *Vaccine*, suggest the school-based HPV vaccination program has had an early population impact in Ontario, with a significant decline in anogenital warts and total physician visits relating to anogenital warts in program-eligible females following the introduction of the school-based immunization program. Our publication in *PLoS One* measured the impact of Ontario's rotavirus immunization program, launched in August of 2011, and found hospitalizations in Ontario due to rotavirus infection were reduced by 71%, and emergency department visits dropped by 68%, following the launch of the program. Evidence of herd immunity (reduction of disease in non-immunized people due to less circulating virus) was also found. Several PHO scientists were awarded grant funding in the first half of the fiscal year from the Canadian Institutes of Health Research (CIHR) to lead important public health research. In the recent CIHR Project Scheme funding cycle, three of PHO's six applications were funded. Taken together these awards enhance our ability to grow our impact with public health relevant research in Ontario.

Overview of this Annual Business Plan

The breadth and scope of our work to-date demonstrate how we deliver sound information, data and advice to advance public health in Ontario, at both the provincial and local levels. We continually strive to apply the highest standards to our scientific work, acting with integrity, and always mindful of the needs of our clients. We are committed to good governance, strong accountability, transparency, fiscal prudence and operational excellence – all made possible by our great people. We will continue to build on our strong foundation to make a vital contribution to improving the health of Ontarians.

The development of this Annual Business Plan (ABP) for the period April 1, 2017 through March 31, 2020, has been informed by Ontario's *Patient's First: Action Plan for Health Care (2015)*, mandate letters to the provincial minister/ministries and other government priorities shared with us by the CMOH, the Population and Public Health Division of the MOHLTC, and priorities shared on behalf of the public health community through consultation with COMOH (Council of Ontario Medical Officers of Health) Section Executive of the Association of Local Public Health Agencies (ALPHA). In addition, daily contacts and requests from clients and stakeholders, highlighting their needs and priorities, together with programmatic demands and renewal, have provided context for this ABP. All input has been considered in the development of this ABP, and many elements are directly reflected in our organizational priorities and area-specific core activities and priority initiatives.

This business plan highlights PHO's specific priorities for the coming year and core activities that reflect our agency's mandate and are aligned with government priorities. This ABP is intended to be a focused and concise document that adheres to the requirements of the *Ontario Agency for Health Protection and Promotion Act* and the *Agencies and Appointments Directive* (July 2016). It aligns resources with objectives and priorities in a manner that will lead to successful delivery of PHO's programs and services.

Section 1 describes PHO's mandate, mission and vision, our key partners and clients, and our accountability mechanisms to government. It demonstrates the link between our mandate and that of the MOHLTC. This section also provides an overview of current and projected circumstances in our internal and external environments that will influence public health in Ontario and the work of PHO.

Section 2 describes our strategic directions and sets forth our priorities for 2017-18 in the context of each strategic direction.

Section 3 provides an overview of the core activities and priority initiatives for 2017-18 for each of our six principal public health programs:

- Laboratory
- Environmental and Occupational Health
- Communicable Disease, Emergency Preparedness and Response
- Infection Prevention and Control
- Knowledge Services
- Health Promotion, Chronic Disease and Injury Prevention

Section 4 describes key initiatives involving third parties. It provides highlights of our role and partnerships with various stakeholder groups and professional associations, research collaborations, and ongoing work with other health agencies.

Section 5 sets forth key operating, capital and resource requirements to achieve the work described in this ABP. Development of the ABP has taken into account the constrained fiscal environment of the province. Accordingly, we have assumed a flat lined funding envelope for 2017-18, the first year of this period of this ABP, and have identified an annual operating budget of \$173.630 million and a staff complement of 978 full time equivalents for 2017-18.

Section 6 describes our approach to organizational performance measurement, monitoring and reporting. Where applicable annual performance targets related specifically to core activities are identified.

Section 7 summarizes the high priority risks that we know our organization will be facing over the 2017-18 fiscal year and the associated risk mitigation strategies. These are presented in accordance with the Ontario Public Service risk management framework.

Section 8 describes the communications plan associated with this ABP.

Table of Contents

Section 1: Introduction	2
Section 2: Strategic Directions	12
Section 3: Overview of Current and Future Programs and Activities.....	18
Section 4: Initiatives Involving Third Parties.....	33
Section 5: Financial Budget, Staffing & Capital Resource Requirements	42
Section 6: Performance Measures.....	48
Section 7: Risk Identification, Assessment and Mitigation Strategies.....	52
Section 8: Communications Plan	55
Acronyms	59

Section 1

Introduction

Section 1: Introduction

This section describes Public Health Ontario's (PHO) Mandate, providing a frame of reference for the agency's programs and activities that are described in the remainder of this business plan. It also provides an environmental scan describing external and internal factors that will influence our work and ability to deliver on our mandate.

Mandate

PHO was created by legislation as a board-governed provincial agency. The *Ontario Agency for Health Protection and Promotion Act, 2007* defines PHO as:

“An agency to provide scientific and technical advice and support to those working across sectors to protect and improve the health of Ontarians, and to carry out and support activities such as population health assessment, public health research, surveillance, epidemiology, planning and evaluation.”

In 2017-18 we will begin our ninth full fiscal year of operation and the fourth year of our *Strategic Plan 2014-19: Evidence, knowledge and action for a healthier Ontario*.

Provincial in scope with appropriate links to other local, provincial, national and international organizations, we build partnerships and draw on the best available resources – from local to international levels – to ensure that our scientific and technical information and knowledge products are of the highest quality, scientifically sound and technically accurate. PHO's province-wide Laboratory network and regional sites extend our reach to all areas of the province. We inform policy, action and decisions of government, public health practitioners, front-line health workers and researchers by linking them to the best scientific intelligence and knowledge. We study and evaluate what makes people healthy and how we can help Ontarians live healthier lives. We remain vigilant for current or emerging threats to health. We are committed to protecting and promoting the health of Ontarians and reducing inequities in health. We recognize that a focus on health inequities must be maintained and applied across all work streams. The ability to identify, understand and mitigate the disparities in the determinants of health, health behaviours, access to health services and health status, which exist across population groups, is critically important to achieving Ontario's health potential.

In accordance with our 11 legislated objects as set forth in Section 6 of the *Ontario Agency for Health Protection and Promotion Act, 2007 (OAHPP Act)*, our mandate is to provide scientific and technical advice and support to clients working in government, public health, health care, and related sectors.

Our mandate is consistent with Ontario's *Patient's First: Action Plan for Health Care (2015)*, and particularly the key objective *Inform: support people and patients – providing the education, information and transparency they need to make the right decisions about their health*.

We build capacity, assemble expertise and guide action through:

- advice, consultation and interpretation
- continuing education and professional development
- health emergency preparedness
- information management
- knowledge and best practices generation
- knowledge translation and exchange
- laboratory services
- library services
- research, ethics and evaluation
- support to policy and program development
- surveillance and population health assessment

Our Vision: Internationally-recognized evidence, knowledge and action for a healthier Ontario.

Our Mission: PHO enables informed decisions and actions that protect and promote health and contribute to reducing health inequities.

We generate timely, relevant and reliable information, results, and guidance and the tools to use them. In so doing, we help to ensure effective and responsive health care delivery, promote health and prevent and manage public health incidents. We deliver service throughout Ontario working from our regional and Toronto based sites.

Our areas of expertise, as described in our 2014-19 strategic plan, include:

- Chronic Disease Prevention
- Environmental Health
- Infectious Disease
- Microbiology
- Emergency Preparedness and Response
- Health Promotion
- Injury Prevention
- Occupational Health

Since the publication of our 2014-19 strategic plan we have evolved additional areas of expertise including informatics, bioinformatics and implementation science.

In meeting our Vision, Mission and Mandate, our primary clients include:

- Ontario's Chief Medical Officer of Health (CMOH)
- Ministry of Health and Long-Term Care (MOHLTC) and other ministries
- Local public health units (PHUs)
- Health system providers and organizations across the continuum of care.

In addition to these clients, our Partners for Health can include academic, research, not-for-profit, non-governmental, community-based and private sector organizations and government agencies working

across sectors that contribute to Ontarians achieving the best health possible. Examples of these partnerships are provided in Section 4.

Accountability Mechanisms

In accordance with the *Agencies and Appointments Directive, 2015 (AAD)*, PHO is designated as a board-governed provincial agency. The agency's Board of Directors is appointed by the Lieutenant Governor in Council. Through its Board Chair, PHO is accountable to the Crown through the Minister of Health and Long-Term Care for fulfilling its legislative obligations, the management of the resources it uses, and its standards for any service it provides.

Under the AAD, PHO is required to publicly post additional corporate and governance documents (including annual business plans as well as travel, meal and hospitality expenses of its executives and board members). We are also required to provide a Chair attestation annually to the Ministry, indicating our compliance with all applicable government directives and legislation. In addition, all provincial agencies are subject to a government-led mandate review every seven years and PHO underwent its first mandate review in fiscal year 2016-17.

Building upon our founding legislation, there are two primary vehicles which define accountabilities for PHO in relation to government: the Memorandum of Understanding and the Funding Agreement.

The Memorandum of Understanding:

- i. sets forth key roles and responsibilities for the Minister, Deputy Minister, CMOH, Board Chair, Board of Directors and Chief Executive Officer;
- ii. confirms accountability mechanisms between the parties and identifies principles and administrative procedures to enable PHO to fulfill its legislated mandate.

One of the accountability mechanisms outlined in the Memorandum of Understanding is a board-commissioned external third-party review of PHO's operations, every five years, in order to evaluate whether its operations are fulfilling its mandate. PHO underwent its first review in 2012 and is preparing for its second review in 2017.

In accordance with the *Transfer Payment Accountability Directive* and the Memorandum of Understanding, the Funding Agreement is a requirement for PHO to receive transfer payment funding from MOHLTC, its primary funder. An evergreen Funding Agreement was completed between the parties in 2012-13. Schedules to the Funding Agreement define specific reporting requirements, described in more detail in Section 6, and are refreshed annually.

The Ontario government continues its implementation of the Open Government initiative, to make government data publicly available, and support greater transparency in governance and spending. Ontario's Open Data Directive aims to maximize access to government data by requiring all data to be "open by default", unless it is exempt for legal, privacy, security, confidentiality or commercially-sensitive reasons. The directive came into effect for all ministries and provincial agencies on April 1, 2016, setting out key principles and requirements for publishing open data. In accordance with the directive, PHO has created an inventory of datasets created, collected and managed by PHO, and has publicly posted the inventory following Open Data requirements.

In September 2016, a new government regulation, *Executive Compensation Framework*, came into effect for broader public sector executive compensation, including capping salary and performance-related payments for hospitals, universities, colleges, schools boards and government agencies. Under the framework, PHO will be required to consult with the public when determining executive compensation programs and to post program details to its website. We will be required to submit reports attesting that the compensation for our designated executives complies with the framework.

Provincial agencies continue to be held to high standards of transparency and accountability, and the province. Building on the government-led mandate reviews described earlier in this section, the Province will be taking steps to ensure that provincial agencies remain aligned with the expectations of the government and Ontarians and plans to introduce mandate letters for every board-governed provincial agency, and make those mandate letters publicly available.

PHO understands the priority government has placed on enhancing the accountability of its Crown agencies. Our ongoing commitment to governance excellence begins with orientation of new Board members, and includes governance education and training to assist all Directors in fulfilling their duties and obligations. All new Board members participate in the Treasury Board Secretariat's Governance Training for Public Appointees. The Board and senior staff will continue to work with government partners on enhancing transparency and accountability mechanisms. Examples are noted in various sections of this ABP (in particular Section 6).

Environmental Scan

This environmental scan provides an overview of current and projected circumstances that will influence public health in Ontario and the work of PHO. It is not intended to be a comprehensive review, but to provide a snapshot of key existing and anticipated pressures that we expect will influence our ability to deliver on our mandate over the next three years.

Fiscal constraint and value for Ontarians

The 2016 Ontario Budget reaffirmed that the government is on track to eliminate the deficit by 2017-18. The Ontario government is projecting to balance the budget in 2017-18 and remain balanced in 2018-19. Ontario continues to apply strong fiscal management and constrained funding to public sector entities. Public sector budgets have largely been held to the previous year's level. It was emphasized in the 2015 Budget that any increases in negotiated compensation costs would have to be offset, and the 2016 Budget re-affirmed that the government will continue to work with sector-level partners for outcomes that are consistent with the Province's fiscal plan¹. PHO is committed to continually reviewing the efficiency and effectiveness of our services, consistent with the fiscal environment.

¹ 2016 Ontario Budget

Provincial government priorities for public health

Close collaboration and alignment with MOHLTC and its priorities guide many PHO actions. PHO works closely with CMOH and other Ministry leaders, including the Assistant Deputy Minister of the Population and Public Health Division.

PHO is aligned to support the key expectations as expressed in the Premier's 2016 mandate letter to the Minister of Health and Long-Term Care, specifically:

- Focus on the implementation of the *Patients First: Action Plan for Health Care, (2015)* through delivery of integrated and comprehensive health services across primary and specialist care, home and community care, hospitals, and other health care settings.
- Make tangible improvements to the province's immunization system and aim to ensure caregivers can easily access the information they need on school-aged immunization.
- Continue implementation of *Immunization 2020* to improve vaccine coverage at all stages of life, from newborns to seniors.
- Provide education, information and targeted programs for Ontarians on responsible alcohol consumption to help people make better informed choices.
- Explore opportunities to enhance the environmental health of Ontarians, including supporting research and engaging key stakeholders such health care providers, public health partners, and patients on potential areas of action.

The mandate letter also describes specific priorities, initiatives and policy directions which may, over the course of the mandate, impact PHO directly, or result in specific requests for services related to our scientific and technical supports. These include:

- Undertaking additional initiatives that will reduce the misuse of prescription opioids across Ontario, and provide support to those with addictions.
- Supporting the integration of the mental health and addictions system for all patients, including co-ordination with the Ministry of Children and Youth Services, to ensure patients receive high quality care wherever they access services, following advice received from the Mental Health and Addictions Leadership Advisory Council.
- Supporting the next phase of the Mental Health and Addictions Strategy in collaboration with the Ministry of Children and Youth Services.
- Supporting the implementation of the First Nations Health Action Plan to improve access to service and culturally appropriate care for Indigenous people in collaboration with the Ministry of Indigenous Relations and Reconciliation and Indigenous partners.

The misuse and abuse of opioids has become a serious and multifaceted public health problem across Canada. In October 2016, Ontario announced the implementation of its first comprehensive Opioid Strategy to prevent opioid addiction and overdose by enhancing data collection, modernizing prescribing and dispensing practices, and connecting patients with high quality addiction treatment services. The following month, a national opioid summit was held in Ottawa, co-chaired by the federal Health Minister and Ontario's Minister of Health and Long-Term Care. A joint statement of action was released following the summit, setting out priority actions to address the opioid crisis and a

commitment to public reporting on progress. As the Provincial Overdose Coordinator, Ontario's CMOH will work closely with PHO, other provincial partners, and the federal government to support surveillance and reporting to better respond to opioid overdoses in a timely manner and inform how best to direct care. The MOHLTC is sustaining its focus on health and wellness initiatives and supporting Ontarians to be as healthy as possible. The *Making Healthier Choices Act, 2015* has made Ontario a leading Canadian jurisdiction in reducing smoking rates. The ministry continues to make significant progress in efforts toward a smoke-free Ontario, including strengthening smoking legislation and working on a revised cessation strategy. The *Healthy Menu Choices Act, 2015* was passed by legislature and comes into force January 2017, requiring food premises with 20 or more locations to post calorie information for food and beverage items. Healthy Smiles Ontario continues to be a government priority, providing free preventive, routine, and emergency dental services for children and youth in low income families, and there is a continued commitment to build on the Healthy Kids Strategy. Addressing public health issues within Indigenous communities is a government priority.

Among its health protection priorities, the province is committed to strengthening its publicly funded immunization program and improving how vaccines are reported. In 2016 the MOHLTC established a task force on environmental health. The province is also acting on developing a provincial framework and plan for vector-borne diseases, including Lyme disease.

The government continues to focus on building a better Ontario through its *Patients First: Action Plan for Health Care (2015)*. The *Patient's First Act* has signalled an important role for local public health units and local medical officers of health. Under the provisions of the Act "a local health integration network [LHIN] shall ensure that its chief executive officer engages with each medical officer of health for any health unit located in whole or in part within the geographic area of the network.... on an ongoing basis on issues related to local health system planning, funding and service delivery." There are parallel requirements expressed for medical officers of health. A public health work group, co-chaired by MOHLTC Assistant Deputy Minister and a LHIN CEO has been established to articulate what 'formal linkages' between boards of health and LHINs means and their respective roles as they relate to population health assessment to support the planning of health services in the transformed system.

Relevant initiatives from other government ministries include the Ministry of Children and Youth Services' Enhanced Youth Action Plan and Ontario's Five Year Climate Change Action Plan from the Ministry of Environment and Climate Change, as well as initiatives relating to social determinants such as the Basic Income Pilot project. PHO maintains linkages to key ministries and divisions, providing scientific and technical advice and evidence to guide decisions and actions.

Laboratory system review

In 2015, the MOHLTC convened the Laboratory Services Expert Panel to conduct a review of Ontario's community laboratory sector and to provide recommendations for improving the broader laboratory sector. As the public health laboratory for the province, PHO was asked to provide information to inform the review.

Laboratory services are integral to diagnostic processes in health care and while quality services are currently provided by the sector, opportunities exist to enhance value, effectiveness and utilization. The

Laboratory Services Expert Panel proposed strategies to evaluate new laboratory tests, strengthen the laboratory licensing framework and support the use of laboratory data to assess appropriateness/utilization of testing.

Laboratory testing volumes at PHO continue to increase and the need for quality and timeliness of testing remains paramount. The sector faces challenges in a highly constrained fiscal environment, where testing technology and methodologies evolve rapidly and ongoing development of laboratory staff is necessary to provide quality services. Ongoing fiscal challenges across the laboratory sector have also changed the flow of patient specimens between different parts of Ontario's laboratory system and resulting in increased operational pressures at PHO's testing sites.

Infectious disease and public health preparedness in a global context

In today's highly mobile and interconnected world, infectious diseases are spreading faster geographically than ever before, and are an important public health threat that requires ongoing vigilance. Recent events such as the expansion of Zika virus serve as stark reminders of the importance of global surveillance and public health preparedness and response. PHO and our partners continue to monitor and respond to infectious disease at all levels from local to global.

Immunization is one of public health's most significant accomplishments in preventing disease and saving lives, and remains a prominent public health issue. In September 2016 the Pan American Health Organization declared measles to be eliminated from countries in the Americas, including all the countries in North, South and Central America, and the Caribbean. PHO was represented on the expert committee that made this declaration. Constant scientific review and guidance is required to inform the expansion of Ontario's publicly funded immunization programs. Recent changes include extending the free HPV vaccine to boys, announcing that the shingles vaccine will be free for seniors, and expanding pharmacists' role in administering vaccinations.

Resistance to antimicrobial drugs is an increasingly serious threat to public health in Ontario and worldwide. The use and misuse of antibiotics accelerates the emergence of drug-resistant strains. There is a global movement to safeguard the utility of our existing antibiotics and contain the spread of antimicrobial resistance. The Government of Canada is committed to leading activities to prevent, limit and control the emergence and spread of antimicrobial resistance and has established the Canadian Antimicrobial Resistance Surveillance System to provide an integrated picture of antimicrobial resistance/antimicrobial use in Canada. With its surveillance, infectious disease and laboratory expertise, PHO will continue to exercise its unique mandate in collaboration with partners ensuring the best evidence and advice are available to guide action and decisions.

The HIV/AIDS continues to be a major global public health issue. The Joint United Nations Programme on HIV and AIDS (UNAIDS) is the main advocate for accelerated, comprehensive and coordinated global action on the HIV/AIDS epidemic. Canada, and many other countries around the world, have endorsed the UNAIDS global HIV treatment targets – known as the 90-90-90 targets. These global targets will help the world focus on the goal of ending the AIDS epidemic by 2030.

Ongoing and emerging public health issues

While all governments continue with efforts in alcohol and tobacco control, the Federal government's commitment to legalize marijuana has also emerged as an important public health and regulatory issue. As legalization continues to be considered, more research will be needed to ensure the public policies effectively reduce the negative implications of marijuana use. There continues to be considerable debate in the public health community around electronic cigarettes and vaping. Advocates promote their use as a harm minimization tool, but the long-term effects are unknown, and they may prove to be a gateway to conventional cigarette use. Legislation and regulation are being considered at both the federal and provincial levels. More research is needed to clarify the potential effects of electronic cigarettes and vaping, particularly as elsewhere in the world multi-national tobacco companies are entering the market.

There is renewed focus on injury prevention, especially injuries resulting from motor vehicle collisions. There is increasing attention to the risks associated with inattentive driving, particularly texting and driving.

The resettlement of Syrian refugees in Canada has placed focus on newcomer and refugee health. Since November 2015, more than 35,000 refugees have arrived in Canada, with almost 15,000 in Ontario. The province continues to be called on to support the integration of these vulnerable groups, with implications for public health programming, service delivery, and monitoring.

Climate change and the environment are also issues important to public health. Weather and climate can have both direct and indirect impacts on human health in terms of chronic disease, infectious disease, vector-borne disease, extreme weather events, air quality and more. Effects continue to emerge and new research and evidence – as well as surveillance – will be required for decision makers and public health actors to understand the potential health impacts in the context of broader determinants of health.

New technology and advances are changing public health practice

The potential public health uses of “big data” provide new opportunities to protect and promote the health of Ontarians. Integrated analytic approaches to data from diverse sources such as electronic health records, genetic and molecular testing, social networks, and air quality data allow a deeper understanding of health and the factors that impact health. Ventures such as our Laboratory's genomic and bioinformatics programs and the expansion of the Institute for Clinical Evaluative Sciences (ICES) are leading the field in Ontario. There is a tremendous opportunity for public health to harness and utilize these new information sources and apply them to public health practice, recognizing the critical importance of ongoing diligence to ensure confidentiality and security.

Social media continues to change the way we interact with each other, and how and where we get our information. These changing communication venues create new opportunities and challenges for how public health organizations interact and share information, and strategic opportunities to maintain a place as global leaders with the best and balanced evidence for personal and institutional decision making.

Key Cost Drivers

PHO has implemented significant operating efficiency savings (\$12 million) over the past two fiscal years in order to balance our budgets in the face of flat lined funding. Our operating cost structure will continue to be subject to upward pressure over the period covered by this ABP, against a backdrop of provincial fiscal austerity and constricted program funding. Pressures come from five primary areas:

- Inflationary costs related to labour;
- Inflationary costs related to supplies;
- Occupancy costs (rent and utilities);
- Demand and utilization (volumes); and
- Technological change (capital investments) in order to remain relevant.

Section 2

Strategic Directions

Section 2: Strategic Directions

As set forth in the previous section, the Premier’s mandate letter entrusted the Minister of Health and Long-Term Care with ensuring people receive the right care at the right time at the right place; driving accountability, efficiency and transparency across the health system; and promoting healthier lifestyles for Ontarians through shared responsibility across government. PHO’s strategic directions are aligned with these goals; they focus on supporting the public health sector, our mandate to transform data into knowledge, our enabling role, and our research agenda, to improve the health of Ontarians. Our *Strategic Plan 2014-19: Evidence, knowledge and action for a healthier Ontario* guides our work and collaborative activities.

Priorities for 2017-18 by Strategic Direction

The Strategic Plan outlines our five strategic directions and their associated goals over a five year period. While work is ongoing in each of the goal areas, each year we identify a specific priority within the domain of each strategic direction. Our priority areas for 2017-18 are described below.

Strategic Direction 1 – Provide scientific and technical expertise to strengthen Ontario’s public health sector and support the achievement of its goals

As described in Section 1, PHO is one of four key components of the public health sector along with the provincial government, the office of the CMOH and local PHUs. In accordance with our mandate, PHO’s scientific and technical advice and support to our public health sector partners contributes to the achievement of the sector’s goals and priorities. We will generate new public health knowledge, support population health monitoring and drive policy and practice action. Our expertise will guide the sectoral actions through activities such as developing appropriate tools, knowledge products, professional development and collaborative opportunities.

PHO will continue to support the Ministry’s overarching priorities for the public health sector, namely the **modernization of Ontario’s Public Health Standards (OPHS)**, and **Immunization 2020**.

The OPHS modernization initiative was announced in 2015 to update programmatic and organizational standards that are responsive to emerging evidence and priority issues in public health and are aligned with the government’s strategic vision and priorities for public health within a transformed health system. The modernization is also intended to develop recommendations that address capacity and infrastructure needs for the implementation of the modernized standards.

In 2016-17, PHO played a key role in support of the initiative with members of our senior management team on the Executive Steering Committee and the Practice and Evidence Program Standards Advisory Committee, providing scientific input to the development of updates on the Foundational standards, as well as Family Health, Chronic Diseases and Injuries, Infectious Diseases, Environmental Health, and Emergency Preparedness program standards. PHO’s involvement in the modernization will continue to

be substantive in 2017-18, with preparation and planning for the implementation of the modernized standards, including scientific and technical advice for the development of guidance documents.

As *Immunization 2020*, Ontario's five year strategy to strengthen Ontario's publicly funded immunization program, enters its second year, PHO will continue to provide scientific and technical advice in areas such as vaccine effectiveness, vaccine safety, vaccine coverage and registries, vaccine policy and program evaluation, and education of health professionals. In 2016-17, an *Immunization 2020* information sharing group with PHO and MOHLTC representatives was formed to provide updates and discuss opportunities to collaborate. Our cross-cutting work in immunization, surveillance, program evaluation and research will continue to play an important role in many of the strategy's key actions anticipated to take place in 2017-18.

Strategic Direction 2 – Accelerate integrated population health monitoring

The associated goals as described in our strategic plan are to: support the development of a data hub; transform data into information and knowledge; and develop and apply analytic and presentation methodologies.

While work continues in all goal areas, our 2017-18 priority area of focus is to **support local PHUs with their evolving responsibilities in monitoring and communicating population health information**. While details remain to be confirmed by the MOHTLC, the health system transformation set forth in the *Patient's First Act* (outlined in the Environmental Scan) has signalled a new and important role for local PHUs and local medical officers of health through the establishment of formal linkages with the LHINs, playing a key role in monitoring and communicating population health information, and its application to health care system management.

Leveraging our informatics and analytical expertise, we will complete the foundational work to ensure that our data and information products reflect both the PHU and LHIN level boundaries in order to facilitate shared understanding and support planning and by developing methodologies to assess population health indicators at the sub-LHIN level as the geographic boundaries for these regions are clarified. Further, PHO will welcome the opportunity collaborate with MOHLTC, LHIN and PHU partners to assess available data, reports and tools to support these newly articulated roles and explore how to jointly address key gaps. By planning and delivering workshops or webinars, PHO will facilitate joint learning by staff of LHINs and PHUs related to their common objectives for population health assessment and support more consistent and comprehensive practices across the province.

Strategic Direction 3 – Enable policy, program and practice action

The associated goals as described in our strategic plan are to: disseminate leading practices in public health to accelerate their application into practice; provide evidence and tools to influence policy and program development; and build skills, capacity and competencies in Ontario's health workforce.

While work continues in all goal areas, our priority area of focus for 2017-18 is on **PHO's contribution to efforts to reduce health inequities**. The principles of health equity and social justice are inherently rooted in all public health work and in our legislated purpose. Since our inception, PHO has incorporated work on health equity across a number of initiatives and program areas.

For 2017-18, a coordinated and concerted initiative will seek to strengthen our internal capacity and approaches to integrating health equity perspectives in all we do and to continue to support analyses and reporting on inequities that exist for Ontarians. Within PHO, a cross-functional working group will catalogue the breadth of health equity initiatives and create a community of practice that enhances our understanding and approaches.

We will build consensus about how public health organizations can measure and ameliorate health inequities. Drawing on our online modules on health equity impact assessment (HEIA), we will enhance our training and capacity building to ensure that clients can incorporate HEIA in their program planning, delivery and evaluation and have the required knowledge and supports.

PHO will continue to enhance our health equity data visualizations, integrating additional datasets that reflect all the dimensions of health equity and pursuing new analytic methods. We will build on health sector initiatives exploring equity such as Health Quality Ontario's report on Income and Health and the principles regarding equity embedded across Patients First initiatives. We will evaluate our own surveillance and population health assessment reports to determine how to better reflect health equity perspectives and increase understanding of their implications. If possible, we will highlight how health equity has an impact on particular diseases (e.g., integrating equity considerations to the examination of sexually-transmitted infections), exposure to risks, and social determinants of health.

Strategic Direction 4 – Advance public health evidence and knowledge

The associated goals as described in our strategic plan are to: lead the generation of public health knowledge in priority areas; develop innovative approaches for public health implementation science; and evaluate and enhance complex population health interventions.

While work continues in all goal areas, our priority of focus for 2017-18 is on **public health research to advance knowledge of links with health care that deliver benefits to individuals and populations**. Research with a public health perspective is an established source for delivering new evidence regarding disease prevention and health promotion to improve the health of the population and to reduce health inequities. Ultimately, strengthening the link between public health evidence and all health sectors will enhance patient outcomes, improve disease detection and control, address inequities, and improve population health.

PHO will continue to conduct independent research with a wide variety of partners that assesses the impacts of population health interventions intended to promote health and reduce health inequities and advances knowledge of the determinants of disease occurrence and progression across the population. PHO will also focus on ways that disease control can be improved through stronger linkages between the public health and clinical care sectors. Applied immunization research will provide evidence on how

immunization coverage and effectiveness can be improved. Studies based on advances in molecular microbiology will enhance the characterization and reporting of infectious agents in support of patient care in the clinical sector, such as in research on emerging pathogens and antimicrobial resistant infections. Investigations and modeling of disease occurrence, risk factors and effects of interventions will deliver new evidence that can ultimately guide decision making and priority setting across the public health and patient care sectors. Research will continue on the impact of population health interventions, and on disease determinants, such as through linkages of provincial health databases that assess roles that modifiable risk factors and social determinants have, not only on disease risk, but also on disease progression with impacts on patient outcomes and health service utilization. For example, research on the public health response to opioid related overdoses has potential to reduce emergency department utilization, hospitalizations and deaths. A feature shared across these research domains is that they make optimal use of the province's large-scale and linked data systems, providing strategic opportunities, and with further improvements, will heighten the contributions and impacts of Ontario's public health researchers.

Strategic Direction 5 – Great people, exceptional teams building a stronger PHO

The associated goals for Strategic Direction 5 involve cultivating a strong and cohesive organizational culture; building organizational and leadership capacity; and fostering a culture of health, safety and wellness that enhances the quality of work life and organizational performance.

While work continues in all human resources goal areas, our key priority for 2017-18 **continues to be improving employee engagement**. Related initiatives include: developing an informal leadership program, piloting a succession planning process for senior leadership positions, supporting diverse and inclusive workforce strategies, and enhancing our wellness program. The 2017 Employee Engagement Survey, three years after our first survey, will allow us to gauge progress, reassess priorities, and inform our next strategic plan and people priorities.

Key Planning Assumptions

Alignment with Government Direction – Within the scope of our mandate and resources, PHO will continue to work to support key government priorities including public health sector strategies. We believe this ABP reflects and aligns with *Patient's First: Action Plan for Health Care, 2015* and related government priorities as expressed in the Ministers' 2016 mandate letters and shared with us by the CMOH and the Population and Public Health Division of the MOHLTC.

Demand – Increased operational pressures (test volume) at our Laboratory are expected to continue over the period of this ABP, due to the change in the flow of patient specimens between different parts of the laboratory system, as noted in the Section 1, and the need to introduce new test methods and technologies in response to emerging pathogens (e.g. Zika).

Funding – Recognizing the fiscal environment outlined in Section 1 and related guidance provided by MOHLTC, our ABP reflects a flat lined operating budget funding from the MOHLTC for 2017-18.

Transparency and Accountability – An ongoing focus on accountability and transparency will continue as a feature of the government’s platform. PHO is committed to carrying out activities and delivering services that are aligned with the needs and expectations of Ontarians and their government. Accountability and transparency are at the heart of what we do and how we do it.

Section 3

Overview of current and future programs and activities

Section 3: Overview of Current and Future Programs and Activities

This section provides an overview of each of PHO's principal public health programs and their associated **core activities** (e.g. regularly recurring, ongoing operational) and **priority initiatives** for 2017-18.

The priority initiatives in this ABP have been informed by the review of government priorities as shared by the CMOH, the Population and Public Health Division of the MOHLTC, and priorities shared on behalf of the public health community through consultation with COMOH (Council of Ontario Medical Officers of Health) Section Executive of alPha (Association of Local Public Health Agencies). These priorities are also considered in the development of departmental operational plans. Where feasible, as shown in Section 6, we have established annual volume targets for various types of products and services.

In considering the priority initiatives and core activities as outlined, it is important to note that since PHO plays a key role in public health incident and emergency response, flexibility is essential. In the event of a major emergency or exigent circumstance, we will, if deemed appropriate following consultation with the CMOH, delay or defer certain activities, products or services in order to dedicate appropriate expertise and attention to supporting the MOHLTC, CMOH and other partners as the emerging circumstance may require.

Overview of Principal Public Health Program Areas and Activities

PHO has six principal public health program areas: the Laboratory; Environmental and Occupational Health (EOH); Health Promotion, Chronic Disease and Injury Prevention (HPCDIP); Communicable Disease, Emergency Preparedness and Response (CDEPR); Infection Prevention and Control (IPAC); and Knowledge Services (KS). All six provide scientific and technical expertise in their respective domains, as well as guidance and resources to build essential skills, systems and capacity in health programs and services throughout Ontario. They prepare and deliver a range of evidence-informed and evidence-based knowledge synthesis products (e.g. evidence briefs, jurisdictional scans, systematic and other reviews) in response to client requests and based on needs identified through ongoing interactions with the field. Our program areas conduct mandate-driven research that informs public health policy, transforms clinical practice, and applies advances in laboratory sciences to improve disease management and outbreak control. They offer professional development and education, as well as student placements and supervision, enhancing the skills and competencies in Ontario's public health workforce. PHO leaders in all public health program areas participate in federal/provincial/territorial and international expert committees, as well as conferences, collaborations, and partnerships that garner national and international recognition.

In keeping with PHO's legislative purpose to enhance the protection and promotion of the health of Ontarians and contribute to efforts to reduce health inequities, our program areas routinely consider

potential population health implications due to health inequities, with the intention of informing future policy and practice. Specific activities in support of government actions related to the reduction of inequities in health are described later in this section.

Our public health program areas are supported by a foundational set of corporate functions which include human resources, facilities, finance, information management and information technology, planning and corporate affairs, and legal and privacy.

Laboratory

PHO's Laboratory includes 11 fully accredited laboratory sites (Toronto, London, Hamilton, Thunder Bay, Timmins, Sault Ste. Marie, Sudbury, Orillia, Peterborough, Ottawa and Kingston) responds to both provincial and local service needs, processing more than 5 million specimens a year. Our Laboratory provides clinical and environmental laboratory testing and related expert advice, services and research in support of the prevention and control of infectious diseases. Conducting over 400 different diagnostic, confirmatory and reference tests, our Laboratory services PHUs, hospital and community laboratories, long-term care homes, clinicians in private practice and private citizens.

The majority of laboratory tests are clinical and are performed daily for the detection and diagnosis of infectious diseases (e.g., tuberculosis, influenza and West Nile virus infections), antimicrobial resistance testing, and the provision of specialized testing such as molecular typing (e.g., DNA fingerprinting), which has become a routinely utilized tool in daily public health investigations. Our Laboratory performs all diagnostic HIV testing and over 95 per cent of syphilis clinical testing in Ontario and is the provincial resource/expertise for laboratory tests for the 10 most common infectious agents in Ontario. We operate the largest tuberculosis laboratory in North America, and one of the largest diagnostic mycology (fungi) laboratories in the world. Laboratory staff work closely with other program areas across PHO, in support of local, provincial and national responses to outbreaks, epidemics and pandemics, biosafety and other exigent events.

Through collaborative and applied research, our Laboratory develops protocols and methods to detect new and emerging diseases to support surveillance, infection control, investigations of new and emerging pathogens. We develop tools to characterize the biological basis of these infections enabling preventative and therapeutic interventions for public health action in Ontario. Our molecular technology infrastructure and the Computational Biology Centre continue to evolve to support clinical/outbreak investigations, laboratory surveillance and research.

Laboratory core activities include:

- Delivering effective clinical and reference laboratory services:
 - Pre-analytic specimen processing
 - High volume testing of pathogens of public health relevance
 - Bacteriology/Environmental-food related outbreaks and water testing
 - Virology
 - Mycology
 - Parasitology
 - Immunodiagnostics

- Molecular diagnostics and DNA Core Facility
- Providing laboratory incident and outbreak management services including the coordination and management of testing for provincial incidents and outbreaks, testing information and advice for clinicians and public health practitioners
- Supporting excellence in customer service and providing medical and technical consultation for clients, providing a single point of contact to clients across the province for test results, specimen collection procedures, and access to expert interpretation of results or test requests
- Maintaining our Quality Management System:
 - Quality control and quality assurance program
 - Ontario Laboratory Accreditation by the Centre for Accreditation within the Institute for Quality Management in Healthcare
 - Canadian Association for Laboratory Accreditation Inc. (CALA) for specific tests
 - Ministry of Environment licensure for drinking water testing
- Refreshing laboratory testing and information systems
- Advancing public health testing and reporting through the development of laboratory methods, evaluation of existing diagnostic practices, and translation of new/ recent findings to improve clinical testing and reporting
- Providing a laboratory-based infectious disease surveillance and monitoring program
- Performing mandate-driven research in support of and laboratory and public health practice
- Maintaining and continuing to develop PHO's linkages to the Ontario Laboratory Information System (OLIS)
- Developing and renewing content of communications and web-based tools for clients including: client focused Labstracts; specimen collection, handling and transportation guidance; tools for test interpretation
- Maintaining an operational support facility and specimen biorepository
- Maintaining biosafety and biosecurity expertise and practices in compliance with Human Pathogens and Toxins Act and Regulation, to protect the health and safety of the public against risks posed by human pathogens.

Table 1, 2017-18 Laboratory Priority Initiatives

2017-18 Laboratory Priority Initiatives

Continue to work closely with MOHLTC in efforts to optimize quality and value in the laboratory and public health system

Continue to implement a laboratory transformation initiative with a focus on *Vision 2020*, a strategy for the future of our Laboratory program that considers longer term strategies to evolve in the areas of testing, research and information

Continue to enhance the delivery strategy and infrastructure that provides high quality public health and microbiology laboratory services to the province:

- Manage the demands for reference and public health testing
- Promote and enhance accessibility to testing across the province
- Support both front-line clinicians and enable public health policy and action

Enhance the laboratory-based surveillance and data management program to support surveillance of pathogens of high priority in Ontario, monitor testing quality and accessibility, and improve microbiological and public health service delivery including exploring the use of OLIS system data and further development of web-based tools for PHO clients

Prepare for the relocation of London laboratory services to PHO's new Southwest Ontario hub

Prepare for Toronto-based Operational support Facility/ Biorepository and associated decommissioning of the Resources Road facility

Explore options for electronic test requisition, ordering and referral including potentially using OLIS

Further develop the public health microbial genomics and bioinformatics capacity and program to ensure timely, relevant and high quality testing and tools to support outbreak detection and response for the people of Ontario

Enhance the delivery of public health research and development programs to combat antimicrobial resistance, pathogen discovery for outbreak response, and a proactive test method development and validation unit for optimal clinical and public health services in Ontario

Communicable Diseases, Emergency Preparedness and Response (CDEPR)

Communicable diseases are caused by pathogenic microorganisms that can be spread directly from one person to another or indirectly, through exposure to vectors such as mosquitos and ticks, or from the environment. The ability to prevent known diseases and to maintain readiness to recognize and control rare or newly emerging threats is necessary to protect and promote the health of Ontarians. Many of these diseases are designated reportable under Ontario's *Health Protection and Promotion Act*, requiring physicians, laboratories, administrators of hospitals, schools, and/or institutions to report

occurrences of these diseases to their local PHU. CDEPR at PHO provides operational, scientific and technical advice and support to control communicable diseases and outbreaks in community and institutional settings. This support takes many forms such as specialized surveillance programs, support for case investigation and outbreak coordination and management, and immunization guidance, while considering the health needs of diverse and vulnerable populations, to prevent and respond to communicable disease threats and emergency events.

CDEPR conducts analyses on the distribution of reportable disease in the province, as well as monitoring of vaccine safety and coverage. CDEPR provides operational support and scientific advice on public health interventions to prevent and control infectious diseases to MOHLTC, PHUs and the health sector in the form of technical reports and guidelines, evidence summaries, literature reviews, program evaluation, applied research and other knowledge products. CDEPR provides expertise in respiratory and blood-borne communicable disease such as influenza, tuberculosis and HIV, food-borne and water-borne outbreaks, vector-borne diseases such as West Nile Virus, Lyme, and Zika, as well as vaccine preventable diseases such as measles, pertussis and meningococcal disease. CDEPR provides scientific and secretariat support to two of the Provincial Infectious Diseases Advisory Committees (PIDAC): PIDAC-Immunization and PIDAC-Communicable Diseases (PIDAC-CD). CDEPR also provides subject matter expertise to support the provincial immunization program. The public health economics research team, based in CDEPR, focuses on determining the economic burden of infectious diseases.

In addition to public health risks posed by communicable diseases, human health may also be put at risk by emergencies, such as natural disasters, weather, and environmental incidents. Public health emergency preparedness requires planning and activities to prevent, respond to, and recover from emergencies that may put Ontarians at risk. CDEPR provides scientific and technical advice in preparation for and response to public health emergencies. It works with the MOHLTC in the development and maintenance of a robust provincial emergency management system as it relates to health, supported through evidence-based emergency planning, research and education. CDEPR is the primary central coordinating point of contact for the Population and Public Health Division of the MOHLTC when making requests to PHO for scientific and technical advice, and support and serves to increase situational awareness through monitoring and reporting on issues and incidents through daily situation update reports and morning rounds with the MOHLTC.

CDEPR core activities include:

- Supporting the CMOH, Emergency Management Branch of the MOHLTC, and PHUs during health emergencies or emergent events (e.g. migration of Syrian refugees) by providing assessment and scientific response, and coordinating access to:
 - Scientific and technical expertise
 - Surveillance services
 - Laboratory science and testing services.
 - Guidance documents
- Supporting routine case/contact/outbreak management for reportable/emerging diseases by providing scientific/technical consultation and field support to stakeholders including immunization program evaluation, as well as risk assessments related to infection prevent and control lapses (in collaboration with IPAC and the Laboratory)

- Providing provincial-level surveillance support such as inter-jurisdictional notifications and national surveillance systems (e.g. Tuberculosis Immigrant/Refugee Medical Surveillance)
- Providing provincial reportable disease and immunization program surveillance programs, including systems and structures for collection, analysis and interpretation of data, outbreak detection and tracking, report generation and publication and dissemination of findings to support application in practice
- Maintaining PHO's Emergency Management Framework and conducting regular training and exercises on its content (in alignment with the Ministry Emergency Response Plan):
 - Hazard identification and risk assessment
 - Continuity of operations plan
 - Emergency response plan
 - Emergency operations protocol
 - Incident management structure
- Developing and maintaining scientific and technical guidance documents in support of the prevention and control of infectious disease
- Providing scientific and technical advice on vector-borne diseases such as mosquito surveillance for vector-borne diseases and tick surveillance for Lyme disease, as well as monitor for new and emerging vector-borne diseases
- Supporting the improvement of data quality/consistency/analysis/interpretation for reportable diseases/immunizations through activities such as implementing standardized questionnaires, development of online data entry and annual summaries for priority diseases and vaccine coverage and safety
- Preparing and releasing reports on infectious diseases, such as the Annual Epidemiology Report which consider the impacts on priority populations
- Maintaining professional development programs related to immunization, vaccine coverage, vaccine safety, surveillance, epidemiology and communicable disease prevention and control via webinars, training sessions, as well as e-learning modules and train the trainer workshops to enhance emergency preparedness and response
- Designing and implementing program evaluations for public health interventions.

2017-18 CDEPR Priority Initiatives

Continue to support to the modernization of the Ontario Public Health Standards

Continue to provide provincial scientific and technical support for Immunization 2020

Continue to support the policy, program development, evaluation and modernization of the Universal Influenza Immunization Program (UIIP)

Provide scientific and technical support to the joint PHO/MOHLTC initiative in the area of sexually transmitted infections

Complete data analysis to determine compliance to latest gonorrhoea treatment guidelines

Provide scientific and technical advice and support for improved tuberculosis prevention and control through the creation of the Tuberculosis Working Group of PIDAC-CD

Provide scientific and technical support for the planning and implementation of a provincial framework

2017-18 CDEPR Priority Initiatives

and action plan for vector-borne diseases, including Lyme disease

Provide provincial scientific and technical support for emerging infections including Zika virus

Provide epidemiologic, scientific and technical support to the MOHLTC on opioid toxicity surveillance and other requests as required in support of Ontario's Opioid Strategy

Continue to conduct mandate-driven research activities in relevant CDEPR areas and disseminate findings:

- Conduct study to assess the health and economic burden of Lyme disease using linked laboratory, reportable disease and health administrative data
- Complete West Nile virus disease history and economics model and conduct analyses to explore the cost-effectiveness of West Nile virus intervention strategies
- Develop a framework and establish a rigorous process to identify indicators for public health emergency preparedness to be used by public health organizations to improve the way they prepare for and respond to emergencies.

Infection Prevention and Control (IPAC)

Evidence-based infection prevention and control practices and procedures, when applied consistently in health care settings, can prevent or reduce the risk of transmission of infectious diseases. IPAC works closely with the MOHLTC, PHUs, regulatory bodies and health care organizations across Ontario's diverse health system. It supports the adoption of infection prevention and control best practices in acute care, long-term care, and community (e.g., out-of-hospital premises and primary care offices) settings to reduce health care-associated infections (HAIs) and protect health care providers, patients, and visitors.

The face of infection prevention and control is rapidly changing with the emergence of more complex infections; more outpatient procedures being performed; new products and medical equipment being manufactured; and new standards, directives and guidelines being developed by provincial, national and international organizations. IPAC provides a wide range of expertise and services, from basic training on key practices such as hand hygiene and the use of protective equipment, to understanding and addressing complex issues such as antimicrobial resistance and global infectious diseases. Working with other experts across PHO in laboratory sciences, communicable diseases, emergency preparedness and response, and environmental health, IPAC proactively plans for, monitors and coordinates activities to address current and emerging issues.

IPAC scientific and technical expertise is integrated across key core functions: surveillance to track and monitor HAIs; research and evaluation to identify gaps in infection prevention and control knowledge and practice as well as validate best practice; development and dissemination of best practice guidance and resources to implement practice changes; and response to inquiries and requests for support on

outbreaks, infection prevention and control lapses and current and emerging, complex issues that impact worker and patient safety.

The implementation of a comprehensive IPAC program review has improved PHO's ability to respond to the evolving needs of our stakeholders and further strengthen IPAC across the province. Our approach combines provincial-level and regional expertise and supports. Across Ontario, five regional teams work with local stakeholders to foster collaboration and increase uptake of best practices through professional development, local communities of practice and other networks and relationships across the health care system, to help respond to inquiries and issues, and to inform infection prevention and control-related research with field-based data and perspective.

IPAC core activities include:

- Supporting the development, uptake and evaluation of evidence-based knowledge products and related implementation supports, including Provincial Infectious Diseases Advisory Committee - Infection Prevention and Control (PIDAC- IPC) best practice guidance and related resources.
- Developing and delivering resources, tools, expertise and regional support to increase the adoption and implementation of infection prevention and control best practice in all health care settings.
- Providing comprehensive scientific and technical expertise and support to the MOHLTC, PHUs, health care providers and other provincial partners related to emerging infectious diseases, outbreaks and other issues or concerns related to infection prevention and control.
- Working closely with the MOHLTC, PHUs and health care providers, providing expertise and resources to prevent, monitor and respond to infection prevention and control lapses across Ontario (in collaboration with CDEPR and the laboratory).
- Developing high quality, accessible and innovative online learning resources, such as the Infection Prevention and Control Core Competency modules, to promote compliance with infection prevention and control best practices and enhance health care provider knowledge and skills.
- Promoting hand hygiene programmes (e.g., Just Clean Your Hands) including best practice guidance, training resources and audit tools, to improve hand hygiene compliance across all health care settings.
- Facilitating and nurturing regional stakeholder networks and relationships across the health care system to strengthen knowledge transfer and improve implementation and uptake of consistent, effective, cohesive infection prevention and control best practices across Ontario.
- Conducting and disseminating infection prevention and control research to provide timely, current and relevant evidence and data to address pressing provincial infection prevention and control questions and stakeholder priorities, and to inform appropriate actions.
- Providing guidance, resources and expertise to support stakeholders in acute care, long-term care and primary care to implement and strengthen antimicrobial stewardship programs.
- Monitoring and evaluating the implementation of antimicrobial stewardship programs and trends in antimicrobial use in order to improve appropriate antimicrobial use across the province.
- Maintaining and building on PHO's HAI surveillance efforts to assess the burden of HAIs in Ontario. Enhance provincial patient safety indicators and provide data and tools to inform efforts to reduce HAIs.

2017-18 IPAC Priority Initiatives

Continue to support the modernization of the Ontario Public Health Standards

Work with provincial partners, including hospitals, Health Quality Ontario, and the MOHLTC, to support a surveillance strategy for antimicrobial use, antimicrobial resistance, and health care-associated infections in Ontario hospitals

Collaborate with stakeholders and partner with academic researchers and institutions to expand the scope of infection prevention and control research in Ontario. Build research capacity in response to emerging infection prevention and control issues

Conduct literature reviews and analysis to inform the development of two infection prevention and control best practice guidance documents on occupational dermatitis (in collaboration with EOH) and hemodialysis settings (with PIDAC-IPC)

Develop a plan for the provincial rollout of the Urinary Tract Infection program in long-term care homes, based on the analysis of the 2016-17 pilot and its evaluation

Undertake a comprehensive review of the current PHO hand hygiene program and resources and develop a plan that draws on the science of behaviour change to achieve greater hand hygiene compliance across all health care settings

Continue to conduct mandate-driven research activities in relevant IPAC areas and disseminate findings:

- Continue to study reservoirs of *C. difficile* in communities
- Develop methods to study antimicrobial utilization in order to support targeted antimicrobial stewardship programs, along with academic partners.

Environmental and Occupational Health (EOH)

Many evolving public health issues relate to exposures in our environment: indoor air quality, ambient air pollution, water quality, Wi-Fi, wind turbines, food safety, chlorine by-products, physical hazards, noise and more. EOH, in collaboration with experts across PHO, helps partners better understand such concerns. EOH provides scientific and technical advice, as well as field support, to PHUs, other players in the health care system and the Ontario government. EOH works with and supports PHUs and policymakers to better respond to an increasing array of concerns through the provision of situation-specific consultation and advice, interpretation of data, research, evidence-based reviews, case studies, and access to environmental monitoring equipment. EOH also provides training workshops and contributes to workforce development in environmental public health.

EOH is committed to mitigating health and environmental risks to individuals across the province by supporting the identification of effective environmental risk interventions and improved environmental surveillance systems. EOH provides applied research and knowledge exchange that support environmental risk assessments and risk identification, including advice on risk management and communication, as well as the interpretation of human health risk assessments that arise from

environmental exposures. EOH identifies evidence-based strategies that health and safety practitioners can use in protecting health care workers.

EOH core activities include:

- Providing scientific and technical consultation and field support to environmental health issues at the local and provincial level
- Developing and maintaining scientific and technical guidance documents in support of environmental and occupational health programs
- Supporting provincial and local public health clients in the investigation and control of environmental health incidents and emergencies
- Providing professional development to enhance environmental health skills and competencies in current and future environmental public health professionals
- Supporting the MOHLTC and other partners in delivering professional development opportunities for certified public health inspectors in Ontario
- Providing outreach to public health professional associations on environmental health issues
- Maintaining an equipment loan program for PHUs to facilitate the assessment of environmental hazards and quantification of public exposures
- Identifying opportunities to expand and enhance environmental health tracking and monitoring.

2017-18 EOH Priority Initiatives

Continue to support the modernization of the Ontario Public Health Standards

Continue to analyze and develop the environmental burden of illness in Ontario, non-cancer outcomes report

Provide scientific and technical consultation to support the implementation of the modernized food safety and recreational water regulations under the *Health Protection and Promotion Act*

Continue to conduct mandate-driven research activities in relevant EOH areas and disseminate findings:

- Identify links between exposure to air pollution and the risk of developing chronic diseases using Institute for Clinical Evaluative Sciences (ICES) health data and air pollution data.

Health Promotion, Chronic Disease, and Injury Prevention (HPCDIP)

Health promotion is the process of enabling people to increase control over, and to improve, their health. The Ottawa Charter for Health Promotion outlines five action areas: building healthy public policy; creating supportive environments; strengthening community action; developing personal skills; and re-orienting health care services toward prevention of illness and promotion of health. Chronic diseases, such as heart disease, cancer, and diabetes, together with mental health conditions, substance

use issues and injuries are the leading causes of disability and death in Ontario. Oral health conditions also pose a substantial burden, especially to lower socioeconomic status children and families. To support the public health sector in the areas of health promotion, chronic disease and injury prevention, HPCDIP provides scientific and technical advice and support to public health partners in core content areas of: comprehensive tobacco control; alcohol policy, healthy weights, healthy eating, physical activity; oral health; reproductive, child and youth health; healthy schools; mental health promotion; substance misuse and injury prevention; and health equity. Working collaboratively with researchers, practitioners, policymakers, industry, provincial agencies and other organizations, HPCDIP is active in generating, synthesizing, and disseminating evidence as well as building capacity for implementation and action. Specifically, HPCDIP builds the capacity of local public health to respond to population health needs and to implement the OPHS. HPCDIP provides evidence-based reviews, research and evaluation reports, and knowledge exchange events including forums, workshops, tailored consultations and webinars. HPCDIP also supports public health clients through the provision of evaluation studies for provincial programs and policies.

HPCDIP also supports PHO efforts to consider population health implications of health inequities through applied research, knowledge synthesis and capacity building activities. HPCDIP engages in collaborative work with MOHLTC, the National Collaborating Centre for Determinants of Health, researchers and PHU partners in the advancement of tools and training to build capacity to address health equity in public health. Within PHO, HPCDIP endeavours to foster greater awareness and collaboration on health equity across the organization.

HPCDIP's applied public health research activities include: awareness and use of nutrition labels on pre-packaged foods and in retail environments; efficacy of different formats for posting calorie and sodium information on menus and menu boards; testing the validity and feasibility of an online 24-hour diet recall tool; efficacy of standard drink label; health messages on alcohol containers; physical activity and the built environment; parental support behaviours for child health behaviours; motivation for distracted driving among youth and young adults; primary data collection through surveys among various stakeholders to support oral health policy development; and the evaluation of complex public health interventions including Healthy Kids Community Challenge and a provincial alcohol use health communication campaign. HPCDIP has recently added research expertise in two areas: public health strategies to mitigate the crisis of opioid use disorders, and oral health.

HPCDIP provides capacity building coordination, services and supports for health promotion core competencies in the areas of program planning, program evaluation, health communications, policy and by-law development, and has a significant role in health promotion capacity building through oversight of four of the 14 Ontario Health Promotion Resources Centres.

HPCDIP core activities include:

- Providing scientific and technical advice and field support to address issues related to core content areas and health equity at provincial and local levels, upon request
- Developing and maintaining scientific and technical guidance documents in support of programs and policies related to core content areas, upon request

- Convening scientific advisory committees at the request of government, and generating major reports according to agreed scope
- Designing and implementing provincial evaluations for program and policy interventions in core content areas, upon request
- Providing learning and development opportunities related to knowledge, skills and core competencies required to address core content areas
- Contingent upon MOHLTC renewal of our oversight role for four Health Promotion Resource Centres, providing training and technical assistance for health professionals working in the areas of comprehensive tobacco control, injury prevention, alcohol policy and health promotion. Includes developing advanced curricula, enhancing outputs of online learning opportunities, and creating a robust French-language health promotion service presence
- Providing support to clients and stakeholders to address health inequities, through applied research, knowledge synthesis, exchange and capacity-building activities and evaluate these efforts
- Providing analytic support for use of existing data sources related to core content areas, upon request
- Developing, implementing, and evaluating e-learning modules, training webinars, geographic information system initiatives, and online advancements related to core competencies and key initiatives related to core content areas, including health equity
- Maintaining awareness of PHO's HPCDIP program services through enhanced communication to clients, strengthened relationships with PHUs, and creative use of new media.

2017-18 HPCDIP Priority Initiatives

Continue to support the modernization of the Ontario Public Health Standards

Lead on the evaluation of the Healthy Kids Community Challenge (HKCC), and provide scientific and technical advice on both the HKCC and the Healthy Kids Strategy.

Support Ontario's Opioid Strategy, including evidence synthesis, research, and capacity building to support informed decision-making on interventions

Use available data sources to estimate the prevalence of overweight and obesity in Ontario in order to establish a baseline for assessing trends over time and for evaluation

Partner and engage in the generation of Indigenous specific health data, as requested

Complete the evaluation of Ontario's menu labeling legislation and disseminate results

Support Ontario's Alcohol Strategy, including evidence synthesis, research and capacity building to support informed decision making on policies and interventions

Develop curriculum and provide training in the areas of health equity, health inequities, social determinants of health, and related areas

Lead evaluation of the Healthy Smiles Ontario program and provide scientific and technical advice to support planning for a population health data repository

Continue to support the Healthy Human Development Table as they provide guidance on the dissemination, implementation and evaluation of the perinatal mental health care pathway and other related products

2017-18 HPCDIP Priority Initiatives

Complete dissemination of the Smoke Free Ontario-Scientific Advisory Committee (2.0) report, in partnership with tobacco control research and capacity-building partners

Continue to conduct mandate-driven research activities in relevant HPCDIP areas and disseminate findings:

- Develop and evaluate population level health interventions for chronic disease prevention, primarily in the areas of health eating, physical activity and alcohol policy
- Partner and engage with Indigenous communities in Ontario to explore the lived experiences of people who are involved in the HKCC program and to understand if it helps to promote health behaviours for Indigenous children
- Explore the application of epidemiological methods to inform solutions for reducing social inequities in chronic disease outcomes
- Conduct research in the area of oral health
- Conduct studies, in collaboration with partners, to address the burden of opioid use.

Knowledge Services (KS)

KS provides a range of specialized services to advance public health knowledge and practice, and leads the development and delivery of professional development, communications, knowledge generation, exchange and dissemination supports and resources, and data and information. Knowledge Services has two main areas of focus: knowledge exchange and communications, and informatics.

Knowledge exchange and communications supports the development and dissemination of PHO's products and services to enable policy, program and practice action. It delivers a robust professional development program, including PHO and visiting speakers, special events and the annual Ontario Public Health Convention (TOPHC); supports student placements at PHO and in health units; delivers training and education programs through the Sheela Basrur Centre; and delivers library services, research and evaluation supports to PHO Rounds and the public health sector.

Informatics applies information and data science to public health practice, research and learning. With its specialized services and expertise, Informatics bridges the use of technology and data to present critical information needed for effective public health decision-making. It manages PHO's website, and provides specialized supports for the acquisition, synthesis, analysis, interpretation and presentation of data and information.

KS core activities include:

- Supporting the planning, production, promotion, dissemination and evaluation of PHO products, services and expertise, engaging stakeholders and gathering input from clients at all stages, to maximize client awareness and usage
- Providing specialized services in the areas of data management, analytics, biostatistics, data visualization, epidemiology and geospatial services that supports population health assessment and surveillance
- Facilitating knowledge translation and population health monitoring through the development of new statistical modelling and geospatial analytic methods

- Providing oversight and expertise related to data acquisition, access and management practices, including PHO's contributions to Open Data
- Developing new and enhancing existing online analytic products, including the Ontario Health Profile, Snapshots, Query, Maps/mapping products and interactive reports
- Designing, developing, maintaining and enhancing PHO's English and French websites and associated products
- Supporting the development of multimedia products including videos, which are used to ensure key messages, programs or information are accessible to our stakeholders via multiple channels
- Leading and enhancing the development and delivery of online learning products, including conceptualization, design and execution
- Leading the development and implementation of a clear communication strategy for the organization with the aim of improving the clarity of PHO knowledge products, research, and communications that will ensure PHO's resources can be easily understood and applied by our audiences
- Contributing to public health research through PHO-appointed analysts at Institute for Clinical Evaluative Sciences (ICES) at University of Toronto (UofT)
- Providing scientific and technical advice and support for provincial integrated Public Health Information System (iPHIS) and Cognos applications at the local and provincial levels to achieve PHU and PHO mandate.
- Supporting the development of future public health professionals by leading PHO's student and medical resident placement, training and learning programs; coordinating the provincial Student Placement Education and Preceptorship Network; and enhancing student preceptor skills and capacity within PHO and across Ontario PHUs
- Increasing access to knowledge and evidence by providing specialized library services and resources (e.g., access to books, databases and journals) to PHO and Population and Public Health Division clients, and funding and coordinating the provincial Shared Library Services Partnership
- Supporting increased consistency and quality of PHO knowledge products and research through the implementation of PHO's MetaQAT (Meta Quality Assessment Tool) for critical appraisal, including training and library consultation and expertise
- Operating and continuing to expand the Locally Driven Collaborative Projects (LDCP) program to enable health units to conduct applied research with a focus on developing: research and program evaluation skills at the local level, knowledge exchange and new partnerships
- Organizing and delivering comprehensive professional development and education offerings, including PHO rounds, visiting speakers, seminars, workshops, and Continuing Medical Education (CME) accreditation
- Delivering The Ontario Public Health Convention (TOPHC) 2018 in collaboration with the TOPHC Council of Partners, constantly responding to the learning, professional development and networking needs of the field
- Providing comprehensive event management services and management of external event sponsorships to enhance and promote awareness and uptake of PHO knowledge, products and expertise
- Delivering training and education programs through the Sheela Basrur Centre which supports the development of communication and leadership skills for emerging and existing public health professionals.

2017-18 KS Priority Initiatives

Continue to support the modernization of the Ontario Public Health Standards

Implement the PHO informatics strategy, with a focus on data management; optimized processes to organize, integrate and analyze data; and innovative and dynamic approaches to data visualization, information presentation and analytics

Redesign and update the PHO website on a new platform to improve access, usability, and innovation in the delivery of online services, data, and knowledge products, in order to improve client awareness of, utilization and access to PHO resources

Deliver a special edition of the LDCP, supporting three projects on key strategic issues: the role of local medical officers of health and Boards of Health, set forth in the *Patient's First: Action Plan for Health Care, 2015*; reducing health inequities; and exploring models and approaches for local public health agencies' potential role in working with Indigenous peoples

Incorporate LHIN-level information in our data and knowledge products (e.g., Snapshots), where available and feasible, to support shared understanding and support planning. Explore new methodologies to assess population health indicators at the sub-LHIN level as the geographic boundaries for these regions are clarified

Launch the 2011 Ontario Marginalization Index (ON-Marg) and continue to enhance our health equity data visualizations, integrating additional datasets that reflect all the dimensions of health equity and pursuing new analytic methods

Launch a learning management system to support our professional development, education and knowledge exchange mandate. This LMS will service both our external clients as well as support our PHO staff in their learning and development and associated compliance and monitoring requirements.

Section 4

Initiatives involving third parties

Section 4: Initiatives Involving Third Parties

PHO's values reinforce the importance of collaboration to realize our vision: "Internationally-recognized evidence, knowledge and action for a healthier Ontario". To achieve world-class quality, PHO depends on collaboration and partnership as catalysts to bring together the best of science, innovation and public health practice. We recognize that our research, programmatic and operational initiatives are enriched by not only our academic, clinical and public health experts, but by our network of partners and collaborators within Ontario and beyond.

This section provides an overview of key initiatives involving third parties, all of which are mandate driven and integrally linked with programs outlined in Section 3. It provides highlights of PHO's role and partnerships with various stakeholder groups and professional associations, research collaborations, and ongoing work with other health agencies. Partnerships involving third parties bring new resources, ideas and capacities that enhance our collective ability to advance evidence and knowledge that can transform public health delivery and outcomes.

In support of its mandate and government programmatic direction, PHO has a number of transfer payment agreements with several recipients. When funds are provided by PHO to third party organizations, it is done in accordance with PHO policy and applicable directives (e.g., Transfer Payment Accountability Directive). The agreements set out the terms and conditions of funding to support good governance, value for money and transparency; document respective rights and responsibilities of PHO and those of the transfer payment recipients; include reporting requirements; and provisions for independent verification of financial and program information by parties such as the Auditor General of Ontario.

Collaborative Research Endeavours

We continue to expand the scope and reach of our work through research collaborations with universities, research institutes, hospitals, community-based organizations and other health organizations. PHO partners with researchers and collaborators across Canada and beyond, pursuing collaborations to advance public health knowledge and evidence. Such gains are continuing as our Toronto laboratory is established in the heart of the downtown Discovery District. Positioning our laboratory scientists among their academic health science and university partners along University Avenue has enhanced interaction and collaboration with other PHO and university-based researchers, as well as health and technology start-up enterprises at MaRS.

PHO's collaboration with **ICES** provides access to an expansive and secure array of Ontario health-related data, including clinical and administrative databases, population-based health surveys and anonymous patient records. Our partnership enables data linkages relevant for public health research, aiming for a broad range of data from education to environmental health indicators, such as air pollution and temperature data. Efforts are underway to enrich the ICES data holdings related to public and population health as a companion to PHO's efforts to build a more comprehensive population

health repository. Such resources would facilitate both our research and surveillance priorities and continue to bring leading scientists within ICES together with PHO scientists.

Our researchers lead and collaborate in both investigator-driven and directed projects, responding to the needs of our stakeholders and our mandate. Despite our short history, PHO researchers have achieved a strong track record of successful grant application to third party funders. Key collaborations and projects – notably those that are multi-year, with substantive profile or impact, cut across several departments within PHO, and have significant implications/scope to resources or workload or partnership – are listed in the table that follows.

Key research collaborations/projects	Partners
Assessing ZIKV transmission dynamics and mitigation strategies. A multidisciplinary approach.	<p>20 collaborating institutions including universities and hospitals across Canada and Latin America.</p> <p><i>Jointly funded by: Canadian Institutes of Health Research and International Development Research Centre</i></p>
PROSPECT: Probiotics to Prevent Severe Pneumonia and Endotracheal Colonization Trial	<p>29 collaborators including multiple Canadian hospitals and major US medical centres, as well as the UK and Saudi Arabia.</p> <p><i>Funded by: Canadian Institutes of Health Research(CIHR)</i></p>
Cultivating community partnerships to assess the impact of a population health intervention targeting Aboriginal children and youth for promoting healthy weights in Ontario	<p>Queen’s University</p> <p>St. Michael’s Hospital</p> <p>University of Waterloo</p> <p>Laurentian University of Sudbury</p> <p>CSC CHIGAMIK Community Health Centre</p> <p>Misiway Milopemahtesewin Community Health Centre</p> <p>De dwa da dehs nye>s Aboriginal Health Centre</p> <p>Noojmowin Teg Health Access Centre</p> <p>Shkagamik-Kwe Health Centre</p> <p>Wabano Centre for Aboriginal Health</p>

Key research collaborations/projects	Partners
<p>Canadian Immunization Research Network (CIRN), a multi-year initiative recently funded by the Canadian Institutes of Health Research.</p>	<p>100 experts in vaccine-related evaluative research from more than 40 Canadian institutions, with PHO scientists leading six research network projects involving cross-disciplinary collaborations with hospitals, laboratories and public health organizations in Ontario, as well as from Alberta, Manitoba, British Columbia, Nova Scotia and Prince Edward Island.</p>
<p>Reducing hospital and long term care facility C. difficile infection rates by understanding the sources of infection, measuring environmental burden, and quantifying inter-institutional patient movement</p>	<p>Mt. Sinai Hospital Sunnybrook Research Institute Niagara Region Public Health St. Michael's Hospital McGill University</p>
<p>An integrated genomic solution for managing bacterial outbreaks and transmission in the health care system</p>	<p>McMaster University Mount Sinai Hospital Funded by: McLaughlin Centre for Molecular Medicine</p>
<p>Application of whole genome sequencing to uncover transmission dynamics and quantify transmission of smear negative TB disease</p>	<p>Government of Nunavut McGill University Nunavut Tunngavik Inc. Public Health Agency of Canada The Ottawa Hospital Funded by: Ontario Thoracic Society and Ottawa Hospital Research Institute</p>
<p>Evaluation of Enhanced Syphilis Screening Among HIV-positive Men Who Have Sex With Men</p>	<p>Ontario HIV Treatment Network St. Michael's Hospital Sunnybrook Health Sciences Centre The Ottawa Hospital Toronto General Hospital University of Toronto Funded by: CIHR</p>

Key research collaborations/projects	Partners
Advancing performance measurement for public health emergency preparedness in Canada	Nova Scotia Department of Health Peel Regional Health Department Université de Sherbrooke University of British Columbia Vancouver Coastal Health Authority Funded by: CIHR
The cost-effectiveness of West Nile mitigation strategies. A computer simulation model.	McMaster University Public Health Agency of Canada York University Funded by: CIHR

In addition to the research collaborations and projects described above, PHO is also one of four founding partner agencies that launched the **Ontario Health Study (OHS)**. This large-scale research program, which is hosted at the Ontario Institute for Cancer Research, aims to advance knowledge of disease causes in order ultimately to improve disease prevention. The OHS is a unique resource for health research in Ontario as it has more than 238,000 participants from across the province, making it the largest health research project of its kind in Canada. By offering strategic direction through the executive committee, as host of the biospecimen repository, and with investigators who lead major grant applications that are based on the OHS, PHO provides leadership to ensure that public health benefits will be achieved through research that leverages OHS resources.

Research grants and awards from third parties are awarded to specific research initiatives and are not applied to PHO's general operations. Research funds from third parties (including CIHR) are administered directly by PHO through our **Science Office**. The Science Office provides administrative and facilitation services for research and related activities across PHO. It supports pre-award grant preparation and submission including the identification of funding opportunities, development of a research idea and editorial support. The Science Office oversees post-award research activities including grant administration and project implementation. It maintains resources and processes to promote research quality and integrity, as well as in maintaining high standards related to the responsible conduct of research in compliance with third-party funding requirements.

The Science Office also manages **public health ethics services**, coordinating the work of the Ethics Review Board, managing the ethics review process and serving as an ethics resource for PHO staff and ethics advisory service to PHUs. In 2015-16, we concluded a pilot project that provided ethics review and support services to a group of PHUs. Informed by the pilot's success, we are exploring expanding the services to additional health units to facilitate their participation in research activities requiring ethics board review. Such collaboration and harmonization across organizations will support streamlined review of multi-site projects and enable future research collaborations. PHO is also partnering on a

number of training, research initiatives and grant submissions with the University of Toronto's Joint Centre for Bioethics, now situated within the Dalla Lana School of Public Health. Future collaborations are in development to tackle important public health ethics issues such as ethics of privacy in public health, and ethics at the intersection of public health and clinical practice.

Program collaborations

Long-standing contributions of our Laboratory to the Canadian Public Health Laboratory Network and the **broader laboratory community in the area of infectious disease** have deepened. Beyond Canadian borders, PHO is involved in projects with the US Centers for Disease Control and Prevention, Clinical Laboratories Standards Institute, European Centre for Disease Control, Health Protection Agency, the Pan-American Health Organization and the World Health Organization. PHO is engaged in collaborative efforts to define and track global patterns of antimicrobial resistance, develop new methodologies to detect and perform surveillance of emerging pathogens, and develop genomic tools for the detection and response to infectious disease outbreaks. Our presence among the international scientific community allows PHO to bring the best of the world to benefit Ontarians and collaborate to address global infectious disease threats as they emerge.

Applied immunization research (AIR) is one of our key research areas of focus aiming to advance the body of public health immunization knowledge and its impact. Projects are in development across three areas: (1) an Immunization Public Health Observatory, (2) immunization microbiology and laboratory sciences, and (3) capacity building in applied immunization research. The first two initiatives are being supported through PHO's partnership with ICES. The AIR team has access to population-level data about health care experiences, and has linked these data with laboratory data and public health information from the integrated public health information system (iPHIS). Other partnerships involve the MOHLTC and a number of Canadian universities, particularly the University of Toronto where a major educational initiative on immunization is under development to support the creation of an Observatory. At the national level, AIR has strong links with multiple principal investigators in the Canadian Immunization Research Network (CIRN), as well as links with the Public Health Agency of Canada and the National Advisory Committee on Immunization. Internationally, PHO continues to work with the Pan American Health Organization, the World Health Organization, the US Centers for Disease Control and Prevention and the European Centre for Disease Control.

At the institutional level, PHO works with partners to design and evaluate programs that, once launched, will advance both knowledge and capacity for use by the public health system. Close collaboration with provincial ministries and a network of experts shapes PHO's evaluative work on major provincial government programs such as Healthy Smiles Ontario and the Healthy Kids Community Challenge.

PHO's **Locally Driven Collaborative Projects (LDCP) program** acts as an incubator for collaboration, applied research and program evaluation on critical public health issues of shared interest. The LDCP program enables PHUs to collaboratively identify and prioritize ideas for projects, develop proposals that are scientifically sound and feasible, implement their projects, and engage in knowledge transfer of their findings. In 2016-17, LDCP supported six collaborative teams, each lead by a local PHU and engaging up to 20 other PHUs along with community and academic partners. It is anticipated that three

additional projects will be funded in 2017-18, focused on key strategic issues facing local public health, emerging questions from the modernization of the OPHS, as well as other key initiatives such as the *Patients First: Action Plan for Health Care, 2015*.

PHO continues to work with provincial colleagues in the Ontario Public Health Association (OPHA) and the Association of Local Public Health Agencies (alPHa) to host TOPHC, the premier scientific conference for public health professionals in Ontario and beyond, drawing more than 800 participants each year. Collaborations with **discipline-specific professional organizations** (e.g., epidemiologists, infectious disease and microbiology specialists, public health dentists, nutritionists, nursing groups) support their educational activities through speakers at their meetings, providing space and infrastructure support for meetings, and sponsoring meetings. New training series have launched to support discipline-specific competency requirements, such as the monthly CIPHI seminar series for public health inspectors.

Academic affiliations and partnerships

Partnerships and relationships with academic and research institutions and public health agencies across Canada, nationally and internationally, are critical to the achievement of PHO's mandate and are fostered at all levels. Currently, 39 PHO staff have academic appointments at institutions such as the University of Toronto, McMaster University, University of Waterloo, University of Ottawa, Queen's University, University of British Columbia and Simon Fraser University. A number of PHO staff not requiring academic appointments as part of their PHO role, hold adjunct appointments at Universities across Ontario. In addition, four researchers with other primary affiliations hold adjunct scientist appointments with PHO.

With the majority of PHO researchers having their academic appointments at the University of Toronto, there are very strong linkages, particularly with the Dalla Lana School of Public Health and the Faculty of Medicine. Strategic partnerships in key areas have also been established and are strengthening with other universities across Ontario.

We continue to expand and build on existing collaborations with academic institutions to host students from across Ontario and beyond. The number of students/trainees at PHO increases each year, with a total of 119 student placements in 2015-16 and 66 placements in the first two quarters of 2016-17. PHO is a preferred placement location for students in a wide range of public health sciences programs and broadening its reach to bioinformatics, computational biology and biosciences. PHO is increasingly hosting graduate students looking to complete a public health focused research thesis and postdoctoral fellows seeking advanced research training opportunities.

Sheela Basrur Centre

The Sheela Basrur Centre (SBC) was established in March 2008 to honour the legacy of Dr. Sheela Basrur, Ontario's former CMOH. The Centre collaborates with other organizations to strengthen public health leaders by equipping them with the knowledge, tools and training to communicate effectively on key issues. PHO is recognized as a qualified donee by the Canada Revenue Agency and is able to accept charitable donations through SBC's partner organization, the Toronto Foundation. These funds are held either at the Toronto Foundation or in segregated funds at PHO. Funds on hand at PHO are reported in the audited financial statements as restricted cash. Further information on the SBC is available at www.sheelabasrurcentre.ca.

Section 5

Financial Budget, Staffing & Capital Resource Requirements

Section 5: Financial Budget, Staffing & Capital Resource Requirements

Overall

Development of the ABP precedes the construction of PHO's annual operating budget. The ABP provides the overall framework within which the annual operating budget is developed. The 2017-18 annual operating budget will be brought forward for approval by our Board in March 2017. It will incorporate the key resources required to support the accomplishment of the objectives identified in the preceding sections of this ABP. PHO has implemented significant operating efficiency savings: \$12 million over the past two years, with an additional \$2.028 million in efficiencies to be realized in 2017-18 - in order to achieve balanced budgets.

Given the constrained fiscal environment of the province, we have been advised by MOHLTC to assume a flat lined funding envelope for the 2017-18. This will represent the fifth consecutive year of flat lined base funding. PHO's laboratory operations have experienced significant volume growth: test volumes increased by approximately 20% over the last five years, with accompanying increases in the need for supplies. As a result, PHO faces significant pressures associated with this volume increase which cannot continue to be absorbed within our existing operating structure and activity level.

Operating Resource Requirements

For 2017-18, an operating budget of \$173.630 million (composite of Base Operations, Health Promotion Resource Centre Operations, and Other Grants) supporting a staff complement of 978 full time equivalents (FTE) is required in order for the organization to deliver on its mandate. Capital funding of \$20.856 million is required to support priority capital/facilities projects which flow from the most recent Annual Accommodation Plan (AAP) submission. Four of these capital projects are currently "active" with formal approval for each project in process.

Assumptions have been made in respect of operating resource requirements for 2017-18 across the organization's three primary operating segments: Base Operations, Health Promotion Resource Centre Operations and Other Grants Administration. Assumptions with respect to each of these segments are summarized below.

Base Operations

Based on our operating model, legislative mandate, collective agreements, occupancy costs and other operational requirements, the base operating budget for 2017-18 is \$168.557 million. Achievement of this budget is based on the following key budget assumptions:

- Ongoing base funding of \$147.718 million from the MOHLTC (as per the 2015-16 Funding Agreement received in April 2016)
- \$5.900 million of one-time funding from the MOHLTC (as per the 2015-16 Funding Agreement received in April 2016) continued and/or rolled into the 2017-18 base budget
- \$1.000 million of miscellaneous recoveries revenue (which includes expense recoveries and severance credit amortization)
- \$9.911 million in respect of the amortization of deferred capital asset contributions
- \$2.028 million of operating efficiency savings

Available funding from the MOHLTC is assumed to be flat on a year-over-year basis. This has required PHO to plan a further \$2.028 million in operating efficiency savings, primarily to offset inflationary increases. However, due to increasing test volume pressures in our laboratory operations, an estimated additional \$2.0 million will be required in 2017-18 to achieve a balanced operating position. Accordingly, in 2017-18 PHO will have to carefully manage its vacancies and may need to constrain spending in other areas in-year, depending on the extent of laboratory volume pressure that emerges. This is not a sustainable strategy in subsequent years and poses significant risk to the organization as outlined in Section 7. Deficits of \$5.437 million and \$9.011 million are projected for 2018-19 and 2019-20, respectively. Incremental MOHLTC funding will be required in these outlook years. Without it, critical service reductions will be necessary.

Health Promotion Resource Centre Operations

Funding of Health Promotion Resource Centre Operations by the MOHLTC will continue at the 2016-17 level of \$3.573 million.

Other Grants

The ABP submission reflects third party grants revenue of \$1.500 million in support of various research projects and the Sheela Basrur Centre.

Summary of Expenditures & Revenue

Table 1 summarizes PHO's planned and projected operating position over the three years of this ABP, reflecting both expenditures and revenues based on the information available at December 31, 2016

Table 1

Public Health Ontario Consolidated Statement of Operations	2017-18 Plan (\$)	2018-19 Outlook (\$)	2019-20 Outlook (\$)
Revenue			
Ministry of Health and Long-Term Care			
Base operations	153,617,900	153,617,900	153,617,900
Health Promotion Resource Centre operations	3,572,500	3,572,500	3,572,500
Other			
Amortization of deferred capital asset contributions	9,910,810	9,910,810	9,910,810
Other grants	1,500,000	1,500,000	1,500,000
Miscellaneous recoveries	1,000,000	1,000,000	1,000,000
Total revenue	169,601,210	169,601,210	169,601,210
Operating expenses			
Laboratory operations	100,198,117	101,873,935	104,270,394
Science and Public Health operations	44,722,992	45,018,088	45,874,756
General Administration/Corporate Services & Support	15,378,183	15,635,919	15,956,089
Amortization of capital assets	9,910,810	9,910,810	9,910,810
Other grants administration	1,500,000	1,500,000	1,500,000
Total operating expenses	171,710,102	173,938,752	177,512,049
Difference between revenue and expenses	(2,108,892)	(4,337,542)	(7,910,839)
Equipment acquisitions	500,000	500,000	500,000
One-time costs	1,419,837	600,000	600,000
Excess of total expenditures over revenue	(4,028,729)	(5,437,542)	(9,010,839)
Identified operating efficiency savings	2,028,729		
Short term run rate strategies	2,000,000		
Excess of revenue over total expenditures	0		

Notes:

Available program funding for Base Operations and Health Promotion Resource Centre Operations is anticipated to be flat on a year-over-year basis for the period covered by this ABP submission. Cost pressures are restricted to Base Operations and will require on-going operational efficiency and related savings to be secured on the basis of the funding assumptions. There is a requirement for the \$5,900,000 of one time funds in the draft Schedules to the 2015-16 Funding Agreement to be continued (as it is linked to increased occupancy costs) and preferably rolled into the base for 2017-18 and future years. Health Promotion Resource Centre Operations funding (\$3,572,500) requires confirmation for 2017-18 and future years covered by the ABP.

Summary of Staffing Numbers & Compensation Strategy

PHO has a workforce of 978 staff (FTE), including: physicians, nurses, health specialists, scientists, epidemiologists, laboratory technologists and corporate and support staff. While the majority of staff is based in Toronto, we have a regional presence.

We have a unionized environment (approximately 80% of our staff), bound by the *Hospital Labour Disputes Arbitration Act*. As a result of the program transfers, we inherited Ontario Public Service (OPS) collective agreements due to successor rights. With consolidation, we now have two collective agreements covering our bargaining agents, the Ontario Public Service Employees Union (OPSEU) and the Association of Management, Administrative and Professional Crown Employees of Ontario (AMAPCEO). Year-over-year costs increases reflect the impact of arbitrated awards and collective agreements. PHO is compliant with compensation legislation and the government's labour-related budget directions to the extent possible given that we are bound by the *Hospital Labour Disputes Arbitration Act*.

The distribution of our FTE staff by union grouping is shown in Table 2. By the end of 2017-18, we will have made, through the elimination of vacancies, a net reduction of 56 FTE positions associated with operational efficiencies implemented since 2015.

Table 2

Public Health Ontario Staffing By Employee Classification 2017-18 – 2019-20	2017-18 Plan (#)	2018-19 Outlook (#)	2019-20 Outlook (#)
Bargaining Unit			
OPSEU	563	563	563
AMAPCEO	215	215	215
Total Bargaining Unit	778	778	778
Non - Union	60	60	60
Management	91	91	91
Third Party Funded Research Positions	19	19	19
Students (Various Programs)	30	30	30
Total FTEs	978	978	978

*Note: 2018-19 and 2019-20 staffing projections have not been adjusted because associated cost efficiency and balancing strategies have not been identified.

For non-union and management staff, PHO has a salary administration policy and guidelines based on the following principles:

- Fiscal responsibility, governance, compliance and accountability
- Alignment with organizational mandate, strategies and values
- Focus on the value of our total compensation package
- External competitiveness and internal equity and
- Transparency and open communication.

Given the constrained fiscal environment, our compensation structure has remained static since 2010. Comparator organizations for PHO would typically include other public sector employers who have similar mandates and/or similar skill sets locally, provincially, nationally or internationally depending on the skill set and/or level of position.

Capital Funding Requirements

Total capital funding of \$20.856 million is required in 2017-18.

Funding requirements for the four active projects are shown in Table 3 below.

Table 3

Public Health Ontario Major Capital Expenditure Estimates	Pre 2016-17 (\$)	2016-17 Forecast (\$)	2017-18 Plan (\$)	2018-19 Outlook (\$)	2019-20 Outlook (\$)	Total Project Cost (\$)
Active Projects:						
De-commissioning of 81 Resources Road Complex	411,383	111,000	-	1,494,317	-	2,016,700
Relocation of the Operational Support Facility/ Bio-Repository Centre	661,169	-	2,802,102	3,347,788	-	6,811,059
Planning for the Thunder Bay Laboratory	80,000	-	1,233,800	-	-	1,313,800
Relocation of the London Laboratory	964,818	525,000	16,820,000	2,530,552	-	20,840,370
Total all projects	2,117,370	636,000	20,855,902	7,372,657	-	30,981,929

PHO is actively engaged with the Health Capital Investment Branch of the MOHLTC, and Infrastructure Ontario as appropriate, in respect of all above noted projects.

We will continue to review our regional presence to ensure efficient operations are appropriately aligned with growing patient and client demands.

Section 6

Performance Measures

Section 6: Performance Measures

This section describes PHO’s approach to organizational performance measurement, monitoring and reporting.

Organizational Performance Measurement

Our mechanisms of performance measurement and accountability are diverse and inclusive of both financial and non-financial information. The Funding Agreement between PHO and MOHLTC defines our accountabilities and reporting requirements to the Ministry – examples include quarterly financial reports; quarterly performance reports; quarterly risk assessment reports; mid-year status report on priorities and annual performance targets described in the ABP; the Annual Report (which includes audited financial statements and our annual performance scorecard); and a biennial client [stakeholder] satisfaction survey.

PHO’s quarterly performance report is intended to provide an overarching view of our performance in relation to our mandate and strategic plan. The report contains two major sections; the performance scorecard and the spotlight feature. The performance scorecard provides a quantitative assessment of our performance in relation to a defined set of key performance indicators and associated measures, including lab service and performance targets. It is organized around PHO’s strategic directions. The spotlight feature allows for a more detailed exploration of selected performance domains using a mixed method qualitative and quantitative approach. This feature also permits the inclusion of impact considerations and related impact stories.

PHO uses a number of different tools such as education event evaluations, social media monitoring, and Google analytics to measure client satisfaction and engagement on a continuous basis. Stakeholder engagement is fundamental to developing, building and sustaining strong relationships and in maintaining an effective organization that meets and addresses the needs of its clients. In 2016-17, PHO conducted completed its third organization-wide client satisfaction survey to measure client satisfaction with the organization and with key public health programs and services and identify areas for improvement across the organization.

We continue to develop our performance measurement framework, ensuring alignment between quarterly, annual and longer-term indicators. The performance of knowledge organizations, such as PHO, is often challenging to describe using quantitative methods alone and we continue to explore qualitative aspects that will bring additional impact and value considerations into our performance measurement and reporting.

Annual Volume Targets

The following table shows the core activities from Section 3 for which we have established specific annual volume targets, in keeping with the operating budget parameters set forth in Section 5. Where applicable, specific topics of focus will be guided over the course of the year by the priorities established

based on requests from the CMOH, ministries, and other clients, and our analysis of emerging issues and work plans. These are intended to apply to each year of this ABP and are reviewed and refreshed every year as part of our ABP development process. Year end actual volumes are reported in our Annual Report and publicly posted on our website.

Core Activity	Annual Target
Laboratory tests	5.3 million
<i>Production of surveillance reports¹:</i>	
Daily issues summary and situation reports	250
Bi-weekly iPHIS notices	26
Weekly Enhanced Surveillance Directives and Monitored Situations	38
Weekly respiratory pathogen report	38
This Week in Public Health	50
Annual Immunization Coverage Report for School Pupils	1
Annual Report on Vaccine Safety	1
<i>Development of knowledge products to support clients and stakeholders:</i>	
Review of literature, including knowledge synthesis reports, in response to requests to summarize a body of published evidence	24-28
Major population and environmental health technical reports	1-2
Clinical guidelines to support provider and patient decisions about appropriate health care	2-4
Evaluation reports to support program or policy review	5-7
Jurisdictional/environmental scans	4-6
Best practice or guidance document	30-35
Statistical reports or data requests	80-90
<i>Development of peer-reviewed abstracts and research protocols, and events to support knowledge exchange:</i>	
Abstracts (either as presentations, posters, or workshops) at scientific conferences	150
Develop research proposals to address important priorities in public health programs and laboratory science	20
Co-sponsor professional development events for public health professional associations and other professional groups	15
Deliver training sessions for infection control in health and community settings	200
<i>Planning and delivery via the Health Promotion Resource Centres:</i>	

Core Activity	Annual Target
Training and capacity building workshops	85
Consultations	550

¹The monthly surveillance reports, West Nile Virus surveillance reports (seasonal) and the annual surveillance report *Reportable Disease Trends in Ontario* are now on our website providing a self-serve, interactive method of obtaining this information.

Ensuring Quality

PHO is committed to ensuring that all scientific and technical information and knowledge products are of the highest quality, scientifically sound and technically accurate. In addition to PHO’s internal audit review and compliance program, we also undergo audits/reviews by government. Clinical testing areas maintain Ontario Laboratory Accreditation (OLA), with specific tests accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA). Annual reports related to compliance with legislation and internal policies are also prepared in areas such as ethics and privacy. PHO also maintains an agency-wide policy for the review and approval of all knowledge products containing scientific and technical content intended for release to clients or partners outside PHO, or publicly-available on our website (or other communication vehicle). There are additional requirements within each program area to maintain records that indicate the personnel delegated review and approval responsibilities for each type of knowledge product.

In 2017-18, PHO will undergo its second board-commissioned external third-party review of its operations (as noted in Section 1). The review is a requirement under PHO’s Memorandum of Understanding with the MOHLTC and will identify areas of success and opportunities for improvement. The review is a fundamental element of our overall approach to quality assurance and continuous quality improvement, and part of our performance measurement framework.

Section 7

Risk Identification, Assessment and Mitigation Strategies

Section 7: Risk Identification, Assessment and Mitigation Strategies

This section summarizes the key organizational risks facing PHO and the associated risk mitigation strategies.

Enterprise Risk Management (ERM) is an integrated risk management process that aggregates risks across the enterprise. It informs strategies, processes, people and technology for the purpose of identifying, evaluating and managing future uncertainties. PHO’s ERM Policy serves as the foundation of our ERM framework. The policy outlines key responsibilities of the Board and Management; the framework describes our ERM process including risk identification, assessment, and management, monitoring and reporting.

The following table identifies the known organizational risks that in PHO’s assessment are our highest priority risks in relation to the work described in this ABP. Overall risk is determined using a likelihood-impact matrix which combines estimates of likelihood of occurrence and the impact of risk using a high, medium, low rating system.

Risk	Analysis: <i>Low/Moderate/High</i>			Mitigation Strategy
Lack of sustainable funding to continue to deliver on our mandate, including our ability to comprehensively respond to emerging public health threats.	Likelihood: <i>High</i>	Impact: <i>High</i>	Overall: <i>High</i>	Continued flat lined funding in the face of increasing service demand (volumetric pressures) and other inflationary increases that are beyond PHO’s control will require staff/service reductions. Reallocating funds from other public health program areas to subsidize laboratory operations (test volume pressures) will significantly impact capacity and responsiveness in the affected areas; and the laboratory will continue to be challenged in its ability to mount responses requiring major new methodological development resources. For 2017-18 we will continue to manage with flat lined funding primarily through vacancy management and constraining public health project expenditure. This will not be a sustainable mitigation strategy for the following two years of this ABP. We will work with the MOHLTC to establish funding parameters for the next ABP cycle to close the funding gap identified in Section 5.

Risk	Analysis: <i>Low/Moderate/High</i>			Mitigation Strategy
Delay in the relocation of the Operational Support Facility-Bio-Repository Centre and decommissioning of 81 Resources Road	Likelihood: <i>Moderate</i>	Impact: <i>High</i>	Overall: <i>High</i>	Continuing to work with the MOHLTC and appropriate parties within government to reach a mutually satisfactory facility design and Facility Agreement as quickly as possible, in order to enable the capital project to proceed. Working with the MOHLTC and Infrastructure Ontario to maintain effective and secure operations at the existing location until the new facility is operationalized.

Section 8

Communications Plan

Section 8: Communications Plan

This section describes the communications plan associated with this ABP.

PHO informs policy, action and decisions of government, public health practitioners, front-line health workers and researchers by linking them to the best scientific intelligence and knowledge. We enable evidence-informed decisions and actions – protecting and promoting health and contributing to the reduction of health inequities.

The communications plan supports our mandate by focusing on the development and dissemination of products, tools, research, expertise, and resources to increase client access, usage and uptake, understanding and impact. It aligns with our 2014-2019 Strategic Plan and supports the development and execution of priorities and activities outlined in this ABP.

Audiences

While this ABP will be posted on PHO's public website, the primary external audience can be categorized into two groups: clients and partners.

A. **Clients:** individuals or organizations using PHO's services and products, including:

- Ontario's CMOH
- MOHLTC and other government ministries including the Ministry of Community and Social Services, Ministry of Children and Youth Services, Ministry of Labour
- 36 local PHUs
- Health system providers and organizations across the continuum of care (including acute and long-term care).

B. **Partners for Health:** individuals and organizations that take part in shared or collaborative undertakings with PHO.

Partnerships span the breadth of our scientific and technical or corporate activities, seeking to advance shared goals and often with shared risks and benefits. Our partners for health may be clients and can also include academic, research, not-for-profit, community-based and private sector organizations and government agencies working across sectors that contribute to Ontarians achieving the best health possible. The same person or organization can be both a client and a partner at different times.

Communication Objectives

- **Inform public health policy and practice** by ensuring our scientific and technical advice, research, expertise, support and tools are widely available, known and utilized.
- **Position PHO as a trusted resource** for timely, high quality research publications, knowledge products, tools, resources and expertise.
- **Engage stakeholders** to ensure that the evidence and information that we provide meets their needs – the right information, in the right format, to the right person, at the right time.

Communication Channels

We utilize an extensive range of communication channels for external communication, including:

- the PHO website www.publichealthontario.ca and related social media tools Facebook and Twitter
- e-newsletters including *PHO Connections* (monthly corporate newsletter), *PHO Events* (monthly event listings), and program-specific newsletters targeted to stakeholders such as infection prevention and control practitioners;
- printed and online materials such as scientific and technical reports, interactive decision support tools, clinical guidelines, fact sheets, and best practice guidelines
- media releases and media outreach
- in-person and virtual (teleconference, videoconference or webinar) stakeholder meetings, including workshops and consultations
- in-person and virtual educational events as well as a wide range of online learning products
- operational information such as laboratory test information, Lababstracts, requisitions and instruction sheets
- corporate and program-specific e-blasts, invitations and announcements
- telephone support and service delivery, including the Laboratory Customer Service Centre
- corporate reports such as the Strategic Plan, Annual Business Plan and Annual Report.

Internal Communications

PHO employs a wide range of internal communications channels to provide information and resources to PHO staff in multiple locations and program areas across Ontario. This contributes to a cohesive corporate culture based on timely, open and transparent communication.

To reach our 978 staff across Ontario, PHO deploys a number of internal communication channels to engage staff and share information. The primary corporate tools are our quarterly *In the Know @ PHO* newsletter and the GoToPHO intranet site, as well as effective use of email, teleconferencing, videoconferencing, and webinars. These are supplemented by Town Halls, all-staff or departmental meetings, organizational announcements, and posters. Recognizing that we depend on cascading out information through many levels and across locations, managers are supported with materials such as key messages, questions and answers, and fact sheets.

Communication Priorities

1. **Further enhance and expand PHO's website** at www.publichealthontario.ca. The website is the foundational platform to implement our vision and mandate and deliver PHO's services, resources, tools and information. We will continue to expand online program and service delivery options and offerings, such as online learning, population health monitoring and surveillance reporting; and enhance website usability and effectiveness through improved access, navigation and search functionality; increased use of graphics and data visualization; and interactive business intelligence supports and tools.
2. **Provide expert advice, consultation and interpretation** of information, data and evidence to support clinical and public health practice.

3. **Increase PHO's profile and visibility in media and the general public** to advance awareness of our internationally recognized work in public health evidence, knowledge and action.
4. **Ensure brand quality, consistency and accessibility** for our products, services and resources, to meet the needs of a variety of stakeholders and create strong identity and awareness across all PHO areas of business.

We will measure and continuously improve the success of our communication efforts through comprehensive qualitative and quantitative measures, including website usage, media mentions, client engagement, client education, and client satisfaction with PHO events.

Acronyms

Acronyms

AAD	Agencies and Appointments Directive
AAP	Annual Accommodation Plan
ABP	Annual Business Plan
AIDS	Acquired Immune Deficiency Syndrome
AIR	Applied Immunization Research
aIPHa	Association of Local Public Health Agencies
AMAPCEO	Association of Management, Administrative and Professional Crown Employees of Ontario
CALA	Canadian Association for Laboratory Accreditation
CDEPR	Communicable Disease, Emergency Preparedness and Response
CIHR	Canadian Institutes of Health Research
CIRN	Canadian Immunization Research Network
CME	Continuing Medical Education
CMOH	Chief Medical Officer of Health
COMOH	Council of Ontario Medical Officers of Health
DNA	Deoxyribonucleic Acid
EOH	Environmental and Occupational Health
ERM	Enterprise Risk Management
FTE	Full Time Equivalent
HAI	Healthcare Associated Infections
HEAI	Health Equity Impact Assessment
HIV	Human Immunodeficiency Virus
HKCC	Healthy Kids Community Challenge
HPCDIP	Health Promotion, Chronic Disease and Injury Prevention
HPV	Human Papillomavirus
ICES	Institute for Clinical Evaluative Sciences
IPAC	Infection Prevention and Control
iPHIS	Integrated Public Health Information System
KS	Knowledge Services
LDCP	Locally Driven Collaborative Projects
LHIN	Local Health Integration Network
MetaQAT	Meta Quality Assessment Tool
MOHLTC	Ministry of Health and Long-Term Care
OAHP	Ontario Agency for Health Protection and Promotion (operates as PHO)
OHS	Ontario Health Study
OLA	Ontario Laboratory Accreditation
OLIS	Ontario Laboratory Information System
ON-Marg	Ontario Marginalization Index
OPHA	Ontario Public Health Association
OPHS	Ontario Public Health Standards
OPS	Ontario Public Service
OPSEU	Ontario Public Service Employees Union
PHO	Public Health Ontario (operating name for OAHP)
PHU	Public Health Unit
PIDAC	Provincial Infectious Diseases Advisory Committee

PIDAC-CD	Provincial Infectious Diseases Advisory Committee on Communicable Disease
PIDAC-IPC	Provincial Infectious Diseases Advisory Committee on Infection Prevention and Control
RYP	Rethink Your Drinking
SBC	Sheela Basrur Centre
TOPHC	The Ontario Public Health Convention
U of T	University of Toronto
UIIP	Universal Influenza Immunization Program
UNAIDS	Joint United Nations Programme on HIV/AIDS

Public Health Ontario

480 University Avenue, Suite 300
Toronto, Ontario
M5G 1V2

647.260.7100

communications@oahpp.ca

www.publichealthontario.ca

