AFFIDAVIT OF DR. AARON ORKIN

I, Dr. Aaron Orkin MD MSc MPH PhD(c) CCFP(EM) FRCPC, physician specialist in Public Health and Preventive Medicine, of the City of Toronto, make oath and say as follows:

1. I have personal knowledge with respect to the facts set out below. Where the information is not based on my personal knowledge, it is based upon information provided by others which I believe to be credible and true.

2. By way of background, this affidavit came to be after I had agreed to provide expert testimony at a detention review in Cornwall Ontario on April 6, 2020. I had provided an affidavit on April 2, 2020. I am advised that it was filed with the Superior Court of Justice at Cornwall on that date. I am advised that on April 3rd, Crown counsel advised defence counsel John Hale that she would be relying on a "Briefing Note" and an "Information Note" at the detention review. I understood from Mr. Hale that these "Notes" had already been referenced in other decisions from the Superior Court, and Mr. Hale provided me with the two Notes that had already been in circulation. I prepared a Report and a Supplementary Affidavit that referenced those Notes. This affidavit represents an amalgamation of those two affidavits, with any case-specific information being removed.

MY QUALIFICATIONS AND EXPERIENCE

3. I am a physician and epidemiologist, and Assistant Professor in the Department of Family and Community Medicine at the University of Toronto. I hold graduate degrees in History and Philosophy of Medicine (University of Oxford) and Public Health (University of Toronto). I completed fellowships in family medicine research (Northern Ontario School of Medicine) and Clinical Public Health (University of Toronto). I am a doctoral candidate in Clinical Epidemiology and Health Care Research at the Institute of Health Policy, Management and Evaluation at the University of Toronto.

4. My curriculum vitae is attached as **Exhibit A** to this affidavit.

5. I understand from Mr. Hale that epidemiology has been defined by the courts as "the study, control and prevention of disease with respect to the population as a whole, or to defined groups thereof, as distinguished from disease in individuals". I understand that this definition of epidemiology was accepted in *Rothwell v. Raes* (1988), 68 O.R. (2d) 449, [1988] O.J. No. 1847 (H.C.J.) at para. 245, aff'd (1990), 2 O.R. (3d) 332, [1990] O.J. No. 2298 (C.A.), leave to appeal to the S.C.C. refused, [1991] S.C.C.A. No. 58. I agree with this definition.

6. The World Health Organization defines epidemiology as "the study of the distribution and determinants of health-related states or events (including disease), and the application of this study to the control of diseases and other health problems": https://www.who.int/topics/epidemiology/en/.

7. I have been previously qualified as an expert witness, specifically with respect to the opioid crisis, opioid overdose first aid and overdose prevention, when I gave testimony at the inquest into the death of Bradley Chapman.

8. I practice emergency medicine at two Toronto hospitals (St. Joseph's Health Centre and Humber River Hospital), and I serve as the Population Medicine Lead for Inner City Health Associates, an organization providing health services to people experiencing homelessness across Toronto.

9. I am a clinician scientist, which means that I spend a large portion of my time on research. That research focuses on health equity and vulnerable populations, especially around the health of people experiencing homelessness, people who use drugs, and Indigenous communities. As can be seen from my CV, I have conducted research regarding the health status of individuals experiencing incarceration.

10. With respect to COVID-19, my particular experience and expertise includes the following:

    - I am the Medical Director of the St. Joseph's Health Centre COVID-19 Assessment Centre.

    - As Population Medicine Lead for Inner City Health Associates, I play a central role in planning and implementing a strategy to respond to COVID-19 among people experiencing homelessness in Toronto.

11. I provide these statements in my capacity as an independent physician, epidemiologist and researcher, and NOT on behalf of nor as a representative of any of the organizations or institutions with which I am affiliated.

COVID-19 AND PARTICULAR RISKS FOR THOSE EXPERIENCING INCARCERATION

12. COVID-19 is a novel coronavirus that was declared pandemic by the World Health Organization on March 11, 2020. "Pandemic" is declared when a new disease for which people do not have immunity spreads globally beyond expectations.

13. In Canada, every province and territory has declared a state of emergency in response to COVID-19. Health Canada has declared that the risk of infection and of health harms to Canadians from COVID-19 is high.

14. Ontario identified its first presumptive case of COVID-19 on January 25, 2020. Best-available modeling suggests that Ontarians will experience the peak of our COVID-19 epidemic within the next 7 weeks; in other words, the apex of this "curve" could occur at any time likely before June 2020.

15. On April 3, 2020, the Government of Ontario released a “Technical Briefing”, a copy of which is attached as **Exhibit B** to this affidavit. This briefing suggests that the peak of this curve is likely to occur in mid-April, 2020.

16. The population health status of people experiencing incarceration is substantially worse than the rest of the public. This means that people experiencing incarceration have higher rates of chronic disease including cardiorespiratory disease, mental health challenges and addiction. This also means that people experiencing incarceration have a higher chance of intensive-care admission or death if they get COVID-19.

17. There is no specific treatment or therapy for COVID-19. Therefore, the COVID-19 pandemic cannot be managed or mitigated using clinical interventions. The health impact of COVID-19 can only be managed through population health strategies.

18. The central strategy for the population health management of COVID-19 is referred to as “flatten the curve”. The principle here is that measures can be taken to reduce the incidence of new cases, that is, the number of new people getting infected on any given day. This means that the health care system’s most vital resources are not overwhelmed by a sudden bolus of sick people requiring intensive care and scarce resources. If the healthcare system is not overwhelmed, fewer deaths will occur.

19. The central public measure of a flatten-the-curve strategy is social distancing. This involves measures to reduce social contact. In Ontario and across Canada, various public health orders have been put in place to implement these measures, such as cancelling schools, forbidding gatherings of more than 5 people, and closing all non-essential workplaces.

20. Two meters of physical distance between people is considered an absolute minimum for appropriate social distancing to reduce COVID-19 transmission. However, this distance has not been studied for long-term exposure (such as sleeping arrangements), and does not refer to vertical separation (such as on bunk beds where droplets would shower down over longer distances).

21. Overcrowding and social distancing are mutually exclusive concepts. In other words, social distancing cannot be accomplished in conditions of overcrowding.

22. From a population health strategy perspective as well as an individual health perspective, in relation to COVID-19 transmission, there is no substitute for appropriate social distancing. Lockdowns, hand hygiene, face masks, screening for symptoms on entry, cleaning and other interventions are all important but much less effective. Insufficient social distancing is therefore dangerous to individual and community health.

23. “Congregate living facility” is a public health term that refers to settings where people live together, such as long-term care facilities, homeless shelters, military barracks, or correctional facilities.

24. Preventing outbreaks in congregate living facilities is a top priority for a flatten-the-curve strategy, for four reasons.

    (1) First, outbreaks in tight spaces happen extremely quickly and are near-impossible to control once they occur. Global experiences with cruise ships are a case-in-point.

    (2) Second, people living in congregate living facilities tend to have underlying comorbidities that make them more prone to serious adverse outcomes (ICU admission or death) from COVID-19. This is true in long-term care facilities, homeless shelters, and prisons.

    (3) Third, outbreaks in congregate living facilities can overwhelm health care systems, meaning that scarce resources are consumed by local congregate living outbreaks before the epidemic takes hold in the general population.

    (4) Fourth, outbreaks in congregate living facilities serve as tinder for the fire in more generalized outbreaks. Unlike cruise ships, people in congregate living settings including the staff who work there transfer disease into the general population.

    Therefore, preventing disease in congregate living facilities is critical for flattening the curve across the entire population. All this means that protecting congregate living settings and preventing outbreaks there is about protecting the health of the entire population.

25. Experience with cruise ships, hospitals and long-term care facilities show us that it is extremely difficult (near impossible) to limit a coronavirus outbreak in congregate living settings, especially those with close quarters, shared toileting and eating facilities, or service personnel moving between people confined to their rooms (who serve as vectors). It is extremely likely that COVID-19 will arrive in nearly every correctional facility in Canada, and therefore extremely likely that almost all inmates in these settings will be exposed in one way or another. The only available method to substantially reduce the resulting infections and deaths is therefore to reduce the population in those settings.

26. Coronavirus survives between a few hours and a few days on surfaces such as plastic and metal. For this reason, social distancing measures have also included the closure of public facilities such as playgrounds and restaurants. Effectively, continuous cleaning is required to reduce disease transmission on high-touch surfaces where populations are gathered. This kind of continuous cleaning does not (and cannot) occur in correctional facilities.

27. The degree of social distancing required to reduce COVID-19 transmission in correctional facilities is not possible with the number of people presently located in these facilities. This is a geometry problem, not a policy or strategy problem. There simply is not enough space to create the distance required between people in Ontario corrections

facilities. The living space available for people experiencing incarceration divided by the number of people living in that space must amount to at least a distance of 2 meters between individuals at all times while also allowing for appropriate movement, limited use of confinement etc., all with no use of bunk beds. Shared facilities such as toilets, telephones, dining spaces etc. represent additional hazards.

28. Insufficient social distancing in prisons is hazardous to the health of people experiencing imprisonment. This is true for everyone in correctional facilities, but particularly true for people with underlying health problems. Therefore, reducing the population of individuals who are in good health in correctional facilities is important to protect the health of those who have health problems in those facilities. In the context of a COVID-19 pandemic, putting healthy people into correctional facilities threatens the health of the most vulnerable who are already there.

29. Insufficient social distancing in prisons is hazardous to the health of corrections staff (and by extension, their families and others with whom they come in contact), who are required to work in an environment with insufficient space between personnel and inmates. This is especially true once an outbreak takes hold, because there will not be capacity to transfer all people with COVID-19 out of correctional facilities and into hospitals.

30. Despite social distancing and other efforts, it is extremely likely that COVID-19 will occur in correctional facilities. Due to strict limitations on the availability of hospital and health care spaces, it is very likely that people in correctional facilities with mild symptoms will need to convalesce and recover in isolation in correctional facilities. In the presence of individuals with active and known infection, outbreak control is even more critical and challenging than in the context of initial infection prevention. There is a critical need for more space and social distancing in advance of this eventuality.

31. COVID-19 will generate significant human resources shortages in all areas, including among corrections personnel, due to self-isolation, illness and absenteeism. Reducing populations in corrections facilities may also be necessary to maintain safety with reduced staffing.

32. Therefore, every admission prevented is an opportunity to flatten the curve and improve health for the individual involved, other inmates in the facility in question, staff at the facility in question, and the public. Stated otherwise, unnecessary admissions to correctional facilities are a health hazard for all in the context of the COVID-19 pandemic.

33. Similarly, every person who is discharged from a correctional facility to a private residence is an opportunity to flatten the curve and improve health for the individual involved, other inmates in the facility in question, staff at the facility in question, and the public. Decanting the existing population in correctional facilities — especially those who are healthy and able to self-isolate in lower density private residences — will reduce

the population density in correctional facilities and therefore reduce the risk of infection for both the individuals who are discharged from those facilities and the people who remain there.

34. Depopulating correctional facilities in response to COVID-19 is an accepted public health strategy, already underway in several Canadian, American and European jurisdictions.

35. From a medical and population health perspective, it is in the best interest of the community at large that an aggressive approach be taken to depopulating custodial facilities, be they jails, prisons, penitentiaries, reformatories or detention centers, and whether they be for males or females, youths or adults. So long as individuals are forced to congregate in relatively small spaces where they cannot keep at least 2 meters apart from each other at all times, and where they share bathroom, shower, telephone and other facilities, and where people from the outside (new inmates, correctional staff, volunteers) occasionally populate their space, COVID-19 will have a perfect environment in which to spread both inside and then outside the facilities.

36. The state of health of a particular inmate is irrelevant to my recommendations. Whether an inmate is old or young, frail or robust, in good health or suffering from pre-existing conditions, my opinion would remain the same: from a public health perspective, during the current pandemic it would always be in the best interest not only of the inmate but of the community at large to release the inmate to a less populated environment such as their own home.

37. It goes without saying that a judicial official deciding whether or not to detain somebody will inevitably take other considerations into account, and will have to balance various factors in determining what is in the community's best interest. My opinion is concerned only with what is in the community's best interest with respect to the imminent threat of a COVID-19 pandemic. Subject to other considerations, any solution that promotes and enables physical distancing between individuals is in the community's best interest for the management of COVID-19.

THE "BRIEFING NOTES" AND "INFORMATION NOTES"

38. As stated above, on April 3rd Mr. Hale provided me with two documents that had apparently been relied on by Crown Attorneys at various bail hearings at both levels of court in Ontario, and were in circulation within the criminal justice system.

39. The first such document is undated and contains statistics up to March 25, 2020. It is entitled, "BRIEFING NOTE: Institutional Services Response to COVID-19 (Including TEDC Specific Information)". "TEDC" is the acronym for Toronto East Detention Centre. I will refer to this document as the "Briefing Note". A copy is attached as **Exhibit C** to this affidavit.

40. The second such document is dated March 30, 2020. It is entitled, "INFORMATION NOTE: Institutional Services Response to COVID-19 (Including TSDC Specific

Information)". "TSDC" is the acronym for Toronto South Detention Centre. I will refer to this document as the "Information Note". A copy is attached as **Exhibit D** to this affidavit.

41. The Briefing Note and the Information Note are in many ways identical, with 3 notable exceptions: (1) The Information Note contains statistical information up to March 30, 2020, while the Briefing Note refers to statistics up to March 24, 2020; (2) the Briefing Note contains a portion that has TEDC-specific statistics, while the Information Note contains a portion that sets out TSDC-specific statistics; (3) the Information Note has a new heading, "Housing for medically vulnerable inmates" as well as additional "Actions".

42. I carefully reviewed the Briefing Note and the Information Note, and provided a professional opinion, in the form of a Report, in relation to the more recent and more thorough Information Note. A copy of this Report, including a highlighted and line-numbered version of the Information Note, is attached as **Exhibit E.** The Report refers to an April 3rd "Technical Briefing" from the Government of Ontario, a copy of which was referred to above and is attached as **Exhibit B.**

43. The Report can be treated as part of this affidavit. I adopt its contents for the purposes of this affidavit, and swear to the truth and accuracy of the contents of the Report in the same way that I am swearing to the truth and accuracy of the contents of this affidavit.

44. On April 5th, I am advised that Mr. Hale filed with the Superior Court of Justice at Cornwall my supplementary affidavit which incorporated my Report. Later that day, Mr. Hale provided me with two additional documents that had been provided to him by the Crown Attorney in Cornwall, and which had been filed in court by the Crown in advance of the April 6th detention review. The first of those documents is entitled "INFORMATION SHEET: Institutional Services Response to COVID-19. Last Updated March 26, 2020. Includes information specific to OCDC". This document essentially mirrors the Briefing Note (Exhibit C) but provides information specific to the Ottawa-Carleton Detention Centre. This OCDC Information Sheet is attached as **Exhibit F.**

45. The other document provided to me by Mr. Hale, which had been provided to him by the Crown, is entitled "INFORMATION NOTE: Institutional Services Response to COVID-19, March 31, 2020". This document is the same as the March 30th Information Note (Exhibit D), except that it does not contain information specific to any detention centre and seems to be intended for general use. A copy of this document is attached as **Exhibit G**.

46. I have reviewed both of these documents and they do not in any way affect the opinion set out in my report.

47. I am providing this affidavit for the purpose of having the views of an epidemiologist be taken into account when decisions are being made with respect to the release of individuals from custody during the COVID-19 pandemic, and for no other or improper purpose.

Signed at the City of Toronto this 7th day of April, 2020.

Signed,

Aaron Orkin MD MSc MPH PhD(c) CCFP(EM) FRCPC

Sworn before me (via videoconference) at the City of Ottawa this 7th day of April, 2020.

Signed,

John H. Hale, LSO #29251N

This is Exhibit A to the Affidavit of Dr. Aaron Orkin, sworn before me this 7th day of April, 2020

John H. Hale, LSO #29251N

Aaron M. Orkin BASci MD MSc MPH PhD(c) CCFP(EM) FRCPC
Toronto Ontario

T: 647 923 7551
aaron.orkin@mail.utoronto.ca

Born 24 August 1982, Vancouver BC
Pronoun: he/him
Canadian Citizen
Fluent in spoken and written English and French

Education

University of Toronto, Institute of Health Policy, Management, and Evaluation — *2014 - present*
- Doctoral Candidate, Clinical Epidemiology & Health Care Research
- Supervisor: Dr. Ross Upshur

University of Toronto, Dalla Lana School of Public Health — *2011 – 2013*
- Master of Public Health (Epidemiology), Collaborative Program in Resuscitation Sciences.
- Massey College Junior Fellow (2012 – 2013)

University of Oxford, Linacre College, Oxford, United Kingdom. — *2009 - 2010*
Master of Sciences, History of Science, Medicine & Technology.
- Thesis: 'Enacting Nonmodern Doctorhood: Médecins Sans Frontières and the Birth of the Medico-Humanitarian Profession'. Supervisor: Prof Mark Harrison

McMaster University, Hamilton. Doctor of Medicine. — *2004 - 2007*

McMaster University, Hamilton. Bachelor of Arts & Science. — *2001 - 2004*

Medical Licensure & Certifications

Independent Medical License: College of Physicians & Surgeons of Ontario, No. 86358 — *2009 - present*

Certificant: College of Family Physicians of Canada, Added Competency in Emergency Medicine, "CCFP(EM)" — *2015*

Fellow: Royal College of Physicians & Surgeons of Canada, Public Health & Preventive Medicine, "FRCPC" — *2014*

Certificant: College of Family Physicians of Canada, "CCFP". — *2009*

Licentiate: Medical Council of Canada. — *2008*

Medical Residencies & Fellowships

Dalla Lana School of Public Health and *St. Michael's Hospital*, Clinical Public Health and Emergency Medicine Fellowship — *2015 - 2016*

University of Toronto, Royal College of Physicians & Surgeons Clinician Investigator — *2014 - present*

University of Toronto Dalla Lana School of Public Health, Public Health & Preventive Medicine Residency, Toronto. — *2010 - 2014*

Northern Ontario School of Medicine, Family Medicine Research Fellowship. — *2010*

Northern Ontario School of Medicine, Family Medicine Residency, Thunder Bay — *2007 - 2009*

Medical & Clinical Employment

Staff Physician. *2009 - present*

- Inner City Health Associates, Toronto (Public Health and Preventive Medicine: 2019 – present)
- St. Joseph's Health Centre Department of Emergency Medicine, Unity Health, Toronto (Emergency Medicine: 2019 – present)
- Humber River Hospital, Department of Emergency Medicine, Toronto, (Emergency Medicine: 2011 – 2016, 2019 - present)
- Mount Sinai Hospital, Department of Emergency Medicine, Toronto, (Emergency Medicine: 2016 –2019)
- Seaton House Shelter Infirmary, Inner City Health Associates, Toronto (Family Medicine: 2016 – 2019)
- Groves Memorial Hospital, Fergus, Ontario (Emergency Medicine: 2009 – 2012)

Locum Physician. *2009 – 2019*

- Muskoka Algonquin Health Centre, Huntsville, Ontario (2019)
- Taddle Creek Family Health Team, Toronto, Ontario (2010 – 2012)
- Marathon Family Health Team, Marathon, Ontario (2009 – 2012)
- Dilico Nishnawbek Family Health Team, Thunder Bay, Ontario (2009)
- Meno-Ya-Win Health Centre, Sioux Lookout, Ontario (2009 – 2011)

Professional Appointments

Medical Director. COVID-19 Assessment Centre, St. Joseph's Health Centre, Unity Health, Toronto. *2020 - present*

Population Medicine Lead. Inner City Health Associates, Toronto. *2019 - present*

Assistant Professor & Clinician Scientist. Department of Family and Community Medicine, Faculty of Medicine, University of Toronto. *2016 - present*

Faculty Affiliate. Centre for Rural and Northern Health Research, Laurentian University. *2017 - present*

Clinician Scientist. Department of Emergency Medicine, Sinai Health System, Toronto. *2016 - 2019*

Research Scholar: Division of Clinical Public Health, Dalla Lana School of Public Health, University of Toronto. Supervisor: Dr. Ross Upshur *2014 - 2015*

Assistant Professor: Division of Clinical Sciences, Northern Ontario School of Medicine. *2010 - 2015*

Co-Chief Resident: Public Health & Preventive Medicine, University of Toronto. Six-month term with appointment to Residency Program Committee. *2012*

Editorial Fellow. Annals of Family Medicine. Editor-in-Chief: Dr. Kurt Stange *2014 - 2015*

Medical Director: Camp Pathfinder. Historic canoe camp, Algonquin Park, Ontario. *2013 - present*

Medical Director: Canoe North Adventures. Mono, Ontario and Norman Wells, NWT. *2016 - present*

President. Remote Health Initiative. Ontario non-profit corporation for the delivery of health services and education in low-resource settings. *2011 - present*

Selected Honours & Awards

Dr. Walter Mackenzie Visiting Professorship Award — *2018*
- University of Alberta Faculty of Medicine & Dentistry ($1000).

Department of Family and Community Medicine Graduate Investigator Award — *2017 - present*
- University of Toronto faculty graduate studies award ($100,000 over 5 years).

Canadian Institutes of Health Research Fellowship — *2016 - present*
- Institute of Population and Public Health ($250,000 over 5 years)

Canadian Institutes of Health Research Travel Award — *2016*
- Institute of Aboriginal Peoples Health ($1300)

Edward Christie Stevens Fellowship and *Joseph M. West Family Memorial Fund Award* — *2014*
- University of Toronto Postgraduate Medical Research Award ($6175)

C.P. Shah Resident Research in Public Health Preventive Medicine Award — *2014*
- University of Toronto award for resident research and scholarship.

Bart Harvey Resident Service in Public Health & Preventive Medicine Award — *2013*
- University of Toronto award for contribution to residency.

Wellcome Master's Scholarship for the History of Medicine — *2009*
- Full scholarship in the History of Medicine at University of Oxford (£22,000).

College of Family Physicians of Canada Murray Stalker Award — *2009*
- National award for leadership and academic skills ($2,000).

Family Medicine Resident Award for Scholarship, Northern Ontario School of Medicine — *2009*
- Best scholarly work of senior family medicine resident.

Northern Ontario School of Medicine Resident Leadership Award — *2009*
- Awarded for leadership and community contribution.

Commonwealth Master's Scholarship (Canada – United Kingdom) — *2008*
- International scholarship for graduate studies in philosophy of medicine (£40,000; forfeited to complete Canadian postgraduate medical training)

Honour "M" Award, McMaster University and Students' Union — *2007*
- McMaster's highest distinction for leadership and community contribution.

Dorothy Mann Award in Reproductive Biology, McMaster University — *2006*
- Awarded for outstanding international elective work in obstetrics.

W.B. Spaulding History of Medicine Award, McMaster University — *2006*
- Medical Student Award for research in the history of medicine

Millennium Scholarship National Laureate — *2001 - 2005*
- Canadian national university entrance scholarship for academic achievement, community service, leadership and innovation ($20,000).

McMaster University Dr. Harry Lyman Hooker Scholarship — *2001 - 2005*
- McMaster undergraduate entrance scholarship, Hamilton ($15,000).

Consulting & Proceedings

Office of the Chief Coroner of Ontario: Expert witness for the inquest into the death of Mr. Bradley Chapman (OCC: 2015_09519). Testimony concerning the opioid crisis, overdose first aid, homelessness, and stigma. *2018*

Government of the Northwest Territories: Community-based emergency care program development. *2017 - 2019*

Wilderness Medical Associates Canada: Curriculum consultant and instructor. *2005 - 2011*

- Founded a wilderness medicine elective now offered to students across Canada.

Committees & Working Groups

Lead: Population and Public Health Community of Practice, Canadian Network of the Health and Housing of People Experiencing Homelessness (CNH3) *2020 - present*

Member: International Liaison Committee on Resuscitation (ILCOR), First Aid Task Force *2019 - present*

Member: American Red Cross Scientific Advisory Committee, First Aid Subcouncil *2019 - present*

Member: Strategic Planning Committee, Inner City Health Associates *2019 - present*

Member: Annals of Family Medicine Editorial Advisory Board *2018 - present*

Writing Group Member: American Heart Association/Heart & Stroke Foundation Canada and Red Cross First Aid Guidelines 2019. *2018 - present*

Co-Chair: Windigo First Nations Council Community-Based Emergency Care Working Group, Sioux Lookout, Ontario. Co-chair Chief Frank McKay. *2017 - 2019*

Member: Ontario Addictions Advisory Panel, Canadian Mental Health Association. *2017 - 2019*

Member: City of Toronto Overdose Early Warning and Alert Committee, Toronto. *2017 - 2018*

Member: Public Health Physicians of Canada Opioid Crisis Working Group *2017 - 2018*

Physician Member: Inner City Family Health Team, Toronto *2016 - 2019*

Member: First Do No Harm Overdose and Overdose Death Prevention Project Team. Canadian Centre on Substance Abuse, Ottawa. *2015 - 2016*

Committee Member: Dalla Lana School of Public Health Strategic Planning Committee, Subcommittee on Synergy Between Population Health and Health Systems. *2015 - 2016*

Committee Member: Humber River Hospital Emergency Medicine Vision Committee *2015*

Co-Lead and Adjudicator: Ars Medica and *Canadian Medical Association Journal* Medical Humanities Poetry and Prose Competition *2014 - 2015*

Council Member: Dalla Lana School of Public Health Governing Council. Public Health & Preventive Medicine Residency Program Representative. *2014 - 2015*

Writing Group Member: Standard Protocol Item Recommendations for Interventional Trials (SPIRIT) Extension for N-of-1 Trials (SPENT). *2015 - present*

Writing Group Member: American Heart Association 2015 Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, Part 9: Special Resuscitation Situations. *2014 - 2015*

Evidence Reviewer: International Liaison Committee on Resuscitation. Basic Life Support Interventions: 'Resuscitation care for opioid-associated emergencies' and 'Opioid overdose bystander education'. Review in Travers AH *et al.*, Part 3: Adult Basic Life Support and Automated External Defibrillation, 2015 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. *Circulation*. 2015;132[suppl 1]:S51–S83. DOI: 10.1161/CIR.0000000000000272.) *2014 - 2015*

Editor. *Ars Medica,* University of Toronto journal of medicine, arts and humanities. *2010 - present*

Project Advisor: Dignitas International, Aboriginal Health Initiatives. *2013 - 2015*

Member: Médecins Sans Frontières Association, Canada. *2011 - present*

Committee Member: Global Health Division Education Advisory Committee, Dalla Lana School of Public Health, University of Toronto, Canada. *2011 - 2013*

Member: Awards Committee, Public Health & Preventive Medicine Residency Program, University of Toronto *2014 - 2016*

Member: Ontario Opioid Overdose Prevention and Naloxone Access Working Group. *2012 - 2018*

Member: Royal College of Physicians and Surgeons Injury Control Advisory Committee *2013*

Chair. College of Family Physicians of Canada Section of Residents (CFPC-SOR) *2007 – 2009*
- Term as Chair-Elect (2007) and Chair (2008), with appointment to the CFPC Board of Directors and other CPFC committees.

Resident Teaching and Rounds Coordinator. Northern Ontario School of Medicine. *2008 – 2009*
- Initiation of a resident teaching program for undergraduate medical students.

Founder and Coordinator. McMaster Diversity Cafeteria Project. *2006*
Successfully initiated and implemented a $500,000 project to build McMaster University's Bridges Café, to cater to multicultural culinary needs.

Founder. McMaster Students Union Diversity Services *2006*

Research Funding

Study of Post-Hospital care for Opioid Overdoses that are Non-Fatal (SPOON) *2019 - present*
- A. Bayoumi and P. Leece (Principal Investigators), T. Antoniou, A. Caudarella, L. Challacombe, M. Firestone, T. Gomes, S. Guilcher, T. Guimond, C. Kendall, **A. Orkin**, J. Powis, C. Strike (Co-Investigators)
- Funding: Canadian Institutes of Health Research, $459,000.00, 3 years.

CRISM Implementation Science Program on Opioid Interventions and Services – QC/Maritimes *2017 - present*
- **A. Orkin** (co-investigator), J. Bruneau (Principal Investigator)
- Funding: Canadian Institutes of Health Research, $1,875,000.00, 5 years.

Enhancing care for people who use opioids through co-education for harm reduction and emergency care workers *2018*

- C. Lim, **A. Orkin**, N. Primiani (co-Principal Investigators)
- Funding: Meta:Phi Project, Women's College Hospital, $36,000.00, 1 year.

Community-Based Emergency Care in Tsiigehtchic, Northwest Territories *2018 - 2019*

- **A. Orkin** (Principal Investigator), D. VanderBurgh, S. Ritchie (co-Investigators)
- Funding: Government of the Northwest Territories, Department of Health and Social Services, $150,000.00, 1 year.

A blinded, randomized controlled trial of opioid analgesics for the management of acute fracture pain in older adults discharged from the emergency department. *2017*

- C. Varner (Principal Investigator), S. McLeod, **A. Orkin**, D. Melady, Borgundvaag B. (co-Investigators)
- Funding: Canadian Association of Emergency Physicians: EM Advancement Fund, $10,000.00, 1 year.

Community-Based Emergency Care in Tsiigehtchic, Northwest Territories *2017*

- **A. Orkin** (Principal Investigator), D. VanderBurgh, S. Ritchie (co-Investigators)
- Funding: Government of the Northwest Territories, Department of Health and Social Services, $37,245.00, 1 year.

Resuscitation in Motion (RiM) 2018 – From Research to Real Work Resuscitation – Dissemination and knowledge exchange for best practice *2017-2018*

- L. Morrison (Principal Investigator), A Baker, S. Brooks, J. Buick, T. Chan, S. Cheskes, J. Christenson, K. Dainty, P. Dorian I. Drennan, B. Gruneau, S. Gupta, J. Jensen, S. Lin, **A. Orkin**, J. Parsons, S. Rizoli, L. Rose, O. Rotstein, D. Scales, B. Thoma, M. Welsford, C. Vaillancourt, S. Vaillancourt, P. Verbeek, M. Welsford, A. deCaen.
- Funding: Canadian Institutes of Health Research (Heath Services and Policy Research), $15,000, 1 year.

The Surviving Opioid Overdose with Naloxone Education and Resuscitation (SOON-ER) trial: a randomized study of an opioid overdose education and naloxone distribution intervention for laypeople in ambulatory and inpatient settings. *2016-present*

- C. Strike, L. Morrison, D. Campbell, C. Handford, K. Sellen (Principal Investigators), S. Hopkins, R. Hunt, M. Klaiman, P. Leece, **A. Orkin**, J. Parsons, K. Sellen, R. Shahin, V. Stergiopoulos, K. Thorpe, S. Turner, D. Werb (co-Investigators).
- Funding: Canadian Institutes of Health Research (Neurosciences, Mental Health and Addiction), $844,772.00, 3 years. Canadian Centre on Substance Abuse, $11,630.00, 1 year non-peer reviewed contribution.

Community-Based Emergency Care: Developing a Prehospital Care System with the Windigo First Nations Council in Northwestern Ontario *2015-2018*

- **A. Orkin** and D. VanderBurgh (Principal Investigators), S. Ritchie and N. Bocking (co-Investigators).
- Funding: Northern Ontario Academic Medical Association, $49,990, 2 years.

Community-Based Emergency Care Roundtable *2012 – 2014*

Knowledge translation for emergency management in remote and resource-poor communities.

- **A. Orkin** (Principal Investigator), D. VanderBurgh and S. Ritchie (Co-Investigators), J. Tait and J. Morris (Community Partners)
- Funding: Indigenous Health Research Development Program, $25,000, 1 year; Dignitas International, $5,000, 1 year.

Sachigo Lake Wilderness Emergency Response Education Initiative *2009 - 2013*

Emergency first response training collaboration in Sachigo Lake, a remote northern Ontario First Nations community.

- **A. Orkin** and D. Vanderburgh (co-principal investigators)
- Funding: Northern Ontario Academic Medical Association Innovation Fund, $98,000.00, 2 years. Canadian Institute of Health Research Meetings, Planning and Dissemination Grants – Aboriginal Health, $21,000.00, 2 years.

Surviving Opioid Overdose with Naloxone (SOON) Project and Roundtable *2012 - 2015*

Planning and knowledge translation initiative to enhance and study bystander naloxone administration for opioid overdose.

- H. Hu (Principal Investigator); L. Morrison, **A. Orkin**, P. Leece, K. Bingham, M. Klaiman (Co- Investigators)
- CIHR Partnerships for Health Systems Improvement Planning Grant, $24,922.00, 1 year.

The Access to Justice and Health Project *2011- 2013*

Hypothesis-generation and concept research on access to civil justice as a social determinant of health.

- **A. Orkin** and J. Baxter (Co-Primary Investigators); D. Cole (Faculty Supervisor)
- Funding: "Does Your Health Depend on Your Access to Justice?", CIHR Café Scientifique Spring 2012 Competition, $3,000.00

Marathon Maternity Oral History Project *2008 - 2014*

- Narrative medicine and social anthropology study of birthing experiences in rural Ontario, Marathon.
  - S. Newbery, **A. Orkin** (Co-Principal Investigators).
  - Funding: College of Family Physicians of Canada Janus Research Program, D.M. Robb Research Grant, $5,000.00, 1 year.

Peer-Reviewed Publications

(Students and learners, research staff*, community partners§)

1. Porcino A, Chan AW, Kravitz R, **Orkin AM**, Punja S, Ravaud P, Schmid C, Vohra S. "A SPIRIT Extension for N-of-1 Trials (SPENT)." *BMJ* 2020; 368; m122. doi.org/10.1136/bmj.m122.
2. Kouyoumdjian FG, Lee JY, **Orkin AM**, Cheng SY, Fung K, O'Shea T, Guyatt G. "Thirty-day readmission after medical-surgical hospitalization for people who experience imprisonment in Ontario, Canada: A retrospective cohort study." *PLOS One*. Jan 2020. doi.org/10.1371/journal.pone.0227588

3. Charlton NP, Pellegrino JL, Kule A, Slater TM, Epstein JL, Flores GE, Goolsby CA, **Orkin AM**, Singletary EM, Swain JM. "2019 American Heart Association and American Red Cross Focused Update for First Aid: Presyncope" *Circulation*. 2019;140:00–00. DOI: 10.1161/CIR.0000000000000730

4. **Orkin AM**, Campbell D, Handford C, et al. on behalf of the SOONER Investigators. "Protocol for a mixed methods feasibility study for the Surviving Opioid Overdose with Naloxone Education and Resuscitation (SOONER) Randomized Control Trial". *BMJ Open.* 2019;9:e029436. doi: 10.1136/bmjopen-2019-029436

5. Kouyoudjian F, Kim M, Kiran T, Cheng S, Fung K, **Orkin AM**, Kendall K, Green S, Matheson F, Kiefer L. "Attachment to primary care and team-based primary care: Retrospective cohort study of people who experienced imprisonment in Ontario." *Can. Fam. Phys.* Oct 2019, 65 (10) e433-e442.

6. Leece P, Chen C, Manson H, **Orkin AM**, Schwartz B, Juurlink D, Gomes T. "One-year mortality following emergency department visit for non-fatal opioid poisoning: A population-based analysis." *Annals of Emerg Med.* Sept 2019. doi.org/10.1016/j.annemergmed.2019.07.021

7. Tuinema J, **Orkin AM**, Cheng S, Fung K, Kouyoumdjian FG. "Emergency department use in people who experience imprisonment in Ontario, Canada: A retrospective cohort study." *Can J of Emerg Med.* Sept 2019.

8. **Orkin AM,** McArthur A, Venugopal J*, Kithulegoda N, Martiniuk A, Buchman D, Kouyoumdjian F, Rachlis B, Strike C, Upshur REG. "Defining and Measuring Health Equity in Research on Task Shifting in High-Income Countries: A Systematic Review." *Social Science and Medicine – Population Health.* Jan 2019. doi.org/10.1016/j.ssmph.2019.100366

9. Kouyoumdjian FG, Cheng S, Fung K, Humphreys-Mahaffey S, **Orkin AM**, Kendall C, Kiefer L, Matheson FI, Green S, Hwang SW. "Primary care utilization in people who experience imprisonment in Ontario Canada: A retrospective cohort study." *BMC Health Services Research.* 2018;18:845. doi.org/10.1186/s12913-018-3660-2

10. Kouyoumdjian FG, Cheng SY, Fung K, Kirk M, **Orkin AM**, McIsaac KE, Kendall C, Kiefer L, Matheson F, Green S, Hwang SW. "Health care utilization of people released from provincial prison in Ontario, Canada in 2010: A population-based cohort study." *PLOS One*, Aug 2018. https://doi.org/10.1371/journal.pone.0201592

11. Curran J, Ritchie SD, Beardy J[§], Vanderburgh D, Born K, Lewko J, **Orkin AM**. Conceptualizing and Managing medical emergencies where no formal paramedical service exists: Perspectives from a remote Indigenous Community in Canada. *International Journal of Environmental Research and Public Health.* 15(2):267, 2018.

12. **Orkin AM,** McArthur A, McDonald A, Mew E*, Martiniuk A, Buchman D, Kouyoumdjian F, Rachlis B, Strike C, Upshur REG. "Defining and measuring health equity effects in research on task shifting interventions in high-income countries: a systematic review protocol." *BMJ Open* 2018;8:e021172. doi: 10.1136/bmjopen-2017-021172

13. Buchman D, Leece P, **Orkin AM**. "The Epidemic as Stigma: The Bioethics and Biopolitics of Opioids." *The Journal of Law, Medicine and Ethics*. 2017(45):607-620. https://doi.org/10.1177/1073110517750600

14. Pellegrino J, Oliver E, **Orkin AM**, Marentette D, Snobelen P, Muise J, Mulligan J, Dr Buck E. "A call for revolution in first aid education: refining the Utstein formula for survival." *International Journal of First Aid Education*. 2017(1):1, doi: 10.21038/ijfa.2017.0001 .

15. Lacroix L, Thurgur L, **Orkin AM**, Perry JJ, Stiel IG. "Emergency department physician attitudes and perceived barriers to the implementation of take-home naloxone programs in Canadian emergency departments." *Canadian Journal of Emergency Medicine.* 2017(Sept):1-7. DOI: 10.1017/cem.2017.390

16. Nolan B, Ackery A, Mamakwa S, Glenn S, VanderBurg D, **Orkin A**, Kirlew M, Dell EM, Tien H. "Care of the Injured Patients at Remote Nursing Stations And During Aeromedical Transport" *Air Medical Journal.* 37(2018):161-164.

17. Buchman D, **Orkin AM**, Strike C, Upshur REG. "Overdose Education and Naloxone Distribution Programs and the Ethics of Task-Shifting", *Public Health Ethics*, phy001, https://doi.org/10.1093/phe/phy001. (Buchman and Orkin co-primary authors)

18. **Orkin AM**, Zhan C, Buick JE, Drennan IR, Klaiman M, Leece P, Morrison LJ. "Out-of-hospital cardiac arrest survival in drug-related versus cardiac causes in Ontario: a retrospective cohort study." *PLOS ONE*. 12(4): e0176441. https://doi.org/10.1371/journal.pone.0176441

19. Mew EJ*, Ritchie SD, VanderBurgh D, Beardy JL§, Gordon J§, Fortune M, Mamkwa S§, **Orkin AM**. "An Environmental Scan of Emergency Response Systems and Services in Remote First Nations Communities in Northern Ontario. *International Journal of Circumpolar Health*. 76:1, 1320208, DOI: 10.1080/22423982.2017.1320208.

20. **Orkin AM**, Bharmal A, Cram J, Kouyoumdjian FG, Pinto AD, Upshur REG. "Clinical Population Medicine: Integrating Clinical Medicine and Population Health in Practice" *Annals of Family Medicine*. 2017;15:405-409. https://doi.org/10.1370/afm.2143.

21. **Orkin AM,** Phillips WR, Stange KS. "Research Reporting Guidelines and the New *Annals* Instructions for Authors." *Annals of Family Medicine*. 2016(6);500-501. doi: 10.1370/afm.2008

22. **Orkin AM,** Buchman D. "Naloxone programs must reduce marginalization and improve access to comprehensive emergency care". *Addiction*. 2017(12);309-10.

23. **Orkin AM**, Curran JC, Fortune M, McArthur A, Mew E*, Ritchie S, Van De Velde S, VanderBurgh D. "Systematic review protocol: Health effects of training laypeople to deliver emergency care in underserviced populations" *BMJ Open*. 2016;6:e010609. doi:10.1136/bmjopen-2015-010609 (AO and JC coprimary authors).

24. Porcino A, Punja S, Chan A-W, Kravitz R, **Orkin A**, Ravaud P, Schmid C, Vohra S. "Protocol for a Systematic Review of N-of-1 trial protocol guidelines and protocol reporting guidelines." Systematic Reviews. 2017; 6:132. DOI 10.1186/s13643-017-0525-4.

25. Lavonas EJ, Drennan IR, Gabrielli A, Heffner AC, Hoyte CO, **Orkin AM**, Sawyer KN, Donnino MW. "Part 10: Special Circumstances of Resuscitation, 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care." *Circulation*. 2015;132[suppl 2]:S501–S518. DOI: 10.1161/CIR.0000000000000264.).

26. Salcido D, Torres C, Koller AC, **Orkin AM**, Schnicker RH, Morrison LJ, Nichol G, Stephens S, Menegazzi JJ. "Regional incidence and outcome of Out-of-hospital Cardiac Arrest Associated with Overdose." *Resuscitation*, 2016;99:13-19. DOI: http://dx.doi.org/10.1016/j.resuscitation.2015.11.010.

27. **Orkin AM**, VanderBurgh D, Ritchie SD, Curran JD, Beardy J§. "Community-Based Emergency Care: A model for pre-hospital care in remote Canadian communities." *Canadian Journal of Emergency Medicine*. 2016; 1-4. DOI:10.1017/cem.2016.339.

28. Kouyoumdjian F, Lai W, **Orkin AM**, Pek B. "A 25-year-old woman with diabetes in custody." *Canadian Medical Association Journal*. 2016. DOI:10.1503/cmaj.151232.

29. Leece P, **Orkin A**, Kahan M. "Tamper-resistant drugs cannot solve the opioid crisis?" *CMAJ* 2015. DOI:10.1503 /cmaj.150329

30. **Orkin AM**, Bingham K, Klaiman M, Leece P, Buick J, Kouyoumdjian F, Morrison L, Hu H. "An Agenda for Naloxone Distribution Research and Practice: Meeting Report of the Surviving Opioid Overdose with Naloxone (SOON) International Working Group. *Addictions Research and Therapy*, 6:212. doi: 10.4172/2155-6105.1000212. (AO, KB, MK, PL co-primary authors)

31. Leece P, **Orkin A**, Steele L, Shahin R. "Can naloxone prescription and overdose training for opioid users work in family practice? Perspectives of family physicians." *Canadian Family Physician.* 2015; 61(6):538-543.

32. **Orkin A,** Lay M, McLaughlin J, Schwandt M, Cole D. Medical Repatriation of Migrant Farm Workers in Ontario: Coding and Descriptive Analysis. *CMAJ Open,* Sept 2014. doi: 10.9778/cmajo.20140014

33. **Orkin A**, Newbery S. The Marathon Maternity Oral History Project: Exploring Rural Birthing through Narrative Methods. *Canadian Family Physician*. 2014; 60: 58.

    Orkin A, Newbery S. Narratives 1 to 11 of the Marathon Maternity Oral History Project. *Canadian Family Physician*. 2014; 60;e49-e90. (Each reviewed and indexed independently.)

    34. Penny Armitage: "I'm the 85th baby born in Marathon."
    35. Jennifer Coleman: "I deliver babies with the docs."
    36. Nancy Fitch: "Humanity isn't machines, you know."
    37. Jillian McPeake: "Look at that face!"
    38. Cheryl McWatch: "If you do it right, you'll feel it in your heart."
    39. Constance (Connie) McWatch: "I have a lot of blessings."
    40. Marie Michano: "That sense of being at home."
    41. Tracy Michano-Stewart: "A lifestyle type of thing."
    42. Ada Parsons: "Giving birth should be a special time"
    43. Rupa Patel: "We straddle those worlds."
    44. Patti Pella: "Someone knows your life story."

45. **Orkin A**, Leece P, Piggott T, Burt P, Copes R. Peak Event Analysis: A Novel Empirical Method for the Evaluation of Elevated Particulate Events. *BMC Environmental Health*. 2013;12:92.

46. Leece P, Hopkins S, Marshall C, **Orkin A**, Gassanov M, Shahin R. Development and implementation of an opioid overdose prevention and response program in Toronto, Ontario. *Canadian Journal of Public Health*. 2013;104(3):e200-e204.

47. VanderBurgh D, Jamieson R*, Ritchie S, **Orkin A**. Community First Aid: A Collaborative Education Program in a Remote Canadian Aboriginal Community. *Journal of Rural and Remote Health*. 2014; 14:2537.

48. Ritchie SD, Wabano MJ, Beardy J§, Curran J, **Orkin A**, Vanderburgh D, Born K*, Young, NL. Community-Based Participatory Research and Realist Evaluation: Complimentary Approaches for Aboriginal Health and Adventure Therapy. Submitted to: C. Norton, G. Szabo, A. Rose, & H. Hooper (Eds.), Proceedings of the 6th International Adventure Therapy Conference 2012. Prague: European Science and Art Publishing, Feb 2013.
49. Ritchie S, Wabano MJ, Beardy J§, Curran J, **Orkin A**, VanderBurgh D, Young N. Community-based participatory research with Indigenous communities: The proximity paradox. *Health and Place*. 2013 Nov;24:183-189. doi: 10.1016/j.healthplace.2013.09.008. Epub 2013 Oct 3.
50. **Orkin A**. "Push Hard, Push Fast"…if you're downtown? A Citation Review of Urban-centrism in American and European Basic Life Support Guidelines *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 2013, 21:32.
51. Born K*, **Orkin A**, VanderBurgh D, Beardy J§. Teaching wilderness first aid in a remote first nations community: the story of the Sachigo Lake Wilderness First Response Education Initiative. *International Journal of Circumpolar Health* 2012, 71: 19002 http://dx.doi.org/10.3402/ijch.v71i0.19002
52. **Orkin A,** VanderBurgh D, Born K*, Strickland S, Webster M*, Beardy J§. 'Where there is no paramedic: The Sachigo Lake Wilderness Emergency Response Education Initiative.' *PLoS Medicine*. 2012; 9(10): e1001322. doi:10.1371/journal.pmed. 575 1001322.
53. **Orkin A**. 'South Africa's Womb', *Canadian Medical Association Journal*. 181(Jul 2009): 64-5.
54. **Orkin A,** Hoskins R. 'Rural medicine and rural training: addressing high-technology care.' *Canadian Journal of Rural Medicine*. 13:1(Winter 2008), 41-2.
55. **Orkin A**. 'The Dying of Carol Hill: A Medical Student's Reflections on Palliative Care.' *Journal of Palliative Care*. 22:4(Winter 2006), 312-4.
56. Aird P, Gora M, **Orkin A**. 'Experiencing medicine without the bells and whistles.' *Canadian Family Physician*. 52(Oct 2006), 1346-9.

Peer-Reviewed Publications in Press (Students and learners, research staff*, community partners§)

57. Kouyoumdjian FG, **Orkin AM**. "An imperative to improve health and access to healthcare in provincial prisons." Submitted to *Healthcare Quarterly*. Feb 2020.
58. Porcino AJ, Punja S, Chan AW, Kravitz R, **Orkin AM**, Ravaud P, Schmid CH, Vohra S. "Systematic review of N-of-1 trial protocol guidelines and protocol reporting guidelines." Submitted to *Trials*. Sept 2019.
59. VanderBurgh D, Savage D, Dubois S, Binguis N, Maxwell S, Bocking N, Farrell T, Tien H, Ritchie S, **Orkin AM**. "Medical Emergencies in Northern Ontario Remote First Nations: Using Air Ambulance Transport Data to Understand Epidemiology" In review *CMAJ Open*. Nov 2019.
60. Reid N, Chartier L, Orkin AM, Klaiman M, Naidoo K, Stergiopoulos V. "Rethinking involuntary admission for individuals presenting to Canadian Emergency Departments with life-threatening substance use disorders." Submitted to *CJEM*. Dec 2019.

Books Edited & Invited Contributions to Edited Works

61. Vanderburgh D, Webster M, Burton J, Carriere B, Ritchie S, Russell J, Sorsa L, Boriss E, Orkin A. *Community-Based Emergency Care: Remote Community First Aid Textbook*. Toronto: Community-Based Emergency Care, 2019. (CC BY-NC-SA 4.0)

62. Vanderburgh D, Webster M, Burton J, Carriere B, Ritchie S, Russell J, Sorsa L, Boriss E, Orkin A. *Community-Based Emergency Care: Instructor Companion Book*. Toronto: Community-Based Emergency Care, 2019. (CC BY-NC-SA 4.0)

63. Piggott T, **Orkin A**. "Deconstructing the Concept of Special Populations for Health Care, Research and Policy." In *Under-Served: Health determinants of Indigenous, Inner-City and Migrant Populations in Canada*. Toronto: Canadian Scholars Press, 2018.

64. Ritchie SD, Wabano MJ, Beardy J, Curran J, **Orkin A**, Vanderburgh D, Born K, & Young NL. Community-Based Participatory Research and Realist Evaluation: Complimentary Approaches for Aboriginal Health and Adventure Therapy. In C. L. Norton, C. Carpenter, & A. Prior (Eds.), Adventure therapy around the globe: International perspectives and diverse approaches (pp. 195-217). Champaign, IL: Common Ground Publishing, 2015.

65. Crawford A, Kay R, Peterkin A, Roger R, Ruskin R with **Orkin A** (eds). *Body & Soul: Narratives of Healing from Ars Medica,* University of Toronto Press, Toronto, 2011.
    Published Reviews:
    Coulehan, J. "The truth lies between the lines." *CMAJ* 185 Mar 2013:327.
    Gelipter, D. "Book Review: Ars Medica" *Med Humanities* doi:10.1136/medhum-2012-010298

66. VanderBurgh D, **Orkin A**. 'Professors, Parents and Partners: A Novel Typology of Community Preceptors' in *Community-Based Medical Education*, Len Kelly (ed.), Radcliffe Press, Oxford, 2011.

Knowledge Translation & Reports

67. Koh JJ, Klaiman M, Miles I, Cook J, Kumar T, Sheikh H, Dong K, Orkin AM, Shouldice E on behalf of the CAEP Opioid Task Force. "CAEP Position Statement: Emergency Department Management of People with Opioid Use Disorder". Ottawa: CAEP. *In review*. Feb 2020.

68. Woodin JA, **Orkin AM**, Singletary EM, Zideman DA. On behalf of the International Liaison Committee on Resuscitation First Aid Task Force. Cervical Spinal Motion Restriction Scoping Review and Task Force Insights [Internet] Brussels, Belgium: International Liaison Committee on Resuscitation (ILCOR) First Aid Task Force, 2019 December 15. Available from: http://ilcor.org

69. Pellegrino JL., Krob, J, **Orkin A**, Bhanji F, Bigham B, Bray J, Breckwoldt J, Cheng A, Duff J, Glerup Lauridsen K, Gilfoyle E, Hiese M, Iwami T, Lockey A, Ma M, Monsieurs K, Okamoto D, Yeung J, Finn J, Greif R. on behalf of the International Liaison Committee on Resuscitation Education, Implementation, and Teams Task Force. Opioid Overdose First Aid Education: Scoping Review and Task Force Insights [Internet] Brussels, Belgium: International Liaison Committee on Resuscitation (ILCOR) Education, Implementation, and Teams Task Force, 2020 January 03. Available from: http://ilcor.org

70. **Orkin AM** "Clinical Population Medicine: A Population Health Roadmap for Ontario Health Teams" 26 Nov 2019. *Longwoods.* https://www.longwoods.com/content/26010

71. **Orkin AM,** VanderBurgh D, Webster M, Russell J, Ritchie S. Tsiigehtchic Community-Based Emergency Care Program Evaluation, Report and Recommendations. Report for the Government of the Northwest Territories. Mar 2019. (Commissioned research report.)
72. **Orkin AM.** Expert report concerning the death of Mr. Bradley Chapman. Inquest of the Office of the Chief Coroner of Ontario No. 2015_09519. May 2018.
73. Dong K, Klaiman M, **Orkin AM.** ED Management of Opioid Addiction. *EMCases Podcast with Anton Helman*. Sept 2018. www.emergencymedicinecases.com
74. **Orkin AM**, Russell J, VanderBurgh D, Ritchie S. Tsiigehtchic Community-Based Emergency Care Consultation Report. Report for the Tsiigehtchic Charter Community, Gwichya Gwich'in Council and the Government of the Northwest Territories. Jun 2017. (Commissioned research report).
75. **Orkin AM**, Klaiman M. 'Naloxone Autoinjectors and Opioid Overdose' *EMRap Podcast with Rob Orman and Mel Herbert.* Oct 2016. www.emrap.org .
76. Drennan IR, **Orkin AM.** 'Prehospital Naloxone Administration for Opioid-Related Emergencies.' *Journal of Emergency Medical Services.* Mar 2016.
77. **Orkin A,** Baxter J, Cole D. *Does your health depend on your access to justice?* Public Café Scientifique and discussion panel. 31 Jan 2013, Toronto, Ontario.
78. **Orkin A**, VanderBurgh D, Ritchie S, Fortune M*. *Community-Based Emergency Care: An Open Report for Nishnawbe Aski Nation*. Thunder Bay: Northern Ontario School of Medicine, 2014. www.nosm.ca/cbec. 29-30 Oct 2013, Sioux Lookout, Ontario.

Peer Reviewed Abstracts & Presentations

(*Presenter if other than myself*, Students and learners, research staff*, community partners§)

Bilodeau J, Kaczorowski J, **Orkin AM**, Dong K, Kestler A. "L'efficacité des interventions visant les troubles consammations liés aux opioids dans les départements d'urgence: revue systématique de la littérature" 88e Congres de l'Acfas. 4 May 2020, Sherbrooke, PQ.

Orkin AM on behalf of the SOONER Investigators and Community Advisors. "Design and Findings of the Surviving Opioid Overdose with Naloxone Education and Resuscitation (SOONER) Feasibility Study" Poster. NAPCRG, 19 Nov 2019, Toronto.

Dong K, Van Pelt K, Scheuermeyer F, Moe J, Kaczorowski J, **Orkin AM**, Kestler A. "Emergency Physician Attitudes and Practices on Prescribing Buprenorphine/Naloxone: A National Survey" Poster. Can Soc. Addictions Med. Conference, 24 Oct 2019, Halifax.

Dong K, Salvalaggio G, Pugh A, Hyshka E, Xue J, Kaczorowski J, **Orkin AM**, Keslter A. "Emergency Department Physician Attitudes towards Buprenorphine Initiation in the ED: A Qualitative Study." Poster. Can Soc. Addictions Med Conference 24 Oct 2019, Halifax.

Phillips W, *Sturgiss E*, olde Hartman T, Russell G, Reeve J, **Orkin AM,** Glasziou P, van Weel C. "Improving the reporting of primary care research: Survey of needs of researchers, clinicians, patients and policymakers." Poster. NAPCRG, 17 Nov 2019, Toronto.

Orkin AM on behalf of the SOONER Investigators and Community Advisors. "Feasibility of the Surviving Opioid Overdose with Naloxone (SOONER) Trial." Ontario Node Canadian Research Initiative in Substance Misuse (CRISM) Summit, 10 Sept 2019, Toronto.

Primiani N, Lim C, Lall V, Wen S, **Orkin AM** on behalf of the Co-Education Working Group. "A pilot co-education workshop for harm reduction and emergency health providers" Poster, Department of Family and Community Medicine Conference, 5 April 2019.

Orkin AM, Curran J, Van de Velde S, VanderBurgh D. "Effects of training laypeople to deliver emergency care in underserviced populations: systematic review." Family Medicine Forum, 15 Nov 2018, Toronto.

Orkin AM, Sellen K, *et al.* on behalf of the SOONER Investigators. "Co-design of a naloxone distribution kit for family practice, emergency departments and addictions medicine." Family Medicine Forum, 15 Nov 2018, Toronto.

Gravel J, Foote J, Borgundvaag B, **Orkin AM.** "Treating acute pain in patients with opioid use disorder in the emergency department." Family Medicine Forum, 17 Nov 2018, Toronto.

Foote J, Chorny Y, **Orkin AM**. "Mitigating the opioid epidemic from the emergency room." Family Medicine Forum, 15 Nov 2018, Toronto.

Campbell D, **Orkin AM**, Klaiman M, Hopkins S, Shahin R *et al* on behalf of the SOONER Investigators. "The Surviving Opioid Overdose with Naloxone Education and Resuscitation Project: Combining design, simulation and resuscitation science to respond to the opioid crisis." Royal College of Physicians and Surgeons Simulation Summit, 28 Sept 2018.

Orkin A, Curran J, Ritchie S, Van de Velde S, VanderBurgh D. "Health effects of training laypeople to deliver emergency care in underserviced populations: preliminary results of a systematic review." Canadian Association of Emergency Physicians Conference, 27 May 2018, Calgary, Alberta.

Orkin A, Russell J*, VanderBurgh D, Ritchie S, Maxwell S§, McKay F§. "Community-Based Emergency Care: Developing an emergency first response program with remote Indigenous Communities". Indigenous Health Conference, 25 May 2018, Toronto, Ontario.

Orkin A, Klaiman M, Leece P, Hopkins S, Shahin R, Handford C, Campbell D, Parsons J, Strike C, Charles M*, Sniderman R*, Sellen K, Hunt R, Wright A§, Milos G§, Morrison L, on behalf of the SOONER Investigators. "Is it even possible? Feasibility study for the Surviving Opioid Overdose with Naloxone Education and Resuscitation (SOONER) Project" University of Toronto Division of Emergency Medicine Research Day, 23 May 2018, Toronto, Ontario.

Orkin A, Leece P, Hopkins S, Shahin R, Handford C, Campbell D, Parsons J, Strike C, Charles M, Sniderman R, Sellen K, Hunt R, Wright A, Milos G, Morrison L, on behalf of the SOONER Investigators. "The Surviving Opioid Overdose with Naloxone Education and Resuscitation (SOONER) Feasibility Study: Combining design, simulation, and resuscitation science to respond to the opioid crisis." Resuscitation in Motion, 2 May 2018, Toronto, Ontario.

Parsons J, **Orkin A**, Fowler M, Wright A, Burnett J, Scheuermeyer F. "First aid, rescue breathing and chest compressions in opioid overdose education programs: a brokered dialogue." Resuscitation in Motion, 2 May 2018, Toronto, Ontario.

Orkin A, Curran J, Ritchie S, van de Velde S, VanderBurgh D. "What is first aid really good for? Preliminary results and implications from a systematic review on the health impacts of first aid education in underserviced populations and low-resource settings." Plenary presentation. International First Aid Education Conference, 24 Apr 2018, Niagara Falls, Ontario.

Orkin A, Taylor T, Oliver E. "Qualitative insights for developing first aid education on drug overdose." International First Aid Education Conference, 24 Apr 2018, Niagara Falls, Ontario.

Leece P, Chen C, Manson M, **Orkin A**, Schwartz B, Juurlink D, Rosella L, Gomes T. One year mortality following emergency department visit for non-fatal opioid overdose in Ontario. Canadian Centre on Substance Use Conference, Nov 2017, Calgary.

Buchman DZ, **Orkin A.** Overdose education and naloxone distribution programs: Unintentionally entrenching stigma and inequities? Paper presented at the 26th Annual Bioethics Society Conference, May 2017, Toronto.

Varner C, McLeod S, **Orkin A**, Melady D, Borgundvaag B. A blinded, randomized controlled trial of opioid analgesics for the management of acute fracture pain in older adults discharged from the emergency department. *Canadian Journal of Emergency Medicine*. 2017; 19(S1). https://doi.org/10.1017/cem.2017.164

Leece P, Timmings C, Buchman D, **Orkin A**, Kahan M, Furlan A. Improving primary care opioid prescribing with an educational and self-monitoring strategy. Workshop. Canadian Society of Addiction Medicine Symposium. Oct 20-22, 2016, Montreal, Québec.

Lacroix L, Thurgur L, **Orkin A**, Stiell I. Emergency physician attitudes and perceived barriers to take-home naloxone programs in Canadian Emergency Departments. Poster. Canadian Association of Emergency Physicians, Québec City. 4 Jun2015.

Ritchie S, Mew E*, VanderBurgh D, **Orkin A.** Emergency Response Systems and Services in Remote First Nations Communities in Northern Ontario: An Environmental Scan. Northern Health Research Conference, Sault Ste. Marie, Jun2016.

Ritchie S, Mew E*, VanderBurgh D, **Orkin A.** Three-Pronged Approach to Address Gaps in Northern Ontario First Nations Emergency Services & Related Health Data. Northern Health Research Conference, Sault Ste. Marie, Jun2016.

Orkin A. Overdose education and naloxone distribution: How first aid can help address the opioid overdose epidemic. Oral Presentation. Canadian Emergency Care Conference, Red Cross and Heart and Stroke Canada, Toronto 22 Feb 2016.

Mew E*, Ritchie S, VanderBurgh D, **Orkin A**. Community-Based Emergency Care: Accounting for data inadequacies in remote health systems development. Poster. Chiefs of Ontario First Nation Health Research Symposium, Toronto, ON. 22 Feb 2016.

Orkin A, Zhan C, Buick J, Drennan I, Klaiman M, Leece P, Bingham K, Morrison LJ. Survival from drug-related out-of-hospital cardiac arrests: A retrospective cohort study. Clinician Investigator Trainee Association of Canada, Toronto, ON. 25 Nov 2015.

Orkin A, Phillips W, Peterson L, Acheson L, Balasubramanian B, Bayliss E, Cohen D, Ferrer R, Frey J, Gill J, Marino M, Williams R, Stange K. "Writing and publishing research using standardized reporting guidelines" North American Primary Care Research Group (NAPCRG), Oct 24-28, 2015, Cancun, Mexico.

Orkin A, Bingham K, Green S, Hodge M, Ivers N, Kouyoumdjian F, Nnorom O, Pinto A, Raza D, Svoboda T, Upshur R. "Clinical Population Medicine: Inventing collaborative models for population medicine and clinical practice." Family Medicine Forum, Toronto, 13 Nov 2015.

Orkin A, Stange K, Pimlott N, Phillips W, Peterson L and the *Annals of Family Medicine* Editors. "Improving Family Medicine Research With Standardized Reporting Guidelines." Family Medicine Forum, Toronto, 12 Nov 2015.

Orkin A. "Access to data as a form of resistance: Epidemiology of migrant farm worker medical repatriation." Ontario Public Interest Research Group Global Citizenship Conference, McMaster University, 21 Mar 2015, Hamilton, Ontario.

Klaiman M, Bingham K, Leece P, **Orkin A**, Morrison L, Hu H. Surviving Opioid Overdose with Naloxone (SOON): Results of an International Working Group. Poster. Canadian Association of Emergency Physicians, Edmonton AB. 2 Jun2015.

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Orkin A. and the Annals of Family Medicine Editorial team. "Shorter is Better — Writing Effective Research Reports," workshop at the annual meeting of the North American Primary Care Research Group (NAPCRG), New York City, Nov 23, 2014.

Orkin A. VanderBurgh D, Ritchie S, Beardy J§, Beardy J§. Community-Based Emergency Care: A novel approach to the development and delivery of first response medical services in remote First Nations communities. Canadian Risk and Hazards Network Symposium. Toronto, 23 Oct 2014.

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Schwandt M, **Orkin A**, McLaughlin J, Lay M, Cole D. 'Medical Repatriation of Migrant Farm Workers in Canada.' International Safety and Health in Agricultural and Rural Populations Symposium, Saskatoon SK., 19 Oct 2014.

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Bingham K, *Klaiman M, Leece P*, **Orkin A**. 'Surviving Opioid Overdose with Naloxone.' Resuscitation in Motion Conference, St. Michael's Hospital, Toronto, 28 Apr 2014.

Schwandt M, **Orkin A**, McLaughlin J, Lay M*, Cole D. 'Medical Repatriation of Migrant Farm Workers in Canada.' PEGASUS Conference, Canadian Physicians for Research, Education and Peace, 2 May 2014.

Leece P, Gassanov M, **Orkin A**, Marchall C, Hopkins S, Shahin R. 'Engaging the community on opioid overdose: development, implementation, and evaluation of an overdose prevention and resuscitation training program' The Ontario Public Health Convention, Toronto, 3 Apr 2013.

Leece P, **Orkin A**, Hopkins S, Shahin R. 'Can naloxone prescription and overdose training save lives among opioid users in family practice?' Workshop. College of Family Physicians of Canada, Family Medicine Forum, Toronto, 19 Oct 2012.

Orkin A, Newbery S. "What do rural birthing stories teach us about rural birthing? The Marathon Maternity Oral History Project" WONCA Rendez-Vous 2012, Thunder Bay, 9 Oct 2012.

VanderBurgh D, **Orkin A**, S Ritchie, R Jamieson*, Mukhopadhyay B, Sacevich C, Beardy J§. "Where there is no paramedic: The Sachigo Lake Wilderness Emergency Response Education Initiative.' WONCA Rendez-Vous 2012, Thunder Bay, 11 Oct 2012.

Curran J, Ritchie S, VanderBurgh D, **Orkin A**. 'How does a first aid training program build resilience and community capacity for one First Nations community in Canada?' Rendez-Vous 2012, Thunder Bay, 10 Oct 2012.

Mukhopadhyay B, Jamieson R*, VanderBurgh D, **Orkin A**. 'First response in psychiatric crises: teaching and learning mental health first aid in a remote First Nation.' WONCA Rendez-Vous 2012, Thunder Bay, 11 Oct 2012.

Ritchie S, VanderBurgh D, **Orkin A**. 'Community-Based Participatory Research with First Nations Communities: The Proxomity Paradox' WONCA Rendez-Vous 2012, Thunder Bay, 10 Oct 2012.

Sacevich C, VanderBurgh D, **Orkin A**. "Automatic Electronic Defibrillators in Pre-hospital Rural and Remote Settings: What effect does prolonged transport time to hospital have on survival?" WONCA Rendez-Vous 2012, Thunder Bay, 10 Oct 2012.

Leece P, **Orkin A**. 'Bystander opioid overdose resuscitation and naloxone administration: What is the best training protocol?' Conference presentation, Resuscitation in Motion Conference, St. Michael's Hospital, Toronto 2012.

Orkin A, VanderBurgh D. 'A First Response Collaboration with a Remote First Nations Community: Building Local Resilience through Resuscitation Education.' Conference presentation, Resuscitation in Motion, St. Michael's Hospital, Toronto 2012.

Born K,* **Orkin A**, VanderBurgh D. 'The Sachigo Lake Wilderness Emergency Response Education Initiative.' Poster presentation, Canadian Association of Health Services and Policy Research, 8 May 2011.

Orkin A, Newbery S. 'Rural Birth Narratives: The Marathon Maternity Oral History Project' Presentation at the CFPC Family Medicine Forum, Vancouver, 13 Oct 2010.

Orkin A, VanderBurgh D, Born K*, Webster M*. 'Sachigo Lake Wilderness Medicine Program: A First Response Collaboration in a Remote Aboriginal Community.' Poster presentation at the CFPC Family Medicine Forum, Vancouver, 13 Oct 2010.

Orkin A, VanderBurgh D, Born K*. 'The Sachigo Lake Wilderness Emergency Response Education Initiative.' Presentation at the Ontario Training Center in Health Services and Policy Research, Toronto, 15 Oct 2010.

Orkin A, VanderBurgh D, Born K*. 'The Sachigo Lake Wilderness Medicine Program: Integrating Emergency First Response With Community-Based Research' Presentation at the University of Toronto Community Medicine and Public Health Research Forum, 1 Oct 2010.

Orkin A, VanderBurgh D, Born K*. 'The Sachigo Lake Wilderness Medicine Program.' Presentation at the CIHR Health Services Chair Workshop on Diversity: Healthcare Settings and Health Services Research, Toronto, 28 Apr 2010.

Orkin A. 'Medical Intervention: Médecins Sans Frontières and the Birth of the Medico-Humanitarian Profession.' Presentation at the Green-Templeton College Human Welfare Conference, University of Oxford, 16 May 2010.

Sandwith SM, McFarling M, **Orkin A**. 'Early Medical Student Exposure to Remote and Wilderness Medicine.' Poster presented at the 2008 Society of Rural Physicians of Canada conference, Halifax NS.

Invited and Non-Peer-Reviewed Presentations

Orkin A and Klaiman M. "Opioid Issues in the Emergency Department". Markham-Stoufville Hospital Emergency Medicine Rounds. Markham. 16 Apr 2019.

Orkin A, on behalf of the SOONER Investigators. "SOONER: Combining design, simulation and trial methods to bring naloxone into everyday practice" University of Toronto Department of Family and Community Medicine City-Wide Research Rounds. Toronto. 21 Mar 2019.

Orkin A. "Hacking health care: How lay people can treat sick patients, solve epidemics, and create healthier societies." University of Alberta Dr. Walter Mackenzie lecture. 11 Jun 2018.

Orkin A. "The SOONER Project: Combining design, simulation and trial methods to bring naloxone into everyday practice." Invited keynote. University of Alberta Department of Emergency Medicine Research Forum. 12 Jun 2018.

MacPherson A, **Orkin A**, Cassan P, Burke S. "Brace Yourselves: The role of prevention and safety education in emergency readiness and responding to crisis." Plenary panel. International First Aid Education Conference. 24 Apr 2018.

Orkin A, Sellen K. "A Timely Update on the SOONER Study" Presentation for the Canadian Centre on Substance Use and Addiction and the Canadian Joint Statement of Action Committee on the Opioid Crisis. 8 Feb 2018, Toronto, Ontario.

Orkin A. It is the context that kills. Invited address. Canadian National Opioid Summit. 18 Nov 2016, Ottawa ON.

Orkin A, VanderBurgh D, Beardy J§. Community-Based Emergency Care: A Novel approach to first response medical services in remote First Nations. Invited presentation. Chiefs of Ontario Health Forum. Toronto ON, 26 Feb 2014.

Orkin A. VanderBurgh D, Beardy J§, Beardy J§. Community-Based Emergency Care: Developing first response medical services with remote First Nations communities. Invited presentation. Assembly of First Nations National Public Health Expert Advisory Committee. Ottawa, 14 Jan 2015.

Goodchild M, Diabo, D, **Orkin A**, Swan T. Panel discussion: Aboriginal involvement in planning and preparing for disasters. Canada's Platform for Disaster Risk Reduction. Invited panelist. Toronto, 21 Oct 2014.

Orkin A, VanderBurgh D. 'Community-Based Emergency Care: First Response Innovations in Remote First Nations.' Invited poster. Ontario Ministry of Health and Long-Term Care Innovation Showcase, Toronto 28 Nov 2013.

Orkin A. "'A doctor is there to be a doctor, not advocate for the poor": Doctorhood and History of MSF.' Invited seminar, Joint Centre for Bioethics, University of Toronto, 9 Nov 2011.

Orkin A. 'Persistent Debates in the Work and Purpose of MSF.' Invited presentation. Doctors Without Borders USA (MSF), New York, NY, 8 Jul 2011.

Orkin A. 'Movement or Organization? Medical or Humanitarian? MSF and the Future of Humanitarianism'. Invited presentation. MSF-Canada Association General Assembly. Montreal, 14 May 2011.

Orkin A. 'Medical Intervention: An Alibi for Humanitarian Practice?' Invited presentation. MSF-Canada. Toronto, 4 May 2011.

Letters in Peer-Reviewed Journals

Orkin AM, Ivers NM. "Is reducing ED visits an important outcome?" Invited comment on Kiran et al, Emergency department use and enrollment in a medical home providing after-hours care. *Annals of Family Medicine.* Sept/Oct 2018,16:419-27; doi:10.1370/afm.2291.

Orkin AM, Ovens H, McLeod S, Varner C, Melady D, Thompson C, Penciner R, Sidhu K, Dushenski D, Borgundvaag B. "Letter in response to 'CJEM Debate Series: #Social Media — Social media has created emergency medicine celebrities who now influence practice more than published evidence." CJEM, 1-1. doi:10.1017/cem.2017.436

Orkin AM, Kelly L. "Acknowledging rural context, local and generalist care." *CMAJ*. 2016 Mar 1;188(4): 286. DOI:10.1503/cmaj.1150083

Orkin AM, Bingham K, Buick JE, Klaiman M, Leece P, Kouyoumdjian FG. "Quality Assessment Errors and Study Misclassification Threaten Systematic Review Validity: Community Opioid Overdose Prevention and Naloxone Distribution Programs Review: Re: Clark AK, Wilder CM, Winstanley EL. A systematic review of community opioid overdose prevention and naloxone distribution programs." *J Addict Med* 2014 May-June;8(3): 153-163. J Addict Med. 2015 Dec;9(6):502-3.

Kouyoumdjian FG, **Orkin A**, Dooling K, Schwandt M. Screening for HCV. *CMAJ*. 2014 Mar 4;186(4): 294.

McDonald N, Webster M, **Orkin A**, VanderBurgh D, Johnson DE. The Long Backboard vs. the Vacuum Mattress. *Prehosp Disaster Med.* 2014 Feb;29(1):110.

Orkin AM, Rajaram N, Schwandt M. Aboriginal populations and youth suicide. *CMAJ*. 2013 Oct 15;185(15):1347.

Schwandt M, **Orkin A**, McLaughlin J, Lay M, Cole D. 'Medical Repatriation of Migrant Farm Workers in Canada.' Accepted for presentation at the International Safety and Health in Agricultural and Rural Populations Symposium, Saskatoon SK., 19 Oct 2014.

Leece P, **Orkin A**. Opioid overdose fatality prevention. *JAMA*. 2013 Mar 6;309(9):873-4.

Orkin A. Letter to the editor. *Paediatr Child Health*. 2010 May;15(5):260.

Orkin AM, Kerr J. An unrealistic option. *Can Fam Physician*. 2008 Dec;54(12):1677-8.

Orkin AM. Subspecialties in family medicine: a question of values. *Can Fam Physician*. 2008 Sep;54(9):1231.

Orkin AM. Funding for Canadian health care research. *CMAJ*. 2008 Feb 12;178(4):349.

Other Writing

Orkin AM. Sidewalk Labs project is a public health opportunity. *The Toronto Star.* 30 Jun 2019.

Peer Review

Peer Reviewer (Peer review history and open reviews available at www.publons.com)

Annals of Family Medicine	*2017 - 2018*
CMAJ Open	*2016*
Addiction	*2016*
Canadian Family Physician	*2008 - 2016*
Open Medicine	*2012 - 2015*
Canadian Journal of Public Health	*2013 - 2015*
Drug and Alcohol Dependence	*2015*
BMC Health Services Research	*2014*

Teaching & Supervision Experience

Teaching and Continuing Professional Development Presentations

Orkin A, Sellen K. "Innovation and Design Thinking in Resuscitation Research - SOONER Project" Collaborative Program in Resuscitation Science, 27 Jan 2020.

Orkin A. "Population Medicine: What is it and why do we need it?" Institute of Health Policy, Management, and Evaluation Policy Rounds. 29 Jan 2019.

Orkin A on behalf of the SOONER Investigators. "Combining design, simulation and trial methods to bring naloxone distribution into everyday practice." Applied Health Research Centre rounds, St. Michael's Hospital, 12 Sept 2018.

Orkin A. "Making interdisciplinary work: Career notes from a PGY-12." University of Alberta Emergency Medicine Residency Program Workshop, 11 Jun2018.

Orkin A, Drennan I. "Responding to the Unexpected." University of Toronto Family Medicine Residency Program Rounds, 23 May 2018.

Orkin A, Leece P. "The Opioid Epidemic and Public Health" University of Toronto School of Medicine Public Health Interest Group, 23 Apr 2018.

Orkin A. "Bystander Resuscitation in Overdose: Naloxone Distribution and the SOONER Trial." Collaborative Program in Resuscitation Science, 2 Oct 2017.

Foote J, Orkin A. "Optimizing care for patients with opioid use disorder in the emergency department." Mt. Sinai Hospital Emergency Department Rounds, 31 May 2017.

Orkin A. "Designing first aid for the opioid epidemic." Presentation for the Public Health Agency of Canada Special Advisory Committee on the Epidemic of Opioid Overdoses. Ottawa, 30 May 2017.

Orkin A. "Task shifting for emergency care: Protocol for a mixed methods feasibility study and conceptual framework." St. Michael's Hospital Clinical and Population Research Rounds, 30 Mar 2017.

Orkin A. "Feasibility of the Surviving Opioid Overdose with Naloxone Education and Resuscitation (SOONER) Trial." St. Michael's Research Training Seminar, 24 Feb 2017.

Orkin A. "Overdose Education and Naloxone Distribution." Peterborough Regional Health Centre Emergency Department Grand Rounds, Peterborough, 24 Jan 2017.

Orkin A. "What is Clinical Public Health?" University Health Network and Dalla Lana School of Public Health Dietetics Program, Toronto, 24 Jan 2017.

Orkin A. "Stigma and resuscitation: The mysterious case of opioid overdose and naloxone distribution." Collaborative Program in Resuscitation Sciences, Foundations of Resuscitation Science Course, St. Michael's Hospital, Toronto, 9 Jan 2017.

Orkin A, VanderBurgh D. "Go Big or Go Home? Exploring Scale-Up in Health Programs." Public Health & Preventive Medicine Residency Program Rounds, Northern Ontario School of Medicine, 11 Nov 2016.

Young M., Orkin A., Malek A. "Overdose Prevention with Naloxone: National and Provincial Landscape. CAMH Opioid Resource Hub and Registered Nurses Association of Ontario Webinar. 14 Sept 2016.

Orkin A. "What is Clinical Public Health?" Introduction to Public Health Course, Dalla Lana School of Public Health, Toronto, 7 Sept 2016.

Orkin A. "Overdose education and naloxone distribution: How first aid can help address the opioid overdose epidemic." Collaborative Program in Resuscitation Sciences, Foundations of Resuscitation Science Course, St. Michael's Hospital, Toronto, 23 Jan 2016.

Orkin A. "Community-Based Emergency Care: What does First Response have to do with Public Health?" Public Health & Preventive Medicine Residency Program Rounds, Northern Ontario School of Medicine, 27 Nov 2015.

Orkin A. "Guideline Development and Practice at the Fringe." Collaborative Program in Resuscitation Sciences, Foundations of Resuscitation Science Course, St. Michael's Hospital, Toronto, 19 Jan 2015.

Orkin A, Leece P, Pinto A. "Recent and New Public Health & Preventive Medicine Graduate Panel on Research." Public Health & Preventive Medicine Resident Research Day, Dalla Lana School of Public Health, 28 Nov 2014.

Orkin A. "Quantitative Research and Evidence-Based Medicine Methods." Seminar for Empirical Approaches in Bioethics (MSC3003Y), Joint Centre for Bioethics, University of Toronto, 20 Nov 2014, 26 Nov 2015, 13 Oct 2016, 12 Oct 2017, 17 Jan 2019.

Orkin A. "Compost, Crowd-Sourcing and Computation: Medical Repatriation of Migrant Farm Workers in Canada." Presentation for Migration and Health (CHL3113H), Dalla Lana School of Public Health, University of Toronto, 3 Nov 2014.

Orkin A. "Geographically Remote First Nations Populations." Social Determinants of Health Panel for Community, Population & Public Health course, Undergraduate Medicine, University of Toronto, 27 Aug 2014.

Orkin A. "Remote and Isolated First Nations Communities." Social Determinants of Health Panel for Determinants of Community Health course, Undergraduate Medicine, University of Toronto, 14 May 2014.

Orkin A. "Rural vs. Urban: Equity Considerations in Resuscitation Guidelines and Services." Collaborative Program in Resuscitation Sciences Seminar, St. Michael's Hospital. Toronto, 12 Nov 2013.

Orkin A. "Rural and Remote Trauma: Hypotheses and Policy Recommendations in Progress" Presentation to the University of Toronto Trauma Research In Progress (TRIP) group. Toronto, 22 Nov 2012.

Orkin A. "My Research Matters *to Whom*? Upstream and Downstream Knowledge Translation" Collaborative Program in Resuscitation Sciences, St. Michael's Hospital. Toronto, 4 Mar 2013.

Research Supervision

- Resident research supervisor: Justin Burton, University of Toronto, Postgraduate family medicine. 'Community-based emergency care in Tsiigehtchic Northwest Territories.' *2018*
- Resident research supervisor: Gaibrie Stephen, University of Toronto, Postgraduate family medicine. 'Systematic review on the cost of managing non-urgent conditions in the emergency department vs. other outpatient ambulatory care settings.' *2018*
- Resident research supervisor: Jonathan Gravel, University of Toronto, Postgraduate family medicine. 'Managing acute pain in people who use opioids in the emergency department.' *2018*
- Masters of Public Health Practicum co-supervisor: Emma Mew. Community-Based Emergency Care Project *2017*
- Masters of Public Health Practicum supervisor: André McDonald. 'Defining and measuring health equity effects in research on task shifting interventions: a systematic review' *2017*
- Resident research co-supervisior: Dr. Aamir Bharmal and Dr. Jennifer Cram, University of Toronto, Postgraduate Medicine. 'Clinical Population Medicine: What it is and what it isn't'. Co-supervisors: R Upshur, A Pinto. *2016*
- Medical Student Research Supervisor: Jeffrey Curran, Northern Ontario School of Medicine, Undergraduate Medicine. 'Systematic Review: Health effects of training laypeople to deliver emergency care'. Co-supervisor: D VanderBurgh. *2015*
- Thesis Co-Supervisor: Jeffrey Curran. 'Building Resilience and Community Capacity: The Sachigo Lake Wilderness Emergency Response Education Initiative.' Master of Arts (Human Development) Laurentian University, Sudbury. Committee: S Ritchie, D VanderBurgh, A Orkin, John Lewko. May 2014. http://www.webcitation.org/6So23fyp2 *2011 - 2014*
- Resident Research Supervisor: Baijayanta Mukhopadhyay. Northern Ontario School of Medicine Postgraduate Family Medicine. 'First response in psychiatric crises: teaching and learning mental health first aid in a remote First Nation.' (Resident awarded 2012 Physician Services Institute Resident Research Award) Co-supervisor: David VanderBurgh *2011 - 2013*
- Medical Student Research Supervisor: Calen Sacevich, Northern Ontario School of Medicine, Undergraduate Medicine.
  - 'Automatic Electronic Defibrillators in Pre-hospital Rural and Remote Settings: What effect does prolonged transport time to hospital have on survival.' Co-supervisor: D VanderBurgh. (Student awarded 2012 Heart and Stroke Foundation Hannah Pherril Summer Medical Student Scholarship for this research.) *2011 - 2013*

- ‘Access to Automated External Defibrillators in Remote Ontario First Nations Communities: A Survey of Local Health Directors.’ Co-supervisor: D VanderBurgh.

- Research Supervisor: Shweta Dhawan. Migrant Farm Worker Medical Incidents Project. Data entry and literature review supervision. *2012*

- Thesis Co-Supervisor: Stephanie Kellowan. ‘Autonomy and Choice: Gender Politics in Contemporary Breastfeeding.’ Bachelor of Arts & Science Thesis, McMaster University, Hamilton. Co-supervisor: C Levitt. *2009 – 2010*

Research Judge: Research, Education Scholarship and Quality Improvement, Family Medicine Residency Program, University of Toronto *2016*

Workshop Tutor: University of Toronto Transition to Clerkship Outbreak Module *2013, 2014*

Instructor: Wilderness Advance Life Support and Medical Elective Instructor, Wilderness Medical Associates, Canada. *2008 - 2011*

Assistant Instructor: Introduction to Evidence-Based Medicine Workshop, Oxford University Centre for EBM. Senior instructor: Dr. Paul Glasziou. *2010*

Examiner: Observed Structured Clinical Examination (OSCE) and clinical skills, Northern Ontario School of Medicine and McMaster University. *2008 - 2012*

Media Coverage & Press References

Weeks, C. “Ontario pharmacist facing Ontario pharmacist facing disciplinary action for distributing naloxone kits door-to-door says he will keep distributing” *Globe & Mail*. 17 Sept 2019.

Gee, M. “Danger beyond the prison gates: One in 10 overdose deaths happen to ex-inmates within year of release” *Globe & Mail*. 30 Nov 2018. http://www.webcitation.org/74guZC0cP

Beattie, S. “Experts agree naloxone is central to fighting Canada’s opioid crisis — but that also say it’s not a ‘wonder drug’.” *Toronto Star*. 14 Apr 2018. https://www.webcitation.org/6yj97t3eL

Burke, A. “Ontario makes controversial change on how to help overdose victims.” *CBC News*. 10 Apr 2018. http://www.webcitation.org/6ybdaOLyu

Champagne, S. “Retour à l’expéditeur” *Le Devoir*. 18 Dec 2017.

Lavelle, C. “How Ontario is failing to help stop opioid deaths.” *Macleans*. 2 Nov 2017.

Buck, G. “Do you know what to do if someone overdoses?” *Metro News*. 3 Apr 2017. http://www.webcitation.org/6pcW7ePWe

Siebarth, T. “Universities come to grips with Canada’s opioid overdose crisis.” *University Affairs*. 8 Mar 2017. http://www.webcitation.org/6orhyfgec

Webster, PC. “Calls for medically safe heroin mount in Canada.” *The Lancet News*. 389(2017); 239.

Roussy, K. “People are dying: Life-saving opioid antidote hard to find.” CBC Print News, CBC Radio *The World at Six*, and CBC Television *The National*. 2 Dec 2016.

Falk, S. “Reaction to Ottawa’s Opioid Summit.” *Global News BC*. 22 Nov 2016.

Keung, N. “’Medical repatriation’ puts sick, injured migrant farm workers out of sight and mind”. *The Toronto Star*. 4 Oct 2014.

Picard, A. "Better health coverage needed for temporary foreign workers: A new research paper provides a rare glimpse into some of the health challenges these workers face." *The Globe and Mail*. 26 Sept 2014.

Bodnar, N. "Sick, fired and deported: what happens to injured or ill migrant farm workers in Ontario." UofT News. 19 Sept 2014. http://www.webcitation.org/6So1tVmS0

CBC Radio Sudbury: "Report on emergency medical care in remote First Nations." Morning North with Markus Schwabe. Interviewed with Deputy Grand Chief Alvin Fiddler of Nishnawbe Aski Nation. 10 Mar 2014.

CBC Radio Thunder Bay: "Who responds when there are no first responders?" Superior Morning with Lisa Laco. Interviewed with Deputy Grand Chief Alvin Fiddler of Nishnawbe Aski Nation. 5 Mar 2014.

CBC Radio Thunder Bay: "When 911 is not an option." Superior Morning with Lisa Laco. Interviewed with Deputy Grand Chief Alvin Fiddler of Nishnawbe Aski Nation. 30 Oct 2013.

Stewart-Robertson T. "Indigenous Health Inequality: Are the Boats Sailing Apart? Research Finds Disparity and Tries to Bridge the Divide." Online: tomorrow.is. 20 Jun2013.

Chan P. "Lifetime: A second look at Hands-Only CPR" CTV-News Toronto. 20 May 2013.

Desjardins, L. "Current CPR Guidelines May Not Suit Rural Patients" Radio Canada International. 12 May 2013.

Gwynne S. "Standard CPR Not Enough For Rural Communities" CKDR-FM. 11 May 2013.

Taylor P. "Hands Only CPR May Not Be Enough". The Globe & Mail. 2 May 2013.

BBC Health Check: 'New healthcare initiative has implication for people who live in remote places worldwide' 21 Oct 2012.

CBC News: 'Mental health "first aid" needed in remote communities: doctor' 11 Oct 2012.

CBC News: 'Specialized first aid training may help remote communities: Sachigo Lake First Nation learns to handle medical emergencies when hospital care is hours away.' 3 Oct 2012.

Bell Shawn. 'Preparing for emergencies in Sachigo Lake.' Wawatay News. 12 Jul 2013.

Ubelacker S. 'Sachigo Lake Wilderness Emergency Response Education Initiative Teaches Valuable Skills' The Canadian Press. 3 Oct 2012. Syndicated to Vancouver Sun, Ottawa Citizen, Montreal Gazette.

Tepper J and Born K. 'Innovative Medical Education in Northern Ontario.' HealthyDebate.ca. 14 Jun2012. Available www.healthydebate.ca.

'Healing the North: Medical learners work with rural communities to improve quality of life.' Council of Ontario Universities. Jun2012. Available www.cou.on.ca.

Stradiotto, L. 'Northern Ontario is NOSM's living laboratory.' Sudbury Star. 30 Mar 2012.

'Exceptional research projects undertaken across the North.' Northern Ontario Medical Journal. Spring 2012. Available www.nomj.ca.

'Celebrating a shared dream.' Northern Ontario Medical Journal. Summer 2009.

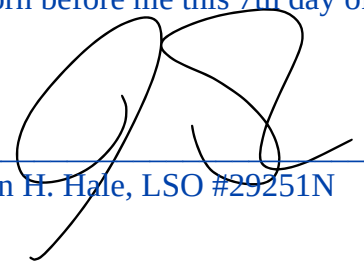
'First Completion of the NOSM's Family Medicine Program.' Northern Ontario School of Medicine Community Report, 2009. Available www.nosm.ca.

Labine, J. 'NOSM sees its first graduation' tbNewsWatch. Available www.tbnewswatch.com.

Professional Organizations & Affiliations

- Ontario Medical Association & Canadian Medical Association *2004 - present*
- College of Family Physicians of Canada *2006 - present*
- Royal College of Physicians and Surgeons of Canada *2013 - present*
- Society of Rural Physicians of Canada *2006 - 2017*
- Wilderness Medical Associates International *1998 - 2011*
- Canadian Doctors for Medicare *2007 - present*
- Canadian Public Health Association *2012 - present*
- Canadian Association of Emergency Physicians *2012 - present*
- Public Health Physicians of Canada *2012 - present*
- Canadian Point of Care Ultrasound Society (Independent practitioner) *2017 - present*

This is Exhibit B to the Affidavit of Dr. Aaron Orkin, sworn before me this 7th day of April, 2020



John H. Hale, LSO #29251N

COVID-19 Modelling

April 3, 2020

Ontario

COVID-19 Update: Today's Presentation

- The information provided in this presentation was developed by several experts at Ontario Health, Public Health Ontario and researchers at Ontario universities, led by the COVID-19 Command Table.
- The objective of today's presentation is to share the modelling and projection data that the Command Table has been using to inform our work, and advising government on their response to COVID-19.
- We feel is it important to be transparent with the public about the challenges we are facing, and the important work we all need to do to flatten the curve.
- How this outbreak unfolds is in the hands of the public, in all of your hands – we can change the outcomes by how we all stay at home and physically distance ourselves.
- Recognizing that we get new information about this outbreak on a daily basis, we will continue to refine our models.
- Our public health measures so far have made a significant difference and we need everyone to stay focused on these in the weeks ahead: stay home, stop the spread, stay safe.

Current Status

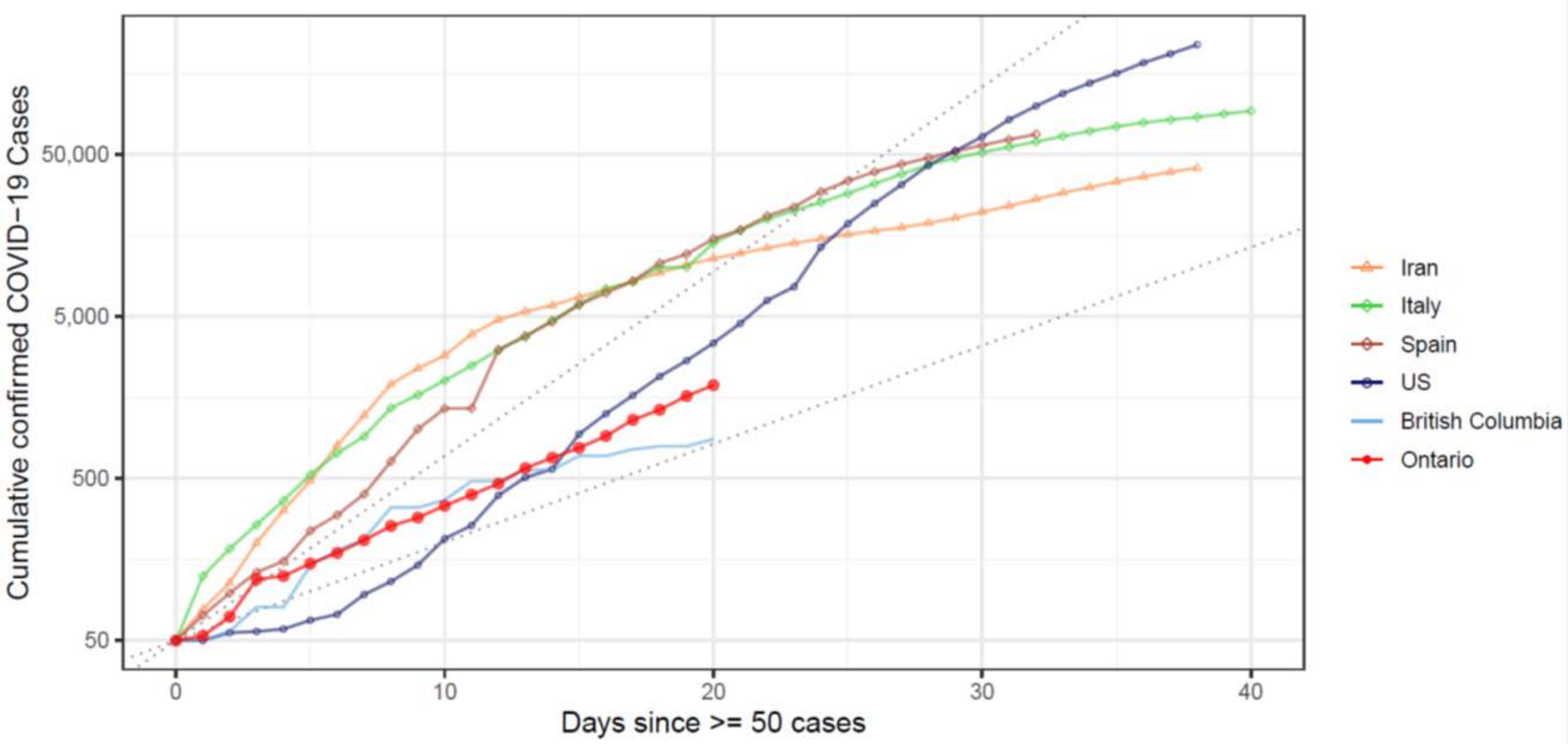
COVID-19: Cases and Deaths by Age Group (January 15 to April 2, 2020)

Age Group	Cases	Deaths	Case Fatality Ratio (%)
19 and under	82	0	**0**
20-39	945	0	**0**
40-59	1,178	7	**0.6**
60-79	821	24	**2.9**
80 and over	226	36	**15.9**
Unknown	3	0	**0**
Total	**3,255**	**67**	**2.1**

Data Source: integrated Public Health Information System (iPHIS). Data extracted April 2, 2020 at 4pm

Ontario

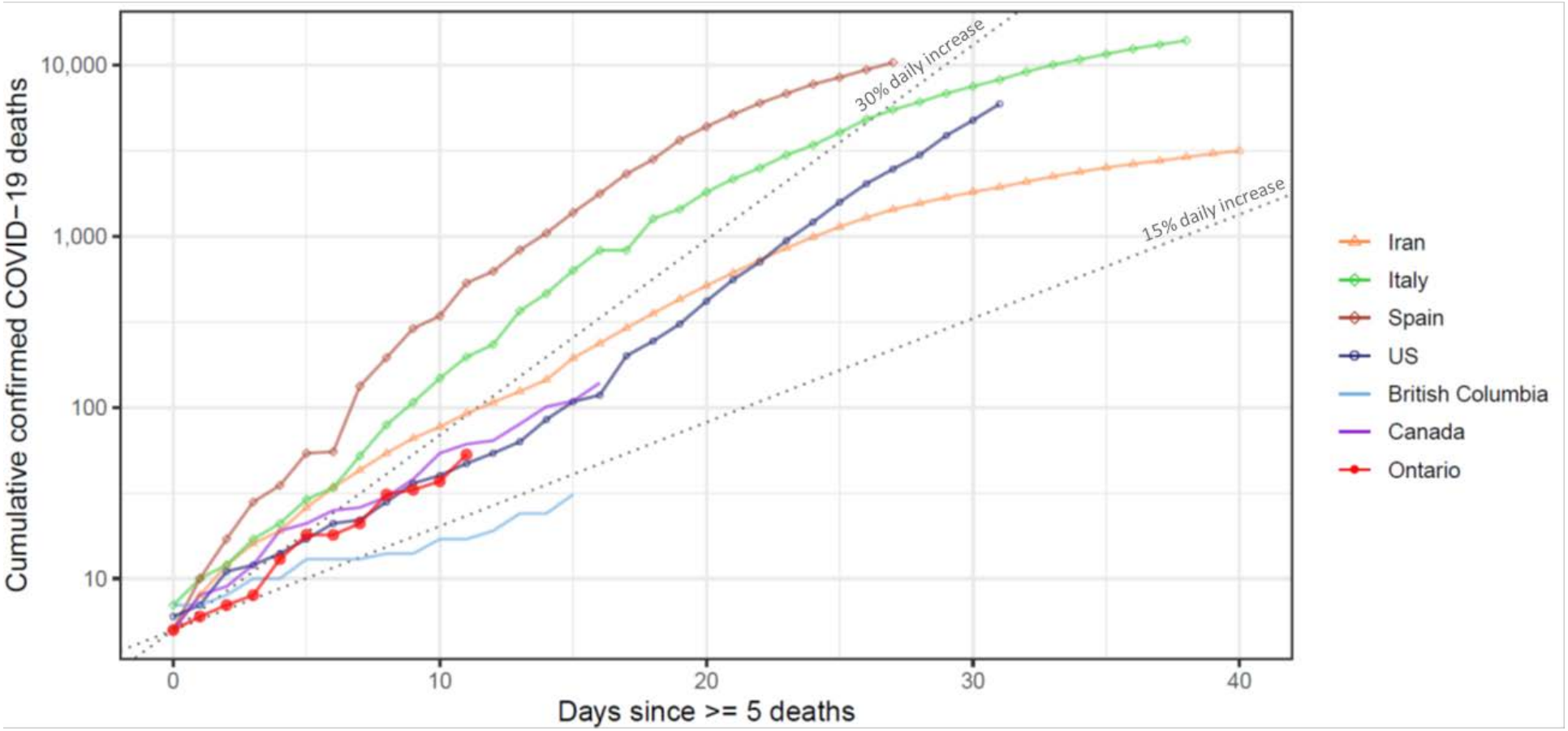
COVID-19: Cases in Ontario and Other Jurisdictions



Source: Johns Hopkins University, Centre for System Science and Engineering. Accessed April 1, 2020

Ontario

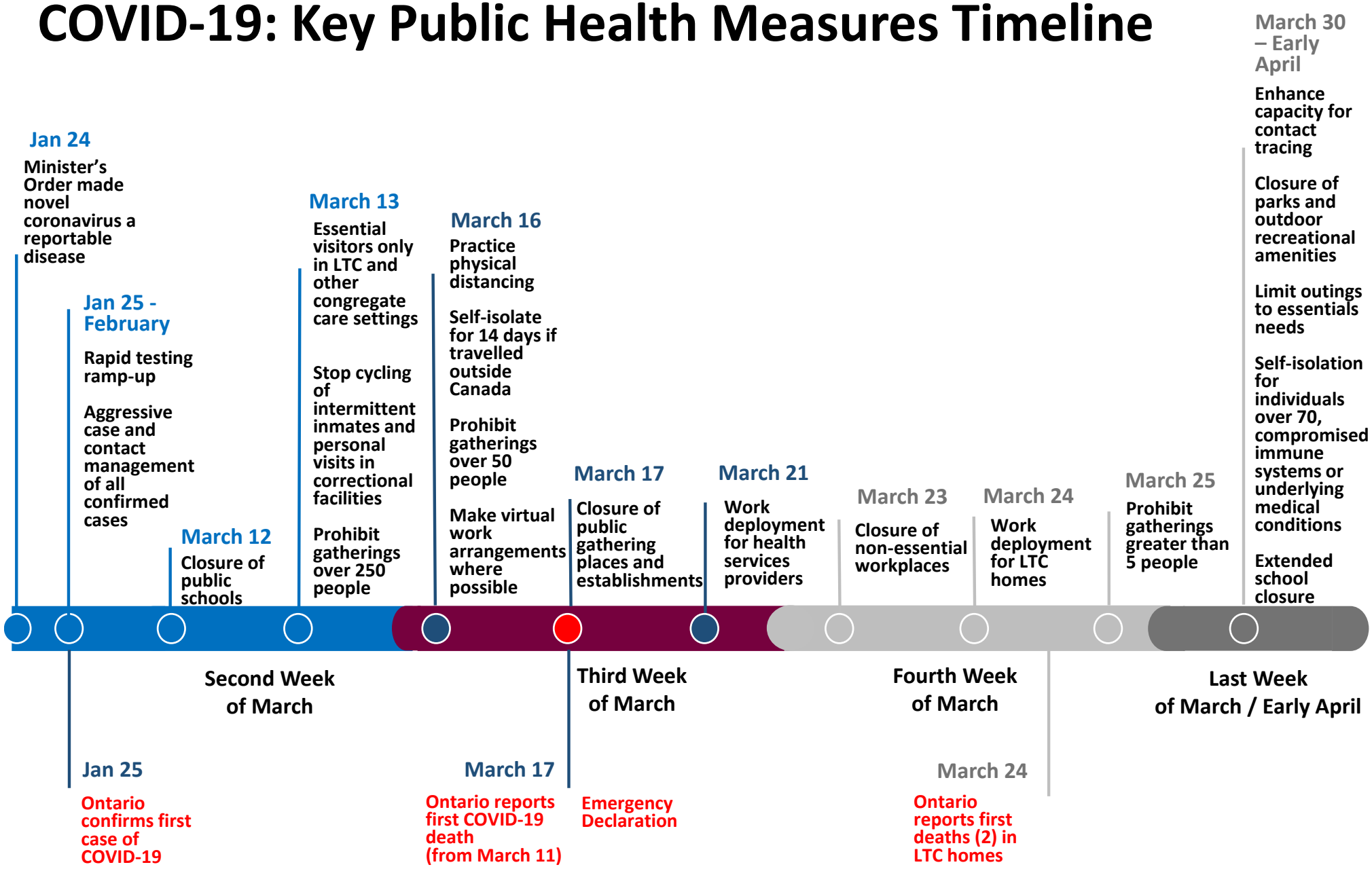
COVID-19: Deaths in Ontario and Other Jurisdictions



Source: Johns Hopkins University, Centre for System Science and Engineering. Accessed April 1, 2020

Ontario

COVID-19: Key Public Health Measures Timeline



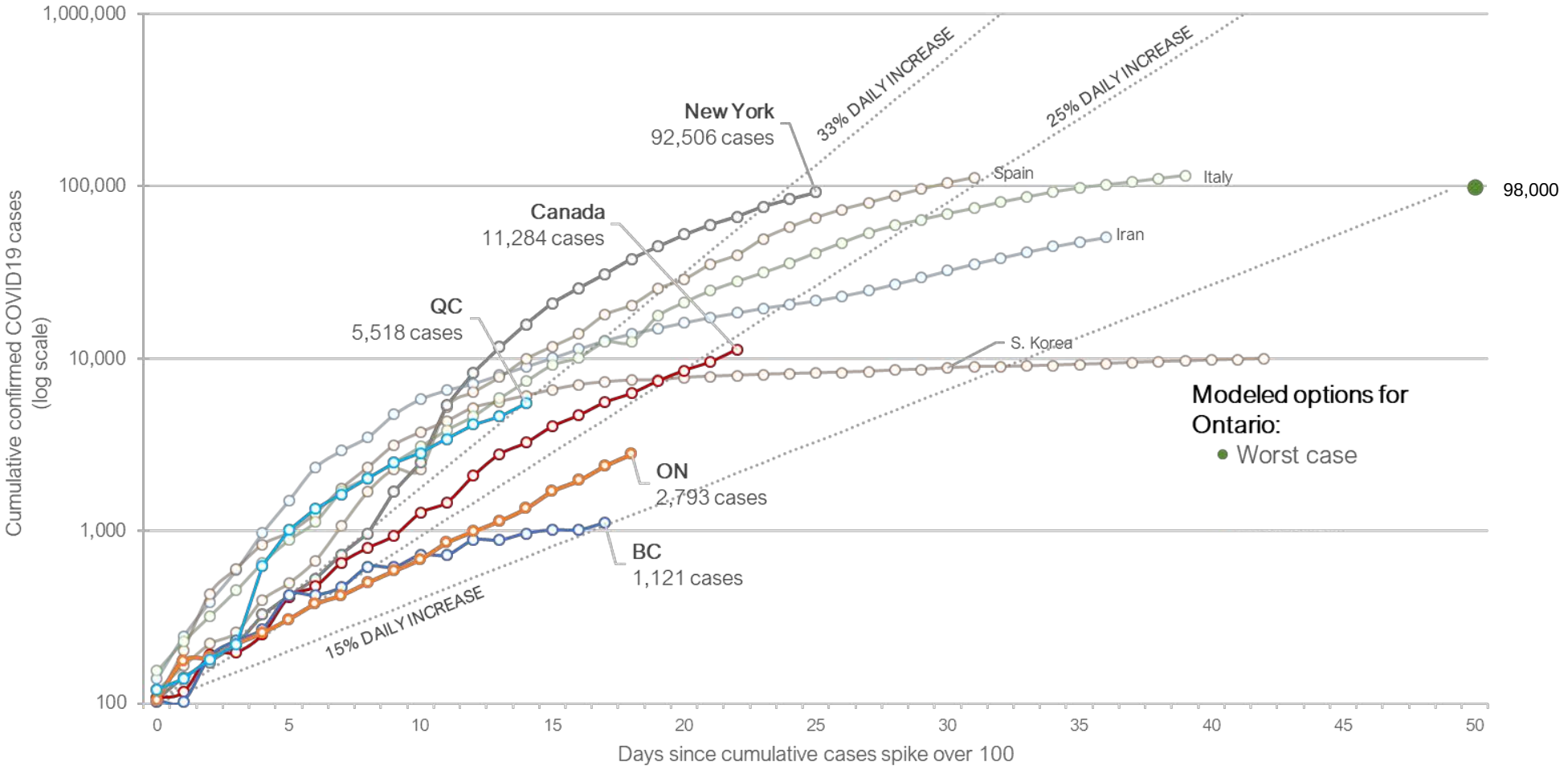
Ontario

Future Outlook

COVID-19: Using Models to Inform Ontario's Planning

- Models are used to help plan for what could happen.
- As with any model, the farther out predicted, the more uncertainty there is in the predictions.
- There is more confidence in the projections for the next 30 days than in the longer term projections.
- Assumptions were used to inform the model.
- Experts modelled how the disease spreads based on observed data and what is known from other countries.
- Any benefit seen in the model from improved public health measures assumes people follow those measures.
- If there are people with COVID-19 infections moving between health care facilities, there could be larger outbreaks.

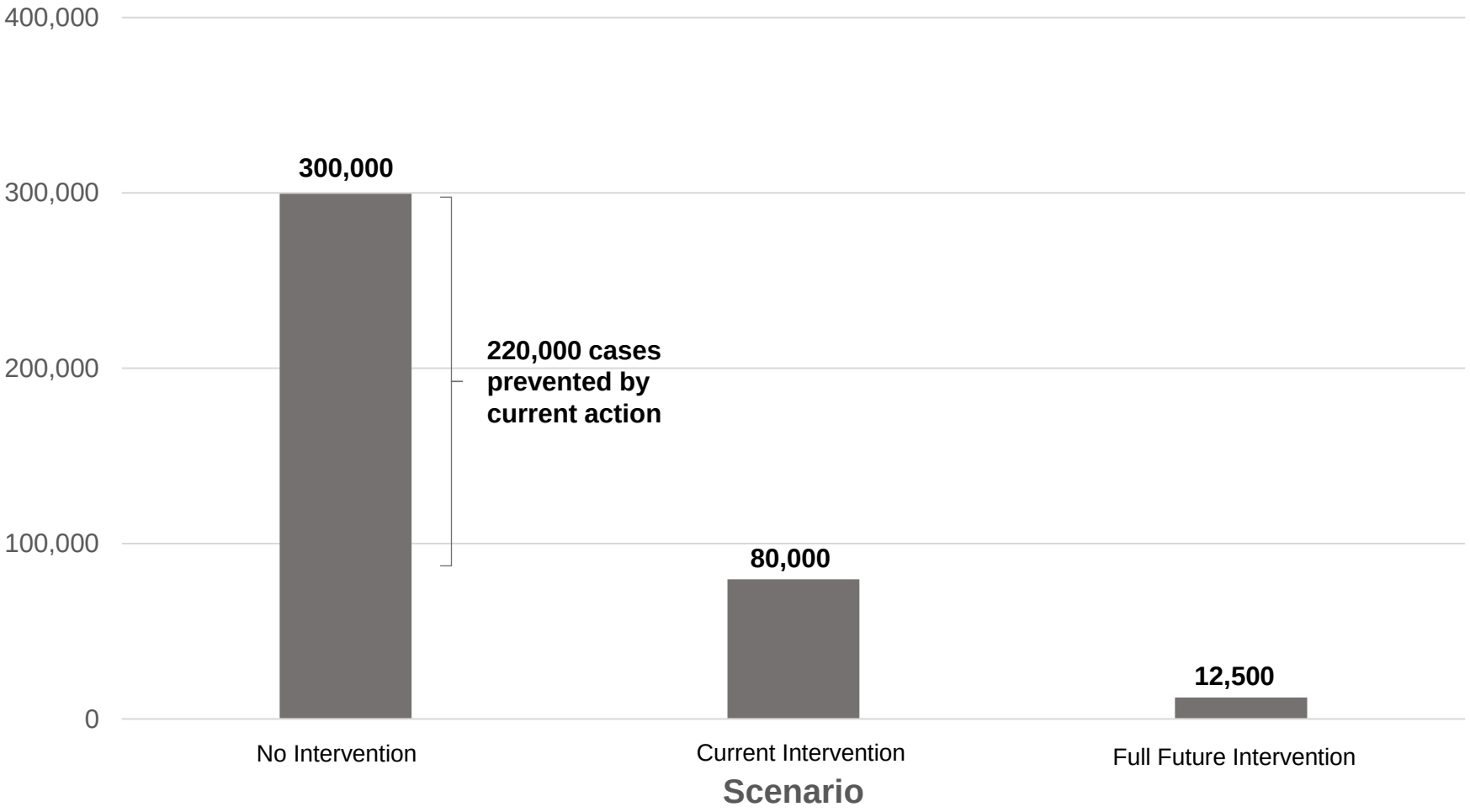
Cumulative Confirmed COVID-19 Cases, Number of Days since the 100th Case



Data from: Dong, E., Du, H., & Gardner, L. (2020). An interactive web-based dashboard to track COVID-19 in real time. *The Lancet Infectious Diseases*, as of April 2, 2020.
Data compiled by Johns Hopkins University from the following sources: WHO, CDC, ECDC, NHC, DXY, 1point3acres, Worldometers.info, BNO, state and national government health department, and local media reports.

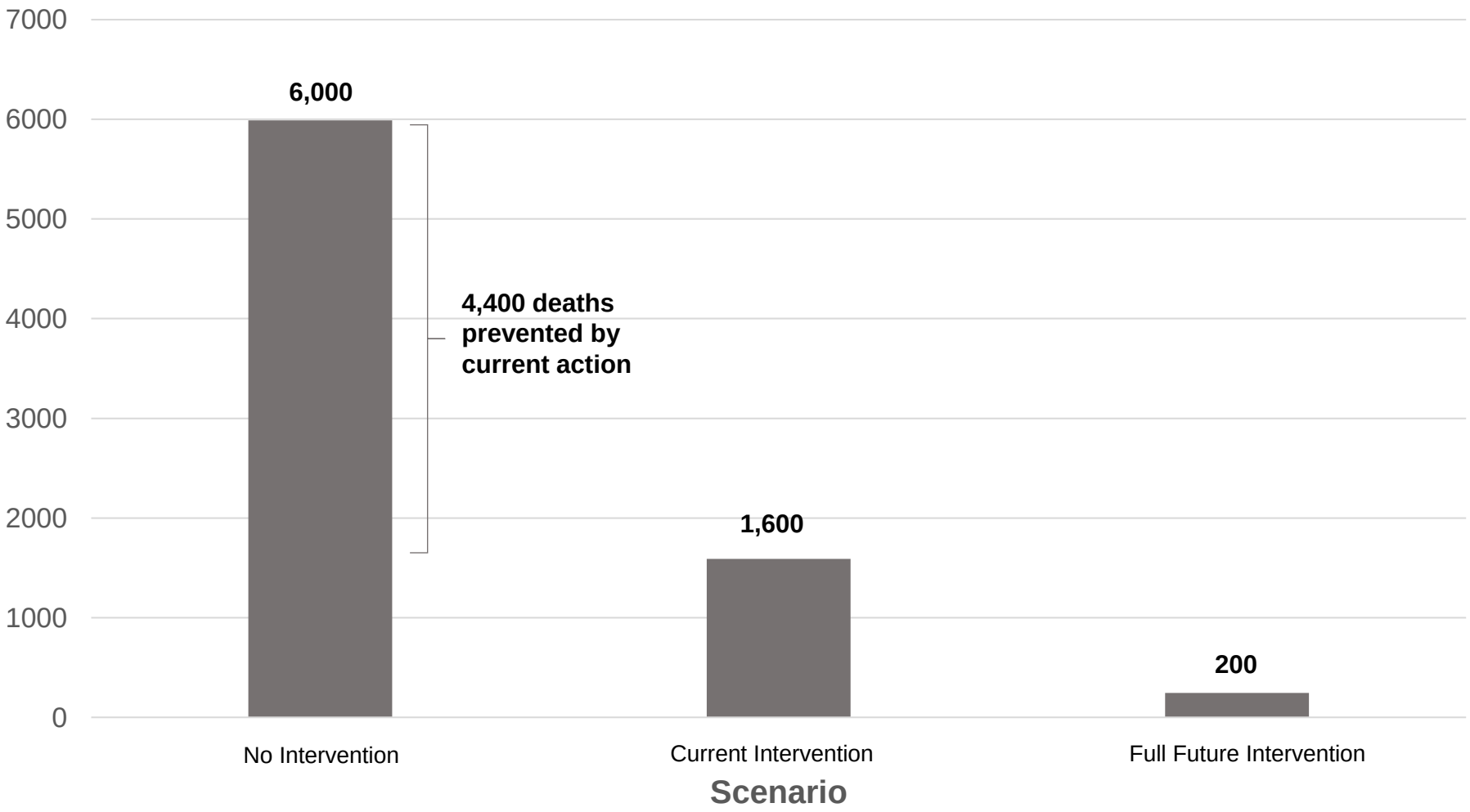
Ontario

Projected Ontario Cases by April 30, 2020



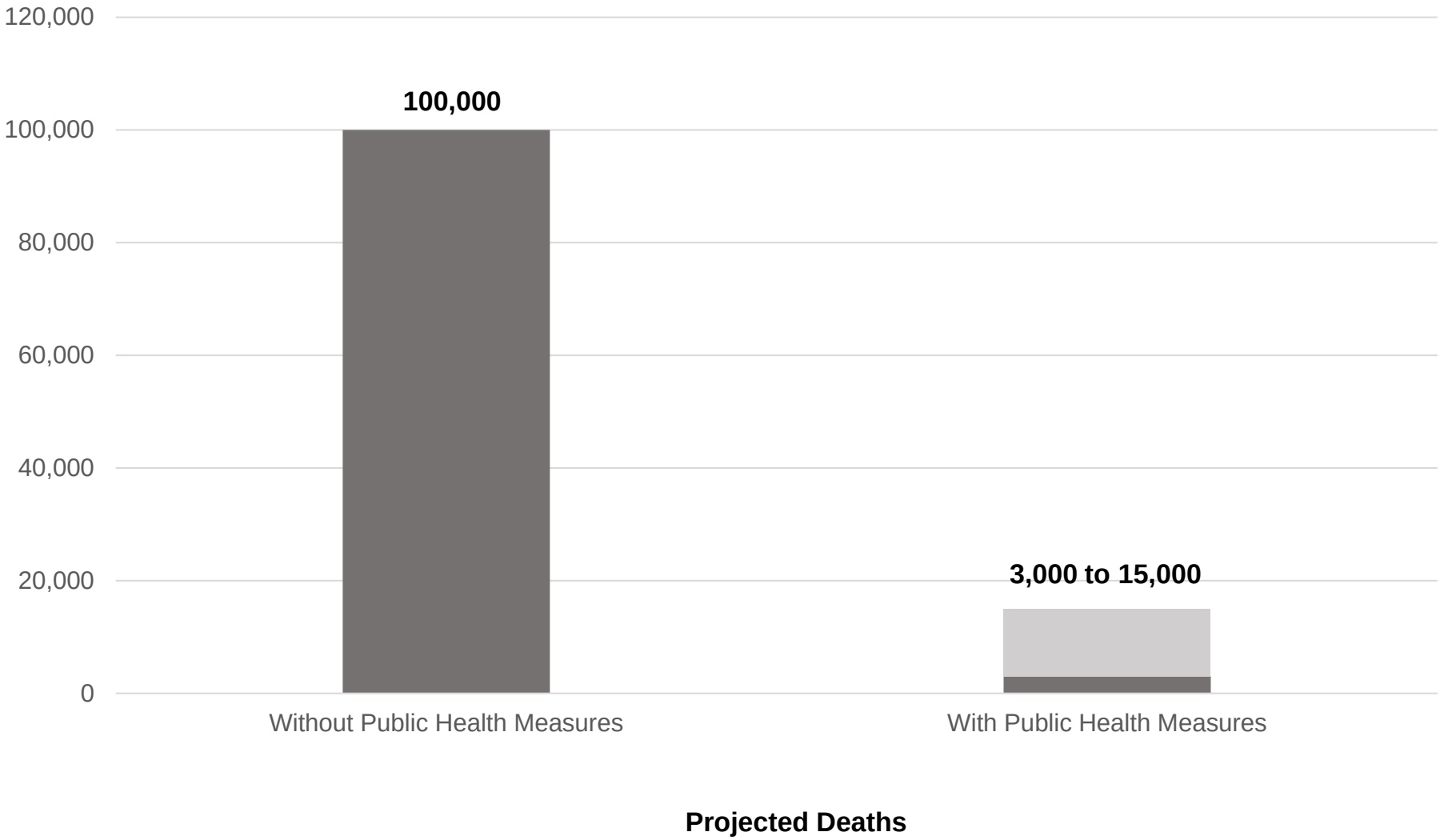
Ontario

Projected Ontario Deaths by April 30, 2020



Ontario

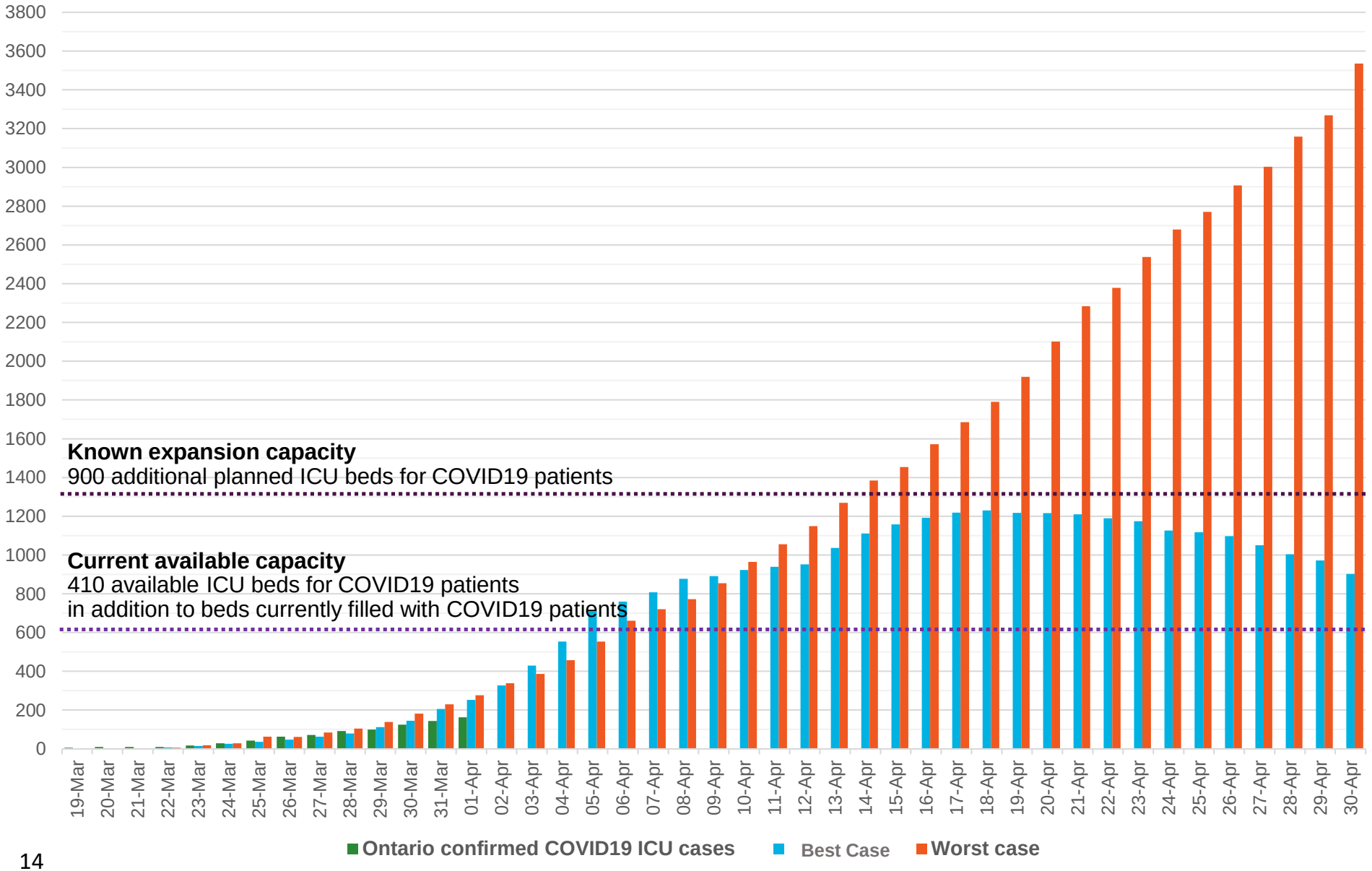
Projected Ontario Deaths over Course of Pandemic



Note: Range depends on implementation of maximum public health measures

Ontario

Ontario ICU Capacity for COVID-19



Looking Ahead

COVID-19: Slowing the Spread

- We need you to help us change the outcomes for Ontarians by staying at home and physically distancing.
- Our public health measures so far have made a difference and we need everyone to stay focused on these: stay home, stop the spread, stay safe.
- We need everyone to help stop the spread so we all must continue to fully adhere to the public health measures that have been put in place. We want to avoid the health care system being overwhelmed and the consequences to Ontarians, as we have seen in other jurisdictions in Europe and in the United States.

COVID-19: Additional Public Health Measures

Immediate Focus

- Enhanced capacity for case and contact tracing is underway.
- Increased testing for COVID-19, with a focus on long-term care, retirement homes and other congregate settings.

Future Measures

- Reduce the number and types of essential workplaces.
- Enhance focus on enforcement and fines for non-compliance.
- Expand direction/guidance on physical distancing, including retail settings.
- Enhanced support for elderly, homeless and other vulnerable populations and communities.
- Consider entry restrictions in some communities including First Nations.
- Human resource management (movement of health care workers between settings).
- Use of technology to reinforce self-isolation (alerts).
- Additional public education and communication (shelter in place with limited exceptions).

This is Exhibit C to the Affidavit of Dr. Aaron Orkin,
sworn before me this 7th day of April, 2020

John H. Hale, LSO #29251N

Ontario

BRIEFING NOTE

Institutional Services Response to COVID-19 (Including TEDC Specific Information)

Ontario has implemented several strategies to limit the effects of COVID-19 on our inmate population and our correctional staff. (A full list can be found in “Background”).

We have made great progress over the past two weeks to reduce our overall capacity in our institutions and we are at our lowest capacity numbers since January 2018.

Working closely with the Ministry of Health, Public Health, the Ministry of the Attorney General, the Ontario and Superior Courts and our Community Safety partners, we are confident in the care we are providing our inmate population.

Quick Facts:

- As of March 25, 2020, there are 6,925 inmates in custody across all 25 institutions.
- There are 1,286 fewer inmates in custody today than there was on March 13, 2020. That is a 16% reduction, in 2 weeks.
- As of March 24, 2020:

    - Total tested for COVID-19: 20
    - Total negative results: 8
    - Total pending results: 11
    - Total positive results: 1

- Given the size of our population, this is currently a very small risk factor.
- Regarding the positive result, this individual was identified at admission and they have been maintained in isolation and on droplet precautions. There is no known risk to staff or inmates within the impacted institution.

TEDC specific Quick Facts:

- As of March 25, 2020, there are 317 inmates in custody, which is under our capacity of 473 beds.
- In the past two weeks, number of inmates in custody has decreased from 384 to 317.
- There have been no notable impacts on operations during this time period (due to COVID-19 or other issues).
- As of March 25, 2020, no inmates have required testing for COVID-19 at TEDC.
- As of March 25, 2020, no staff have tested positive at TEDC.

Ontario

Communicable disease outbreak process:

- If an outbreak of any communicable disease occurs or is suspected, institution officials will take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals.
- Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

Background:

Actions:

- Personal visitation has been suspended until further notice. Institutions are working on local initiatives to provide extra postage, phone calls and activities for inmates while visits are suspended.
- Professional visits including lawyers and spiritual volunteers are continuing.
- Every individual entering the institution is subject to a screening process that was developed based on Ministry of Health guidelines. This includes:
    - New admits
    - Inmates returning from court or being transferred
    - All professional visitors
    - All staff, each time they enter the institution
    - Personal Protective Equipment (PPE) is being worn in Admitting and Discharge department by those correctional staff that have first contact with new admits and by nursing staff doing screening.
- Facilities are inspected and thoroughly cleaned daily and/or as required. Additional cleaning services are being co-ordinated and provided through our Corporate Services Division.
- Proper handwashing and cough/sneezing protocol has also been communicated to inmates. Information has been posted in inmate areas.
- Staff have access to PPE and are instructed to wear it during specific activities as advised by the Ministry of Health.
- If an outbreak of any communicable disease occurs or is suspected, institution officials take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals. Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

To reduce capacity:

- Intermittent inmates who serve time on the weekends are required to attend their reporting facility for their first reporting date, where they will be given a Temporary Access Pass (TAP) from custody and permitted to return home. The TAP will be issued for May 1, 2020 or their sentence end-date, whichever comes first. This means those serving intermittent sentences will not have to report to a correctional facility every weekend, reducing the number of individuals entering the institution.
- The ministry is beginning to proactively perform a temporary absence review for all inmates to determine whether they are eligible for early release. Inmates chosen must be near the end of their sentences and be considered a low risk to reoffend. Inmates who have been convicted of serious crimes, such as violent crimes or crimes involving guns, would not be considered for early release. Unlike the standard process, inmates are not required to apply for release and will be notified if they qualify and must agree to the terms and conditions of their release prior to leaving the institution.
- We are working closely with the Ministry of the Attorney General and the Courts to ensure that any low-risk, non-violent offenders can be diverted at court.
- We are working in conjunction with the Ministry of the Attorney General and the Ontario Court of Justice, as well as the police agencies and counsel, to significantly increase the use of virtual courts (video and teleconference), thereby reducing the number of inmates transported to courthouses for appearances.
- The Ontario Parole Board is conducting all hearings by teleconference.

TEDC specific actions:

- Health Care Management has instructed nurses to attend all the units to educate the inmates about proper etiquette on hand washing, symptoms and notifying Health Care staff if they feel ill.
- Additional cleaning services provided by our existing janitorial company vendor. The cleaners will be cleaning all high contact areas in common areas. Cleaning will occur three times daily, seven days a week.

This is Exhibit D to the Affidavit of Dr. Aaron Orkin,
sworn before me this 5th day of April, 2020

John H. Hale, LSO #29251N

Ontario

INFORMATION NOTE
Institutional Services Response to COVID-19
(Including TSDC Specific Information)
March 30, 2020

Ontario has implemented several strategies to limit the effects of COVID-19 on our inmate population and our correctional staff. (A full list can be found in “Background”).

We have made great progress over the past weeks to reduce our overall capacity in our institutions and we are at our lowest capacity numbers since January 2018.

Working closely with the Ministry of Health, Public Health, the Ministry of the Attorney General, the Ontario and Superior Courts and our Community Safety partners, we are confident in the care we are providing our inmate population.

Quick Facts:

- As of March 30, 2020, there are 6,578 inmates in custody across all 25 institutions.
- There are 1,766 fewer inmates in custody today than there was on March 16, 2020. That is a 21% reduction, in about 2 weeks.
- As of March 30, 2020:

    - Total tested for COVID-19: 54
    - Total negative results: 28
    - Total pending results: 19
    - Total positive results: 2
    - Results unknown: 4

- Given the size of our population, this is currently a very small risk factor.
- One of the positive inmate tests was an intermittent inmate, not in our custody and no close contacts at the intermittent center were identified.
- Regarding the second positive inmate result, the individual was identified at admission and they have been maintained in isolation and on droplet precautions. There is no known risk to staff or inmates within the impacted institution.

TSDC specific Quick Facts:

- As of March 30, 2020, there are 987 inmates in custody, which is within operational capacity.
- Since March 16, 2020, the number of inmates in custody has decreased from 1,176 to 987.

- TSDC has experienced several lockdowns due to staffing shortages during this period. The senior administration and ministry staff have worked diligently to increase staffing levels and the number of staffing related lockdowns has decreased and the number of living units impacted by each lockdown has also decreased over the past week.
- During periods of lockdown inmates continue to have access to meals, showers and professional visits. Inmates continue to attend court in-person as necessary, though almost all courts are now being held via video or telephone.
- As of March 30, 2020, one inmate in our custody and one intermittent inmate, not in our custody, have tested positive for COVID-19 at TSDC.
- As of March 30, 2020, one staff member has tested positive at TSDC.

Communicable disease outbreak process:

- If an outbreak of any communicable disease occurs or is suspected, institution officials will take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals.
- Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

Housing for medically vulnerable inmates

- Decisions about placement are the responsibility of on-site correctional staff. However, where there are medical requirements at issue, this is a collaborative process and extensive consultation with health care takes place. Health care staff provide recommendations based on the assessed health care needs of the inmate.
- The housing placement for an inmate with medical needs will also be influenced by the physical layout of an institution and the facilities that are available at that institution.
- Placement options to protect a vulnerable individual vary and are dependent on institution design. Options may include general population (including protective custody if required); behavioural units, managed clinical care, or special needs units; medical observation units, or an institutional infirmary. There are different areas where patients are housed within an institution that correspond to the level of health care services they require:

Actions:

- Personal visitation has been suspended until further notice. Institutions are working on local initiatives to provide extra postage, phone calls and activities for inmates while visits are suspended.

- In support of inmates the ministry has also increased the weekly “canteen” limit by 50% to $90 to allow inmates to purchase additional comfort and recreation items. The ministry is also reviewing new items that can be purchased.
- Across the province, institutions are undertaking strategies to mitigate the impact of these limitations on inmates which include things like providing additional TV time and providing access to additional TV channels,
- Professional visits including lawyers and spiritual volunteers are continuing.
- Every individual entering the institution is subject to a screening process that was developed based on Ministry of Health guidelines. This includes:
    - New admits
    - Inmates returning from court or being transferred
    - All professional visitors
    - All staff, each time they enter the institution
    - Personal Protective Equipment (PPE) is being worn in Admitting and Discharge department by those correctional staff that have first contact with new admits and by nursing staff doing screening.
- In partnership with MAG, the ministry has moved all court appearance to video or telephone in order to reduce the movement of inmates in and out of the institutions (unless specifically requested by the Court).
- Facilities are inspected and thoroughly cleaned daily and/or as required. Additional cleaning services are being co-ordinated and provided through our Corporate Services Division.
- Proper handwashing and cough/sneezing protocol has also been communicated to inmates. Information has been posted in inmate areas.
- Staff have access to PPE and are instructed to wear it during specific activities as advised by the Ministry of Health.
- If an outbreak of any communicable disease occurs or is suspected, institution officials take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals. Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

To reduce capacity:

- Intermittent inmates who serve time on the weekends are required to attend their reporting facility for their first reporting date, where they will be given a Temporary Access Pass (TAP) from custody and permitted to return home. The TAP will be issued for May 1, 2020 or their sentence end-date, whichever comes first. This means those serving intermittent sentences will not have to report to a correctional facility every weekend, reducing the number of individuals entering the institution.

- The ministry is beginning to proactively perform a temporary absence review for all inmates to determine whether they are eligible for early release. Inmates chosen must be near the end of their sentences and be considered a low risk to reoffend. Inmates who have been convicted of serious crimes, such as violent crimes or crimes involving guns, would not be considered for early release. Unlike the standard process, inmates are not required to apply for release and will be notified if they qualify and must agree to the terms and conditions of their release prior to leaving the institution.
- We are working closely with the Ministry of the Attorney General and the Courts to ensure that any low-risk, non-violent offenders can be diverted at court.
- We are working in conjunction with the Ministry of the Attorney General and the Ontario Court of Justice, as well as the police agencies and counsel, to significantly increase the use of virtual courts (video and teleconference), thereby reducing the number of inmates transported to courthouses for appearances.
- The Ontario Parole Board is conducting all hearings by teleconference.

TSDC specific actions:

- TSDC has developed an information channel that can be played on inmate TV's including instructional materials on handwashing, cough etiquette, and how inmates can help keep the institution COVID free.
- The TSDC healthcare services have staff on duty 24/7 and TSDC has negative-pressure rooms which help reduce the possibility of transmitting viral infections where at-risk inmates can be medically isolated.

This is Exhibit E to the Affidavit of Dr. Aaron Orkin,
sworn before me this 7th day of April, 2020

John H. Hale, LSO #29251N

REPORT ON

INFORMATION NOTE

Institutional Services Response to COVID-19
(Including TSDC Specific Information)
March 30, 2020

AARON ORKIN MD MSc MPH PhD(c) CCFP(EM) FRCPC

The purpose of this report is to provide my professional opinion regarding the "Institutional Services Response to COVID-19 (Including TSDC Specific Information), March 30, 2020" (hereinafter, the "Information Note") in my capacity as a physician specialist in Public Health and Preventive Medicine.

My professional opinion regarding this Information Note concerns three questions:

(A) Is the medical and epidemiological content of the Information Note factually correct?

(B) Does the Information Note provide an appropriate description of the risk of COVID-19 within correctional facilities?

(C) Are the measures described in this Information Note sufficient to protect the health of people experiencing incarceration, staff in correctional facilities, and the general public?

The Information Note in question is appended below as **Appendix A**, with line numbers inserted for reference. Coloured highlighting is also inserted for the sake of the discussion below. The Information Note is otherwise unaltered. The Information Note refers to a "Background" (Line 7), but I have not been provided with this related Information Note.

Also attached as **Appendix B** is a Briefing Note with very similar content referring instead to TEDC and contains statistics up to March 25, 2020. Because the Information Note is more recent and includes more information than the Briefing Note, I have limited my analysis to the Information Note, but the concepts described here apply equally to both documents.

(A) *Is the medical and epidemiological content of the Information Note factually correct?*

1. The medical and epidemiological content of this Information Note falls into three broad categories:

    a. Statements of opinion regarding the adequacy of the care and protections being provided for people experiencing incarceration in Ontario. These appear on page 1, lines 9-13, 35-36, and 40. These are highlighted in yellow.

b. Statements of fact or data regarding existing cases of COVID-19 and their management in Ontario correctional facilities including TSDC. These are highlighted in green.

c. Discussion of the practical and policy interventions intended to reduce the impact of COVID-19 in correctional facilities. This content begins on page 2 and remains without highlighting.

2. Regarding the statements of opinion provided in this Information Note:

Statement and line number	My Professional Opinion
"We have made great progress…" (line 9)	The presence of an imminent health threat for a person or community is not determined by whether that person or community has taken some relevant steps to mitigate that threat. This is not unlike someone who is driving a car in a school zone at 160km/hr stating that they have made "great progress" toward safety because they were driving at 200km/hr just a few moments ago. I interpret the statement of "great progress" as a celebration of achieving the lowest numbers of inmates since January 2018. From the perspective of the emerging health threat of COVID-19, this raises two questions. First, what would be a low enough number of people in a congregate living environment to achieve safety in the context of COVID-19? My answer is that there is no minimum number from a medical and population health safety perspective. Gatherings of more than 5 people are presently prohibited under Ontario's Emergency Declaration.[1] The reduction in numbers and the degree of progress is immaterial if more can be done or if people are still gathered in groups greater than 5 within correctional settings. And second, if correctional facility populations were lower in January 2018 than they were in March 30, 2020, why is the present number sufficiently low; conversely, should we continue taking measures to reduce the inmate population?
"we are confident in the care we are providing our	COVID-19 is an absolutely unprecedented threat in Ontario's health history. This is no ordinary outbreak. The April 3, 2020 Technical Briefing released by the Ontario Government demonstrates the

[1] On March 28th, an Order in Council was passed prohibiting groups larger than 5 people: https://files.ontario.ca/solgen-oic-gatherings-events-2020-03-28.pdf?_ga=2.221758239.600820156.1586068782-7949595.1585946347

inmate population." (line 13-14)	breadth and gravity of this situation. Between 3,000 and 15,000 people will die – and that is with significant measures being taken to control the spread of the illness, i.e., to "flatten the curve". In a best-case scenario with adequate social distancing measures (including reducing prison outbreaks), Ontario will get through this event without exceeding our ICU bed capacity. This will require the introduction of 900 additional ICU beds on top of our existing 410. The scale of this undertaking is unprecedented, and can only be understood as a whole-of-society and a whole-of-government effort. In my opinion, no expert public health or health care practitioner can be "confident" in the care we are providing to any population or subpopulation in Ontario. This is equally true at the public health units, the emergency department, the prisons and homeless shelters, and in any place where health and confinement intersect. In my professional opinion, at this moment in history, an expression of bald "confidence" in the safety of a group living in a congregate setting suggests a serious deficiency of public health expertise.
"Given the size of our population, this is currently a very small risk factor." Line 30	This is discussed in section (B), below.
"There is no known risk to staff or inmates within the impacted institution."	The Chief Medical Officer of Health (CMOH) has stated in many of his emergency directives concerning COVID-19 "there exists or may exist an immediate risk to the health of persons anywhere in Ontario from COVID-19"[2]. Given that the TSDC is in Ontario, the assertion of "no known risk" is incongruous with the opinion of the CMOH. I agree with the CMOH. The threat of COVID-19 in a correctional facility is not determined merely by the details of individual cases or their isolation. COVID-19 is also a broad, population-wide, and ecosystemic threat for all of the inmates and personnel within a correctional facility; these threats exist regardless of the infection control practices enacted at that facility, and can be managed only through depopulation of congregate living to the lowest possible threshold. The strategies taken within the correctional system to respond to that threat must consider correctional facilities within that ecosystem, and not merely as a matter for infection control.

[2] Chief Medical Officer of Health (Ontario) David C. Williams, "COVID-19 Directive #3 for Long-Term Care Homes under the Long-Term Care Homes Act, 2007", Issued under Section 77.7 of the *Health Protection and Promotion Act (HPPA)*, R.S.O. 1990, c. H.7, dated March 30, 2020, available at https://www.oha.com/Bulletins/CMOH%20Directive%203%20-%20Long-Term%20Care%20Homes%20-%20HPPA%2003%2030%202020%20Shared.pdf

3. There is no statement of authorship to enable me to attribute these opinions to an individual or group, nor any explanation of the expertise or experience of the people or groups of people making these assertions.

4. Regarding the statements of fact (in green) and discussion of policy interventions (no highlighting) in the Information Note: There is no description of how the data reported were derived or validated, and no discussion of how the various interventions listed were developed or implemented. There is also no discussion of who oversees the implementation of the interventions described therein or who is accountable for the implementation of those interventions. The Information Note bears the logo of the Province of Ontario, suggesting that it is an official Information Note of the Government of Ontario, but I am unable to corroborate this. I therefore cannot provide any opinion on the accuracy of the facts or the veracity of the interventions described nor the effectiveness of their implementation.

(B) Does the Information Note provide an appropriate description of the risk of COVID-19 within correctional facilities?

5. The Information Note states that "Given the size of our population, this is currently a very small risk factor." (Line 30)

6. This appears to refer to the data provided in lines 18-28 regarding the number of cases of COVID-19 (2 cases) relative to the population in custody (6,578). This statement of risk therefore purports to be an estimation of risk on the basis of COVID-19 prevalence in the inmate population on March 30, 2020.

7. On March 30, 2020, Ontario had been in a state of emergency due to COVID-19 for 13 days (nearly 2 weeks). As stated above, the CMOH has stated "there exists or may exist an immediate risk to the health of persons anywhere in Ontario from COVID-19". Furthermore, Health Canada has stated that "the risk to Canadians is considered high".

8. The average Ontarian does not live in a congregate living environment, and is able to abide by the CMOH's order banning gatherings of more than 5 people (effective March 25). The risk in this population is nevertheless high.

9. People living in correctional institutions live in a congregate living environment and are likely not able to abide by the CMOH's order banning gatherings of more than 5 people (especially if we consider that the epidemiological purpose for this social distancing is defeated by sharing dining facilities, bathrooms, or other settings).

10. This Information Note nevertheless asserts that the risk in this population is low. This is in my opinion incorrect and inconsistent with prevailing public health advice.

11. The table below compares the population prevalence of COVID-19 on March 30, 2020 in the general Ontario population vs. the correctional population. Data for

the general population is from the Ministry of Health's daily situation reports for March 30, 2020.

	Population	COVID-19 Cases	Population Prevalence
Corrections	6,578	2	30.4/100,000
Ontario	14,711,827 (according to StatsCan in Q1 of 2020)[3]	1,706 (this includes 431 resolved cases and 23 deaths) Therefore, we use 1250 as the case count, which excludes resolved cases, deaths, and cases occurring in corrections.	8.50/100,000

12. Therefore, the prevalence of confirmed active COVID-19 cases in correctional facilities on March 30, 2020 was almost 3.6 times higher than the prevalence of confirmed active COVID-19 cases in the general Ontario population.

13. Therefore, if the risk to Ontarians is "high", even though the average Ontarian can engage in social distancing and self-isolation, and given that the prevalence is lower in the Ontario population than in the correctional population, I am unable to comprehend how one could assert that COVID-19 is a "very small risk factor" in the correctional population.

14. The math alone suggests that even with just 2 confirmed cases, COVID-19 is an imminent, severe, calamitous threat in the correctional population, in comparison with the Ontario population, who also face an acknowledged serious threat.

(C) Are the measures described in this Information Note sufficient to protect the health of people experiencing incarceration, staff in correctional facilities, and the general public?

15. All of the measures described in the Information Note to reduce infections and limit outbreaks are, in my opinion, absolutely necessary.

16. However, over the coming weeks, Ontario is going to face overwhelming system-wide challenges. In hospitals, conventional ICUs are going to overflow, and makeshift ICUs staffed by redeployed personnel who are less accustomed to this

[3] https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000901

work will look after an additional 900 patients.[4] According to the latest projections released by the Government of Ontario, 3000-15000 people will die, if appropriate public health measures are taken.

17. Virtually every Ontarian will know someone and care about someone who dies from this condition. In correctional facilities, this will mean that many more sick people will remain in prison to convalesce, when they might (during more normal circumstances) have been transferred to hospital. There will simply be nowhere to put patients in hospital who don't need advanced care. Correctional facility health personnel can anticipate that they will be overwhelmed, and non-healthcare personnel in corrections can anticipate that they will be exposed to much more COVID-19 than they would otherwise consider acceptable.

18. Outbreaks will occur in nearly every congregate living environment: prisons, homeless shelters, dormitories and retirement homes.[5] The idea that we can keep it out of these settings is fantasy. Public health officials will be unable to respond in the conventional way to these outbreaks. They will certainly not be able to respond in the way that this Information Note envisions (including direct collaboration with local Medical Officers of Health for containment strategies and medical isolation procedures). Ontario is preparing for an attack rate in the range of 45-70%, meaning that the conventional practices of careful outbreak investigation, contact tracing, and the intensive involvement and handholding of public health personnel as usually occurs in correctional facility outbreaks will not occur. Effectively, COVID-19 will sweep through correctional facilities with basic instructions from public health to cohort the sick together and transfer people who are deteriorating rapidly to hospital. Deaths among inmates and corrections workers are likely.

19. The Information Note speaks to human resources challenges among corrections workers. This will increase. There will also be absences due to illness and bereavement. A smaller correctional population is needed for this reason.

20. Large outbreaks in correctional facilities (like long-term care facilities) create boluses of sick patients who require hospital care at once. Preventing these pulses of sick individuals is the reason for social distancing. The disease will still move through the population, but more slowly. When this occurs, there is a chance that every person who needs an ICU bed can get one.

21. Any effort to enhance social distancing and reduce congregate living is a chance to reduce ICU admissions, and ICU beds are a resource shared across the entire population. Therefore, reducing inmate populations is not only about improving

[4] Ontario's planning in this area is captured in this Ontario news release: Ontario Takes Extraordinary Steps to Ensure Health Care Resources are Available to Contain COVID-19. https://news.ontario.ca/mohltc/en/2020/03/ontario-takes-extraordinary-steps-to-ensure-health-care-resources-are-available-to-contain-covid-19.html

[5] For example, as of April 3rd, 20 residents of the Pinecrest Nursing Home in Bobcaygeon ON had died of COVID-19, including four in one day: https://toronto.citynews.ca/2020/04/03/bobcaygeon-nursing-home-covid-19-deaths/.

safety for inmates, but also about improving safety for all of Ontario (and beyond, as long as borders between the provinces and territories remain open). In the face of COVID-19, health is a whole-of-society and whole-of-government undertaking. Insufficient outbreak prevention in correctional facilities is a threat to everyone's health. COVID-19 is an ecosystemic threat to our collective health.

22. Therefore, my opinion is that although the measures described in the Information Note are essential, they are insufficient and should be approached as an appropriate overarching strategy for responding to COVID-19 in the Ontario correctional system. While we maximize hygiene, reduce capacity, and enhance social distancing, *aggressive reductions in correctional facility populations* is the only approach that serves the collective needs of individuals in correctional facilities, the population in correctional facilities, staff in correctional facilities, and the community at large.

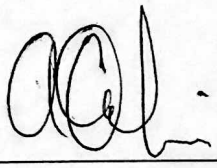
23. Even the efforts described to "reduce capacity" (line 122) in the Information Note are insufficient. In my medical and population health opinion, there is no minimum grouping of people in correctional facilities that serves the public interest in the face of COVID-19.

Conclusions

24. My position on the interventions and opinions described in this Information Note can be summarized by analogy. Imagine a group of world-class lifeguards working to protect citizens swimming at a large public beach. An oceanographer runs down onto the beach and says, "The forecast is bad and we should get as many people out of the water as possible." The chief lifeguard replies, "We followed our safety protocol this morning. Our top lifeguards are working today, and the swimmers are strong. Our weather monitor offers data in real-time. We ran our checklists and have a superb foul weather mitigation strategy in place, bearing the logo of the local lifesaving society." The oceanographer replies, "I really think that we should get people out of the water." The lifeguard replies, "The population in the water is smaller than it has been since January 2018." The oceanographer replies, "There is a tidal wave coming, 10 minutes out. Anyone who can get out of the water should do so." What will the lifeguard do?

25. My position is rooted in my knowledge of public health and COVID-19 only, and I do not purport to weigh or balance the risks of COVID-19 on an individual or population level against the public safety issues associated with the release of individual inmates from custody. I realize fully that some inmates are violent, some are dangerous, and therefore some cannot be safely released into the community. Nevertheless, my opinion is that the collective and congregate gathering of a group of people in correctional facilities together is very dangerous right now. As a society, during these extraordinary circumstances, it is essential that we accurately assess the nature of these safety risks, so that they can be appropriately weighed against one another.

Signed at the City of Toronto, April 5, 2020



Dr. Aaron Orkin MD

APPENDIX A

INFORMATION NOTE

Institutional Services Response to COVID-19
(Including TSDC Specific Information)
March 30, 2020

(With line numbers and highlighting)

Ontario

INFORMATION NOTE

Institutional Services Response to COVID-19
(Including TSDC Specific Information)
March 30, 2020

Ontario has implemented several strategies to limit the effects of COVID-19 on our inmate population and our correctional staff. (A full list can be found in “Background”).

We have made great progress over the past weeks to reduce our overall capacity in our institutions and we are at our lowest capacity numbers since January 2018.

Working closely with the Ministry of Health, Public Health, the Ministry of the Attorney General, the Ontario and Superior Courts and our Community Safety partners, we are confident in the care we are providing our inmate population.

Quick Facts:

- As of March 30, 2020, there are 6,578 inmates in custody across all 25 institutions.
- There are 1,766 fewer inmates in custody today than there was on March 16, 2020. That is a 21% reduction, in about 2 weeks.
- As of March 30, 2020:
    - Total tested for COVID-19: 54
    - Total negative results: 28
    - Total pending results: 19
    - Total positive results: 2
    - Results unknown: 4
- Given the size of our population, this is currently a very small risk factor.
- One of the positive inmate tests was an intermittent inmate, not in our custody and no close contacts at the intermittent center were identified.
- Regarding the second positive inmate result, the individual was identified at admission and they have been maintained in isolation and on droplet precautions. There is no known risk to staff or inmates within the impacted institution.

TSDC specific Quick Facts:

- As of March 30, 2020, there are 987 inmates in custody, which is within operational capacity.
- Since March 16, 2020, the number of inmates in custody has decreased from 1,176 to 987.

- TSDC has experienced several lockdowns due to staffing shortages during this period. The senior administration and ministry staff have worked diligently to increase staffing levels and the number of staffing related lockdowns has decreased and the number of living units impacted by each lockdown has also decreased over the past week.
- During periods of lockdown inmates continue to have access to meals, showers and professional visits. Inmates continue to attend court in-person as necessary, though almost all courts are now being held via video or telephone.
- As of March 30, 2020, one inmate in our custody and one intermittent inmate, not in our custody, have tested positive for COVID-19 at TSDC.
- As of March 30, 2020, one staff member has tested positive at TSDC.

Communicable disease outbreak process:

- If an outbreak of any communicable disease occurs or is suspected, institution officials will take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals.
- Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

Housing for medically vulnerable inmates

- Decisions about placement are the responsibility of on-site correctional staff. However, where there are medical requirements at issue, this is a collaborative process and extensive consultation with health care takes place. Health care staff provide recommendations based on the assessed health care needs of the inmate.
- The housing placement for an inmate with medical needs will also be influenced by the physical layout of an institution and the facilities that are available at that institution.
- Placement options to protect a vulnerable individual vary and are dependent on institution design. Options may include general population (including protective custody if required); behavioural units, managed clinical care, or special needs units; medical observation units, or an institutional infirmary. There are different areas where patients are housed within an institution that correspond to the level of health care services they require:

Actions:

- Personal visitation has been suspended until further notice. Institutions are working on local initiatives to provide extra postage, phone calls and activities for inmates while visits are suspended.

- In support of inmates the ministry has also increased the weekly “canteen” limit by 50% to $90 to allow inmates to purchase additional comfort and recreation items. The ministry is also reviewing new items that can be purchased.
- Across the province, institutions are undertaking strategies to mitigate the impact of these limitations on inmates which include things like providing additional TV time and providing access to additional TV channels,
- Professional visits including lawyers and spiritual volunteers are continuing.
- Every individual entering the institution is subject to a screening process that was developed based on Ministry of Health guidelines. This includes:
    - New admits
    - Inmates returning from court or being transferred
    - All professional visitors
    - All staff, each time they enter the institution
    - Personal Protective Equipment (PPE) is being worn in Admitting and Discharge department by those correctional staff that have first contact with new admits and by nursing staff doing screening.
- In partnership with MAG, the ministry has moved all court appearance to video or telephone in order to reduce the movement of inmates in and out of the institutions (unless specifically requested by the Court).
- Facilities are inspected and thoroughly cleaned daily and/or as required. Additional cleaning services are being co-ordinated and provided through our Corporate Services Division.
- Proper handwashing and cough/sneezing protocol has also been communicated to inmates. Information has been posted in inmate areas.
- Staff have access to PPE and are instructed to wear it during specific activities as advised by the Ministry of Health.
- If an outbreak of any communicable disease occurs or is suspected, institution officials take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals. Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

To reduce capacity:

- Intermittent inmates who serve time on the weekends are required to attend their reporting facility for their first reporting date, where they will be given a Temporary Access Pass (TAP) from custody and permitted to return home. The TAP will be issued for May 1, 2020 or their sentence end-date, whichever comes first. This means those serving intermittent sentences will not have to report to a correctional facility every weekend, reducing the number of individuals entering the institution.

- The ministry is beginning to proactively perform a temporary absence review for all inmates to determine whether they are eligible for early release. Inmates chosen must be near the end of their sentences and be considered a low risk to reoffend. Inmates who have been convicted of serious crimes, such as violent crimes or crimes involving guns, would not be considered for early release. Unlike the standard process, inmates are not required to apply for release and will be notified if they qualify and must agree to the terms and conditions of their release prior to leaving the institution.
- We are working closely with the Ministry of the Attorney General and the Courts to ensure that any low-risk, non-violent offenders can be diverted at court.
- We are working in conjunction with the Ministry of the Attorney General and the Ontario Court of Justice, as well as the police agencies and counsel, to significantly increase the use of virtual courts (video and teleconference), thereby reducing the number of inmates transported to courthouses for appearances.
- The Ontario Parole Board is conducting all hearings by teleconference.

TSDC specific actions:

- TSDC has developed an information channel that can be played on inmate TV's including instructional materials on handwashing, cough etiquette, and how inmates can help keep the institution COVID free.
- The TSDC healthcare services have staff on duty 24/7 and TSDC has negative-pressure rooms which help reduce the possibility of transmitting viral infections where at-risk inmates can be medically isolated.

APPENDIX B

BRIEFING NOTE

Institutional Services Response to COVID-19
(Including TEDC Specific Information)

25 MARCH 2020

Ontario

BRIEFING NOTE

Institutional Services Response to COVID-19
(Including TEDC Specific Information)

Ontario has implemented several strategies to limit the effects of COVID-19 on our inmate population and our correctional staff. (A full list can be found in "Background").

We have made great progress over the past two weeks to reduce our overall capacity in our institutions and we are at our lowest capacity numbers since January 2018.

Working closely with the Ministry of Health, Public Health, the Ministry of the Attorney General, the Ontario and Superior Courts and our Community Safety partners, we are confident in the care we are providing our inmate population.

Quick Facts:

- As of March 25, 2020, there are 6,925 inmates in custody across all 25 institutions.
- There are 1,286 fewer inmates in custody today than there was on March 13, 2020. That is a 16% reduction, in 2 weeks.
- As of March 24, 2020:

    - Total tested for COVID-19: 20
    - Total negative results: 8
    - Total pending results: 11
    - Total positive results: 1

- Given the size of our population, this is currently a very small risk factor.
- Regarding the positive result, this individual was identified at admission and they have been maintained in isolation and on droplet precautions. There is no known risk to staff or inmates within the impacted institution.

TEDC specific Quick Facts:

- As of March 25, 2020, there are 317 inmates in custody, which is under our capacity of 473 beds.
- In the past two weeks, number of inmates in custody has decreased from 384 to 317.
- There have been no notable impacts on operations during this time period (due to COVID-19 or other issues).
- As of March 25, 2020, no inmates have required testing for COVID-19 at TEDC.
- As of March 25, 2020, no staff have tested positive at TEDC.

Ontario

Communicable disease outbreak process:

- If an outbreak of any communicable disease occurs or is suspected, institution officials will take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals.
- Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

Background:

Actions:

- Personal visitation has been suspended until further notice. Institutions are working on local initiatives to provide extra postage, phone calls and activities for inmates while visits are suspended.
- Professional visits including lawyers and spiritual volunteers are continuing.
- Every individual entering the institution is subject to a screening process that was developed based on Ministry of Health guidelines. This includes:
    - New admits
    - Inmates returning from court or being transferred
    - All professional visitors
    - All staff, each time they enter the institution
    - Personal Protective Equipment (PPE) is being worn in Admitting and Discharge department by those correctional staff that have first contact with new admits and by nursing staff doing screening.
- Facilities are inspected and thoroughly cleaned daily and/or as required. Additional cleaning services are being co-ordinated and provided through our Corporate Services Division.
- Proper handwashing and cough/sneezing protocol has also been communicated to inmates. Information has been posted in inmate areas.
- Staff have access to PPE and are instructed to wear it during specific activities as advised by the Ministry of Health.
- If an outbreak of any communicable disease occurs or is suspected, institution officials take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals. Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

To reduce capacity:

- Intermittent inmates who serve time on the weekends are required to attend their reporting facility for their first reporting date, where they will be given a Temporary Access Pass (TAP) from custody and permitted to return home. The TAP will be issued for May 1, 2020 or their sentence end-date, whichever comes first. This means those serving intermittent sentences will not have to report to a correctional facility every weekend, reducing the number of individuals entering the institution.
- The ministry is beginning to proactively perform a temporary absence review for all inmates to determine whether they are eligible for early release. Inmates chosen must be near the end of their sentences and be considered a low risk to reoffend. Inmates who have been convicted of serious crimes, such as violent crimes or crimes involving guns, would not be considered for early release. Unlike the standard process, inmates are not required to apply for release and will be notified if they qualify and must agree to the terms and conditions of their release prior to leaving the institution.
- We are working closely with the Ministry of the Attorney General and the Courts to ensure that any low-risk, non-violent offenders can be diverted at court.
- We are working in conjunction with the Ministry of the Attorney General and the Ontario Court of Justice, as well as the police agencies and counsel, to significantly increase the use of virtual courts (video and teleconference), thereby reducing the number of inmates transported to courthouses for appearances.
- The Ontario Parole Board is conducting all hearings by teleconference.

TEDC specific actions:

- Health Care Management has instructed nurses to attend all the units to educate the inmates about proper etiquette on hand washing, symptoms and notifying Health Care staff if they feel ill.
- Additional cleaning services provided by our existing janitorial company vendor. The cleaners will be cleaning all high contact areas in common areas. Cleaning will occur three times daily, seven days a week.

This is Exhibit F to the Affidavit of Dr. Aaron Orkin,
sworn before me this 7th day of April, 2020

John H. Hale, LSO #29251N

REPORT ON

INFORMATION NOTE
Institutional Services Response to COVID-19
(Including TSDC Specific Information)
March 30, 2020

AARON ORKIN MD MSc MPH PhD(c) CCFP(EM) FRCPC

The purpose of this report is to provide my professional opinion regarding the "Institutional Services Response to COVID-19 (Including TSDC Specific Information), March 30, 2020" (hereinafter, the "Information Note") in my capacity as a physician specialist in Public Health and Preventive Medicine.

My professional opinion regarding this Information Note concerns three questions:

(A) Is the medical and epidemiological content of the Information Note factually correct?

(B) Does the Information Note provide an appropriate description of the risk of COVID-19 within correctional facilities?

(C) Are the measures described in this Information Note sufficient to protect the health of people experiencing incarceration, staff in correctional facilities, and the general public?

The Information Note in question is appended below as **Appendix A**, with line numbers inserted for reference. Coloured highlighting is also inserted for the sake of the discussion below. The Information Note is otherwise unaltered. The Information Note refers to a "Background" (Line 7), but I have not been provided with this related Information Note.

(A) *Is the medical and epidemiological content of the Information Note factually correct?*

1. The medical and epidemiological content of this Information Note falls into three broad categories:

    a. Statements of opinion regarding the adequacy of the care and protections being provided for people experiencing incarceration in Ontario. These appear on page 1, lines 9-13, 35-36, and 40. These are highlighted in yellow.

    b. Statements of fact or data regarding existing cases of COVID-19 and their management in Ontario correctional facilities including TSDC. These are highlighted in green.

c. Discussion of the practical and policy interventions intended to reduce the impact of COVID-19 in correctional facilities. This content begins on page 2 and remains without highlighting.

2. Regarding the statements of opinion provided in this Information Note:

Statement and line number	My Professional Opinion
"We have made great progress…" (line 9)	The presence of an imminent health threat for a person or community is not determined by whether that person or community has taken some relevant steps to mitigate that threat. This is not unlike someone who is driving a car in a school zone at 160km/hr stating that they have made "great progress" toward safety because they were driving at 200km/hr just a few moments ago. I interpret the statement of "great progress" as a celebration of achieving the lowest numbers of inmates since January 2018. From the perspective of the emerging health threat of COVID-19, this raises two questions. First, what would be a low enough number of people in a congregate living environment to achieve safety in the context of COVID-19? My answer is that there is no minimum number from a medical and population health safety perspective. Gatherings of more than 5 people are presently prohibited under Ontario's Emergency Declaration.[1] The reduction in numbers and the degree of progress is immaterial if more can be done or if people are still gathered in groups greater than 5 within correctional settings. And second, if correctional facility populations were lower in January 2018 than they were in March 30, 2020, why is the present number sufficiently low; conversely, should we continue taking measures to reduce the inmate population?
"we are confident in the care we are providing our inmate population." (line 13-14)	COVID-19 is an absolutely unprecedented threat in Ontario's health history. This is no ordinary outbreak. The April 3, 2020 Technical Briefing released by the Ontario Government demonstrates the breadth and gravity of this situation. Between 3,000 and 15,000 people will die – and that is with significant measures being taken to control the spread of the illness, i.e., to "flatten the curve". In a best-case scenario with adequate social distancing measures (including reducing prison outbreaks), Ontario will get through this event without

[1] On March 28th, an Order in Council was passed prohibiting groups larger than 5 people: https://files.ontario.ca/solgen-oic-gatherings-events-2020-03-28.pdf?_ga=2.221758239.600820156.1586068782-7949595.1585946347

	exceeding our ICU bed capacity. This will require the introduction of 900 additional ICU beds on top of our existing 410. The scale of this undertaking is unprecedented, and can only be understood as a whole-of-society and a whole-of-government effort. In my opinion, no expert public health or health care practitioner can be "confident" in the care we are providing to any population or sub-population in Ontario. This is equally true at the public health units, the emergency department, the prisons and homeless shelters, and in any place where health and confinement intersect. In my professional opinion, at this moment in history, an expression of bald "confidence" in the safety of a group living in a congregate setting suggests a serious deficiency of public health expertise.
"Given the size of our population, this is currently a very small risk factor." Line 30	This is discussed in section (B), below.
"There is no known risk to staff or inmates within the impacted institution."	The Chief Medical Officer of Health (CMOH) has stated in many of his emergency directives concerning COVID-19 "there exists or may exist an immediate risk to the health of persons anywhere in Ontario from COVID-19"[2]. Given that the TSDC is in Ontario, the assertion of "no known risk" is incongruous with the opinion of the CMOH. I agree with the CMOH. The threat of COVID-19 in a correctional facility is not determined merely by the details of individual cases or their isolation. COVID-19 is also a broad, population-wide, and ecosystemic threat for all of the inmates and personnel within a correctional facility; these threats exist regardless of the infection control practices enacted at that facility, and can be managed only through depopulation of congregate living to the lowest possible threshold. The strategies taken within the correctional system to respond to that threat must consider correctional facilities within that ecosystem, and not merely as a matter for infection control.

3. There is no statement of authorship to enable me to attribute these opinions to an individual or group, nor any explanation of the expertise or experience of the people or groups of people making these assertions.

[2] Chief Medical Officer of Health (Ontario) David C. Williams, "COVID-19 Directive #3 for Long-Term Care Homes under the Long-Term Care Homes Act, 2007", Issued under Section 77.7 of the *Health Protection and Promotion Act (HPPA)*, R.S.O. 1990, c. H.7, dated March 30, 2020, available at https://www.oha.com/Bulletins/CMOH%20Directive%203%20-%20Long-Term%20Care%20Homes%20-%20HPPA%2003%2030%202020%20Shared.pdf

4. Regarding the statements of fact (in green) and discussion of policy interventions (no highlighting) in the Information Note: There is no description of how the data reported were derived or validated, and no discussion of how the various interventions listed were developed or implemented. There is also no discussion of who oversees the implementation of the interventions described therein or who is accountable for the implementation of those interventions. The Information Note bears the logo of the Province of Ontario, suggesting that it is an official Information Note of the Government of Ontario, but I am unable to corroborate this. I therefore cannot provide any opinion on the accuracy of the facts or the veracity of the interventions described nor the effectiveness of their implementation.

(B) Does the Information Note provide an appropriate description of the risk of COVID-19 within correctional facilities?

5. The Information Note states that "Given the size of our population, this is currently a very small risk factor." (Line 30)

6. This appears to refer to the data provided in lines 18-28 regarding the number of cases of COVID-19 (2 cases) relative to the population in custody (6,578). This statement of risk therefore purports to be an estimation of risk on the basis of COVID-19 prevalence in the inmate population on March 30, 2020.

7. On March 30, 2020, Ontario had been in a state of emergency due to COVID-19 for 13 days (nearly 2 weeks). As stated above, the CMOH has stated "there exists or may exist an immediate risk to the health of persons anywhere in Ontario from COVID-19". Furthermore, Health Canada has stated that "the risk to Canadians is considered high".

8. The average Ontarian does not live in a congregate living environment, and is able to abide by the CMOH's order banning gatherings of more than 5 people (effective March 25). The risk in this population is nevertheless high.

9. People living in correctional institutions live in a congregate living environment and are likely not able to abide by the CMOH's order banning gatherings of more than 5 people (especially if we consider that the epidemiological purpose for this social distancing is defeated by sharing dining facilities, bathrooms, or other settings).

10. This Information Note nevertheless asserts that the risk in this population is low. This is in my opinion incorrect and inconsistent with prevailing public health advice.

11. The table below compares the population prevalence of COVID-19 on March 30, 2020 in the general Ontario population vs. the correctional population. Data for the general population is from the Ministry of Health's daily situation reports for March 30, 2020.

	Population	COVID-19 Cases	Population Prevalence
Corrections	6,578	2	30.4/100,000
Ontario	14,711,827 (according to StatsCan in Q1 of 2020)[3]	1,706 (this includes 431 resolved cases and 23 deaths) Therefore, we use 1250 as the case count, which excludes resolved cases, deaths, and cases occurring in corrections.	8.50/100,000

12. Therefore, the prevalence of confirmed active COVID-19 cases in correctional facilities on March 30, 2020 was almost 3.6 times higher than the prevalence of confirmed active COVID-19 cases in the general Ontario population.

13. Therefore, if the risk to Ontarians is "high", even though the average Ontarian can engage in social distancing and self-isolation, and given that the prevalence is lower in the Ontario population than in the correctional population, I am unable to comprehend how one could assert that COVID-19 is a "very small risk factor" in the correctional population.

14. The math alone suggests that even with just 2 confirmed cases, COVID-19 is an imminent, severe, calamitous threat in the correctional population, in comparison with the Ontario population, who also face an acknowledged serious threat.

(C) Are the measures described in this Information Note sufficient to protect the health of people experiencing incarceration, staff in correctional facilities, and the general public?

15. All of the measures described in the Information Note to reduce infections and limit outbreaks are, in my opinion, absolutely necessary.

16. However, over the coming weeks, Ontario is going to face overwhelming system-wide challenges. In hospitals, conventional ICUs are going to overflow, and makeshift ICUs staffed by personnel who are less accustomed to this work will look after an additional 900 patients.[4] According to the latest projections released by the Government of Ontario, 3000-15000 people will die, if appropriate public health measures are taken.

[3] https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000901

[4] For example, see "With Virus Surge, Dermatologists and Orthopedists Are Drafted for the E.R.", *New York Times*, April 3, 2020, https://www.nytimes.com/2020/04/03/nyregion/new-york-coronavirus-doctors.html.

17. Virtually every Ontarian will know someone and care about someone who dies from this condition. In correctional facilities, this will mean that many more sick people will remain in prison to convalesce, when they might (during more normal circumstances) have been transferred to hospital. There will simply be nowhere to put patients in hospital who don't need advanced care. Correctional facility health personnel can anticipate that they will be overwhelmed, and non-healthcare personnel in corrections can anticipate that they will be exposed to much more COVID-19 than they would otherwise consider acceptable.

18. Outbreaks will occur in nearly every congregate living environment: prisons, homeless shelters, dormitories and retirement homes.[5] The idea that we can keep it out of these settings is fantasy. Public health officials will be unable to respond in the conventional way to these outbreaks. They will certainly not be able to respond in the way that this Information Note envisions (including direct collaboration with local Medical Officers of Health for containment strategies and medical isolation procedures). Ontario is preparing for an attack rate in the range of 45-70%, meaning that the conventional practices of careful outbreak investigation, contact tracing, and the intensive involvement and handholding of public health personnel as usually occurs in correctional facility outbreaks will not occur. Effectively, COVID-19 will sweep through correctional facilities with basic instructions from public health to cohort the sick together and transfer people who are deteriorating rapidly to hospital. Deaths among inmates and corrections workers are likely.

19. The Information Note speaks to human resources challenges among corrections workers. This will increase. There will also be absences due to illness and bereavement. A smaller correctional population is needed for this reason.

20. Large outbreaks in correctional facilities (like long-term care facilities) create boluses of sick patients who require hospital care at once. Preventing these pulses of sick individuals is the reason for social distancing. The disease will still move through the population, but more slowly. When this occurs, there is a chance that every person who needs an ICU bed can get one.

21. Any effort to enhance social distancing and reduce congregate living is a chance to reduce ICU admissions, and ICU beds are a resource shared across the entire population. Therefore, reducing inmate populations is not only about improving safety for inmates, but also about improving safety for all of Ontario (and beyond, as long as borders between the provinces and territories remain open). In the face of COVID-19, health is a whole-of-society and whole-of-government undertaking. Insufficient outbreak prevention in correctional facilities is a threat to everyone's health. COVID-19 is an ecosystemic threat to our collective health.

[5] For example, as of April 3rd, 20 residents of the Pinecrest Nursing Home in Bobcaygeon ON had died of COVID-19, including four in one day: https://toronto.citynews.ca/2020/04/03/bobcaygeon-nursing-home-covid-19-deaths/.

22. Therefore, my opinion is that although the measures described in the Information Note are essential, they are insufficient and should be approached as an appropriate overarching strategy for responding to COVID-19 in the Ontario correctional system. While we maximize hygiene, reduce capacity, and enhance social distancing, *aggressive reductions in correctional facility populations* is the only approach that serves the collective needs of individuals in correctional facilities, the population in correctional facilities, staff in correctional facilities, and the community at large.

23. Even the efforts described to "reduce capacity" (line 122) in the Information Note are insufficient. In my medical and population health opinion, there is no minimum grouping of people in correctional facilities that serves the public interest in the face of COVID-19.

24. My position is rooted in my knowledge of public health and COVID-19 only, and I do not purport to weigh or balance the risks of COVID-19 on an individual or population level against the public safety issues associated with the release of individual inmates from custody. I realize fully that some inmates are violent, some are dangerous, and therefore some cannot be safely released into the community. Nevertheless, my opinion is that the collective and congregate gathering of a group of people in correctional facilities together is very dangerous right now. As a society, during these extraordinary circumstances, it is essential that we accurately assess the nature of these safety risks, so that they can be appropriately weighed against one another.

Signed at the City of Toronto, April 5, 2020

_____

Dr. Aaron Orkin MD

APPENDIX A

INFORMATION NOTE
Institutional Services Response to COVID-19
(Including TSDC Specific Information)
March 30, 2020

(With line numbers and highlighting)

Ontario

INFORMATION NOTE
Institutional Services Response to COVID-19
(Including TSDC Specific Information)
March 30, 2020

Ontario has implemented several strategies to limit the effects of COVID-19 on our inmate population and our correctional staff. (A full list can be found in "Background").

We have made great progress over the past weeks to reduce our overall capacity in our institutions and we are at our lowest capacity numbers since January 2018.

Working closely with the Ministry of Health, Public Health, the Ministry of the Attorney General, the Ontario and Superior Courts and our Community Safety partners, we are confident in the care we are providing our inmate population.

Quick Facts:

- As of March 30, 2020, there are 6,578 inmates in custody across all 25 institutions.
- There are 1,766 fewer inmates in custody today than there was on March 16, 2020. That is a 21% reduction, in about 2 weeks.
- As of March 30, 2020:

    - Total tested for COVID-19: 54
    - Total negative results: 28
    - Total pending results: 19
    - Total positive results: 2
    - Results unknown: 4

- Given the size of our population, this is currently a very small risk factor.
- One of the positive inmate tests was an intermittent inmate, not in our custody and no close contacts at the intermittent center were identified.
- Regarding the second positive inmate result, the individual was identified at admission and they have been maintained in isolation and on droplet precautions. There is no known risk to staff or inmates within the impacted institution.

TSDC specific Quick Facts:

- As of March 30, 2020, there are 987 inmates in custody, which is within operational capacity.
- Since March 16, 2020, the number of inmates in custody has decreased from 1,176 to 987.
- TSDC has experienced several lockdowns due to staffing shortages during this period. The senior administration and ministry staff have worked diligently to

increase staffing levels and the number of staffing related lockdowns has decreased and the number of living units impacted by each lockdown has also decreased over the past week.

- During periods of lockdown inmates continue to have access to meals, showers and professional visits. Inmates continue to attend court in-person as necessary, though almost all courts are now being held via video or telephone.
- As of March 30, 2020, one inmate in our custody and one intermittent inmate, not in our custody, have tested positive for COVID-19 at TSDC.
- As of March 30, 2020, one staff member has tested positive at TSDC.

Communicable disease outbreak process:

- If an outbreak of any communicable disease occurs or is suspected, institution officials will take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals.
- Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

Housing for medically vulnerable inmates

- Decisions about placement are the responsibility of on-site correctional staff. However, where there are medical requirements at issue, this is a collaborative process and extensive consultation with health care takes place. Health care staff provide recommendations based on the assessed health care needs of the inmate.
- The housing placement for an inmate with medical needs will also be influenced by the physical layout of an institution and the facilities that are available at that institution.
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Actions:

- Personal visitation has been suspended until further notice. Institutions are working on local initiatives to provide extra postage, phone calls and activities for inmates while visits are suspended.
- In support of inmates the ministry has also increased the weekly “canteen” limit by 50% to $90 to allow inmates to purchase additional comfort and recreation items. The ministry is also reviewing new items that can be purchased.

- Across the province, institutions are undertaking strategies to mitigate the impact of these limitations on inmates which include things like providing additional TV time and providing access to additional TV channels,
- Professional visits including lawyers and spiritual volunteers are continuing.
- Every individual entering the institution is subject to a screening process that was developed based on Ministry of Health guidelines. This includes:
    - New admits
    - Inmates returning from court or being transferred
    - All professional visitors
    - All staff, each time they enter the institution
    - Personal Protective Equipment (PPE) is being worn in Admitting and Discharge department by those correctional staff that have first contact with new admits and by nursing staff doing screening.
- In partnership with MAG, the ministry has moved all court appearance to video or telephone in order to reduce the movement of inmates in and out of the institutions (unless specifically requested by the Court).
- Facilities are inspected and thoroughly cleaned daily and/or as required. Additional cleaning services are being co-ordinated and provided through our Corporate Services Division.
- Proper handwashing and cough/sneezing protocol has also been communicated to inmates. Information has been posted in inmate areas.
- Staff have access to PPE and are instructed to wear it during specific activities as advised by the Ministry of Health.
- If an outbreak of any communicable disease occurs or is suspected, institution officials take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals. Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

To reduce capacity:

- Intermittent inmates who serve time on the weekends are required to attend their reporting facility for their first reporting date, where they will be given a Temporary Access Pass (TAP) from custody and permitted to return home. The TAP will be issued for May 1, 2020 or their sentence end-date, whichever comes first. This means those serving intermittent sentences will not have to report to a correctional facility every weekend, reducing the number of individuals entering the institution.

- The ministry is beginning to proactively perform a temporary absence review for all inmates to determine whether they are eligible for early release. Inmates chosen must be near the end of their sentences and be considered a low risk to reoffend. Inmates who have been convicted of serious crimes, such as violent

crimes or crimes involving guns, would not be considered for early release. Unlike the standard process, inmates are not required to apply for release and will be notified if they qualify and must agree to the terms and conditions of their release prior to leaving the institution.

- We are working closely with the Ministry of the Attorney General and the Courts to ensure that any low-risk, non-violent offenders can be diverted at court.
- We are working in conjunction with the Ministry of the Attorney General and the Ontario Court of Justice, as well as the police agencies and counsel, to significantly increase the use of virtual courts (video and teleconference), thereby reducing the number of inmates transported to courthouses for appearances.
- The Ontario Parole Board is conducting all hearings by teleconference.

TSDC specific actions:

- TSDC has developed an information channel that can be played on inmate TV's including instructional materials on handwashing, cough etiquette, and how inmates can help keep the institution COVID free.
- The TSDC healthcare services have staff on duty 24/7 and TSDC has negative-pressure rooms which help reduce the possibility of transmitting viral infections where at-risk inmates can be medically isolated.

INFORMATION SHEET
Institutional Services Response to COVID-19
Last updated March 26, 2020
Includes information specific to OCDC

Ontario has implemented several strategies to limit the effects of COVID-19 on our inmate population and our correctional staff. (A full list can be found in “Background”).

We have made great progress over the past two weeks to reduce our overall capacity in our institutions and we are at our lowest capacity numbers since January 2018.

Working closely with the Ministry of Health, Public Health, the Ministry of the Attorney General, the Ontario and Superior Courts and our Community Safety partners, we are confident in the care we are providing our inmate population.

Quick Facts:

- Between March 13 and March 25, 2020, we were able to reduce the number of inmates in our custody by 1,286. That is a 16% reduction, in 2 weeks.
- Currently we have a very small (<5) number of inmates and staff that have tested positive for COVID-19 across our 25 institutions.
- Given the size of our population, this is a very small risk factor.

Communicable disease outbreak process:

- If an outbreak of any communicable disease occurs or is suspected, institution officials will take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals.
- Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

Background:

Actions:

- Personal visitation has been suspended until further notice. Institutions are working on local initiatives to provide extra postage, phone calls and activities for inmates while visits are suspended.
- Professional visits including lawyers and spiritual volunteers are continuing.

- Every individual entering the institution is subject to a screening process that was developed based on Ministry of Health guidelines. This includes:
    - New admits
    - Inmates returning from court
    - Inmates being transferred between institutions (including newly revised screening protocol)
    - All professional visitors
    - All staff, each time they enter the institution
    - Personal Protective Equipment (PPE) is being worn in Admitting and Discharge department by those correctional staff that have first contact with new admits and by nursing staff doing screening.
- Facilities are inspected and thoroughly cleaned daily and/or as required. Additional cleaning services are being co-ordinated and provided through our Corporate Services Division.
- Proper handwashing and cough/sneezing protocol has also been communicated to inmates. Information has been posted in inmate areas.
- Staff have access to PPE and are instructed to wear it during specific activities as advised by the Ministry of Health.
- If an outbreak of any communicable disease occurs or is suspected, institution officials take immediate precautionary containment measures in accordance with operating procedures, including notifying the local Medical Officer of Health, and provincial health professionals. Institution health care staff working collaboratively and under the direction of the local Medical Officer of Health manage the situation, including containment strategies such as medical isolation.

To reduce capacity:

- Intermittent inmates who serve time on the weekends are required to attend their reporting facility for their first reporting date, where they will be given a Temporary Access Pass (TAP) from custody and permitted to return home. The TAP will be issued for May 1, 2020 or their sentence end-date, whichever comes first. This means those serving intermittent sentences will not have to report to a correctional facility every weekend, reducing the number of individuals entering the institution.
- The ministry is beginning to proactively perform a temporary absence review for all inmates to determine whether they are eligible for early release. Inmates chosen must be near the end of their sentences and be considered a low risk to reoffend. Inmates who have been convicted of serious crimes, such as violent crimes or crimes involving guns, would not be considered for early release. Unlike the standard process, inmates are not required to apply for release and will be notified if they qualify and must agree to the terms and conditions of their release prior to leaving the institution.
- We are working closely with the Ministry of the Attorney General and the Courts to ensure that any low-risk, non-violent offenders can be diverted at court.

- We are working in conjunction with the Ministry of the Attorney General and the Ontario Court of Justice, as well as the police agencies and counsel, to significantly increase the use of virtual courts (video and teleconference), thereby reducing the number of inmates transported to courthouses for appearances.
- The Ontario Parole Board is conducting all hearings by teleconference.

OCDC specific actions:

- Health Care Management has instructed nurses to attend all the units to educate the inmates about proper etiquette on hand washing, symptoms and notifying Health Care staff if they feel ill.
- The inmate population has been provided with additional soap in addition to information on how to clean their units and keep their hands and personal items clean.
- Posters providing information regarding the current status of COVID-19 are posted in each offender unit.
- The Deputy Superintendent of Operations has attended all units to speak to inmates regarding our pandemic plan (if needed) as well as answering all health care related questions.
- Daily checks are done to ensure adequate supplies of all PPE equipment.
- All professional visits are being done through glass in the unit's visiting areas.
- Recreation programs have been modified to keep offenders distanced from each other and recreation staff.
- Chapel is being held in small groups of 6 or less and only allowing offenders from the same unit and wing to attend at one time.
- NILO services and groups limited to 6 or less in the Chapel and new smudge protocols are in place.
- Additional cleaners have been hired to increase cleaning through public areas in the institution. Unit cleaners have increased cleaning time for offender area and staff area.

This is Exhibit G to the Affidavit of Dr. Aaron Orkin,
sworn before me this 7th day of April, 2020

John H. Hale, LSO #29251N

Ontario

INFORMATION NOTE
Institutional Services Response to COVID-19
March 31, 2020

Ontario has implemented several strategies to limit the effects of COVID-19 on our inmate population and our correctional staff. (A full list can be found in “Background”).

We have made great progress over the past weeks to reduce our overall capacity in our institutions and we are at our lowest capacity numbers since January 2018.

Working closely with the Ministry of Health, Public Health, the Ministry of the Attorney General, the Ontario and Superior Courts and our Community Safety partners, we are confident in the care we are providing our inmate population.

Quick Facts:

- As of March 30, 2020, there are 6,578 inmates in custody across all 25 institutions.
- There are 1,766 fewer inmates in custody today than there was on March 16, 2020. That is a 21% reduction, in about 2 weeks.
- Inmates tested as of March 30, 2020:

    - Total tested for COVID-19: 54
    - Total negative results: 28
    - Total pending results: 19
    - Total positive results: 2
    - Results unknown: 4

- As of March 30, 2020, 2 staff and 1 third party contract worker have tested positive for COVID-19. Proper protocol was undertaken immediately by health care staff working collaboratively with the Medical Officer of Health to contain the exposure. (Toronto South Detention Centre, Hamilton Wentworth Detention Centre and South West Detention Centre).
- Given the size of our population, this is currently a very small risk factor.
- Both positive tests for inmates have been at Toronto South Detention Centre.
- One of the positive inmate tests was an intermittent inmate, not in our custody, and no close contacts at the intermittent center were identified.
- Regarding the second positive inmate result, the individual was identified at admission and they have been maintained in isolation and on droplet precautions. There is no known risk to staff or inmates within the impacted institution.

Ontario

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Housing for medically vulnerable inmates

- Decisions about placement are the responsibility of on-site correctional staff. However, where there are medical requirements at issue, this is a collaborative process and extensive consultation with health care takes place. Health care staff provide recommendations based on the assessed health care needs of the inmate.
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