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.

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

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.

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

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

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.