

Court File No: CV-22-00682682-0000

ONTARIO  
SUPERIOR COURT OF JUSTICE

BETWEEN:

RANDY HILLIER

Applicant

- and -

HIS MAJESTY THE KING  
IN RIGHT OF THE PROVINCE OF ONTARIO

Respondent

EXAMINATION FOR DISCOVERY OF JOEL KETTNER  
Held via Arbitration Place Virtual  
on Friday, May 5, 2023, at 10:04 a.m.

APPEARANCES:

Ryan Cookson  
Savitri Gordian  
Sayeh Hassan

Counsel for the Respondent

Counsel for the Applicant

Chris Fleury  
Darren Leung  
Henna Parmar

ALSO PRESENT:

Raven Schofield

Commissioner of Oaths

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1 Arbitration Place Virtual

2 --- Upon resuming on Friday, May 5, 2023, at 10:04

3 a.m.

4 MS. SCHOFIELD: Good morning, Dr.

5 Kettner. My name is Raven Schofield. I'm an

6 associate general counsel with Arbitration Place,

7 and I'm here to affirm you before you give your

8 testimony today.

9 Are you able to hear me okay?

10 THE WITNESS: Yes.

11 MS. SCHOFIELD: Okay, great.

12 Dr. Kettner, do you solemnly

13 affirm the testimony you're about to give today

14 will be the truth, the whole truth, and nothing but

15 the truth?

16 THE WITNESS: To the best of my

17 ability, yes, I do.

18 AFFIRMED: JOEL KETTNER

19 EXAMINATION BY MR. COOKSON:

20 1. Q. Thank you and good morning,

21 Dr. Kettner. My name is Ryan Cookson, I'm one of

22 the counsel for the Province of Ontario in this

23 matter. I'm going to be asking you a few questions

24 about your Affidavit and the report you submitted.

25 Before I begin, I believe you have been cross-

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1 examined before in a court proceeding, is that  
2 right?

3 A. Yes.

4 2. Q. So you're somewhat familiar  
5 with this process, is that fair?

6 A. Yes.

7 3. Q. Okay. Just to remind you, in  
8 this case we are recording this cross-examination  
9 so it can be transcribed. So in response to your  
10 questions, please try to speak clearly for the  
11 benefit of the Court Reporter, and I will attempt  
12 to do the same. So you swore an Affidavit in this  
13 proceeding on September 7th, 2022, is that right?

14 A. Yes.

15 4. Q. And do you have a copy of  
16 that Affidavit in front of you?

17 A. I do.

18 5. Q. And I believe attached as  
19 Exhibit C to that Affidavit is a copy of your  
20 expert report, is that right?

21 A. Yes.

22 6. Q. And you also swore another  
23 Affidavit on December 15th, 2022, is that right?

24 A. I can't remember exactly the  
25 date, but I'm going to say yes in the confidence

1 that you're providing me with the correct  
2 information.

3 7. Q. Yes. There was a reply  
4 Affidavit that you swore, correct?

5 A. Sounds right.

6 8. Q. Sounds right, okay. Do you  
7 have that Affidavit in front of you?

8 A. I do not.

9 9. Q. Okay. I don't actually think  
10 we'll need to turn to it, so if that comes up we'll  
11 address it in time. The first place I'd like to  
12 turn to is Exhibit A of your Affidavit, which I  
13 believe is your CV. And if you'll just give me a  
14 moment, I'm going to pull up the part that I want  
15 to refer to. I'm going to go to page 33 of that  
16 document. And would it be easier if I shared my  
17 screen to refer to the exact page or would you  
18 prefer to follow along with a paper document?

19 A. I do not have it in front of  
20 me, so that's probably a good idea -- or, you could  
21 just read to me what the relevance of the question  
22 is.

23 10. Q. Sure. Why don't I share my  
24 screen just for the benefit of everybody, including  
25 your counsel. Do you see the document in front of

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1     you?

2                             A.     I do.

3     11.                   Q.     And here there's a heading  
4     called, "Court Affidavits and Expert Reports," do  
5     you see that?

6                             A.     Yes.

7     12.                   Q.     And I believe many, if not  
8     all, of the court Affidavits and expert reports  
9     that you list here relate to COVID-19, is that  
10    right?

11                          A.     Yes.

12    13.                   Q.     And I'd just like to go  
13    through them briefly. The first case is Mercer v.  
14    Government of Yukon. I believe this case involved  
15    a challenge to an order of the Yukon Government  
16    that declared a state of emergency in response to  
17    COVID-19, is that right?

18                          A.     On all of these I'm going to  
19    just say that my memory of the details of each of  
20    these would -- may not be adequate to -- you know,  
21    to affirm truth. But I doubt if that's important  
22    but, if it is, I just wanted to say that. That  
23    sounds right to me. I can't claim to be sure of  
24    the details of what you just said. That sounds  
25    right.

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1 14. Q. Yes, that's fair. I'm not  
2 asking for the specific details, just a general  
3 understanding of what the cases were about. And,  
4 in that case, you were retained by Mr. Mercer who  
5 was challenging the restrictions, correct?

6 A. I was retained by the lawyer  
7 who was, I think, representing him.

8 15. Q. Okay, and that's fine. The  
9 next case is Beaudoin v. British Columbia. This  
10 case involved a challenge to COVID-19 Public Health  
11 orders restricting gatherings and public events in  
12 British Columbia, is that right?

13 A. Sounds right.

14 16. Q. And again, you were retained  
15 by the individuals challenging the COVID-19  
16 policies?

17 A. By the lawyer representing  
18 them.

19 17. Q. By the lawyer representing  
20 them. And then after that there's the case of  
21 Gateway Bible Baptist Church in Manitoba, and this  
22 also involved a challenge to Public Health orders  
23 with respect to religious gatherings in Manitoba,  
24 is that right?

25 A. Yes.



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1 18. Q. And again, you were retained  
2 by the party challenging those Public Health  
3 orders, or the lawyer challenging those Public  
4 Health orders?

5 A. Yes.

6 19. Q. And the next is (inaudible)  
7 Barbecue in Ontario, this involved a challenge to  
8 COVID-19 Public Health regulations that restricted  
9 the operation of restaurants in Ontario, is that  
10 right?

11 A. Yes.

12 20. Q. And you were retained by the  
13 individuals challenging the COVID-19 policies?

14 A. Sorry, by whom?

15 21. Q. By either the individuals  
16 challenging the policies or by the lawyers  
17 challenging the policies?

18 A. Yes.

19 22. Q. And Wellandport v. Ontario,  
20 this is another case that involved a challenge to  
21 COVID-19 Public Health orders with respect to the  
22 religious gatherings in Ontario, is that right?

23 A. Yes.

24 23. Q. And again, you were retained  
25 by the party challenging those orders or the lawyer

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1 representing the party challenging those orders?

2 A. Yes.

3 24. Q. The next case is City of  
4 Barrie v. Tyler Nicholson. Do you recall what this  
5 case was about?

6 A. Well, is this the one that  
7 related to outdoor gatherings?

8 25. Q. I confess, I was not able to  
9 find information on this particular case, so I was  
10 wondering if you recalled what this case was about  
11 and what your role in it was?

12 A. Well, I was retained by the  
13 lawyer representing Tyler Nicholson and, if my  
14 memory is right, it related to outdoor gathering.

15 26. Q. Okay, thank you. And then  
16 there's another case in British Columbia, Canadian  
17 Society for the Advancement of Science in Public  
18 Policy v. Bonnie Henry, and I believe Dr. Henry is  
19 the Provincial Health Officer of British Columbia,  
20 is that right?

21 A. Yes, at the time, and I  
22 believe still.

23 27. Q. Yes, at the time, yes, and I  
24 believe still as well. And this was another case  
25 involving a challenge to COVID-19 Public Health

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1 orders restricting gatherings in British Columbia,  
2 is that right?

3 A. Yes, I think it was -- it was  
4 more related to indoor activities, I think, maybe  
5 pertaining to restaurant attendance. I'm not sure  
6 that I remember exactly.

7 28. Q. Okay. And again, you were  
8 retained by the party or lawyer challenging those  
9 restrictions?

10 A. Yes.

11 29. Q. I'll just skip down. There's  
12 another one -- last one I want to ask about is the  
13 Harjit(ph) case. The Harjit case, this involved a  
14 challenge to Ontario regulations that required  
15 proof of vaccination before entering certain  
16 facilities such as restaurants, is that right?

17 A. Hmm, I can't say I'm sure  
18 about that off the top of my head.

19 30. Q. Okay. But it did involve a  
20 challenge to some of Ontario's vaccine policies,  
21 correct?

22 A. I believe that's true.

23 31. Q. And you were retained by the  
24 party challenging those COVID-19 Public Health  
25 regulations?

1                                   A.    I'm sorry to be repetitive  
2    about this, but -- and I don't know if it's  
3    particularly important, but all I know is that I  
4    dealt with the lawyer representing them. I didn't  
5    really have any direct dealings with the party, if  
6    that's related to the -- you know, the person  
7    filing the notice. I just want to be clear about  
8    that.

9    32.                       Q.    No, I appreciate you being  
10   clear, and that's my fault, I should have rephrased  
11   my question. It's not relevant for my purposes,  
12   but I appreciate you being very particular about  
13   your answers. So overall, you've been retained by  
14   a number of parties that have challenged a number  
15   of different COVID-19 policies in a variety of  
16   different circumstances, correct?

17                           A.    Yes.

18   33.                       Q.    And then the next part I want  
19   to turn to, and I'll just stop sharing for a moment  
20   just as I turn to a different part of your  
21   Affidavit, I want to talk about --

22                           A.    Mr. Cookson, sorry to  
23   interrupt you.

24   34.                       Q.    Yes, of course

25                           A.    I know if you're going to

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1    come back, you know, to the purpose of those  
2    questions in terms of either the numbers or types  
3    of cases that I've been retained in. But, you  
4    know, for the benefit of the Court, it might be  
5    useful to describe, in general, why -- or explain,  
6    in general, why I have been retained and why I have  
7    done these cases. And in case there might be a  
8    misunderstanding of my purpose.

9    35.                   Q.    I think that was clear in  
10   your Affidavit. I'm just going to proceed with my  
11   questions and then perhaps we can come back to  
12   that. So the next part I'm going to turn up is the  
13   part of your Affidavit where you talk about your  
14   mandate. And I'll just pull that up in one moment.  
15   So this is your main Affidavit sworn on September  
16   7th, 2022, which is at Tab 4 of the Application  
17   Record. And I'm specifically focusing on paragraph  
18   10. First of all, do you see that document in  
19   front of you?

20                           A.    I do.

21   36.                   Q.    Right. And it states at  
22   paragraph 10, "I have been asked by counsel for the  
23   Applicants to prepare a report as an expert  
24   witness, to provide my professional opinions on the  
25   following questions:" and then you list the

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1 questions. Do you see that?

2 A. Yes.

3 37. Q. So these questions, I believe  
4 there are seven of them, are the questions you were  
5 asked to answer in this case?

6 A. Yes.

7 38. Q. You were not asked to answer  
8 any other questions?

9 A. Correct.

10 39. Q. And if I turn to Question 3,  
11 it states, "Based on what you have been able to  
12 find with respect to the Ontario Government and  
13 Public Health officials, what information has been  
14 used, what issues have been considered, and how  
15 have these been used to explain and justify the  
16 restrictions of outdoor gatherings?" And it  
17 states, based on what you've been able to find. So  
18 I take it, in order to answer this question, you  
19 did some type of search for information, is that  
20 right?

21 A. Yes.

22 40. Q. Okay. Can you tell me about  
23 that search? How do you conduct it?

24 A. Well, given that it was  
25 stated that it was in respect to Ontario Government

1 public health officials, the only information that I  
2 sought was publicly-available information. I  
3 didn't do any research or investigation beyond  
4 that. So I searched primarily Ontario websites,  
5 Public Health Ontario's website. I looked at  
6 websites of relevant local health authorities, I  
7 looked at other information of the government  
8 related to its announcements, to data that it  
9 provided. I looked at the Emergency Measures  
10 documents and the various orders. I did look --  
11 and if they came to me during those searches, media  
12 reports or references to other documents, then I  
13 also included those. Now, these weren't the only  
14 documents that I referred to, of course. I'm  
15 talking about information that I was able to gather  
16 related to Ontario Government and Public Health  
17 officials, what they provided in terms of  
18 information, in terms of issues that had been  
19 considered in their deliberations and how this  
20 information and these issues were used to explain  
21 and justify the restrictions of outdoor gatherings.

22 41. Q. Right. And so was all of the  
23 research done online?

24 A. Yes.

25 42. Q. And so if there was

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1 information that was not posted online on the  
2 websites you just mentioned, would not have been  
3 captured by your search, correct?

4 A. Not in a direct way. I mean,  
5 as I said, if I found something in the official  
6 sites that, you know, led me to look -- you know,  
7 had the information in it that might lead me to  
8 other locations for data or other information, then  
9 I would explore those, you know, looking for  
10 information that was relevant to the questions that  
11 I was trying to answer.

12 43. Q. Right. And if the  
13 information was no publicly available or posted  
14 online, that information would not have been taken  
15 into account in the answer to this question,  
16 correct?

17 A. To my recollection, I think  
18 that's a true statement.

19 44. Q. Okay. And you've never  
20 advised the Ontario Government on any matter with  
21 respect to COVID-19, correct?

22 A. Correct.

23 45. Q. And so you have no personal  
24 knowledge of what information the Ontario  
25 Government did or did not consider in developing



1 its COVID-19 policies, correct?

2 A. That is correct and that's an  
3 important point to be clear about. Because I hope  
4 I was careful in my Affidavit to not claim that the  
5 government or Public Health officials had  
6 information which was not disclosed in a way that I  
7 was able to find it.

8 46. Q. Thank you for that  
9 clarification. We're done with this part now. I  
10 know just want to talk about some of the -- what  
11 I'll call like the basics of COVID-19, none of  
12 which I believe are controversial. First of all,  
13 COVID-19 is an infectious disease caused by the  
14 SARS-CoV-2 virus, is that right?

15 A. Yes.

16 47. Q. And the SARS-CoV-2 virus can  
17 spread through small liquid particles that can be  
18 expelled from a person's mouth or nose, is that  
19 right?

20 A. That's considered to be the  
21 main way that it's transmitted.

22 48. Q. Yes. I believe it's been  
23 described as the primary route of transmission, is  
24 that right?

25 A. Yes.

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1 49. Q. And, as a result, SARS-CoV-2  
2 can be spread from person to person if people are  
3 in close proximity to one another, is that right?

4 A. That's the primary way that  
5 it is transmitted.

6 50. Q. And so all else being equal,  
7 the closer a person is to someone infected with  
8 COVID-19 the higher the likelihood that the virus  
9 will be transmitted, is that fair?

10 A. I think that would be  
11 categorized as something that's not controversial  
12 about COVID-19.

13 51. Q. I agree. And similarly, all  
14 else being equal, the longer the duration of time  
15 that a person is in close contact with someone  
16 infected with COVID-19 the more likely the virus  
17 would be transmitted, correct.

18 A. Yes.

19 52. Q. And some behaviours like, for  
20 example, singing or shouting, could increase the  
21 exhalation of droplets in aerosols and increase the  
22 likelihood of transmission, is that right?

23 A. Well, if you're going to use  
24 the word "could," then pretty much any question you  
25 ask me is going to be yes. But in this case, I

1 think what you mean is there's a reasonable --  
2 there's a belief that there's a significant  
3 increase in transmissions under those  
4 circumstances. And I think this is controversial  
5 in terms of being able to actually quantify, you  
6 know, how much of an increase that is. But it's  
7 certainly reasonable on scientific principles and  
8 maybe some empirical observation, you know, unclear  
9 as it has been, that behaviours that expel more of  
10 droplets that have the virus on it are more likely  
11 to result in a higher exposure by the contact.

12 53. Q. Right. And behaviours like  
13 wearing a mask can reduce the spread of droplets in  
14 aerosols, which could reduce the risk of  
15 transmission, is that right?

16 A. Yes.

17 54. Q. And another factor that might  
18 influence the risk of transmission is potentially  
19 the nature of the virus itself. So, for example, if  
20 the virus mutates over time it might become more  
21 transmissible, is that right?

22 A. Yes.

23 55. Q. And we've seen that with, for  
24 example, the Delta and Omicron variants, correct?

25 A. Yes.

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1     56.                     Q.     Right.   And would you agree  
2     that COVID-19 resulted in a significant public  
3     health emergency in Ontario and indeed around the  
4     world?

5                             A.     Well, you'd have to define  
6     what significant public health emergency means.   I  
7     mean, there's no question that it was declared as  
8     such.   And if you're asking me that question, yes.  
9     If you're asking me was it a public health  
10    emergency, you know, I'm not going to -- I don't  
11    want to give the impression I don't think it was a  
12    serious problem, but just from a scientific and  
13    public health expert point of view, I have to be  
14    very careful about sort of general statements like  
15    that and what do they mean.   It was a public health  
16    concern, it had public health implications in terms  
17    of disease and death, and it came on us fairly  
18    quickly as a new problem.   So, yes, I think from  
19    that point of view, if I can qualify it like that,  
20    I would call it a public health emergency in a  
21    generic sense.   The reason I'm taking some time  
22    over the answer to this question is that public  
23    health emergency has not only sort of a general  
24    epidemiological meaning, it has in many cases  
25    legal, legislative, and operational definitions

1    which have implications. That means that we need  
2    to be careful how we use the word emergency, as in  
3    terms of what context.

4    57.                   Q.    Thank you for that  
5    clarification. Perhaps I'll ask it this way. In  
6    your opinion, as a public health practitioner, was  
7    COVID-19 a public health emergency in Canada?

8                       A.    Yes.

9    58.                   Q.    Thank you. And so in light  
10   of that, it was important for governments to take  
11   steps to reduce the number of COVID-19 cases,  
12   hospitalizations and deaths?

13                      A.    It was important for  
14   governments, as in any emergency, to achieve many  
15   things; one of which is to reduce the threat and  
16   serious outcomes from the specific threat in  
17   question. The reason I'm taking some time to  
18   answer these questions also is that in the response  
19   to any public health threat it is not only the  
20   purpose to reduce the incidence and morbidity and  
21   mortality of the particular threat, it must be  
22   addressed in the context of health of the  
23   population as a whole and the importance of  
24   considering all diseases and injuries which  
25   continue to occur at the same time. And maybe

1 other consequences, not only of the public health  
2 threat itself, but of the actions and responses to  
3 the threat. So one has to take a broad and deep  
4 view as a public health official, and therefore the  
5 governments that they advise, of the total threat  
6 to health in general and the effectiveness and  
7 harms of interventions that are chosen.

8 59. Q. Perhaps I'll rephrase then.  
9 In the context of the COVID-19 pandemic, one of the  
10 important objectives of the government was to take  
11 steps to reduce the number of COVID-19 cases,  
12 hospitalizations and deaths, correct?

13 A. Yes.

14 60. Q. Thank you. I'd like to turn  
15 now to some of the documents you cite in your  
16 report. Before you swore your Affidavit, did you  
17 review the documents you cited in your report?

18 A. Sorry, can you repeat that  
19 question?

20 61. Q. Sure. In your expert report  
21 you cite a number of documents. Did you review  
22 those documents before you swore your Affidavit?

23 A. What do you mean by review?

24 62. Q. Did you read them?

25 A. The whole document?

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1 63. Q. Yes.

2 A. Probably not.

3 64. Q. Okay. So --

4 A. (inaudible/speaking  
5 simultaneously) documents and I selected elements  
6 that were relevant to the question I was answering.

7 65. Q. Okay. So you did not read  
8 all of the documents in full that you cite in your  
9 report?

10 A. I didn't say that either. I  
11 don't recall whether I read every document in full  
12 that I cited. But it's quite possible, if not  
13 probable, that I did not.

14 66. Q. Okay, that's fine. But given  
15 that you cited them in your report, you believe  
16 that those documents are reliable and authoritative  
17 sources of information, is that fair?

18 A. No, I wasn't judging in any  
19 way the quality or the reliability of the  
20 documents. I was citing what those documents  
21 included and stated. You know really the judgment  
22 of any person as to whether the Public Health  
23 Agency of Canada's official documents, to what  
24 degree they're valid or accurate, similar to the  
25 World Health Organization, it would be up to any

1 individual to decide to what degree they trust or  
2 think that the organization or its documents would  
3 be reliable. I extracted information to show what  
4 those organizations and the writers of the various  
5 documents that I cited had to say relevant to the  
6 question I was answering.

7 67. Q. Thank you for that. So, just  
8 to be clear, just because you cite a document in  
9 your report, that should not be taken as evidence  
10 that you believe that document is authoritative and  
11 reliable, correct?

12 A. Correct.

13 68. Q. Okay, thank you.

14 A. What it does show is at  
15 pretty much face value what was in the document  
16 that I thought was relevant to the question I was  
17 answering.

18 69. Q. Thank you, I appreciate that  
19 clarification. I'm going to take you to one of  
20 those documents.

21 A. I just want to clarify one  
22 other thing. This is quite important, it might be  
23 important to other questions also. Public health  
24 science, public health practice, epidemiology,  
25 requires one to not take at face value anything and



1 to probe, where necessary, the depth of the  
2 evidence and the validity before reaching one's  
3 best estimates or best conclusions, none of which  
4 are ever exact or perfect. However, it's  
5 absolutely 100 per cent true that what I quoted --  
6 in my opinion, that what I quoted was exactly what  
7 was in the document that I referred to. That part  
8 I feel very confident of. And also, I may not even  
9 agree with some parts of what I quoted, I was just  
10 quoting what is --

11 70. Q. Thank you, yes.

12 A. -- which I thought was  
13 relevant to answering the question that I was asked  
14 to answer.

15 71. Q. Thank you, I appreciate that  
16 clarification. I'm going to turn to one of those  
17 documents now. So you cite a document at footnote  
18 5, which is on page 7 of your report. And just for  
19 counsel, that's at page 237 of the Application  
20 Record in the PDF. I'm going to bring it up on the  
21 screen just for ease of reference, and I'll do that  
22 right now. Do you see a document in front of you?

23 A. I do.

24 72. Q. And this is a document from  
25 the World Health Organization titled, "Key Planning

1 Recommendations for Mass Gatherings in the context  
2 of COVID-19," correct?

3 A. Yes.

4 73. Q. And could you just describe  
5 what is the World Health Organization?

6 A. The World Health Organization  
7 is an international organization overseen by the  
8 World Health Assembly, which is made up of mostly  
9 Ministers of Health of the countries that  
10 participate in the United Nations. It is an  
11 official organization, not a political  
12 organization. One might compare it to the  
13 bureaucracy of a government or the bureaucracy of a  
14 health department, or even some arms-length  
15 organizations, and provincial governments in Canada  
16 and elsewhere. It's funded by a variety of  
17 countries and its main role -- it has many roles,  
18 but I think in the context of this is to provide  
19 information that can be used by countries around  
20 the world, some of it scientific information,  
21 research, some of it is guidelines that can be used  
22 in decision making, and they also do things like  
23 collect information such as surveillance data. All  
24 of which is somewhat voluntary, just to add this  
25 point, is countries are asked to provide

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1 information on not just numbers of cases, but also  
2 their experience with things like public health  
3 measures. And then the WHO tries to summarize that  
4 information and share it mostly on public health  
5 issues, but any health issue.

6 74. Q. Thank you. And I'm just  
7 going to zoom into part of this document just so  
8 that it's easier to see, because we're going to  
9 read part of it. Can you read the text here under  
10 the heading, "Purpose and Rationale of this  
11 Guidance," or is it still too small?

12 A. No, I can see it.

13 75. Q. So I'm just going to read  
14 part of it. It states here that, "The purpose of  
15 this document is to provide guidance to host  
16 governments, health authorities and national or  
17 international event organizers on taking decisions  
18 related to holding mass gatherings in the context  
19 of the COVID-19 pandemic and on decreasing the  
20 risks of SARS-CoV-2 transmission and strain on  
21 healthcare systems associated with such events  
22 through dedicated precautionary measures." Now,  
23 that was a bit of a mouthful, but you would agree  
24 that that accurately describes the purpose of this  
25 document?

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1 A. Yes.

2 76. Q. And then I'm going to take  
3 you to a part of this document under heading 3.3,  
4 which is titled, "Risks Associated with Mass  
5 Gatherings." And here, it says, "During mass  
6 gatherings the likely high-density and mobility of  
7 attendees (crowding) represents a conducive  
8 environment for close, prolonged and frequent  
9 interactions between people, which can entail  
10 increased risk of transmission of SARS-CoV-2." And  
11 I guess I'll ask, you would agree that this  
12 paragraph reflects the view of the World Health  
13 Organization, correct?

14 A. This document, the World  
15 Health Organization, you know, is -- as I said, I  
16 mean it's an organization that gathers information,  
17 cites research, issues guidelines. I think any  
18 specific guideline or any specific document it  
19 might be argued as to whether it actually  
20 represents the opinion of the World Health  
21 Organization per se. In fact, many elements of a  
22 WHO document often say that it is the -- you know,  
23 it's the opinion of the authors or whatever and  
24 they're providing a platform for the... So I can't  
25 really say that, but I can say that this describes

1 this particular guideline. I mean, if that answers  
2 your question. I'm not questioning that.

3 77. Q. Right. This represents the  
4 view of the authors of this document who are  
5 writing on behalf of the World Health Organization?

6 A. Perhaps. We'd have to go to  
7 the front of the document, some of them are more  
8 clear than others about who's the actual  
9 accountable party. If it says these are the WHO  
10 guidelines, then that would be the document that  
11 the WHO's taking responsibility for.

12 78. Q. Okay. Let's move to the next  
13 paragraph. This is actually the paragraph you  
14 quoted in your report. So it states, "An analysis  
15 of mass gatherings held globally in 2020 and 2021  
16 has indicated that the most important factors  
17 associated with increased risk of SARS-CoV-2  
18 transmission in conjunction with such events are:  
19 duration, risk grows with the duration of the event  
20 or with the duration of stay of attendees at the  
21 event, especially in the case of multiple days;  
22 location, risk is higher in indoor venues than in  
23 outdoor venues; and, compliance with precautionary  
24 measures, risk is higher when measures are not  
25 applied, weakly implemented or not followed by

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1 attendees." And so you quoted this in your report  
2 at page 8. Given that you quoted it in your  
3 report, is it true that you agree with the  
4 statements in this paragraph?

5 A. Well, I think we're coming  
6 back to the same conversation we had a few minutes  
7 ago. I quoted this because this is what the WHO  
8 guidelines stated, period. That's all I claim. I  
9 did not say anything in my Affidavit about the  
10 validity, about the strengths and weaknesses of  
11 these statements. For example, I did not say that  
12 these are qualitative statements, not quantitative  
13 statements, other than higher or lower. This does  
14 not state what -- you know, how much greater the  
15 risk of transmission is related to duration. It  
16 does not say how much higher the risk of  
17 transmission is in indoor venues compared to  
18 outdoor venues. And it does not say to what degree  
19 various precautionary measures quantitatively  
20 reduce the risk of transmission in mass gatherings.  
21 So I cannot give you an opinion about really the  
22 validity or relevance of those. I can tell you  
23 that that is what the WHO guideline says.

24 79. Q. Okay, thank you.

25 A. This is an important

1 question, so maybe this is an opportunity for me to  
2 clarify in case the power goes out and this is the  
3 end of my opportunity to answer your questions.  
4 What's important in applying these principles,  
5 these guidelines, as is stated in other parts of  
6 the guideline, is that they must be based on local  
7 circumstances, current science, current  
8 epidemiology, estimates of impacts, estimates of  
9 quantified benefit and harm. And this is the  
10 general theme of my answer to the questions. It is  
11 not whether these statements are true or false.  
12 I'm not -- I've stated before and I'll state again,  
13 clearly if there's a risk of transmission in an  
14 event, the longer that event goes on the more  
15 likely there's going to be transmission.  
16 Similarly, if there is a gathering that's indoors  
17 compared to outdoors, the probability of  
18 transmission is going to be greater indoors. And  
19 similarly, if other precautions are used, the  
20 probability of transmission is less. The problem  
21 is not whether these statements, which are pretty  
22 much undeniable, even without any information about  
23 SARS-CoV-2, this information we knew decades ago  
24 because respiratory viruses all behave in this way.  
25 What's of relevance is the quantitative estimates

1 of the impacts and probabilities of transmission  
2 under such circumstances, and this is a general  
3 theme of my answers; not to take a position for or  
4 against the measures that have been brought in, not  
5 to take a position that there isn't some scientific  
6 basis for the expectations of these interventions.

7 The problem is lack of quantification of the  
8 benefits and harms of these interventions and lack  
9 of the data, information, analysis, evidence and  
10 rationale used to implement these policies. That,  
11 in the main, is the question that I've been asked  
12 to answer. And I've looked for that and I've  
13 reported what I was able to find.

14 80. Q. Thank you very much, I  
15 appreciate that clarification once again, Dr.  
16 Kettner. Let's just move on to the second-last  
17 paragraph here. It states here, "In addition to  
18 the risk of transmitting SARS-CoV-2, mass  
19 gatherings can also strain the planning and  
20 response resources of the host country or  
21 community, and be associated with disruptive  
22 impacts health services. This is because when  
23 transmission amplifies among large numbers of  
24 individuals, it can generate a significant number  
25 of COVID-19 cases whose management may overwhelm



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1 the response capacity of the host country's  
2 healthcare system." Would you agree with that  
3 statement?

4 A. Okay. You're asking me if I  
5 would agree with this statement?

6 81. Q. It's really the statements in  
7 this paragraph.

8 A. Well, again, as I said  
9 before, can strain, hard to disagree with that.  
10 Can generate, may overwhelm... Yes, I mean pretty  
11 much -- scientifically, it's pretty impossible --  
12 I'm going to say pretty much impossible to disagree  
13 with those statements unless one is 100 per cent  
14 sure that any of those things could not possibly  
15 happen.

16 82. Q. Thanks. And I'm just going  
17 to turn to another part of the document. Forgive  
18 me, it's going to take a bit of scrolling again,  
19 it's actually closer to the top. You'll see at the  
20 top of this document there's a box, and at the top  
21 of the box it says, "Key Messages." Do you see  
22 that?

23 A. I do.

24 83. Q. So presumably, these are the  
25 key messages that the authors of this document want

1 the reader to take away from it?

2 A. I would agree with that,  
3 yeah.

4 84. Q. That's fair to say?

5 A. Yeah.

6 85. Q. And I'm just going to zoom in  
7 to No. 6, and it says, "Mass gatherings should  
8 never be left unmanaged or poorly managed  
9 regardless of their size, type, and level of  
10 associated risk. Zero risk does not exist." And  
11 so you would agree that what's stated in Bullet No.  
12 6 here is one of the key messages that the authors  
13 of this document want the reader to take away from  
14 this guidance from the WHO, correct?

15 A. I would say that it's self-  
16 evidence that that's a key message.

17 MR. COOKSON: Thank you. I'd like  
18 to mark this as an exhibit.

19 MS. PARMAR: Yes, no objection.

20 EXHIBIT NO. 1: Document  
21 from the World Health  
22 Organization titled, "Key  
23 Planning Recommendations  
24 for Mass Gatherings in the  
25 context of COVID-19"

1 THE WITNESS: Could I comment on  
2 Point 6? Maybe what more important, in my mind,  
3 than whether it represents a key message, which  
4 seems self-evident?

5 BY MR. COOKSON:

6 86. Q. Yes, you may comment on this.

7 A. So mass gathering is an  
8 interesting term. From an international point of  
9 view that includes and, as I recall from my  
10 readings, is the main concern, mass gatherings of  
11 tens of thousands of people, such as religious  
12 events and I forget what they're called, but I  
13 think you know what I'm referring to. It doesn't  
14 mean that other gatherings, you know, of other size  
15 or duration are not included in consideration for  
16 this report. But we should just be careful not to  
17 conclude that the mass gatherings referred to here  
18 are the same order of the types of mass gatherings  
19 that maybe are in question in Canada or Ontario.  
20 And never be left unmanaged or poorly managed.  
21 Again, from a public health point of view,  
22 unmanaged or poorly managed depends on definition  
23 of what management means. It could be a general  
24 policy, it could be police on site. It has to be  
25 in the context of the local situation, the local

1 science, the local epidemiology, and the purpose.  
2 To say that zero risk does not exist is a waste of  
3 five words on that page. There's never ever been a  
4 claim or statement in public health or epidemiology  
5 that zero risk exists. It's just not a helpful  
6 statement and it can be misleading.

7 87. Q. All right, thank you. That's  
8 all I have for this document. I'm going to take  
9 you to another document you cite in your report,  
10 which is at footnote 8, which is on page 9 of your  
11 report. And for reference, that's page 239 of the  
12 Application Record. And the document is -- I'll  
13 again bring it up on the screen. Do you see a  
14 document in front of you?

15 A. Yes.

16 88. Q. And did you read this  
17 document before you swore your Affidavit?

18 A. I did.

19 89. Q. And it appears to be a letter  
20 to the Editor of the Journal of Infectious  
21 Diseases, is that right?

22 A. Yes.

23 90. Q. And it's commenting on a  
24 previously-published article in the Journal of  
25 Infectious Diseases titled "Outdoor Transmission of

1 SARS-CoV-2 and Other Respiratory Viruses, a  
2 Systematic Review." Correct?

3 A. Yes.

4 91. Q. And I just want to turn of  
5 the end of this letter, after the footnotes. And  
6 you can see here that there are a number of dates.  
7 It says it was received on 26th of May, 2021 and  
8 editorial decision was made on 28th of May, 2021,  
9 accepted June 2nd, 2021, and it was published  
10 online on June 4th, 2021. Do you see that?

11 A. (inaudible/off mic)

12 92. Q. So it's safe to assume that  
13 this would not have been publicly available prior  
14 to June 4th, 2021, correct?

15 A. Yes, this - well, that update  
16 would not have been, yes.

17 93. Q. And it's commenting, as we  
18 talked about earlier, on a previous article in the  
19 Journal of Infectious Diseases. Did you read that  
20 previous article?

21 A. I did.

22 94. Q. You did, okay. So let's take  
23 a moment to look at that. Just one moment, I'm  
24 organizing the documents we have here. And I'll  
25 attempt to share my screen once again. Do you see

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1 a document in front of you?

2 A. Yes.

3 95. Q. And this is the article that  
4 was referenced in the previous document we just  
5 looked at?

6 A. I believe that's true.

7 96. Q. All right. And I'm going to  
8 take you to one part of that on page 558, and I'm  
9 going to zoom in just so that we can all read it  
10 together. Is the text big enough for you to read,  
11 Dr. Kettner?

12 A. Yes.

13 97. Q. So in the very last  
14 paragraph, I'm just going to read the first  
15 sentence that then goes on to the next page. It  
16 states, "These findings, as well as reports of  
17 influenza outbreaks and adenovirus outbreaks in  
18 outdoor bodies of water suggest that while outdoor  
19 transmission is less common than indoors, it is not  
20 impossible." So you would agree, as it states  
21 here, that one of the findings of this study is  
22 that outdoor transmission is less common than  
23 indoor, but is not impossible, correct?

24 A. I don't know how anyone could  
25 disagree with that statement.

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1 98. Q. Okay. And let's go on to the  
2 second statement. It states here, "Case reports  
3 identified, after our review had been completed,  
4 provide further evidence that high-density outdoor  
5 gatherings, particularly with low mask use, may  
6 lead to higher transmission rates." Do you see  
7 that?

8 A. I do.

9 99. Q. And, as we can see here,  
10 another finding of the study is that high-density  
11 outdoor gatherings, particularly with low mask use,  
12 may lead to higher transmission rates. Correct?

13 A. Correct, as in what?

14 100. Q. As in you agree that this is  
15 one of the findings of this study?

16 A. You're asking me if what is  
17 written here on the page is what the authors  
18 intended to write on the page?

19 101. Q. Correct.

20 A. I suspect that's true, unless  
21 there's been a real serious mistake or accident to  
22 put something else in there that they did not  
23 intend.

24 102. Q. And then it goes on in the  
25 remaining paragraph to discuss a number of studies

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1 that have found instances of transmission at  
2 outdoor gatherings. And, for example, it starts in  
3 the next sentence talking about the Myren et al  
4 study, which noted that incidence of COVID-19 cases  
5 was significantly higher in 14 out of 20 counties  
6 that had large outdoor gatherings 15 days prior.

7 Do you see that?

8 A. I do.

9 103. Q. Did you review the Myren  
10 study?

11 A. No.

12 104. Q. Okay. And the next one says,  
13 "The Dave(ph) et al study estimated that in the  
14 three weeks following the start of the Sturgis  
15 Motorcycle Rally on 7 August, 2020 in South Dakota,  
16 a multi-day event with 500,000 participants, cases  
17 grew more in counties with weak mitigation policies  
18 than those with strong mitigation policies, such as  
19 closure --" Do you see that there?

20 A. Yes.

21 105. Q. And did you review the Dave  
22 et al study?

23 A. No.

24 106. Q. Okay. I'm going to turn to a  
25 different part of the document.



1                                   A.    I need to comment on  
2    something here, because I'm not entirely sure what  
3    the point of your questioning is regarding this.  
4    But in the anticipation that we get cut-off, let me  
5    just make something clear. First of all, these  
6    studies probably from an epidemiological scientific  
7    point of view would view be considered weak  
8    studies. You know, their associations in time,  
9    they're very low-evidence studies. Having said  
10   that, these studies may be underestimating the  
11   transmission in an outdoor setting. I'm not  
12   arguing that outdoor transmission is higher or  
13   lower than anyone else is claiming or believing.  
14   I'm not arguing that we shouldn't be concerned  
15   about the potential transmission or the rates of  
16   transmission from outdoor gatherings. I need to  
17   make it clear that what I've quoted in terms of  
18   articles like this is to show that there are some  
19   opinions about this and there are some  
20   quantification of this, and I'm not claiming that  
21   any of them are more accurate than the other. I  
22   could do that. I mean, I could tell you more about  
23   the flaws in the research of these papers, which I  
24   would have done and read the papers and done a  
25   detailed critical appraisal of them if I thought

1     that was relevant to answering the question. I  
2     have nowhere in my report, I hope, implied that I  
3     know the actual rate of transmission in outdoor  
4     gatherings or how much they're increase or  
5     decreased by mask wearing or duration. Nor do I  
6     claim in any of the report, I hope, that this risk  
7     of outdoor transmission should be ignored or that  
8     it is so low that it's not worth considering. That  
9     would be an entirely different set of questions for  
10    me to answer. All I'm answering is, has the  
11    government shown, have Public Health officials  
12    explained on what basis they have made these policy  
13    decisions? And what I've shown throughout the  
14    report are examples of information, estimates, and  
15    ways that should or could have been considered in  
16    setting these policies.

17   107.                   Q.     Thank you, Dr. Kettner, I  
18    appreciate that clarification. There's just one  
19    more part of this article that I'd like to turn to,  
20    and it relates to something that you just mentioned  
21    actually. I take it that it is standard practice  
22    when reporting the results of a study like this one  
23    to note the limitations of that study?

24                           A.     Can you ask that again?

25   108.                   Q.     Certainly. I believe it's

1 standard practice when reporting the results of a  
2 study such as this one to note any limitations of  
3 that study, correct?

4 A. When you're talking about the  
5 authors like of a journal article, that it would be  
6 expected for them to describe limitations?

7 109. Q. That's correct.

8 A. Yes, I agree.

9 110. Q. Yes. And one of the reasons  
10 it's important to note those limitations in a  
11 journal article is because the findings in that  
12 article should be interpreted in light of those  
13 limitations, correct?

14 A. Yes.

15 111. Q. And so I'm just going to turn  
16 to page 559 of this document. And you see here, we  
17 have a paragraph that begins with the words, "This  
18 systemic review has several limitations." Do you  
19 see that paragraph?

20 A. Yes.

21 112. Q. And this is an example of  
22 exactly what we just talked about, it's the authors  
23 noting the limitations of this particular study  
24 that they conducted, correct?

25 A. Yes.

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1     113.                    Q.     And I'm just going to take  
2     you through a few sentences. It says, "This  
3     systemic review has several limitations. The few  
4     and heterogenous studies on outdoor transmission of  
5     respiratory viruses had used various metrics,  
6     exposures, and outcomes making it challenging to  
7     compare findings quantitatively. The low  
8     proportion of outdoor COVID-19 cases may reflect  
9     the general decrease in outdoor activities since  
10    strict lockdowns were enacted in the countries  
11    surveyed. Relying on reports of symptomatic  
12    infections may underrepresent asymptomatic cases  
13    that occur outdoors." And I'll just stop there.  
14    You have no reason to disagree with the authors'  
15    description of the limitation of their study,  
16    correct?

17                            A.     Well, that -- you know, when  
18    you put the question now it's a bit more difficult.  
19    I need to be more clear about that. I always have  
20    reason to doubt the description of limitations. In  
21    fact, my job in teaching critical appraisal of  
22    scientific literature to medical students and  
23    others is that you cannot take at face value  
24    anything that's written in an article, including  
25    what the authors themselves to be the limitations.

1     Because sometimes they ignore some really really  
2     important limitations, implicitly or explicitly,  
3     deliberately or indeliberately, which we need to  
4     sleuth out and ask about before drawing too many  
5     conclusions about the scope and depth of the  
6     limitations described, just as we have to do with  
7     the rest of the paper. Whether that's relevant to  
8     the question you asked me, I'm not really sure.  
9     But I think I will just restate that I said before.

10    For an author to say afterwards that maybe our  
11    estimate is a little high or maybe it's low, or  
12    very high or very low, is a very very important  
13    observation which, in general, I would agree with  
14    and I would accept. So good on them, you know, for  
15    saying at least that.

16    114.                   Q.    Thank you, that is helpful.  
17    I'll phrase my question in a different way. This  
18    clearly represents the authors' view of the  
19    limitations of their own study, correct?

20                           A.    It represents what the  
21    authors have chosen to write and print. What their  
22    own view of their limitations is, I don't know.

23    115.                   Q.    Okay, thank you. I think  
24    we're done with this document. I just have a few  
25    more questions, Dr. Kettner. It touches on

1 something that we discussed a bit earlier. I  
2 understand that it's normal, and perhaps even  
3 expected, for a virus like SARS-CoV-2 to mutate  
4 over time, is that right?

5 A. Yes, there's some controversy  
6 about what the word mutate means, but I'm going to  
7 say that they're -- it changes enough so that it  
8 can be recognized with, you know, diagnostic  
9 methods as at least a little bit different.

10 116. Q. And when these mutations  
11 occur, if they are significant enough, they may  
12 result in what has been referred to as a variant of  
13 the virus, is that correct?

14 A. Yes.

15 117. Q. And a variant might have  
16 different characteristics or properties as compared  
17 to the original strain of the virus, correct?

18 A. Yes.

19 118. Q. So, for example, the variant  
20 could be more transmissible or potentially result  
21 in more severe disease?

22 A. Yes.

23 119. Q. And if a variant has  
24 properties that are significant from a public  
25 health perspective, at least in the case of COVID-

1 19, they've sometimes been described as a variant  
2 of concern, correct?

3 A. Yes.

4 120. Q. And over the course of the  
5 pandemic, what we've just discussed is exactly what  
6 happened with COVID-19; it mutated over time and  
7 eventually produced different variants of concern,  
8 correct?

9 A. You're talking about the SARS  
10 coronavirus-2 virus. You're not talking about --

11 121. Q. Correct.

12 A. -- COVID-19?

13 122. Q. Sorry, correct, yes. I'm  
14 talking about the SARS-CoV-2 virus.

15 A. Okay. So can you repeat the  
16 question?

17 123. Q. Sure. The SARS-CoV-2 virus  
18 mutated over time and eventually produced different  
19 variants of concern?

20 A. Yes.

21 124. Q. So, for example, one of them  
22 was what the World Health Organization described as  
23 the Alpha variant?

24 A. Yes.

25 125. Q. And the Alpha variant was

1 more transmissible than the original strain of  
2 COVID, correct?

3 A. According to -- you know,  
4 according to reports that were issued and data that  
5 was gathered, yes.

6 126. Q. And I believe that the Delta  
7 variant was even more transmissible than the Alpha  
8 variant, is that correct?

9 A. Yes. I mean, again, I could  
10 go into more depth about really answering that  
11 question more accurately and scientifically, if  
12 it's important, if it's relevant. But if you're  
13 asking me, you know, were there variations over  
14 time of concern and were there differences of  
15 transmissibility and severity, yes, I think the  
16 surveillance data and the analyses would support,  
17 you know, that view.

18 127. Q. And so --

19 A. It's more difficult and more  
20 controversial perhaps to actually characterize  
21 quantitatively the differences between these  
22 different variants. That's less clear. But I'm  
23 not trying to dispute the importance of differences  
24 in variants. That was an important part, may still  
25 continue to be an important part of surveillance of



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1 the SARS-CoV-2 virus.

2 128. Q. Yes, thank you. So when a  
3 variant is first discovered its exact properties or  
4 characteristics may not be immediately known,  
5 correct?

6 A. Correct.

7 129. Q. So, for example, it may not  
8 be immediately clear whether or not the variant is  
9 more or less transmissible or results in more or  
10 less severe disease, correct?

11 A. Yes.

12 130. Q. And so in order to determine  
13 the characteristics of the variant, that variant  
14 needs to be studied and those studies take time,  
15 correct?

16 A. What do you mean by time?

17 131. Q. Exactly what I just  
18 discussed, that it's not apparent immediately what  
19 those characteristics are and so studying the  
20 variant in order to determine, for example, whether  
21 it's more transmissible or not --

22 A. I understand what you're  
23 saying --

24 132. Q. -- takes a certain amount of  
25 time.

1                                   A.    -- yes, sorry.  Well, a  
2   certain amount of time -- the reason I was stopping  
3   on the word "time" is because some of this  
4   information can be gathered very very quickly.  
5   With good surveillance tools in place in a variety  
6   of countries where they may begin -- you know, may  
7   be more apparent than in others, time depends on  
8   very very many different characteristics and it can  
9   be a very short time, and I will be quantitative,  
10  as in days, or it could take a long time, in some  
11  people's opinion, as in weeks.  But those are the  
12  kind of timeframes we're talking about.  They're  
13  relatively short compared to tracking the influenza  
14  virus around the globe.  So I just want to be  
15  clear, because it's maybe sounding like a little  
16  broke record, and I apologize if it is, but I'm  
17  taking quite a bit of time to clarify exactly what  
18  your words mean so that the Court can be clear  
19  about what my answers are.  So anyway, I'll stop  
20  there.  Maybe I'll need to say more about it,  
21  depending on why you're asking me these questions.

22  133.                   Q.    I appreciate the  
23  clarification, Dr. Kettner.  I guess my question  
24  is, if it is the case that the exact properties of  
25  the new variant may not be immediate apparent, as

1 we've just discussed, public health officials may  
2 need to make decisions about how to address the new  
3 variant with information that is either imperfect  
4 or incomplete, correct?

5 A. Again, just let me be clear,  
6 yes, that's a true statement, as it is everyday in  
7 monitoring the variant that has not changed for the  
8 last several weeks. Everyday it requires  
9 monitoring by surveillance and other means what is  
10 happening locally, as the WHO document refers,  
11 local science, local capacity, local epidemiology  
12 and whether it's a new variant or whether it's the  
13 same variant, that process must be in place. Not  
14 only does it have to be in place, but the data has  
15 to be used and, from public health ethics point of  
16 view, it has to be transparently shared and  
17 explanations of keeping the same policies or  
18 changing them would be expected to accompany the  
19 transparent availability and release of that data  
20 whether it is the same virus variant that we've  
21 been dealing with for weeks or months or a new one  
22 that is emerging. From a public health point of  
23 view, it is interesting, these variants are  
24 interesting, but they're only really interesting in  
25 how they behave and how they impact on the public

1 and population health, which is the more important  
2 measure than nucleic acid sequencing, which helps  
3 us maybe to understand or explain how these things  
4 change. But what becomes important is daily  
5 estimates of incidence, morbidity, mortality,  
6 hospital capacity, hospital demand, and what  
7 activities are most important in transmission and  
8 what outbreaks and cases and places and settings is  
9 the disease transmitting in a way that impacts on  
10 severe outcomes. That's the daily work, even if we  
11 didn't have nucleic acid testing, even if we didn't  
12 know what different variants there were, would not  
13 really change that work that Public Health  
14 undertakes everyday to survey and analyze the data.

15 134. Q. I see. So, you know, making  
16 decisions based on incomplete or imperfect  
17 information is just one of the realities of the  
18 field of public health, is that fair?

19 A. And clinical medicine, and  
20 pretty much anything that I know in the health or  
21 medical world. I could go beyond that world, but  
22 that's not my expertise.

23 MR. COOKSON: Okay, thank you very  
24 much.

25 I think now is a good point for a

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1 short break. Why don't we take five minutes, if  
2 that's all right with everybody?

3 THE WITNESS: Can I have -- I  
4 appreciate you can't give me an exact --

5 MR. COOKSON: Let's just go off  
6 the record, sorry.

7 --- OFF THE RECORD AT 11:15 A.M.

8 --- ON THE RECORD AT 11:16 A.M.

9 MR. COOKSON: Thank you, Dr.  
10 Kettner, those are all my questions.

11 THE WITNESS: Thank you.

12 MS. PARMAR: No questions from us.

13 MR. COOKSON: So thank you very  
14 much, Dr. Kettner. We appreciate your time today.

15 MS. PARMAR: Thank you, Dr.  
16 Kettner.

17 THE WITNESS: You're very welcome.  
18 It's an honour to serve the people of Ontario.

19 MR. COOKSON: Thank you.

20 --- Whereupon the proceedings adjourned at 11:16 a.m.

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