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Public Health Institutes of the World



The International Association of National Public Health Institutes

Activity Report 2019

IANPHI Secretariat Activities IANPHI US Office Activities

13(1)(b)



A Strategic Vision for IANPHI

2017-2022

IANPHI Secretariat

July, 2017

1. Background

IANPHI was formally chartered as a membership organization for the directors of national public health institutes (NPHIs) in 2006, during its first annual meeting in Rio de Janeiro, Brazil. During this meeting, founding members drafted and approved a constitution and elected IANPHI's first Executive Board (EB) and its founding President and Vice-President. An operational structure that included a main Secretariat office at the Finnish National Institute of Health and Welfare and a sub-office at Emory University's Global Health Institute was developed. Organizational objectives – including developing policy and advocacy on the importance of NPHIs, fostering NPHI development (particularly in low-resource countries), and developing a robust network of NPHI directors - were agreed to. From these objectives, a five-year strategic plan was developed by the EB in 2006 and revised in 2011. A member survey and planning discussions that took place in Tanzania in 2012 informed the 2013 strategic plan that included the transition of the Secretariat to the National Institute of Public Health of Mexico. This plan was further revised when the Secretariat moved to Public Health France in 2016.

In 2016, coinciding with IANPHI's 10th anniversary, the IANPHI Secretariat proposed to assess IANPHI's past progress and to conduct stakeholder interviews and a strategic visioning session to inform its future planning. Led by volunteer experts from the Norwegian National Institute of Public Health, in partnership with IANPHI's President, Secretary General, Paris Secretariat Director and U.S. Office Director, a one-year timeline for reviewing and revising IANPHI's strategic objectives and work plan was developed including:

- A member survey (August-September, 2016)
- A comprehensive stakeholder assessment (August September, 2016)
- A strategic visioning session during the IANPHI annual meeting for the IANPHI EB and key invitees, including representatives from partnership organizations such as WHO (October, 2016)
- Follow-up administrative and planning meetings between the Paris Secretariat and the U.S.
 Office in Atlanta and the development of a draft list of proposed activities (February, 2017)
- Summary of strategic visioning meeting results and draft activities presented to the Executive Board (March 2017 teleconference)
- Draft strategic outline and activities finalized by the IANPHI Secretariat (July 2017) and shared with and revised by the IANPHI President and Vice President (August 2017)
- Draft strategic outline and activities to be presented to the IANPHI EB (September 2017)
- EB revision and approval of the EB of the final strategic outline and activities; presentation to and discussion with the general membership during the 2017 Annual Meeting (October 2017)

The IANPHI Secretariat would like to share our profound thanks to the Norwegian NPHI team (Anne Bergh, Therese Øgaard, and Bjorn Iverson) for contributing their expertise to this effort. Their leadership and generosity is highly appreciated.

2. Key findings: stakeholder assessment and survey conducted by the Norwegian NPHI

A survey of members was conducted and qualitative interviews were held by telephone with key informants, including IANPHI members, donors, partners and other stakeholders. The Norwegian NPHI team compiled and assessed results from the member survey and key informant interviews and presented these during the October 17 meeting as follows:

IANPHI's major strength is the uniqueness and of the network:

- Meaningful relationships: people get to know each other: that is the essence of the meetings
- Growing number of member institutes and their diversity
- $\circ\,$ Informality of the network it is less political than other multi-national public health organizations
- Equitability/fairness: IANPHI is a platform where institutes meet on equal terms, all leaders are on the same level and everyone profits from collaboration

Stakeholders recommended the following areas of focus:

Strengthening internal linkages within the IANPHI network:

- There are huge resources and competencies within the IANPHI membership; bringing them together to help and share with each other has the greatest potential for IANPHI
- IANPHI should use the combined intelligence of IANPHI members to address major common issues and could consider creating interest groups around particular topics.

Strengthening members through capacity building

- IANPHI should encourage members to identify joint areas of interest and provide an independent, non-political platform for collaboration between NPHIS
- Capacity-building at NPHIs is a key element of IANPHI's success, its twinning work (between NPHIs) should be a model, whether long-term or short term (e.g. mentoring)

Strengthening sustainability

- There should be more focus on advocacy, communication and partnership within and between the membership and with external stakeholders
- IANPHI should explore supporting groups of NPHIs for cross-cutting technical or policy issues
- The legal framework of the IANPHI Secretariat, Foundation and U.S. Office is not well understood and should be explained and perhaps revisited for maximum effectiveness

3. Key findings, High-level strategic planning meeting: Shanghai, October 17, 2016

The meeting included 18 high-level experts from 12 countries representing IANPHI's members and key stakeholders

Participants:

Mauricio Hernandez-Avila, IANPHI President Jean-Claude Desenclos, IANPHI Secretary General Mwele-Malecela, IANPHI Vice President Pekka Puska, IANPHI Foundation, Chair, and immediate past –IANPHI president, Finland Camilla Stoltenberg, Norwegian Institute of Public Health Siddika Mithani, Public Health Agency of Canada (PHAC) Reinhard Burger, Robert Koch Institute, Germany Martha Lucía Ospina Martínez, National Institute of Health, Colombia Naima El Madaghri, Pasteur Institute of Morocco Tsogtbaatar Byambaa, Public Health Institute of Mongolia Mohammed Hassar, former Director Pasteur Institute of Morocco Oni Idigbe, Nigerian Institute of Medical Research Jeff Koplan, IANPHI co-founder and past – IANPHI president, USA Rudiger Krech, World Health Organization (WHO), Switzerland

The Norwegian Institute of Public Health team included Bjorn Iversen, Anne Bergh (who facilitated the meeting) and Therese Øgaard (who captured and compiled comments). Participants from the Secretariat included Courtenay Dusenbury (Director, U.S. Office), Anne-Catherine Viso (Director, Secretariat Main Office) and Tek-Ang Lim (Secretariat Main Office).

Following a presentation and discussion of the Key Findings noted on page 3, a SWOT (strengths, weaknesses, opportunities and threats) analysis was conducted to inform strategic priority-setting. Several strong and common themes for strategic priorities emerged from this discussion including:

A. Support and strengthen each other

IANPHI's uniqueness is recognized and appreciated. It is a global network of agencies linked to government but aiming for scientific/technical independence to inform policy. The shared vision of IANPHI is strong: *we want to help each other and to support low and middle-income countries in developing and strengthening NPHIs*. IANPHI has a clear mission and strong technical expertise; we take a long-term perspective (vs short term for policy makers) and contribute to decision-making by providing evidence-based knowledge.

IANPHI's network is diverse but we share common goals and values; there is mutual respect and trust among members and the ability to share similar issues and experiences. Despite the variation in our members there is a strong synergy, especially around the issues of development and testing of tools and best practices and other activities that allow us to known NPHIs in depth (e.g. evaluations). We have had successful achievements in many countries, working together, and volunteerism is at the heart of our organization.

IANPHI should foster and collaborations and advocacy on specific issues across the membership. IANPHI members could choose topics for joint engagement (AMR, climate change, etc.) and working groups, annual meeting sessions and/or case studies could be developed on these topics. To be relevant,

IANPHI should always ensure its activities are linked to international initiatives (sustainable development goals, etc.).

We should use our existing tools and develop new ones. IANPHI tools that build capacity should be regularly used and discussed. More efforts should be made to support members' capacity building (expert exchange, internships, etc.)

The network is strong and there are many opportunities to improve perceptions about the value it adds to members including strengthening brand identity, informing members about added value through various channels including the annual meeting. However, communication, both internal and external, can be improved. The Secretariat and EB receive limited feedback from members, who do not always respond to surveys or other requests for information.

B. Build resources and sustainability through partnership and advocacy

Resources to support IANPHI remain the major issue. The U.S. Office is 100% supported by grant funds, which may not be sustainable. If U.S. - based grants do not contribute to the annual meeting costs and to supporting the communications team, the current level of dues paid is not sufficient to meet Secretariat costs (staff and the annual meeting) over the long term. IANPHI should focus on *developing new partnerships and advocacy strategies that raise funds and raise IANPHI's profile*. IANPHI could be more visible with non-U.S. donors and international organizations. IANPHI's donors and partners recognize our effective and efficient delivery of services; new opportunities should be sought to be a key player with new initiatives on the international level. Because of the status of NPHIs within or working under the ministries of health, which often represent national interests in international fora, IANPHI is not always at the table when heads of state or ministers discuss global health issues. Advocacy and partnerships can help to strengthen our organization's position and reputation.

C. Develop and implement policies related to governance, membership, dues and other issues

Over the long term, the current level of dues collected will not be enough to support the organization (main office, annual meeting, and membership activities). Not all members pay dues. Many NPHIs operate in a challenging financial environment (budget cuts, staff reductions, etc.), which can potentially impact future contributions. Anti-globalism and border issues may reduce the amount of funds available to NPHIs from their governments for partnership work. There is a risk of losing members if they do not perceive that IANPHI adds value. The turnover of directors requires the development of strong institutional relationships that go beyond the director. There is also a need to build strong relationships with new directors and members to ensure their participation and to identify and understand their expectations.

Issues about the IANPHI Secretariat and Office's legal status, and their relationship vis-à-vis the IANPHI EB, the IANPHI Foundation and the IANPHI Foundation EB, are not always easily understood, may hamper efficiency and should be resolved. A consultant should be hired to prepare options for the optimal legal and organizational structure and functioning of IANPHI as a whole.

4. Secretariat Action and Strategic Plan Development

Following the compilation of feedback and comments from the member survey, stakeholder interviews and October 17 discussion, the Secretariat met in Atlanta, USA to develop a strategic outline with

supportive activities. From the three major areas identified by stakeholders, specific strategies and activities were developed as follows:

Focus area/Goal	Strategy	Initiatives
A. Support and strengthen each other	Strategy 1.1: Institutionalize the IANPHI Framework, tools and leading practices into all aspects of the organization; measure and assess impact and value	Initiative 1.1.1: Expand the use of tools, engaging members in activities (Atlanta for projects, Paris for EU) Initiative 1.1.2: Promote IANPHI's tools within the Association and with others
	Strategy 1.2: Seek opportunities to provide technical assistance, training, and other services to members Strategy 1.3: Strengthen and enhance the internal network	Initiative 1:2.1Use a range of approaches to ensure that NPHIs receive needed technical assistanceInitiative 1.2.2:support NPHIs in their efforts to advocate for the importance of NPHIsInitiative 1:3.1Ensure the annual meeting strengthens the network and its workInitiative 1.3.2:Encourage and support member-led working or policy groups on key topics of interestInitiative 1.3.3:Strengthen internal communications to
2: Increase external advocacy, partnership and fundraising	Strategy 2.1: Execute comprehensive communications	enhance relationships with and among IANPHI members Initiative 2.1.1: Develop and expand communications messaging, products and pathways
	strategy Strategy 2.2: Increase resources to support priority activities of the IANPHI network and its members	Initiative 2.2.1: Increase sustainability through U.S. Office partnership and fundraising strategy Initiative 2.2.2: Increase sustainability through Main Office partnership and fundraising strategy
3: Promote efficient and effective governance and policies to ensure member satisfaction and sustainability of IANPHI	Strategy 3.1: Resolve pending governance and policy issues:	Initiative 3.1.1: Resolve governance issues: Initiative 3.1.2: Resolve policy issues:

Strategic Outline with activities 2017-2020

Goal 1: Support and strengthen each other: add value to the IANPHI network and member NPHIs through high-quality resources and activities

Strategy 1.1: Institutionalize the use of the IANPHI Framework, tools and leading practices into all aspects of the organization; assess impact and value

IANPHI tools, developed by the membership, are unique to national public health institutes. These tools help members to define the functions of an NPHI, assess current capacity and plan for the future, benchmark against others and advocate for additional resources.

Initiative 1:.1.1 Expand the use of tools, engaging members in activities

Link tools to annual meeting sessions; disseminate leading practices and get feedback

- Update and revise the Framework and the Core Attributes (2019)
- Continue to develop and test the Best Practices series
- Use the SDT widely, including in middle- and high-income countries: train and engage member NPHIs as facilitators
- Finalize new tools and refine existing ones, engaging members
- Coordinate up to three peer-to-peer evaluations per year

Initiative 1.1.2: Promote IANPHI's tools within the Association and with others

Facilitate other public health systems-strengthening groups to use IANPHI tools

Demonstrate and report on the tools' impact (including case studies)

Use the tools for branding, marketing, and network-strengthening efforts

o In collaboration with Africa CDC, adapt the peer-to-peer tool for use in Africa

Strategy 1.2: Seek opportunities to provide technical assistance, training, and other services to and between members

IANPHI members can support and link with each other to solve common problems, to provide technical advice and to benchmark and partner on capacity-building projects. The network's potential is huge to help members develop common areas of interest. All NPHIs need strategies for advocating on the importance of public health, and NPHIs, to government, the public, donors and other stakeholders. IANPHI can provide information on tactics and tools for advocacy.

Initiative 1:2.1 Assist member NPHIs in linking or identifying sources for technical assistance

• Help make linkages between NPHIs and organizations (NPHIs and others) that can provide support and assistance routinely and during emergencies

Identify members' priority training needs (e.g., leadership, financial, grant writing/fundraising, communications) and target audiences (e.g., executive team, emerging leaders), and link them with other NPHIs that can provide priority training via webinars or in-person

- Support peer-to-peer and South-South linkages between IANPHI members to obtain external funding for priority activities
- Help NPHIs conduct stakeholder mapping and engage with donors in country as part of peer-to-peer and SDT assessments

Initiative 1.2.2: Support NPHIs in their efforts to advocate for the importance of NPHIs

Provide advice to NPHIs in demonstrating their value and advocating for resources

- Help members to be able to measure and communicate impact:
 - Use the SDT for benchmarking or to measure progress toward advanced or leading edge stages
- Provide case studies, best practices and materials that can be used by NPHIs to advocate
- \circ ~ Provide training on communication and advocacy during annual meeting
- Create fully functional websites for NPHIs as part of U.S.-based project work, when feasible

Strategy 1.3: Strengthen and enhance the internal network

The annual meeting, working groups and regional efforts are important ways to strengthen peer-to-peer learning through the unique platform of IANPHI. Members can work together to solve problems of mutual of interest, to learn about innovative solutions and to strengthen their position through regional collaborations.

Initiative 1:3.1 Ensure the annual meeting strengthens the network and its work

- o Link to specific IANPHI tools and best practices for many of the sessions
- Invite rising leaders if feasible and essential partners?
- o Review options for making meeting more cost-effective

Initiative 1.3.2: Encourage and support member-led working or policy groups on key topics of interest

Topics brought forth during the planning session included how to develop partnerships with other sectors, disease-specific efforts, IHR, global health security and others.

 Define new ways of supporting directors and their leadership team (IANPHI support teams, mentoring, advising), in particular with regards to planning and positioning the NPHI in time of creation, merger or transition.

Initiative 1.3.3: Encourage and promote the success of regional networks

Develop strong working relationships and communication with IANPHI Secretariat Exchange information with regional networks to help them identify resources

> Promote regional success stories on IANPHI website and elsewhere to show the value of the network

Assist the IANPHI-Africa network in work with the Africa CDC, including capacity assessment Support network interaction as feasible (e.g. teleconferences, list-serves, etc.)

Initiative 1.3.4 Strengthen internal communications to enhance relationships with and among IANPHI members

- Use varied approaches to acknowledge and honor members
- Maintain open-ended and more regular and substantive communication with members

Annual report that shows roles/responsibilities and added value derived from IANPHI membership

Implement a buddy system for new members during the annual meeting

Encourage and facilitate NPHI directors to promote IANPHI within their organizations

Engage sub-director levels as feasible

Goal 2: Increase external advocacy, partnership and fundraising activities to build and sustain IANPHI

Strategy 2.1: Execute comprehensive communications strategy that brands IANPHI as unique and the preeminent, 'go-to' organization for NPHI development and global public health strengthening

Initiative 2.1.1: Develop and expand communications messaging, products and pathways

- Identify and engage with key influencers
- o Increase awareness and understanding of the terms "NPHI" and "IANPHI"
- \circ Foster and increase understanding that IANPHI's work is based on an international standard
- o Stake out more ground and engagement on the issue of data to action/health systems strengthening
- Publish/report on key accomplishments of NPHIs and the network (peer-reviewed publications, letters to the editor, popular media, NPR)
- Demonstrate value and impact through communications efforts (e.g., videos, stories, statistics, Wikipedia, social media); update and revise IANPHI-branded publications
- Participate or support members to participate in global meetings of other organizations as representatives of and advocates for IANPHI and NPHIs (Paris and Atlanta)
- Identify other groups that focus on public health systems strengthening and promote IANPHI through their policy dialogues and networks; Participate in global or regional policy discussions (e.g., at WHO) to increase credibility of and recognition for the network

Strategy 2.2: Increase resources to support priority activities of the IANPHI network and its members

Sustainability remains a serious issue for IANPHI that will require careful deliberation and planning. Fundraising and partnership in the U.S., Europe and elsewhere is crucial to augment resources raised by member dues.

Initiative 2.2.1: Increase sustainability through U.S. Office partnership and fundraising strategy

- Implement U.S. strategy with focus on large multi-year grants: Gates, Bloomberg, etc.
- Explore opportunities for engagement with Africa CDC/regional centers/national NPHI development

Second five-year grant from US congress to CDC/IANPHI for NPHI work

- Explore the possibility of branding IANPHI as a consulting group with services offered for payment to intergovernmental organizations and donors
- Conduct NPHI peer-to-peer evaluations and stakeholder mapping on a fee-for-service basis
- Ensure that IANPHI receives some resources when providing technical assistance for high-resource member projects (funded by bilaterals)
- Identify ways in which CHAMPS can support IANPHI priorities
- Better link the U.S. Office efforts to the IANPHI Foundation

Initiative 2.2.2: Increase sustainability through Main Office partnership and fundraising strategy

Survey members about their needs and develop ideas for consultancies

• Develop and strengthen relationships with WHO, WHO Europe: active participation in the coalition of partners for public health services strengthening in particular for countries facing public health or health systems reforms.

- Develop and strengthen relationship with the European Commission to represent the views of IANPHI for large health initiatives (e.g. European Health Information System) to support countries and their NPHIs.
- Develop partnerships with WAHO and link IANPHI efforts in West Africa with efforts led by the U.S. Office, the Africa CDC and its regional centers, and RIPOST.
- Coordinate 3 peer-to -peer evaluations through RIPOST (2 in 2018, 1 in 2019)
- Develop relationship with ECDC
- $\circ~$ Facilitate the participation of IANPHI in EUPHA conference and other major public health fora in Europe.
- Goal 3: Promote efficient and effective governance and policies to ensure member satisfaction and sustainability of IANPHI

Strategy 3.1: Resolve pending governance and policy issues:

Initiative 3.1.1: Resolve governance issues:

- Prepare terms of reference for a consultant to develop 2-3 models for the IANPHI (secretariat, network and foundation) legal status and organizational operations (2017- to be considered by the EB Spring 2018)
- Decision made by the EB (October 2018)
- Resolve IANPHI Foundation issues: consider increasing the Foundation representative work time to monitor expenses and revenues from projects; give the Main Office team the ability to see the figures from the IANPHI Foundation account.
- Update the responsibilities of the IANPHI offices, the Foundation and the Host of the annual meeting in accordance with the budget available. Main Office should focus on core activities: dues collection, new members, EB support and General Assembly. US Office should focus on communication, advocacy and fundraising from US –based donors in particular.
- Develop strategies to increase engagement and efforts of the EB and President and support the EB and its leadership to deliver on action items in a timely way.

Initiative 3.1.2: Resolve policy issues:

Clarify the definition of an NPHI; limit membership to and increase membership of NPHIs that meet the definition

- Develop policy on public-private partnership for IANPHI for projects and activities
- Develop a new policy on member dues/payment
- Review and revitalize current partnerships, including WHO MOU, WFPHA, IARC, others

Define criteria for and roles of an IANPHI partner and develop mechanism/procedure to formalize the partnership relationship



REGIONAL NETWORKS GUIDELINES 2018

1. Background

The International Association of National Public Health Institutes (IANPHI) brings together the directors (or equivalent leaders) of over 100 National Public Health Institutes (NPHIs) in a robust global network focused on NPHI-strengthening activities.

IANPHI encourages the establishment of Regional Networks as indicated in the IANPHI constitution.

2. Members

Members of the IANPHI Regional Networks are National Public Health Institutes which are national members or associate members of IANPHI represented by their Directors.

A Director may wish to delegate a member of his/her senior management team (deputies or equivalent) to participate to the operational activities of the networks.

3. Objective

IANPHI Regional Networks bring together Directors of the National Public Health Institutes, members of IANPHI with the aim to develop regional collaboration, to facilitate the provision of mutual support and technical assistance and to strengthen each other capacities.

Regional Networks facilitate knowledge exchange, the sharing of expertise, experiences and best practices to achieve the common goal of improving public health in the countries by formulating and communicating actions in regional and global health underlying issues. These networks enable to discuss the national public health priorities in the context of regional and global priorities, the role and positioning of NPHIs in the different countries.

Regional Networks can help building regional partnerships that benefits to the network and its members (e.g., with WHO regional offices, supranational agencies etc.).

4. Organization

IANPHI has four Regional Networks: Africa, Asia, Europe, Latin America & the Caribbean. According to IANPHI Statutes, regional structures shall be coordinated and chaired by a



National Member. They shall operate under the supervision and authority of the Executive Board to which they report.

1) Chair and Vice Chair

Election of the Chair and Vice Chair

Each Regional Network may decide to elect a chair (and a Vice-Chair if so decided) or to delegate to the Secretariat the coordination of the activities of the regional network.

The Chair and Vice Chair shall be a Director or a member of the Executive team of a national member. Chair and vice chair are elected with a simple majority vote of the national members present, with one vote per country.

The Chair (and a Vice-Chair if so decided) shall be elected by the regional members for a period of two years renewable.

Responsibilities of the Chair and Vice Chair

Chair: The Chair is the focal point of the regional network and will be responsible for its coordination and good functioning. The Chair shall represent the regional network with the regional members and the IANPHI Executive Board. The Chair shall preside the meetings, rule on points of order, direct the discussion, put questions into consideration, announce decisions and be an initiator of collaborative programs among members. The Chair shall be responsible for the monitoring and the presentation of reports to the members of the network and to the IANPHI Executive Board. He/she shall have the right to take part in the discussions and decisions. He/she shall exercise all other functions given to him by the regional members. The Chair may delegate the Vice-Chair to represent in his/her absence.

Vice-chair: The vice-chair shall assume and perform the duties and responsibilities of the Chair during the Chair's absence. Additionally, he/she shall organize the meetings, keep the agenda and minutes of the Regional Network meetings, send the information to the regional members, and inform them about call for applications. The Vice-Chair may perform other duties that may be requested by the regional members and the Chair.

Accountability and duties: The Chair and Vice-Chair of the Regional Networks are accountable to the IANPHI Executive Board and shall report on their activities at least twice a year in a written document to be sent to the IANPHI Secretariat at least two weeks prior to the IANPHI Executive Board meeting during which their report will be presented. All documents and reports resulting from the Regional Network activities shall be communicated to all members of the regional network and sent to the IANPHI Secretariat in charge of communicating them to the Executive Board. Any initiative, either activity, project or collaboration, involving the use of IANPHI name or logo should be previously presented to the Executive Board for information and approval.



2) Language

The language of the discussions during the regional meetings is chosen by the members of the networks. Language should be chosen so that all participants can actively contribute to the discussions and activities. All documents and reports resulting from the Regional Network activities shall be English.

5. Meetings and network activities

The Regional Networks are encouraged to hold face-to-face annual meeting taking advantages of the possibility to hold back to back meetings with another event. The participation of Directors at the annual and regional meeting is expected and recommended by the Executive Board.

Regional Networks shall conduct a minimum of two meetings per year, using all available communication channels, to discuss and plan collaborative activities such as trainings, joint research, and participation or organization of events related to their needs in building their capacities and to discuss regional public health priorities. They might also undertake studies to guide policy and technical understanding in public health issues. Regional opportunities such as meetings, projects, agreements, trainings should be an opportunity to liaise with the Regional Network and to share information. One face-to-face meeting can be held back to back during the Annual Meeting, when funding is available and participants in a sufficient number.

Each member is committed to contribute to the activities of the regional network. The agenda and minutes from each meeting shall be communicate to all members.

6. Funding

Regional network should seek funding or be self-funded. If private funding is sought the Executive Board should be informed and approve it.

7. Partnerships / Agreements

Given that the Regional Network is not a legal entity, the Executive Board of the IANPHI Association is the only authority formally entitled to engage IANPHI in a project or an activity with partners.

13(1)(b)

13(1)(b)

Subject to subsection (2), the head of a government institution shall refuse to disclose any record requested under this Act that contains information that was obtained in confidence from (b) an international organization of states or an institut

Sous réserve du paragraphe (2), le responsable d'une institution fédérale est tenu de refuser la communication de documents contenant des renseignements obtenus à titre confidentiel : b) des organisations internationales d'États ou de leurs organ

19(1)

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From:	<u>Charos, Gina (PHAC/ASPC)</u>
Sent:	2019-12-05 7:32 PM
То:	<u>Tam, Dr Theresa (PHAC/ASPC)</u>
Cc: <u>Pennock, Jennifer (PHAC/ASPC); Elmslie, Ki</u>	m (PHAC/ASPC); Hartigan, Maureen (PHAC/ASPC)
Subject:	Re: Idea re vaping reap illness surveillance

Hi Theresa,

The team has reached over to HPCDP to better understand the objectives of the VALI surveillance, any surveillance options that have been fleshed out already, and if there is alignment with what our sentinel physicians can do. HPCDP wasn't able to pull a call together this week, but will be connecting soon.

In the meantime, CIRID has done an initial assessment. It appears that little would be gained by engaging our influenza sentinel outpatient or inpatient surveillance networks on VALI for a number of reasons relating to both the exposure/cause (vaping) and the effect (VALI) such as:

 \cdot the absence of valid, complete or reliable information on vaping history in patient charts (e.g., the feasibility of capturing patient cigarette smoking history or presence of smokers in the home was assessed expressly for RSV surveillance and this was not possible as it rarely was documented on the patient chart);

 \cdot the sensitivity of collecting vaping/dabbing information from patients, especially minors;

 \cdot ongoing pressures to minimize response burden on sentinel clinicians (and FluWatchers) by keeping questionnaires short for the sake of maintaining their participation;

• the insufficient size of the VALI target population (presumably adolescents/youth) in any of our influenza sentinel networks (IMPACT(hospital), CIRN-SOS (hospital), SPSN (ILI), SPIR (ILI)).

Pending further discussion with HOCDP, we will be able to provide you with some more information.

Gina

Sent from my iPhone

On Dec 3, 2019, at 5:56 PM, Charos, Gina (PHAC/ASPC) <<u>gina.charos@canada.ca</u>> wrote:

Thanks for the clarification. I will look into it.

GINA CHAROS Director General Centre for Immunization and Respiratory Infectious Diseases (CIRID) Infectious Disease Prevention and Control Branch

Directrice générale Centre de l'immunisation et des maladies respiratoires infectieuses (CIMRI) Direction générale de la prévention et du contrôle des maladies infectieuses

PUBLIC HEALTH AGENCY OF CANADA | AGENCE DE LA SANTÉ PUBLIQUE DU CANADA 130 Colonnade Road, room/pièce 106A, Ottawa, ON K1A 0K9 Phone | Téléphone: 613 960-2893 <u>gina.charos@canada.ca</u>

-----Original Message-----From: Tam, Dr Theresa (PHAC/ASPC) Sent: 2019-12-03 5:35 PM To: Charos, Gina (PHAC/ASPC) <<u>gina.charos@canada.ca</u>> Cc: Pennock, Jennifer (PHAC/ASPC) <<u>jennifer.pennock@canada.ca</u>>; Elmslie, Kim (PHAC/ASPC) <<u>kim.elmslie@canada.ca</u>>; Hartigan, Maureen (PHAC/ASPC) <<u>maureen.hartigan@canada.ca</u>> Subject: Re: Idea re vaping reap illness surveillance

Sorry to be so unclear.

I was thinking about surveillance for VALI in the outpatient setting and whether we can leverage the family practitioners to do FluWatch to detect VALIs.

Sent from my iPhone

On Dec 3, 2019, at 16:57, Charos, Gina (PHAC/ASPC) <<u>gina.charos@canada.ca</u>> wrote:

Hi Theresa,

We don't really have a network for communicating clinical advice to clinicians on influenza. I will check to see what if anything can be done with the sentinel network that sends in information.

Will get back to you asap. When is the CCMOH call?

GINA CHAROS

Director General

Centre for Immunization and Respiratory Infectious Diseases (CIRID)

Infectious Disease Prevention and Control Branch

Directrice générale

Centre de l'immunisation et des maladies respiratoires infectieuses

(CIMRI) Direction générale de la prévention et du contrôle des

maladies infectieuses

PUBLIC HEALTH AGENCY OF CANADA | AGENCE DE LA SANTÉ PUBLIQUE DU

CANADA

130 Colonnade Road, room/pièce 106A, Ottawa, ON K1A 0K9 Phone |

Téléphone: 613 960-2893 gina.charos@canada.ca

-----Original Message-----

From: Tam. Dr Theresa (PHAC/ASPC)

Sent: 2019-12-03 1:10 PM

To: Charos, Gina (PHAC/ASPC) < gina.charos@canada.ca>

Subject: Idea re vaping reap illness surveillance

There will be a discussion at CCMOH on whether we need to understand the impact of our patient attended Vaping Associated Lung Illness.

We are also in influenza season and a VALI diagnosis requires a rule out of influenza/resp infections.

With all of this in mind, is there a way to leverage the outpatient FluWatch sentinel practitioner surveillance program or other systems/networks to detect VALIs ? If nothing else, reminding flu sentinels to check vaping histories is a good idea.

FluWatchers is also an interesting model but not sure we need to go there yet as the focus is on tracking outcomes severe enough to need medical attention.

I am just thinking out loud, have not talked to Anna. I am not sure if CIRID is still providing advice to the VALI response, so apologies if all of these ideas have been discussed.

Your thoughts?

TT

Sent from my iPhone

ATIA - 19(1)



From: Sent: To: Namiesniowski, Tina (PHAC/ASPC) Subject:

Attachments:

Tam, Dr Theresa (PHAC/ASPC) 2019-12-03 6:19 PM

Fwd: Indigenous Employee Network Reverse Mentorship Pilot Project IEN Reverse Mentor Application.docx; ATT00001.htm IEN Reverse Mentor Application.docx; ATT00002.htm

I am fine with this proposal, are you?

ΤT

Sent from my iPhone

Begin forwarded message:

From: "Denis, Joel (PHAC/ASPC)" <joel.denis@canada.ca> Date: December 3, 2019 at 08:50:11 EST To: "Namiesniowski, Tina (PHAC/ASPC)" <tina.namiesniowski@canada.ca>, "Tam, Dr Theresa (PHAC/ASPC)" Cc: "Bent, Stephen (PHAC/ASPC)" <<u>stephen.bent@canada.ca</u>>, "Beaudoin, John (PHAC/ASPC)" <john.beaudoin@canada.ca>, "Tafaghod, Marzieh (HC/SC)" <<u>marzieh.tafaghod@canada.ca</u>>, "Mead, Jobina (PHAC/ASPC)" <jobina.mead@canada.ca> Subject: Indigenous Employee Network Reverse Mentorship Pilot Project

Good morning Tina and Theresa,

We have completed our call out and assessment of the potential candidates for the Indigenous Reverse Mentor Pilot Project and I am pleased to present two Indigenous PHAC employees who we would propose for your consideration. Please find attached and the sapplications are members of PHAC's Indigenous Employee Network (IEN) and are very well suited to share their perspectives and experiences as Indigenous Peoples, and to support the advancement of cultural competency at PHAC.

I would recommend you both take a look at the attached applications and advise if you are comfortable with the suggested matching. Once decided, I would be happy to schedule an introductory meeting/call with the suggested matching respectively. I am proud to champion this exciting pilot project and I look forward to continuing to work with Indigenous Employee Network members to advance their priorities. Thank you both for your continued support for the IEN.





From: Sent: To: Namiesniowski, Tina (PHAC/ASPC) Subject: Tam, Dr Theresa (PHAC/ASPC) 2019-12-03 6:37 PM

RE: Indigenous Employee Network Reverse Mentorship Pilot Project

wrote:

Great. Just wanted to make sure you are OK with the match. I will reply to Joel for both of us.

From: Namiesniowski, Tina (PHAC/ASPC)
Sent: 2019-12-03 6:35 PM
To: Tam, Dr Theresa (PHAC/ASPC)
Subject: Re: Indigenous Employee Network Reverse Mentorship Pilot Project

Me too!

Sent from my iPhone

On Dec 3, 2019, at 6:18 PM, Tam, Dr Theresa (PHAC/ASPC)

I am fine with this proposal, are you?

TT

Sent from my iPhone

Begin forwarded message:

From: "Denis, Joel (PHAC/ASPC)" <joel.denis@canada.ca> Date: December 3, 2019 at 08:50:11 EST To: "Namiesniowski, Tina (PHAC/ASPC)" <u><tina.namiesniowski@canada.ca>.</u> "Tam, Dr Theresa (PHAC/ASPC)" Cc: "Bent, Stephen (PHAC/ASPC)" <<u>stephen.bent@canada.ca</u>>, "Beaudoin, John (PHAC/ASPC)" <john.beaudoin@canada.ca>, "Tafaghod, Marzieh (HC/SC)" < marzieh.tafaghod@canada.ca>, "Mead, Jobina (PHAC/ASPC)" <jobina.mead@canada.ca> Subject: Indigenous Employee Network Reverse Mentorship Pilot Project Good morning Tina and Theresa, We have completed our call out and assessment of the potential candidates for the Indigenous Reverse Mentor Pilot Project and I am pleased to present two Indigenous PHAC employees who we would propose for your consideration. Please find attached and

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Thank you both for your continued support for the IEN.

Joël

CONSULT-WITHHELD / CONSULTER-RETENUE

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From:	
Sent:	2019-12-04 10:31 AM
Го:	<u>Tam, Dr Theresa (PHAC/ASPC)</u>
Cc: Bent, Stephen (PHAC/ASPC))
Subject:	Re: Indigenous Health Conference 2020

Thank you! I look forward to discussing this with you!

From: Tam, Dr Theresa (PHAC/ASPC) Sent: December 4, 2019 9:25 AM To:

Cc Bent, Stephen (PHAC/ASPC) Subject: Indigenous Health Conference 2020 Dear

Thank you for your email inviting PHAC to support the Indigenous Health Conference. I would like to take the opportunity to acknowledge the importance of the Indigenous Health Conference. The Conference continues to advance reconciliation in Canada through increasing knowledge and awareness among healthcare professionals to ensure that culturally safe care is provided to Indigenous populations. This work is aligned with the Agency's priority of improving health equities for key populations, including Indigenous Peoples.

I have asked Stephen Bent, Director General of the Office of Strategic Policy and Planning, to schedule a discussion with you to discuss the 2020 conference and potential opportunities to collaborate.

Thank you,

Theresa

From

Sent: 2019-11-13 10:25 AM

To: Tam, Dr Theresa (PHAC/ASPC); Tam, Dr Theresa (PHAC/ASPC)

Cc

Subject: Indigenous Health Conference 2020

Dear Teresa

I hope you are doing well. I am hoping that PHAC would consider being a sponsor of the Indigenous Health Conference 2020 again. This year it will be held in Niagara Falls in 2020. We have a great line up of speakers. The conference has become the largest Indigenous Health Conference in Canada, last year attracting over 300 abstract submissions and 720



participants from across the country, including health care providers, policy makers, and indigenous community leaders and members. The aim of the conference, in keeping with the recommendations of Truth and Reconciliation Committee Report, is to increase knowledge and awareness so that health care workers provide culturally safe care with Indigenous populations.

The focus for this year's conference is the future and how we can cultivate youth as tomorrow's leaders and agents of change. We are thrilled that confirmed plenary speakers include Michele Audette (Commissioner for Missing and Murdered Indigenous Women), ,Dr. James Makokis (Indigenous physician and recent winner of the Amazing Race Canada), Tera Beaulieu (President of Metis Nation of Ontario) and Isadore Day (Former Ontario Regional Chief) and Oren Lyons. I have attached the prospectus and the call for abstracts for the conference.

https://www.cpd.utoronto.ca/indigenoushealth/

I would be happy to set up a meeting to give you more information about the conference.

ATIA - 19(1)

From:	
Sent:	2019-12-18 10:17 AM
То:	<u>Bent, Stephen (PHAC/ASPC); Denis, Joel</u>
	(PHAC/ASPC); Beaudoin, John (PHAC/ASPC);
	<u>Tam, Dr Theresa (PHAC/ASPC)</u>
Subject:	Re <u>: Indigenous Heal</u> th Conference 2020
	with
Attachments: INT2095-CallforAbstracts-1910	029-v02.pdf

Dear Stephen,

Thank you for meeting with me on Monday. It's nice to get to know some of the people who are behind the emails. Here is a copy of the call for abstracts. The deadline is extended to January 7th, and for a short time after that I could discuss possible symposiums, but then we would be working on our program. It would be appreciated if this could be disseminated to those people who might be interested in submitting the abstract or coming to the event.

Have a great holiday season,	_
	-

From: michelle.charette@canada.ca on behalf of Bent, Stephen (PHAC/ASPC)
Se<u>nt: December 1</u>2, 2019 9:31 AM
To: Denis, Joel (PHAC/ASPC) ; Beaudoin, John (PHAC/ASPC) ; Tam, Dr Theresa
(PHAC/ASPC)
Subject: Indigenous Health Conference 2020 with
When: December 16, 20 <u>19 2:00 PM-2:30 P</u> M.
W <u>here: Step</u> hen's office,
Hi
No problem. My office will move the meeting to 2pm.
Thanks
Sent from my iPhone
On Dec 12, 2019, at 7:50 AM, vrote:
Hi Theresa, Stephen,
I will be in Ottawa on Monday meeting at 11:30 with Drs. Tom Wong and Howard Njoo, and
he will call in) to discuss
that you would be welcome to this discussion if you are available, if Dr. Wong agreed.
Since I will be in Ottawa, would it be possible to meet you Stanban (and Theress if available)

Since I will be in Ottawa, would it be possible to meet you Stephen (and Theresa if available) earlier in the afternoon in person after my meeting with Tom Wong? (perhaps at 2:00 rather than

4). Thank you

From: Tam, Dr Theresa (PHAC/ASPC)

Sent: 2019-12-04 9:25 AM

To Cc

Bent, Stephen (PHAC/ASPC)

Subject: Indigenous Health Conference 2020

Deai

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Thank you,

Theresa

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Sent: 2019-11-13 10:25 AM

To: Tam, Dr Theresa (PHAC/ASPC); Tam, Dr Theresa (PHAC/ASPC) Cc:

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From:	Bent, Stephen (PHAC/ASPC) []
To:	McLeod, Robyn (PHAC/ASPC) [robyn.mcleod@canada.ca]
CC:	Denis, Joel (PHAC/ASPC) [joel.denis@canada.ca]; Tafaghod, Marzieh (HC/SC)
[marzieh.tafaghod@c	anada.ca]
Subject:	FW: Indigenous Health Conference 2020 with
Date:	Monday, December 16, 2019 16:46:29

Hi Robyn,

Can you please book a 15 minute discussion with Theresa the first week of January to discuss the Indigenous Health Conference? We'll have a one pager to support the discussion.

Thanks

From: Tam, Dr Theresa (PHAC/ASPC) Sent: 2019-12-04 9:25 AM	
To: Cc: (PHAC/ASPC)	Bent, Stephen
Subject: Indigenous Health Conference 2020	

Dear

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Thank you,

Theresa

From: <u>mailto:</u> Sent: 2019-11-13 10:25 AM To: <u>Tam. Dr Theresa (PHAC/ASPC)</u>; Tam, Dr Theresa (PHAC/ASPC) Cc Subject: Indigenous Health Conference 2020

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<meeting.ics>



Indigenous Health Conference

Building Our Future

May 21-23, 2020

Sheraton on the Falls Hotel, Niagara Falls, Canada

Call for Abstracts

Conference Objectives

- Discussing how to support and nurture Indigenous children and youth as future leaders.
- Reviewing how historical factors such as colonization, and racism have had a significant impact on the current health status of Indigenous peoples.
- Discussing some of the major health issues for Indigenous peoples in Canada, in addition to potential solutions to address them.
- Engaging in respectful discussions on building trust to support the development of networks, partnerships and allyship.
- To understand how Indigenous ways of knowing with respect to health and well-being can be utilized in healthcare approaches for Indigenous peoples.
- Knowledge translation and dissemination of the most up to date health care research relevant to the health of Indigenous peoples.
- To provide a networking opportunity between Indigenous community members, healthcare practitioners, researchers and policymakers and the formulation of ideas for future community-based research.

Target Audience

- Family Physicians
- Primary Care Providers
- Specialist Physicians
- Nurses
- Allied Health Workers
- Mental Health Workers
- Policy and Public Health Specialists
- Researchers and Knowledge Users
- Students
- Community Leaders, Elders and Community Members
- Anyone interested in Indigenous Health

For more information please visit cpd.utoronto.ca/indigenoushealth



Topics

- Cultural Competency and Safety
- Indigenous Youth Leadership
- Reconciliation in Health Care
- Racism/Colonialism
- Missing and Murdered Indigenous Women
- Mental Health (suicide prevention, substance abuse)
- Traditional Ways and Self-Determination
- Infectious Disease
- Chronic Disease
- Health Care Systems
- Determinants of Health (housing, poverty)
- Women's Health (reproduction, violence)
- Children's Health
- Elder's Health
- Nutrition
- Environmental Health
- Research, Data, Information and Knowledge
- Other Topics Related to Indigenous Health

Dates to Note	*Subject to change
Abstract Submissions Close:	December 6, 2019
Acceptance Notification:	January 6, 2020*
Presenter Response:	January 24, 2020

Click to Submit an Abstract



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Call for Abstracts

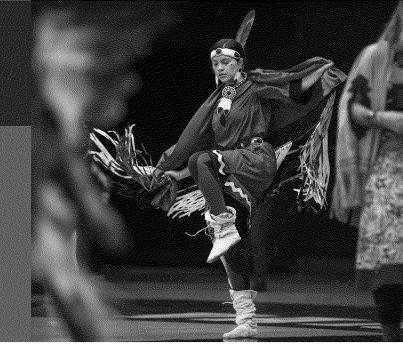
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Presenter Response:	January 24, 2020

For more information please visit cpd.utoronto.ca/indigenoushealth

From:	
Sent:	2019-12-06 9:04 AM
То:	<u>Tam, Dr Theresa (PHAC/ASPC)</u>
Cc:	
Subject:	Fwd: Injection drug use in Canada: prevalence and harm reduction estimates
Attachments:AJPH_Canadian PWID	 harm reduction estimate_bubble.png; AJPH_Canadian PWID harm reduction estimate_prod.pdf; AJPH_Canadian PWID harm reduction estimate_suppl.pdf; AJPH_Canadian PWID harm reduction estimate_prevalences.png

Dear Dr Tam,

We are pleased to share an article recently published in the *American Journal of Public Health* on the number of people who inject drugs in Canada. In this study led by Université de Montréal; Canadian Research Initiative in Substance Misuse (CRISM) - Quebec Atlantic node) we estimated the number of people who inject drugs in 11 of the 13 provinces and territories, in addition to the provision of harm reduction services. This is the first study to provide provincial and territorial data for the years 2011– 2016, which may be used to better plan health responses and target the most vulnerable clients. Financial support for this project was provided by CanHepC (Canadian Network on Hepatitis C) and the CRISM - Quebec Atlantic node.

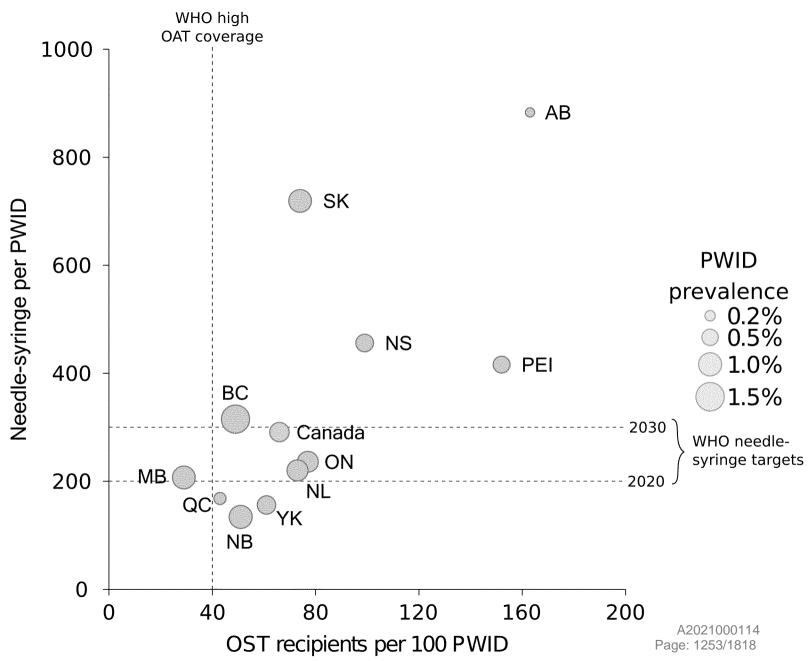
Our overarching goal with this project is to support and encourage ongoing standardization and harmonization of indicator data collection across the country, particularly related to harm reduction need delivery, access, and quality. In the supplementary information, we have included data for each province and Yukon for each of the years in the study period (Tables F, H and I). Limitations in the availability of data—in particular timely and representative surveys of people who use drugs—highlight the urgent need for improved data collection for this highly vulnerable and marginalized population.

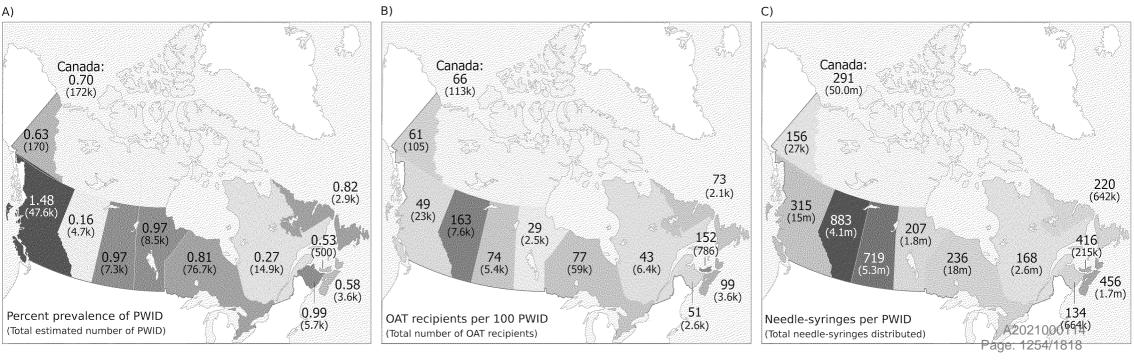
As policy makers, service providers, community-based organizations, and researchers, we encourage your feedback on the outcomes from our study. We believe that this study made use of the best available data and provides the most accurate estimation of injection drug use in the country to date. But more needs to be done.

You can consult this article by following this link: <u>https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2019.305379</u>

Kind regards,







Prevalence of Injecting Drug Use and Coverage of Interventions to Prevent HIV and Hepatitis C Virus Infection Among People Who Inject Drugs in Canada

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Objectives. To determine the number of people who inject drugs (PWID) in Canada and the annual coverage of opioid agonist treatment (OAT) and needle-and-syringe provision for PWID.

Methods. We estimated the number of PWID in 11 of 13 Canadian provinces and territories in 2011 by using indirect multiplier methods based on provincial and territorial methadone recipient totals and proportion of surveyed PWID receiving methadone. We modeled annual increases for 2011 to 2016 on Quebec and British Columbia longitudinal data. We calculated needle-and-syringe coverage (World Health Organization [WHO] recommendation: \geq 200 per PWID) and OAT coverage (WHO recommendation: \geq 40 per 100 PWID) per province and territory annually.

Results. An estimated 130 000 individuals in Canada (0.55%) injected drugs in 2011, increasing to 171 900 individuals (0.70%) in 2016. Needle-and-syringe coverage increased from 193 to 291 per PWID, and OAT coverage increased from 55 to 66 per 100 PWID over the study period.

Conclusions. While the number of PWID increased between 2011 and 2016, OAT coverage remained high, and needle-and-syringe coverage generally improved over time.

Public Health Implications. These data will inform public health surveillance, service planning, and resource allocation, and assist monitoring of treatment and harm-reduction coverage outcomes. (*Am J Public Health.* Published online ahead of print November 14, 2019: e1–e6. doi:10.2105/AJPH.2019.305379)

llicit substance use remains a substantial contributor to global morbidity and mortality.¹ In both Canada and the United States, excessive prescription of opioid analgesics and highly potent synthetic opioids since 2001 resulted in deaths from opioid-related overdose exceeding those from motor vehicle accidents and other leading causes of death.² In 2017 alone, there were more than 4000 opioid-related overdose deaths in Canada and more than 47 600 in the United States.²

The use of drugs by injection further contributes to the burden of disease by increasing the risk of HIV and viral hepatitis infection through sharing of needles and syringes.¹ Harm-reduction interventions, such as opioid agonist treatment (OAT) and needle-and-syringe programs, are associated with reduced risk of acquiring HIV, hepatitis C virus (HCV), and other related harms among people who inject drugs (PWID)^{3–5} and retention in OAT (methadone and buprenorphine/naloxone) with substantial reductions in overdose and all-cause mortality among people dependent on opioids.⁶ Given the importance of harm reduction in reducing morbidity and mortality, the World Health Organization (WHO) recommends countries distribute at least 200 needles and syringes per year to PWID and provide OAT to at least 40 individuals per 100 PWID.⁷ In the face of the opioid overdose crisis in North America, robust estimates of the prevalence and population size of PWID and the delivery of harm-reduction interventions are imperative.

Estimating the prevalence of injecting drug use and population size of PWID is important for public health surveillance, service planning, and resource allocation, and for monitoring treatment and harmreduction coverage.⁸ However, population surveys that directly measure prevalence are often ineffective at capturing less common forms of drug use (including injecting drug use) for varied reasons. These studies may be limited by their inability to capture certain populations in which injecting drug use is likely to be more common (e.g., people with unstable housing and people in prisons), a lower likelihood of reporting injecting drug use among participants (because of stigma and reticence to report behaviors seen as "illicit"), and low statistical power. As an alternative, indirect methods seek to estimate the size of

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"hidden" populations based on observable information indirectly related to the parameter of interest.

Though any single estimation method is unlikely to produce a true population size, multiplier methods are commonly used and favored for their ease of application in varied settings and at different scales.⁹ Population size can be estimated by using data as simple as the count of clients from a service provider (e.g., number of OAT recipients) together with a single question in a population-based survey about visiting that service provider (e.g., proportion of PWID receiving OAT), providing a basis for informing and adapting harm-reduction targets.

Current estimates suggest that 15.6 million (95% uncertainty interval [UI] = 10.2, 23.7 million) people aged 15 to 64 years injected drugs worldwide in 2015, with prevalence of injecting drug use in North America (1.06%; 95% UI = 0.62%, 1.83%) exceeding the global average (0.33%; 95% UI = 0.21%, 0.49%).¹⁰ Recent national PWID population size estimates in Canada are relatively scarce, with most estimates restricted to Montreal, Quebec; Toronto, Ontario; or Vancouver, British Columbia (Table A, available as a supplement to the online version of this article at http://www.ajph.org).11 An estimated 112 900 (0.48%) people injected drugs in Canada in 2011,¹² while provincial-level PWID prevalence estimates range from 0.28% in Quebec in 2010¹³ to 1.30% in British Columbia in 2013 to 2015.¹⁴ Delivery of harm-reduction interventions (e.g., OAT and needle-and-syringe services) is below WHO guidelines for high coverage, with 45 million needles and syringes distributed (148 needles and syringes per PWID) and 75 000 OAT recipients (24 recipients per 100 PWID) in 2015.15 Geographic variation is likely to occur within Canada; however, subnational estimates of coverage have not previously been made. More granular information is needed to better understand the burden of injecting drug use in Canada to assess the extent to which provinces are meeting WHO targets for implementing harm-reduction interventions (≥ 200 needles and syringes per year per PWID and ≥ 40 OAT recipients per 100 PWID).

The aim of this study was 2-fold: (1) to estimate the number of PWID and population prevalence of injecting drug use in Canada, nationally and provincially, between 2011 and 2016 by using an indirect multiplier methodology and (2) to measure the provision of harm-reduction interventions according to the WHO targets.

METHODS

We employed an indirect multiplier method to estimate the number of PWID at the provincial level and summed these figures to produce a national estimate.

Data Sources

This simple method relies on 2 key data sources to estimate population size: benchmark data provide a count of the hidden population meeting a specified criterion, while multiplier data provide a proportion of the hidden population from a second representative sample that meet the same criterion.⁹ Similar to the approach taken in Australia,¹⁶ methadone treatment statistics formed the basis of both data sources in the present study. Benchmark data count the number of PWID receiving methadone within a given calendar year, providing a known quantity for this segment of the PWID population. Multiplier data then indicate the proportion of all PWID captured within the benchmark data. The reciprocal of this proportion is termed the multiplier and is used to adjust the benchmark estimate to take into account other "hidden" segments of the population.8

Figure A (available as a supplement to the online version of this article at http:// www.ajph.org) presents an illustrative example of this method. Here, 1350 individuals receive OAT, of whom 74% (1000 individuals) recently injected drugs. If 20% of surveyed PWID reported receiving OAT, the 1000 individuals are multiplied by 5 to obtain 5000 PWID in that population. The indirect multiplier method could be applied by using any available benchmark and multiplier indicators relevant to the population of interest, provided that (1) the population size remains the same during data collection for both components, (2) the multiplier estimate is representative of the overall population, and (3) the definitions for both components are precise and exactly matched.8

Benchmark data. We obtained benchmark data (numbers of unique methadone recipients) from data custodians within each province and territory (sources detailed in Table B, available as a supplement to the online version of this article at http:// www.ajph.org). Methadone information was not available for Nunavut and Northwest Territories. We obtained semiannual reporting of total unique methadone recipients for 2010 to 2012 to match multiplier data collection period, where possible (see Table B for missing data).

As previously described by Larney et al.,¹⁶ it is likely that not all methadone recipients have injected drugs in the past 12 months; therefore, we adjusted benchmark data to account for this. No data were available that systematically capture a snapshot of injecting drug use among methadone recipients in Canada. Therefore, we derived the range for this indicator from 2 low-threshold methadone clinics in Ontario: 82.5% of recipients reported injecting drug use at enrollment, decreasing to 65.6% at 6 months.¹⁷ For this study, we applied a point estimate of 74.1% (range = 65.6%-82.5%) for this indicator. We did not include buprenorphine/naloxone in the benchmark because approval from Health Canada was only obtained in 2007, and access in 2010 to 2012 was hampered by administrative regulations, restricted provincial drug plan coverage, and a limited number of trained providers.¹⁸

Multiplier data. For the multiplier, we obtained the estimate of the proportion of PWID receiving methadone in the past 6 months from the I-Track enhanced surveillance of PWID report.¹⁹ I-Track is a periodic cross-sectional enhanced surveillance system that monitors HIV and HCV prevalence and risk behaviors among PWID in sentinel sites across Canada. The most recent implementation of the I-Track survey was 2010 to 2012, with single sites in Alberta, British Columbia, Nova Scotia, Saskatchewan, and Yukon; 6 sites in Ontario; and 8 sites in Quebec through the SurvUDI network. In Quebec, the SurvUDI enhanced surveillance survey has been performed annually since 1995, and provided data for 2010 to 2016.²⁰ For provinces where the I-Track survey was not undertaken (Manitoba, Newfoundland and Labrador, New Brunswick, and Prince Edward Island), we applied a population-weighted average estimate of the proportion of PWID receiving

methadone (32.5%). Because multiplier data obtained through I-Track were last available for 2010 to 2012 (except Quebec), we calculated provincial PWID population sizes for 2011 and extrapolated them for the period 2012 to 2016 based on additional data available in Quebec and British Columbia.

Temporal Trends in Population Size and Prevalence Estimates

Quebec PWID estimates for 2012 to 2016 utilized the multiplier method mentioned previously (methadone recipient numbers and SurvUDI proportion of PWID receiving methadone data), and British Columbia estimates were from external administrative data linkage analysis.¹⁴ We calculated annual fluctuations in PWID population estimates separately for the 2 provinces, and the midpoint of the fluctuations applied to all provinces to estimate provincial and territorial and national PWID population estimates for 2011 to 2016. We obtained denominators for prevalence estimates from Statistics Canada data tables for each province and territory in the years 2011 to 2016.²¹ We calculated prevalence per 100 persons aged 15 to 64 years in accordance with the United Nations Office of Drugs and Crime World Drug Report 2018.²²

Harm-Reduction Coverage

Harm reduction interventions of interest were OAT (i.e., methadone and buprenorphine/naloxone) and needle-and-syringe services. We obtained data on the number of OAT recipients and the number of needles and syringes provided from province and territory service providers or government agencies for 2011 to 2016 (Tables C, D, and E, available as supplements to the online version of this article at http://www.ajph.org). The sources of data for each province and territory are detailed in Table B. We used the PWID estimate from the multiplier method described previously as the denominator for calculating coverage of OAT (number of OAT recipients per 100 PWID) and needles and syringes (number of needles and syringes distributed per PWID) per province and territory and nationally.

Addressing Missing Data

Differing data reporting systems among provincial and territorial jurisdictions resulted in some data being unavailable for certain years. For example, the numbers of OAT recipients were either unavailable for earlier years or restricted to government beneficiaries for Quebec, Newfoundland and Labrador, and Ontario. In addition, the number of

needles and syringes distributed was unavailable for 1 year in Quebec. We extrapolated missing indicator data by using existing data. All data sources and data modifications are reported in Table B.

RESULTS

With use of the multiplier method, an estimated 130 000 people aged 15 to 64 years injected drugs in Canada in 2011, giving a population prevalence of 0.55 per 100 persons (Table 1). Modeling of fluctuations in the number of PWID in Quebec and British Columbia for the years 2011 to 2016 suggested an average 5.96% annual increase (range = -0.80% to 12.9%; Table F, available as a supplement to the online version of this article at http://www.ajph.org). By 2016, the estimated number of PWID in Canada had increased to 171 900, with a population prevalence of 0.70 per 100 persons aged 15 to 64 years (Table 1). The prevalence of injecting drug use varied greatly across provinces, with the highest prevalence seen in British Columbia (1.15 in 2011 and 1.48 in 2016) and the lowest in neighboring Alberta (0.13 in 2011 and 0.16 in 2016; Table G).

	Multiplier ^a	Benchmark Data ^b (Range)	2011 Estimated No. of PWID (Range)	2011 Population Prevalence, % (Range)	2016 Estimated No. of PWID (Range)	2016 Population Prevalence % (Range)
Canada			130 000 (115 100–144 700)	0.55 (0.49-0.61)	17 100 (152 200–191 400)	0.70 (0.62-0.78)
Alberta	3.58	986 (872–1 097)	3 500 (3 100–3 900)	0.13 (0.12-0.15)	4 700 (4 100–5 200)	0.16 (0.14–0.18)
British Columbia	3.85	9 358 (8 284–10 419)	36 000 (31 900–40 100)	1.15 (1.02-1.28)	47 600 (42 100-53 000)	1.48 (1.31–1.65)
Manitoba	3.08 ^c	2 084 (1 845–2 320)	6 400 (5 700–7 100)	0.77 (0.68–0.86)	8 500 (7 500–9 400)	0.97 (0.86–1.08)
New Brunswick	3.08 ^c	1 219 (1 079–1 357)	3 800 (3 300–4 200)	0.72 (0.64–0.80)	5 000 (4 400–5 500)	0.99 (0.88–1.11)
Newfoundland and Labrador	3.08 ^c	717 (634–798)	2 200 (2 000–2 500)	0.60 (0.53–0.67)	2 900 (2 600–3 200)	0.82 (0.73–0.92)
Nova Scotia	2.12	1 301 (1 152–1 448)	2 800 (2 400–3 100)	0.42 (0.37-0.47)	3 600 (3 200–4 100)	0.58 (0.51-0.64)
Ontario	2.55	22 736 (20 128–25 313)	58 000 (51 300-64 600)	0.63 (0.56-0.70)	76 700 (67 900–85 400)	0.81 (0.72-0.90)
Prince Edward Island	3.08 ^c	127 (113–141)	400 (350-450)	0.40 (0.35-0.44)	500 (460-570)	0.53 (0.47-0.59)
Quebec	4.00	2 818 (2 495–3 138)	11 300 (10 000-12 500)	0.20 (0.18-0.23)	14 900 (13 200-16 600)	0.27 (0.24–0.30)
Saskatchewan	2.65	2 097 (1 857–2 335)	5 500 (4 900-6 200)	0.78 (0.69-0.87)	7 300 (6 500–8 200)	0.97 (0.86-1.08)

0.50 (0.44-0.55)

Note. PWID = people who inject drugs.

Yukon

4.59

^aMultiplier: inverse of prevalence surveyed PWID receiving methadone in past 6 months.

29 (25-32)

^bEstimated number of methadone recipients recently injected, derived from provincial treatment number.

100 (100-100)

^cPopulation weighted national mean. Estimated number of PWID may not sum because of rounding.

170 (150-190)

0.63 (0.56-0.71)

Coverage of Opioid Agonist Treatment

On average, provision of OAT nationally exceeded WHO guidelines for high coverage $(\geq 40 \text{ OAT recipients per } 100 \text{ PWID})$ for the entire study period, increasing from 55 per 100 PWID in 2011 to 66 per 100 PWID in 2016 (Figure A and Table H, available as supplements to the online version of this article at http://www.ajph.org). Throughout the study period, Manitoba was consistently below the threshold for high OAT coverage, showing a decrease from 37 per 100 PWID in 2011 to 29 per 100 PWID in 2017. By contrast, there was a substantial increase in OAT coverage in Alberta, nearly tripling from 59 per 100 PWID in 2011 to 163 per 100 PWID in 2016. Over the period, we observed a 3.6-fold increase in the number of OAT recipients in Alberta: 2094 in 2011 and 7636 in 2016; Table I, available as a supplement to the online version of this article at http://www.ajph.org). Similarly, OAT coverage nearly tripled in Prince Edward Island over the study period, from 52 to 152 OAT recipients per 100 PWID.

Coverage of Needles and Syringes

Coverage of needles and syringes was less successful, with the country as a whole and 7 of 11 provinces and territories failing to meet

WHO high-coverage guidelines (≥ 200 needles and syringes per PWID) in 2011 (Figure B and Table H, available as supplements to the online version of this article at http://www.ajph.org). Between 2011 and 2016, needle-and-syringe coverage in Canada increased from 193 to 291 per PWID per year. Of the 7 provinces below high-coverage threshold in 2011, New Brunswick, Quebec, and Yukon remained below the threshold in 2016 (Table 2 and Table H). Throughout the study period, the greatest increase was observed in Manitoba, with an increase from 78 needles and syringes per PWID in 2011 to 207 needles and syringes per PWID in 2016, a greater than 2.5 times increase. It was estimated that both Alberta and Saskatchewan distributed greater than 700 needles and syringes per PWID per year in 2016 (Table 2 and Figure B). When examined as a general population rate, Saskatchewan distributed greater than 6 needles and syringes per general population annually (7.5 needles and syringes per person in 2011) compared with a median 1 needle and syringe per general population in the remaining provinces with data (Table I).

Alberta was an important outlier, with the lowest prevalence of injecting drug use (0.16% in 2016 compared with 0.71% in all of Canada) and, therefore, greater coverage of services compared with other provinces. In the event that I-Track data overestimated methadone coverage among PWID, the prevalence of injecting drug use in Alberta could be increased nearly 4 times before OAT and needle-and-syringe coverage falls below WHO thresholds in 2017.

DISCUSSION

To our knowledge, this is the first study in Canada to estimate trends in the number of PWID in each province and to assess the coverage of harm-reduction services-specifically, OAT and needle-and-syringe provision. Overall, an estimated 130 000 people injected drugs in 2011 (0.55% prevalence), increasing to 171 900 individuals in 2016 (0.70% prevalence). Coverage of harm-reduction services varied across the country in 2016, with all but 1 province meeting the WHO guidelines for OAT and 6 of 11 provinces meeting WHO guidelines for needle-and-syringe provision. Generally, harm-reduction coverage remained stable or increased over the study period. This study advances public health surveillance, informs service planning and resource allocation, and enhances monitoring of treatment and harm-reduction coverage in the context of a national opioid crisis.

In November 2016, the Joint Statement of Action to Address the Opioid Crisis brought together more than 40 governments,

TABLE 2—Estimated Number of Opioid Agonist Treatment (OAT) Recipients per 100 People Who Inject Drugs (PWID) and Number of Needles and Syringes Distributed per PWID for PWID: Canada, 2016

	Estimated No. of PWID (Range)	No. of OAT Recipients	Estimated No. of OAT Recipients per 100 PWID (Range)	No. of Needles and Syringes Distributed	Estimated No. of Needles and Syringes per PWID (Range)
Canada	171 900 (152 200–191 400)	113 381	66 (59–75)	49 958 381	291 (261–328)
Alberta	4 700 (4 100–5 200)	7 636	163 (147–185)	4 122 866	883 (793–997)
British Columbia	47 600 (42 100–53 000)	23 506	49 (44–56)	14 991 900	315 (283–356)
Manitoba	8 500 (7 500–9 400)	2 490	29 (26–33)	1 754 597	207 (186–234)
New Brunswick	5 000 (4 400–5 500)	2 554	51 (46–58)	664 047	220 (198–249)
Newfoundland and Labrador	2 900 (2 600-3 200)	2 136	73 (66–83)	642 181	134 (120–151)
Nova Scotia	3 600 (3 200-4 100)	3 299	99 (89–112)	1 660 642	456 (409–515)
Ontario	76 700 (67 900-85 400)	58 706	77 (69–86)	18 100 000	236 (212–267)
Prince Edward Island	500 (460-570)	786	152 (136–172)	215 078	416 (373–470)
Quebec	14 900 (13 200–16 600)	6 401	43 (39–49)	2 503 574	168 (151–190)
Saskatchewan	7 300 (6 500–8 200)	5 435	74 (67–84)	5 276 496	719 (646–812)
Yukon	170 (150–190)	105	61 (54–69)	27 000	156 (140–176)

councils, and organizations to improve prevention, treatment, and harm reduction associated with opioid use in Canada.²³ Standardizing data collection through prescription drug monitoring and enhanced surveillance systems and timely reporting of a number of key indicators will be necessary for monitoring both PWID population size and implementation of harm-reduction services across the nation, such as efforts undertaken in Europe, the United Kingdom, and Australia.^{24,25} While these changes in data collection and reporting are in the planning stages, there is an urgent need to assess the current situation to improve strategies and monitor changes over time.

The estimated prevalence of injecting drug use in our study exceeds previous national and provincial estimates but is within the range of global estimates. By contrast, indirect methods applied by the Public Health Agency of Canada estimated 112 900 PWID (0.40% of adults aged \geq 15 years) in 2011.¹² Comparison against additional indirect estimates of PWID in Canada is complicated by contextual changes since time of reporting (before 2010) and geographic restriction to selected major cities (e.g., Vancouver, Montreal, and Toronto). However, the national prevalence estimate in 2016 (0.70%; range = 0.62%-0.78%) resembles that of high-income countries with similar population demographics, such as Australia (0.60%; range = 0.43%-0.76%), England (0.59%; range = 0.55%–0.63%), and the United States $(1.04\%; range = 0.57\% - 1.88\%).^{10}$

OAT is associated with decreased injecting drug use and equipment sharing, and reduces the risk of HCV and HIV acquisition.3,4 The current study found coverage of OAT in Canada to be greater than WHO guidelines (≥ 40 recipients per 100 PWID), meeting or exceeding that of high-income countries with similar population demographics, though it remains to be seen if this level of coverage is sufficient for prevention of HIV and HCV infections.¹⁵ However, the differing policies and procedures in each Canadian province and territory likely contributes to the great variability of coverage seen in the current study (29-163 recipients per 100 PWID in 2016). Furthermore, I-Track illustrates the heterogeneity in drug consumption patterns in Canada, with opioids (compared with stimulants) being the most commonly injected drug in Alberta, Ontario, and Nova Scotia.¹⁹ Low OAT coverage in provinces with

higher proportions of stimulant injection is likely an underestimation of the coverage for those people with opioid use disorders who are eligible to receive OAT. While high coverage of OAT in Canada likely contributes to prevention of HIV and HCV transmission among PWID, disparities in coverage among Canadian provinces are concerning.

National needle-and-syringe coverage compared favorably with high-income countries with similar population demographics.¹⁵ The high coverage of needles and syringes in Saskatchewan likely reflects a specific crisis in this province. The rate of new HIV diagnoses in Saskatchewan increased for the 5 years before the introduction of the Saskatchewan HIV Strategy 2010 to 2014, and new HIV infection diagnoses remained twice that of the national average in 2015.^{26,27} Meanwhile, the high coverage of needles and syringes in Alberta either accurately reflects the current situation or may be a function of the low estimated prevalence of injecting drug use according to the multiplier methods. By contrast with Saskatchewan, needle-andsyringe coverage per general population in Alberta was low (0.7–1.4) throughout the study period. In a case where PWID population size was underestimated by half in Alberta, needle-and-syringe coverage in the province would still remain double that of the WHO guidelines for high coverage.

Limitations

With regard to study limitations, the multiplier method is highly dependent on the quality of the existing data. Benchmark data should only include the population whose size is being estimated, and the survey data used to generate the multiplier should be representative of the population.²⁸ Although methadone treatment data were restricted to individuals with opioid use disorder (and excluded methadone prescribed for pain), it was not possible to identify the proportion of recipients with recent injecting drug use in these data. For this reason, we derived the range of the proportion of recent injecting drug use among methadone recipients from the literature.^{16,17} In addition, given that data from I-Track used nonrandom, convenience sampling methods, the findings may not be representative of all PWID in Canada. Within I-Track, standardized questionnaires, inclusion criteria, sampling, and recruitment strategies were implemented across the sites; however, no statistical analyses were used to compare sites, and no adjustments were made for variations in sample sizes.¹⁹ We inferred missing needle-and-syringe and OAT indicator data by using linear, exponential, or polynomial functions (as reported in Table B) and these may not reflect actual data.

Conclusions

Albeit imperfect, the appeal of indirect multiplier methods among public health researchers is likely attributable to their ease of use, utilization of commonly available indicators (e.g., number of clients using a service), and potential to be incorporated into studies of hidden populations.⁹ Multiplier methods have been applied in varying scales (single neighborhood through to whole countries), contexts (low-, middle-, and high-income settings), and population groups (e.g., PWID, female sex workers, men who have sex with men).9,29 Population size estimation on a local geographic level is possible where benchmark and multiplier data accurately overlap, and efforts would be well placed in further standardizing local, provincial, and national data collection for ongoing monitoring and evaluation.³⁰ While national population sizes may be difficult to estimate, coordinated efforts to obtain granular estimates at smaller scales may provide valuable information. For example, as demonstrated in this article, the high-quality data obtained in Quebec's yearly SurvUDI survey would allow annual estimation of the number of PWID, whereas a lack of geographically representative survey data limits such efforts in other provinces.

Providing accurate and timely data on a local level will be informative in the implementation of microelimination strategies, such as in "the Fast Track City initiatives" to eliminate HIV,³¹ where treatment and prevention interventions can be delivered more quickly and efficiently than in large national strategic initiatives. As in the current study, application of multiplier methods in other countries and settings would best be performed at the jurisdictional level responsible for health service planning and delivery—in this case, provincially.³²

In Canada, expanding the scale of I-Track to be more frequent and to include additional sentinel sites in differing communities (e.g., urban, rural, and indigenous communities) in each province and territory, similar to SurvUDI, would improve representativeness of the data collected and enable local population size estimation and coverage analysis.²⁰ Furthermore, supplementary surveys with diverse sampling methods should be developed to obtain more representative sampling of OAT use among PWID and injection drug use among people receiving OAT. Methods to capture personal purchases of needles and syringes from pharmacy locations will be necessary to fully capture harm-reduction coverage.

In summary, this study estimates the prevalence of injecting drug use in each Canadian province and the coverage of harm-reduction services provided. While relatively simple, the multiplier methods utilized provide the best estimate available for the number of PWID in Canada. Improved data collection at provincial levels will increase accuracy of estimates, while implementing this modest data collection (health-service indicators and PWID surveys) in international settings would enable harmonization of simple monitoring methods worldwide. Enhanced understanding of injecting drug use and harm-reduction coverage should be used to inform public health surveillance, service planning and resource allocation, and treatment and harm-reduction monitoring. AJPH

CONTRIBUTORS

B. Jacka completed the analysis and led the writing. S. Larney and N. Janjua contributed to study development, analysis, and writing. L. Degenhardt assisted with writing. S. Høj assisted with analyses and writing. M. Krajden contributed to study conceptualization. J. Grebely contributed to study design and writing. J. Bruneau conceptualized and supervised the study.

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CONFLICTS OF INTEREST

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HUMAN PARTICIPANT PROTECTION

No protocol approval was necessary for this study because no human participants were involved.

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SUPPLEMENTARTY INFORMATION

Table A: Reported estimates of historic and recent injection drug use in Canada.	

Source	Year	Jurisdiction	Method	Point estimate (Range)	Ratio (Range)
Injected ever - National					
Canadian Community Health Survey (Health Canada)	2015	National	Household survey	220 100	0.73
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2012	National	Household survey	87 511	0.32
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2011	National	Household survey	109 136	0.42
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2010	National	Household survey	118 751	0.46
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2009	National	Household survey	141 034	0.55
Modelling the incidence and prevalence of hepatitis C infection and its sequelae in Canada, 2007 (PHAC)	2007	National	Markov model	268 200	0.98*
Canadian Addiction Survey (CCSA)	2004	National	Household survey	269 000	1.03
Injected ever - Subnational					
<i>Epidemiology of Hepatitis C infection in</i> <i>Ontario, 2010</i> , (AIDS Bureau, Ontario Ministry of Health and Long-Term Care)	2007	Ontario	Unspecified	114 129	1.08
Injected last 12 months - National					
Canadian Community Health Survey (Health Canada)	2015	National	Household survey	15 900	0.05
Public Health Agency of Canada	2014	National	Indirect multiplier	89 855 (71 800–107 900)	0.30 (0.24-0.36)
Public Health Agency of Canada	2011	National	Indirect multiplier	112 900 (90 000–135 800)	0.40 (0.31-0.47)
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2012	National	Household survey	1 030	< 0.01
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2011	National	Household survey	0	0.00
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2010	National	Household survey	6 400	0.02
Canadian Alcohol and Drug Use Monitoring Survey (Health Canada)	2009	National	Household survey	18 970	0.07

Modelling the incidence and prevalence of hepatitis C infection and its sequelae in Canada, 2007 (PHAC)	2007	National	Markov model	84 361 ("current")	0.31*
Reducing the harm associated with injection drug use in Canada (Health Canada)	2001	National	Unspecified	100 000	0.32
Injected last 12 months - Subnational					
Identifying injection drug use and estimating population size of people who inject drugs using healthcare administrative datasets (Janjua et al)	2013–2015	British Columbia	Administrative health data linkage	41 358 (40 944–41 771)	1.30 (1.29–1.31)
Estimating the size of the population of persons who inject drugs in the island of Montréal, Canada, using a six-source capture-recapture model. (Leclerc et al)	2010	Montreal, QC	Capture-recapture	3 910 (3 180–4 900)	0.28 (0.23–0.35)
<i>Epidemiology of Hepatitis C infection in</i> <i>Ontario, 2010</i> , (AIDS Bureau, Ontario Ministry of Health and Long-Term Care)	2007	Ontario	Unspecified	37 323 ("current")	0.35
HIV, hepatitis, and injection drug use in British Columbia: pay now or pay later (British Columbia Ministry Health)	1998	British Columbia	Unspecified	15 000 ("frequent")	0.38
The HIV epidemic among injection drug users in Ontario: the situation in 1997 (Ontario Health Ministry)	1997	Ontario	Capture-recapture	30 440	0.27
Estimating the size of hard-to-reach	1996	Montreal, QC	Indirect multiplier	4 300-12 500	0.24-0.70
populations: a novel method using HIV		Toronto, ON		6 400-17 500	0.27-0.73
testing data compared to other methods (Archibald et al)		Vancouver, BC		12 300-17 700	0.67–0.97

* Remis et al population estimate as whole population, denominator in table is age >15 years at time of report