Court File No.: CV-20-00652216-0000

ONTARIO
SUPERIOR COURT OF JUSTICE

B E T W E E N:

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO
Applicant (Respondent on Motion)

- and-

ADAMSON BARBECUE LIMITED AND WILLIAM ADAMSON SKELLY
Respondents (Moving Parties on Motion)

ONTARIO'S BOOK OF TRANSCRIPTS

June 18, 2021

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Applicant/Respondent

- and -

ADAMSON BARBECUE LIMITED
AND WILLIAM ADAMSON SKELLY

Respondents/Applicants

This is a Statement on Record, taken via Videoconference with the offices of Network Reporting & Mediation, 100 King Street West, Suite 3600, Toronto, Ontario, on the 28th day of May, 2021.

A P P E A R A N C E S:

Padraic Ryan — Solicitors for the Applicant/Respondent
Zachary Green

Pradeep Chand — Agent for the Respondents/Applicants

Liza Swale — Solicitors for the Applicant/Respondent
Carly Benjamin

Also Present:

Sonya Molyneux — Student-At-Law attending with Mr. Ryan and Mr. Green

I N D E X O F P R O C E E D I N G S

--- UPON COMMENCING AT 10:09 A.M.

STATEMENT BY MR. GREEN:

MR. GREEN: It's just 10 minutes after 10:00 on Friday, May 28th. I see that in attendance at this examination are Carly Benjamin, Liza Swale and Pradeep Chand, all counsel or agents for counsel, for the Respondent, Mr. Skelly.

Mr. Skelly isn't here. I'm just wondering if his counsel, or agents for his counsel, have any idea where he is, and why he isn't here at the date and time agreed between counsel for his examination?

MR. CHAND: Yes. I'm glad that you raised that, Mr. Green. Thank you very much for bringing that to our attention.

As you know, Mr. Green, I messaged you and your co-counsel late last evening. I was perusing through the file and I noticed that there was no Notice of Examination that was served, or at least that was contained in my file.

And as a result, I communicated with your office to see where that Notice of Examination was. I did receive your response at approximately 9:36, if I'm not mistaken, this morning, advising that there was an agreement between counsel.

That being said, sir, as you know under Rule

34.04 of the Rules of Civil Procedure -- and I'm going to read this in.

It indicates, "Where the person to be examined is a party to the proceeding, a notice of examination, (Form 34A), shall be served, (a) on the party's lawyer of record; or (b) where the party acts in person, on the party personally, or by an alternative to personal service."

Unless you can point me to the Notice of Examination that was served on Mr. Skelly's counsel, or on Mr. Skelly himself, I don't see any legal obligation for Mr. Skelly to be attending this morning.

And the purpose of this Rule, and the purpose of my request, just so that everybody is clear, is that you need to understand what the parameters of the examination to be. Without that, I don't see how we can produce Mr. Skelly. That is my position.

MR. GREEN: Just so I can be clear, Mr. Chand, you were aware for the last 10 minutes that we've all been sitting here that Mr. Skelly would not attend, and you had made a prior decision that he not attend, and you waited for me ask where he was before you advised me of your position. Is that right?

MR. CHAND: I don't work for you, Mr. Green. And I don't work for the Government of Ontario, for that matter. I was here since 10 o'clock myself. You only appeared on the screen at 10 after 10:00.

I've been sitting here since 10 o'clock waiting for you to appear on the screen, or your co-counsel, and I wanted to put this on the record.

That being said, Mr. Green, in the event that you produce a Notice of Examination, and I become aware of the parameters of the examination, I'm happy to produce Mr. Skelly.

But without that, I have no knowledge, or understanding, about the parameters of your examination today. And your office has not complied with the Rules, period.

MR. GREEN: Thank you very much for stating your position on the record, Mr. Chand. I will state our position on the record, and then we'll conclude this cross-examination, and we'll see you later.

My first statement is that Mr. Ryan and I, counsel for The Attorney General of Ontario, have been logged onto this zoom call since well before 10 o'clock today.

We saw you all log in, and the Reporter, of course, knows that. It's true that I didn't come on

on camera and ask where Mr. Skelly was for the first 10 minutes because I assumed he was running late, and not that you had made a prior decision to refuse to produce him, and not told us that.

My second point is that Rule 34.06, which I'm sure you're aware of -- I'll put it on the screen for you right now.

Here's Rule 34.06 under the heading "Examinations on Consent", which says, "A person to be examined and all the parties may consent to the time and place of the examination and to the minimum notice period and the form of notice, or to dispense with notice."

In fact, what I have is an email from Mr. Skelly's Counsel of Record specifically requesting this date, which was Mr. Swinwood's choice for the date, not mine.

We had originally agreed to yesterday, and Mr. Swinwood wrote to me. And the next thing I'll put up on the screen is that email from Mr. Swinwood, which I'll also include in our record when we go to court, advising that Mr. Skelly was available on Friday, and my writing back and confirming that he would be available on this day. Thus, agreeing to dispense with the notice.

MR. CHAND: Well, I guess you'll have to do what you need to do. Again, ---

MR. GREEN: I'm sorry, Mr. Chand. You've stated your position, and now it's my turn to state ---

MR. CHAND: I thought you were finished.

MR. GREEN: I'm not at all done, thank you very much. You just hold tight.

MR. CHAND: Yes, I'll hold tight. Please go ahead. Take your time, sir. Please, go ahead.

MR. GREEN: Here's an email, which I'll include in the record, from Friday, May 21st from Mr. Swinwood to all counsel, including me.

Addressed, "Good afternoon. Counsel advising of Dr. Bridle's availability." And I note that no Notice of Examination was prepared for Dr. Bridle, and yet he attended yesterday, as did counsel for Mr. Skelly.

And Mr. Skelly himself attended yesterday and observed Dr. Bridle's examination, notwithstanding that no Notice of Examination was provided.

We had asked for Mr. Skelly's dates and Mr. Swinwood here writes on his behalf that Mr. Skelly is available throughout the period identified.

"Please advise of your choices so we may

communicate as soon as possible of each person. Thank you, Michael."

To which I replied on May 25th, "We will cross-examine Mr. Skelly on Thursday, May 27th, and Dr. Bridle on May 28th. Zoom details will follow. Thanks."

To which Mr. Swinwood replied on the 25th, "Good morning, Counsel. Mr. Skelly now has a conflict on Thursday. Would it be possible to either reverse the other of the witnesses, or to conduct the cross of Mr. Skelly on Monday, the 31st? Please advise on this."

And then there are some other correspondence, which you're not copied on, although there's a reference to you being a lawyer who has joined them on the case.

And then I wrote back on May 25th, that's three days ago, to say, "Yes, we will cross-examine Dr. Bridle on Thursday and Mr. Skelly on Friday. Thanks."

And that was where the matter stood. And indeed, Dr. Bridle was examined, as you know, yesterday, and Mr. Skelly was to be examined today.

We take the position that Mr. Skelly, through his counsel, consented in this email to be

examined today and has refused to attend, and so this will conclude our cross-examination of Mr. Skelly, and we will ask the judge to strike out Mr. Skelly's evidence because he has refused to present himself for cross-examination, notwithstanding the agreement of his counsel to be present on this date.

That concludes my statement of our position, and that concludes this examination. Madam Reporter, we're now off the record.

STATEMENT BY MR. CHAND:

MR. CHAND: Madam Reporter, I'm not done. I have the right to respond. Are you finished, Mr. Green?

MR. GREEN: Bye everyone.

MR. CHAND: They might have left, but I want a few things on the record. Now, we have Rules of Civil Procedure for a reason.

In this particular case we have an examination of Mr. Skelly that was, according to counsel, set to take place today.

But the whole purpose of the Rules is to set out parameters, (a) to notify the parties for the examination; and (b) the Notice of Examination typically sets out the parameters of the examination.

Without seeing the Notice of Examination, or

without knowing the particulars, or the parameters of the examination, we cannot possibly produce our client.

Mr. Green and Mr. Ryan are well-aware of the Rules of Civil Procedure. For whatever reason they decided to dispense with those rules, and they didn't produce their Notice of Examination.

If they decide to produce their Notice of Examination today, we will produce Mr. Skelly. Thank you.

--- WHEREUPON THE EXAMINATION WAS ADJOURNED AT 10:19 A.M.

I hereby certify that this a Statement on Record, taken before me to the best of my skill and ability on the 28th day of May, 2021.

JODY SAUVE - Court Reporter

Court File No. CV-20-00652216-000

ONTARIO
SUPERIOR COURT OF JUSTICE

B E T W E E N:

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO

Applicant/Respondent

AND

ADAMSON BARBECUE LIMITED
AND WILLIAM ADAMSON SKELLY

Respondents/Applicants

This is the Cross-Examination of WILLIAM ADAMSON SKELLY, the Respondent/Applicant herein, on their affidavits sworn on February 18th, 2021 and April 12th, 2021, taken via videoconference with Network Reporting & Mediation, Suite 3600, 100 King Street West, Toronto, Ontario, on the 31st day of May, 2021.

A P P E A R A N C E S:

ZACHARY GREEN PADRAIC RYAN	Solicitor for the Applicant/ Respondent
PRADEEP CHAND	Solicitor for the Respondents/ Applicants

ALSO PRESENT:

EMILY GRAHAM	Student-at-Law for the Applicant/ Respondent
SONYA MOLYNEUX	Student-at-Law for the Applicant/ Respondent
LIZA SWALE	Observing for the Respondents/ Applicants
CARLY BENJAMIN	Observing for the Respondents/ Applicants
GAWTAM THARMAKUMARAN	Legal Assistant for the Respondents/Applicants
BRYANT GODKIN	Student-at-Law the Respondents/ Applicants
KARAN LIDDER	Observing for the Respondents/ Applicants
CHRIS WEISDORF	Observing for the Respondents/ Applicants

I N D E X O F P R O C E E D I N G S

L I S T O F E X H I B I T S

I N D E X O F R E F U S A L S

--- UPON COMMENCING AT 1:08 P.M.

WILLIAM ADAMSON SKELLY; Affirmed

EXAMINATION BY MR. GREEN:

1. Q. Good afternoon, Mr. Skelly.

A. Good afternoon.

2. Q. You can hear me okay?

A. Yes, I can.

3. Q. Mr. Skelly, you sometimes post videos on the Adamson Barbecue Instagram account, correct?

A. Yes, that's correct.

4. Q. I'm going to show you a video. Hold on one sec while I pull it up. After I show it to you, I'm going to ask you some questions about it.

A. Okay.

5. Q. Can you see that video on your screen right now?

MR. CHAND: For the record, it's not a video. It's a photo -- what it appears to be is a photograph of what appears to be Mr. Adam Skelly. We don't see a video. All we see is a photograph at this time.

MR. GREEN: I'm going to ask counsel not to interrupt me in the middle of my cross-examination or give his impressions or evidence about what he thinks he sees. I'm --

MR. CHAND: Mr. --

MR. GREEN: -- here to --

MR. CHAND: -- Green ---

MR. GREEN: -- ask the -- I'm here to ask the witness questions.

MR. CHAND: Mr. Green, I'm not here to play any games with you. As I said, it appears to be a photo ---

MR. GREEN: Mr. Chand --

MR. CHAND: Mr. Green ---

MR. GREEN: -- don't interrupt ---

MR. CHAND: Mr. Green -- no. You don't interrupt me. You got it, Mr. Green? Do you understand? Are --

BY MR. GREEN:

6. Q. Mr. Skelly ---

MR. CHAND: -- you ready?

BY MR. GREEN:

7. Q. Mr. Skelly, I'm going to show you a video. I want you to tell me whether you recognize it or not. Do you understand that question?

A. Yeah, I comprehend.

8. Q. Excellent. Is that your face on the screen, Mr. Skelly?

A. Yes, it is.

9. Q. Do you remember taking this video and posting it to Instagram?

A. I don't recall the video. If you play it, it may jog my memory.

10. Q. I'll play a few moments of it first and then I'll repeat my question. Here we go.

*** VIDEO BEGINS ***

"Hello Adamson Barbecue fans. Yeah, been a while since I come on here. The authorities, they finally let me come back and post on social media again. I'm sure you noticed."

*** VIDEO ENDS ***

BY MR. GREEN:

11. Q. I'm just going to pause right there at the 12 second mark. Does that jog your memory as to whether that's you speaking those words, sir?

MR. CHAND: Refused.

--- REFUSAL NO. 1

THE DEPONENT: Yes, that's me speak ---

MR. CHAND: Refused. Refused.

MR. GREEN: No. The witness just --

MR. CHAND: I just --

MR. GREEN: -- said, 'Yes.'

MR. CHAND: -- told you ---

MR. GREEN: You can't refuse --

MR. CHAND: I just --
MR. GREEN: -- his answer ---
MR. CHAND: -- told you the question's refused. Move on.
MR. GREEN: He just --
MR. CHAND: Next --
MR. GREEN: -- said, 'Yes.'
MR. CHAND: -- subject. I just said, 'Move on.' The question's refused. Move on. Next question.
BY MR. GREEN:
12. Q. Mr. Skelly --
MR. CHAND: Next question, Mr. Green.
BY MR. GREEN:
13. Q. -- I'm going to --
MR. CHAND: Next question --
BY MR. GREEN:
14. Q. -- ask you a --
MR. CHAND: -- Mr. Green.
BY MR. GREEN:
15. Q. -- a different question.
MR. CHAND: Next question, Mr. Green. Go ahead. Go ahead. It's all --
BY MR. GREEN:
16. Q. Mr. Skelly ---

MR. CHAND: -- all yours.

MR. GREEN: Okay. In the first place, Mr. Chand, don't interrupt to say, 'Okay. Go ahead. All yours.' That's a waste of the court reporter's --

MR. CHAND: No.

MR. GREEN: -- time.

MR. CHAND: No. No. You know what?

MR. GREEN: When you've finished --

MR. CHAND: Just ask the --

MR. GREEN: -- speaking ---

MR. CHAND: -- question and I'll tell you --

MR. GREEN: Just be quiet.

MR. CHAND: -- if he can answer the -- I'll -- just ask a question and I'll tell you if he's going to answer the question. How does that sound, Mr. Green?

BY MR. GREEN:

17. Q. Mr. Skelly --

MR. CHAND: Go ahead.

MR. GREEN: -- I'm now going to play your video in full, and let's all just watch it together. Okay? Madam Reporter, I take it you have no difficulty hearing and recording the video. Is that correct?

THE REPORTER: That's correct.

MR. GREEN: So, we'll play it into the transcript.

*** VIDEO BEGINS ***

"Hello Adamson Barbecue fans. Yeah, been a while since I come on here. The authorities, they finally let me come back and post on social media again. I'm sure you noticed. The judge who is proceeding (sic) over the bail variation said that the restrictions on my social media use and access to my restaurant were errors in law. So, that's great news. I can come back on here again. All I can't do is promote or incite breaches of the law. So, I can't be telling anybody to open protest or anything like that. I'll have to save that for anybody else who's willing to do it. I wanted to tell you about a little change to our hours of operations and access to the Leaside restaurant. Since the civil disobedience in November at the Etobicoke location, the authorities have been making it very challenging for me to operate. They're at my place in Leaside almost every single day. Bylaw, police. They've kind of toned it back over the last couple weeks, but they come in, they try to find problems with the place, and they found some stuff, some little electrical and fire issues that we'll be fixing up, but the main thing is operating without a

business licence. So, I haven't had a business licence since we opened in 2016. I set up the place as a catering kitchen first, because we had Stoke Stack BBQ, which was a pretty busy catering company. I wanted to open a lunch counter in there, thinking that it could help keep us busy on the weekdays. So, I looked online at the City of Toronto interactive zoning map. You can do this yourself, and you'll see that it's an E1 zone, and in there, there's -- you know, you're allowed to have an eating establishment. There's some rules about how big it can be. That's fine. We fit within the size capacities and everything. So, I built the lunch counter and I didn't get a business licence right away. We just opened. Eventually, the bylaw came by and said, you know, 'You guys need to have a business licence.' So, I applied for it, and one of the first steps is a PPR, preliminary project review. That's where they check your zoning. And it came back declined. And I'm like, 'That's really weird.' It says on the E1 zone that's available online that you can have an eating establishment in this area. I talked to them and they said, 'There's a -- there's another zoning bylaw from 50 years ago called the Leaside Industrial Park Zoning Bylaw,' and that one doesn't allow restaurants. So,

I'm trying to get my head wrapped around, you know, what's going on with these two different zoning bylaws, and I finally got it out of them that when they amalgamated all the small city zoning bylaws together, there was a whole bunch of appeals made because people didn't like the changes to the zone. So, they went through, like, I think thousands of appeals. Even back in 2016, all the appeals were done. It was that they were waiting for something in their process to strike the old zoning bylaws and fully shift to the new zoning bylaw, which, again, prohibits a restaurant -- sorry, permits a restaurant in our area. So, I went to court, paid some fines for operating without a licence, and it -- they never took enforcement action against me. It was like the fines that I was paying were, you know, about equal or even a little bit less than the cost of the business licence itself, but they never came down on me. They never tried to stop us from operating. This -- it's been the same situation since 2016. It's been four years. They never came and tried to shut us down. But when John Tory said, 'Throw the book at him,' I think that's what they're doing now. So, they want to make it impossible for me to operate. And as of today, it's Wednesday -- what is it? Wednesday,

February 3rd. This is our last day that we can operate in Leaside. They said they're going to take legal action against the landlord if we're open tomorrow. Landlord's not willing to take any heat. He doesn't like pushing the limits like I do. So, we've got to comply. This is our last day today for takeout at Leaside, and this has a big impact on our operations. We're going to move to a pre-order delivery only model. So, basically, back to catering, like we did with Stoke Stack BBQ from 2013 to 2016. On Fridays, Saturdays and Sundays we're going to be delivering as usual across the GTA. I've dropped the minimum down from 75 bucks to 50 bucks, so you can buy, like, a pound of brisket and a pound of ribs and we'll deliver it. Or, you know, a pound of brisket and a couple quarts of sides. Yeah, starting tomorrow. Aurora, we're going to reduce -- that one's still legally operating. They don't need business licences up there, which -- by the way, it's just a -- like a $500.00 permit from the city. It's kind of a tax grab, whatever. I don't really have a big issue with business licences one way or another, but in Aurora, they don't even have them. Like, it was nothing to do with health or anything. So, for the people who are like, 'He's been operating without a

business licence. Get him,' you don't know anything about business licences. They don't really mean anything. It's just a little -- a little check by the municipality. You'd think I'm not paying my taxes or contributing to soc -- to the economy because I don't pay this $500 licence. It's like -- you know, we did over $1 million in payroll last year, and that means, you know, $100,000.00 in payroll tax. So, the $500.00 for the little paper, in my opinion, it's -- you know, it's not that serious of a thing, but -- anyway, what -- whatever. Enough said about that. Aurora is going down to lunch only Friday, Saturday and Sunday. Etobicoke is closed for now until we get the building permit and everything figured out over there. And Leaside lunch service is done after today. We'll just be doing deliveries Friday, Saturday and Sunday. Now, there is some light at the end of the tunnel. We have a way to get back operating. You know, hopefully in the next couple of weeks get all these, you know, change of use permits and business licences and everything figured out. That's going to be top priority for the next few weeks. In the meantime, please place a pre-order for delivery if you want to have some of our food in -- anywhere through the GTA. Yeah, I think that's it. Nice chatting with you guys.

Hope you make some pre-orders and you enjoy all our anti-lockdown content that I'm going to be posting. Have a great one. Thanks for listening."

*** VIDEO ENDS ***

BY MR. GREEN:

18. Q. Mr. Skelly, are you texting or emailing someone in the middle of your cross-examination?

A. No, I am not.

19. Q. Very good. Your Leaside --

A. May I --

20. Q. -- location --

A. -- ask what ---

21. Q. -- has operated -- pardon me?

A. Can I ask what gives you that impression, that I'm texting or emailing?

22. Q. No. Your Leaside location has been operating without a business licence for four years, is that correct?

MR. CHAND: Refused.

--- REFUSAL NO. 2

MR. GREEN: What's the legal basis for the refusal?

MR. CHAND: It's completely irrelevant. Move on.

BY MR. GREEN:

23. Q. Mr. Skelly, you said in the video it was no big deal. Why don't you just get a licence?

MR. CHAND: Refused.

--- REFUSAL NO. 3

BY MR. GREEN:

24. Q. Mr. Skelly, do you have a licence for your food truck?

MR. CHAND: Refused.

--- REFUSAL NO. 4

BY MR. GREEN:

25. Q. Mr. Skelly, I'm going to show you another video. Hold tight. I haven't asked you any questions about it yet. Mr. Skelly, is that your face on the screen there?

A. Yes, it is.

26. Q. I want you to listen to it. When you're finished listening, I'm going to ask you some questions.

*** VIDEO BEGINS ***

"My restaurant in Leaside, since that defiance in November, the bylaw, police, fire department, building department, zoning guys have been at my restaurant, like, at least 100 times. It was crazy. The bylaw was pulling up across the street, blocking my neighbour's property, leaving the trucks

parked out on the road, leaving their cars idling. Just costing the taxpayers a fortune just monitoring my place, because that one was also operating without a business licence. So, it hasn't been filed yet but we're going to be filing a constitutional challenge regarding all that excess force that was applied at my Leaside location, because that was never an issue. For the last five years we were operating without a business licence. I went to court quite a few times. It was never a big issue for the city until now. So, they went after my landlord and said, 'If this guy keeps operating, we're going to take you to the provincial court.' The landlord said, 'Stand down or you're going to be evicted,' so I said, 'Okay.' So, we put a food truck outside, just so -- to keep some -- the last couple people there employed, right? Just to keep the -- keep the fire burning a little bit. The bylaw came by, said, 'You need a licence for the truck.' I said, 'Fuck you. I'm not buying your licence.' Like, the -- just out of principle, right? It's like a $700.00, $800.00 licence, but they've spent the last six months just surrounding my place with their authorities trying to find all these violations. As if I'm going to give you $700.00. There's not a chance. So, we donated that" ---

"Right. The hundreds of thousands of taxpayers' dollars --

"Yeah."

-- being wasted."

"No way. I'm not supporting this establishment anymore. The same establishment that's trying to put me out of business, I'm not giving them any money. Not a chance. Never again. So, we -- I didn't get the licence. We donated the money to charity. And they tried everything that they could do to -- you know, to stop me from operating that food truck. And again, the only reason for keeping that thing there was just to keep the last five or six guys at my restaurant employed. Like, I figured there'd be a pause in the business until after my court case. So, I said, 'Let's put the food truck there. Let the last couple of guys who want to work work.' These guys could go on CERB. They don't want to. They want to be in there. They want to work. So, the city came by and threatened to impound the vehicle because where it was parked in my parking lot was apparently an encroachment on their property, despite being in my parking lot. So, they drew out some line based on the zoning and said, 'You're over this line. We're going to impound your vehicle.' So, we snug the food truck

right up against the building, and they came by the next day and they busted out their tape measure and we were two inches inside the line, so we were allowed to keep going. They couldn't physically remove the vehicle. So, they gave me some summons for not operating with a -- or for operating without a business licence, and that's fine. We'll take that to the provincial courts and deal with it there. Pradeep Chand, my -- one of my lawyers on my team, he's taking care of that for me. So, then they went after the owner of the food truck and said, 'You need to -- you need to make this guy stop or else we're going to repossess the vehicle.' So, he just signed the vehicle over to me. I bought it from him and now they have to go after me for those issues. So, we're kind of operating there. We're selling, like, some sandwiches and chilli and fries and stuff like that at the food truck in Leaside. That's -- yeah, that's where we're at today."

*** VIDEO ENDS ***

BY MR. GREEN:

27. Q. Mr. Skelly, is it not a good enough reason to get a business licence for your food truck that the law requires it?

MR. CHAND: Refused.

--- REFUSAL NO. 5

BY MR. GREEN:

28. Q. Mr. Skelly, is it not a good enough reason for you to get a business licence for your Leaside location that the law requires it?

MR. CHAND: Refused.

--- REFUSAL NO. 6

BY MR. GREEN:

29. Q. I'm going to show you a webpage, Mr. Skelly. Give me a moment to put it up. Do you recognize this webpage, Mr. Skelly?

A. Yes, I do.

30. Q. This is the Adamson Barbecue webpage. Under the heading, "Support the BBQ Rebellion," do you see that?

A. Yes, I do.

31. Q. On this webpage you sell merchandise, like a $60.00 hoodie that says, "Risk it for the brisket." Correct?

MR. CHAND: Refused.

--- REFUSAL NO. 7

BY MR. GREEN:

32. Q. How much profit do you make on the sale of each $60.00 hoodie, Mr. Skelly? What --

MR. CHAND: Refused.

--- REFUSAL NO. 8

BY MR. GREEN:

33. Q. -- does it cost you to acquire that hoodie?

MR. CHAND: Refused.

--- REFUSAL NO. 9

BY MR. GREEN:

34. Q. I'm going to show you something else, Mr. Skelly. Just hold on a moment. Mr. Skelly, for someone who is really eager to take on a constitutional challenge, you don't seem willing to answer any questions.

MR. CHAND: Don't answer that. Refused.

--- REFUSAL NO. 10

BY MR. GREEN:

35. Q. Don't answer that? Mr. Skelly, you don't want to -- you don't want to tell your side of the story now that you have your platform?

MR. CHAND: If you have any questions involving Mr. Skelly's affidavit, please ask them.

BY MR. GREEN:

36. Q. I'm going to show you another document, Mr. Skelly. Hold on tight. Can you see this GoFundMe page on the screen, Mr. Skelly? Do you see that?

A. Yes, I see it.

37. Q. It says, "This is a fundraiser organized on behalf of Adam Skelly." That's you, isn't it?

A. Indeed.

38. Q. Your Adamson Barbecue legal defence fund raised $337,622.00, correct?

MR. CHAND: Refused.

--- REFUSAL NO. 11

MR. GREEN: What possible legal basis could there be for refusing that question?

MR. CHAND: I'm not going to educate you on your remedies. I've refused the question. If you wish to bring a motion to have him compel his -- the questions that you've asked, please do so. You have my answer. He's refused the question. Move on.

MR. GREEN: We'll mark this as Exhibit A to this examination.

--- EXHIBIT NO. A: GoFundMe page.

BY MR. GREEN:

39. Q. Mr. Skelly, I have to say, I'm surprised that you refuse all the questions, and you have a lot to say to your Instagram followers but to the court you don't have anything to say.

MR. CHAND: Is that a question or a submission, sir? Which is ---

MR. GREEN: I've concluded my cross-examination. I have no more questions for the witness. Thank you.

MR. CHAND: Thank you, sir.

--- WHEREUPON THE EXAMINATION WAS ADJOURNED AT 1:27 P.M.

I hereby certify that this is the examination of WILLIAM ADAMSON SKELLY, taken before me to the best of my skill and ability on the 31st day of May, 2021.

Emily Pennacchio - Court Reporter

Adamson BBQ Legal Defence Fund

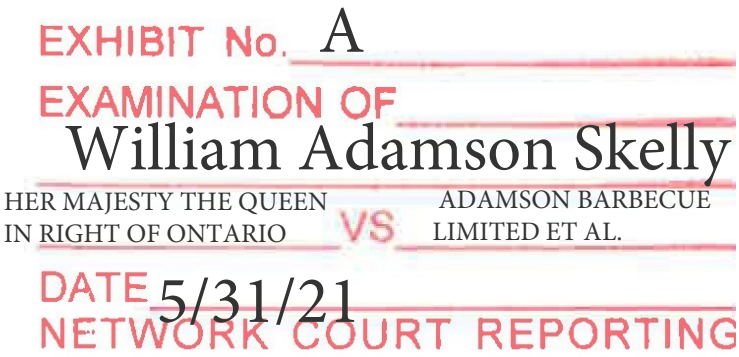
EXHIBIT No. A
EXAMINATION OF
William Adamson Skelly
HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO VS ADAMSON BARBECUE LIMITED ET AL.
DATE 5/31/21
NETWORK COURT REPORTING

$337,622 raised

This fundraiser is no longer accepting donations. If you are the organizer, beneficiary, team member, or donor, sign in to see additional information.

https://gofund.me/adab01f7

Barry McNamar is organizing this fundraiser on behalf of Adam Skelly.

Created November 25, 2020
Accidents & Emergencies

Organizer and beneficiary

Barry McNamar
Organizer

→

Adam Skelly
Beneficiary

Contact

Created November 25, 2020
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Court File No. CV-20-00652216-000

ONTARIO
SUPERIOR COURT OF JUSTICE

B E T W E E N:

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO

Applicant/Respondent

- and -

ADAMSON BARBECUE LIMITED and
WILLIAM ADAMSON SKELLY

Respondents/Applicants

This is the Cross-Examination of DR. BYRAM W. BRIDLE, a Witness herein, on Affidavits sworn the 12th day of April, 2021 and the 13th day of April, 2021, taken via videoconference at the offices of Network Reporting & Mediation, 100 King Street West, Suite 3600, Toronto, Ontario, on the 27th day of May, 2021.

A P P E A R A N C E S:

PADRAIC RYAN ZACHARY GREEN	Solicitors for the Applicant/Respondent (HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO)
PRADEEP CHAND	Agent for Dr. Byram W. Bridle

A L S O P R E S E N T:

LIZA SWALE	Counsel for Respondents/Applicants (ADAMSON BARBECUE LIMITED and WILLIAM ADAMSON SKELLY)
CARLY BENJAMIN	Observing for Respondents/Applicants
EMILY GRAHAM	Articling Student with Mr. Ryan and Mr. Green
WILLIAM ADAMSON SKELLY	Respondent/Applicant Observing

I N D E X O F P R O C E E D I N G S

I N D E X O F E X H I B I T S

I N D E X O F U N D E R A D V I S E M E N T S

I N D E X O F R E F U S A L S

--- UPON COMMENCING AT 10:05 A.M.

DR. BYRAM W. BRIDLE, Affirmed

EXAMINATION BY MR. RYAN:

1. Q. Good morning, Dr. Bridle.

A. Good morning.

2. Q. So just before we went on the record, you were -- you affirmed to tell the truth in this cross-examination, is that right?

A. That is correct.

3. Q. And you've affirmed two Affidavits in this proceeding?

A. That is correct.

4. Q. And do you have them both with you today?

A. I do.

5. Q. Could you turn up your Reply Affidavit, and specifically page 4, using the bolded numbers in the lower right of your report?

A. Okay, I'm just going to that report now. Okay, just give me one moment, actually. I had -- I had this in my file, but what's coming up is my first report.

6. Q. That's fine. Take your time. I can also put it on the screen, if that would be easier for you.

A. At the moment, that would be, if you don't mind.

7. Q. So do you see my screen, sir?

A. Not yet. It says you've started screen-sharing, but -- and now that's disappeared.

8. Q. Let me try again.

A. Okay. Yes, I see your screen. I see page 7.

9. Q. And you recognize this from your Reply Affidavit?

A. Yes, I do.

10. Q. So at the top of this page, you refer to "Incident Number 1", in which a senior member of the administration of your university held a meeting berating you, is that right?

A. That is correct.

11. Q. And who was that senior member?

A. I would like to keep that confidential, for the reason that I've stated in here. This is somebody who's in the ballpark of my age and, therefore -- and I'm a tenured faculty member at the University of Guelph.

And the reality is we will be -- they have potential -- potentially substantial influence over my career, and over things that I am able to do as a

researcher and academic faculty member, and I really don't want to risk having any -- any adverse -- potential adverse interactions by revealing their name.

It could have -- it could potentially have a negative impact on me for the remainder of my career.

12. Q. Did this person tell you to keep the meeting confidential?

A. They didn't explicitly state that, no.

13. Q. And this is a person in the College of Veterinary Science?

A. No.

14. Q. Elsewhere in the University of Guelph?

A. Yes.

15. Q. And when was this meeting?

A. This meeting was in December. December, 2020.

16. Q. You didn't mention this meeting in your first Affidavit in this proceeding?

A. No, that is correct.

17. Q. The meeting ---

A. To follow ---

18. Q. Go ahead.

A. Yeah. So to follow through on that, you are correct. The reason why I mentioned it here

is because much has happened -- much occurred, in fact, since that -- like, my first Affidavit was submitted.

And that's what I'm trying to highlight here. There has been a remarkable silencing of scientists and physicians, it seems, within Ontario, who simply are trying to address the public -- questions coming from the public, and addressing them based on scientific facts.

Sometimes this messaging is misconstrued, even though it's based on science, as, you know, being appropriate -- inappropriate in the context of public messaging. But again, these are scientific facts. We're dealing with a situation here, especially when we look at the vaccines.

These are experimental vaccines, right? They've been approved for emergency use only. And, therefore, fully-informed consent is very important. And so the re -- there's a couple of things that have happened.

First of all, I've been involved with approximately 150 media engagements, and that's largely because I have garnered a reputation within Ontario of being a scientist who will bluntly and factually answer questions that the public has. And

so as a consequence, I've been sought after by a lot of members of the media to ask me questions.

The messaging -- a consistent messaging that I keep getting is that, unfortunately, they're finding that a lot of people -- that they're not -- they're feeling they're not getting fully -- full, balanced, scientifically-justified answers to a lot of questions. And I guess I've garnered a reputation for that.

And the other thing that's happened, as well, is I have been contacted now -- on a daily basis, I'm contacted by a large number of members of the lay public. I am receiving phone calls, I'm receiving e-mails on a regular basis, and they're telling me the same thing: That they feel that they need -- that they're desperate to find somebody that they feel will just give them, again, balanced, objective answers that are founded in the scientific literature, from somebody who's been following the accumulation of the scientific literature underpinning COVID-19.

And so this is where my voice has come. And what's been highlighted to me is that one of the reasons that I'm one of the relatively few people within Ontario who has been -- I mean, this is a

reason why I've been providing this public service of just disseminating objective, you know, answers to people's questions in the public.

But the reality is, like, I guess in my situation, right, I'm at an academic institution, I am a tenured faculty member, I am a public servant, and so that's why I see -- a public servant at a publicly-funded institution, so I see it as my duty to provide objective, honest, fact-based answers to the public when they ask them.

But what I've come to realize is that outside of a tenured faculty member at an academic institution, there's a lot of fear among many of my colleagues. And so -- and especially what I want to highlight, I have a lot of clinical colleagues, a lot of physician colleagues.

And as one example I'd like to give you, very recently the Ontario College of Physicians and Surgeons issued a very harsh statement to the physicians and surgeons throughout Ontario -- and I can tell you, I interact on a weekly basis, actually, with approximately twenty physicians from across Ontario, as part of a larger group, and I can tell you that there's a lot of fear that is circulated among the physicians and surgeons, many of them in Ontario.

So, for example, they recognize -- and many of my colleagues also tend to be involved in academia, so several of them are clinician scientists and are involved in clinical trials.

And so they understand, therefore, the vital importance of what we call "fully-informed consent", meaning that before people can receive any kind of experimental procedure, which relevant in this case is, for example, an experimental COVID-19 vaccine, is they must have the full spectrum of pros and cons, ideally based in solid scientific data. Meaning, ideally coming from peer-reviewed scientific publications.

And they're feeling right now that they cannot give fully-informed consent, because if they speak about the cons related to the COVID-19 vaccine, they're worried that they are going to be possibly facing disciplinary action. And so that's why I brought up this scenario here, to highlight that even -- even myself as a tenured faculty member.

So many -- so many have the idea that tenured faculty members and retired physicians can potentially freely speak up. And what I wanted to highlight here is that even in our situation, although relatively protected and able, therefore, to speak,

you know, fairly objectively, even a situation like myself, I haven't been totally free, I have felt intimidated, and I have felt bullied.

And it's worse for actively-practising health professionals. That's the message that I was meaning here. And a lot of this has developed -- so, for example, this message that came from the Ontario College of Physicians and Surgeons was issued after my first report. And that's why I felt it was very important to get this message in here with the second report.

19. Q. Who were the two colleagues that were at this meeting in December?

A. Again, I -- I do not want to name them. They -- they -- they have asked to remain anonymous. Again, this is -- unfortunately, this is the scenario we find ourselves in, which is exactly why this page 7, this paragraph that's before us now, exists. They -- they're concerned about their -- about their careers.

--- REFUSAL NO. 1

BY MR. RYAN:

20. Q. And they were at that meeting because they share your views and had also been doing media appearances?

A. No, not necessarily. One does share many of my views, because they -- they've also been following the science and they understand the science. The other one shares certainly a large proportion of my views, as well. That is not why we were at this meeting, in fact.

We were at this meeting because we are collaborating, to a certain extent, in our scientific research. And that was the -- the initially-stated purpose of the meeting, was to discuss our research project.

21. Q. And what did this senior administrator mean when they said your media engagements were being "monitored"?

A. What they told me is that they personally were monitoring them. They wanted to make it clear to me that they were keeping an eye on the messaging that I was providing to the media when I was answering my questions -- when answering the questions that the journalists and radio show hosts were asking me.

22. Q. And what media appearances did they refer to in this meeting?

A. So at this point, again I've had about 150 media engagements approximately over the last

sixteen months, so I -- I'd have to look back through my historical records and the dates. But one in particular is a short time before this, I had appeared in a national news show to answer questions about the vaccine roll-out.

Again, as I mentioned, this was in December. And so there was a lot of interest in asking me questions because of my expertise as a vaccinologist. They were -- the media was interested in asking me a lot of questions about these novel vaccines and about the -- about the roll-out.

And so -- so there were -- then at that point, I had done, you know, again, many media engagements. But I guess, you know, the key -- the key trigger that -- that seemed to be cited was this national news show that I was interviewed on.

23. Q. So there are tenured faculty members at other public institutions in Ontario who are scientists, who aren't being as candid as you are about the real science?

A. I can't comment on other scientists. I can only -- really only comment on myself. Again, I -- I mean, everybody has their own personal philosophy. I am a -- this has always been my approach. It's the same thing with my students. I

have an open-door policy from a research team.

Anybody as a -- as a -- as a faculty member at an academic institution, I recognize that during the training that I had, all of my training was done in Ontario. What a lot of people don't realize is that, you know, although we pay tuition and we talk about high tuition costs for students, the reality is our training is subsidized up to about 70 percent by -- by tax dollars, right?

It comes through the government -- government funding. So my education was largely paid for; my training, the expertise that I've gained, was largely funded through taxpayer dollars; my salary right now is being largely funded through taxpayer dollars; and I work at a publicly-funded institution.

So, again, my philosophy has always been that I have an open-door policy for anybody who wants to ask me any questions that are relevant to my expertise, and I feel it's my, you know, personal duty to Ontario and Ontario taxpayers to give them the -- the best answers that I can, that are founded based on, ideally again, published scientific data.

And if published scientific data isn't available, then I -- then I'm certainly willing to tell people that I'm -- I'm willing to speculate in

giving them answers based on sound scientific principles.

24. Q. How many public universities are there in Ontario?

A. I'd have to check that. Off the top of my head, I'm not aware of how many there are.

25. Q. Are there at least fifteen?

A. Again, I'd have to check the numbers exactly. I don't have the precise numbers. I mean, off the top of my head, I can list -- if you want, I can give you a minimum number. So, for example, I know there's my university, University of Guelph; locally, is University of Waterloo; Laurier University; University of Toronto; York University; University of Western Ontario; Laurentian University; Brock University -- I mean, I don't have to go through the whole list.

But so, therefore, I'd be confident in staying there's -- there's -- there's certainly more than eight universities in Ontario. But in terms of precise number, I'd -- I would have to look that up. That's not something that I have on the top of my head.

26. Q. And there's tenured faculty at each of those universities, is that right?

A. Again, I can't comment with confidence. There -- there is a move in some academic institutions -- a general move away from tenure and hiring more and more faculty based on contracts. So certainly the majority of publicly-funded universities still use the tenure system, but there's the theoretical possibility that there may be academic institutions that are -- that are working towards phasing that out or...

And so I can't state with confidence. All I can state with complete confidence is that my institution, University of Guelph, does use the tenure system.

27. Q. You're not the only tenured scientist at a publicly-funded institution in Ontario?

A. You're correct, I certainly am not. There are many tenured faculty members in Ontario.

28. Q. And there are tenured scientists at publicly-funded institutions in Ontario, who aren't saying what you're saying about COVID?

A. I honestly don't know. I haven't been -- I haven't been following the -- I mean, I have -- I personally -- I mean, I provide these media engagements. One of the things that I want to point out to you is I find that the messaging coming through the media in general is very different than the

messaging that I see when I follow the scientific literature.

So I actually have actively been avoiding a lot of the media coverage, because I find that many, many -- I mean, I would argue that -- so I guess an accurate statement would be "the vast majority". I can't say all, necessarily, because, again, I haven't seen all the media presentations.

But the vast majority of the data that's presented through the media is not being presented side-by-side with clear references to scientific publications. And, therefore, I -- as a scientist, I can't validate. So, for example, one of the things I'm often asked to answer, there are questions based on, for example, data that's been released by a vaccine manufacturer in a media release.

This is one of the most frustrating things as a scientist during this pandemic, because data presented in a media release is not legitimate, you know, peer-reviewed scientific data. And so I really can't -- I routinely say, "I can't comment on that". We have a scientific process that needs to be followed.

And so, therefore, the data in the media is -- is up for debate. And so when they access those

references, I don't know. So I haven't been following the media messaging, because I don't find it, as a scientist, particularly helpful.

Instead, what I have been doing is following, on a daily basis, the accumulation of scientific data in the scientific literature. So, as a consequence, I've seen, actually, very few scientists interviewed through the media and I can't comment. I mean, maybe they share my -- my thoughts, maybe they don't.

But, again, I can't comment on what other people are thinking nor the messaging that they're relaying to the media. I can only comment on -- on the messaging that I'm relaying to the media.

29. Q. You said that at least one of the colleagues at the meeting in December shares your view. Do you remember that?

A. Yes, I do.

30. Q. And ---

A. Actually, just -- just to correct you, I said shares many of my views. I can't guarantee that they share all of my views. We're all independent scientists and critical thinkers. So I would be surprised if there's a colleague who shares 100 percent of my views.

That's part of the scientific process, is active debate of the science. But certainly where there is a large body of scientific evidence in favour of a particular answer to a scientific question, yes, they share those views, yes.

31. Q. They share the views on COVID-19 or the subject of this meeting?

A. When it comes to the science of COVID-19, yes, they share, again, many of my views where the science -- where the science supports the views that we hold.

32. Q. And are they doing media engagements?

A. So what I can tell you is they did early on in the pandemic, but due to fear of -- of, well, due to -- yeah, due to fear of intimidation and potential impacts -- negative impacts on their career, they stepped down from making media engagements.

33. Q. Do they have tenure?

A. In that case, this -- this individual does, yes.

34. Q. And that's someone who's in the Department of Pathobiology with you?

A. That, I would prefer not to answer, because, again, they have asked me to -- if they can remain anonymous.

--- REFUSAL NO. 2

BY MR. RYAN:

35. Q. One of the reasons you're sought out for queries from lay people, that you referred to, is because you will give a candid, balanced view of the science on these issues, is that right?

A. That's what many of the individuals have told me and they -- they have expressed some level of desperation in trying to make informed decisions and said that -- the reason why -- that has been cited why several of them have come to me, is they feel that -- in trying to make these fully-informed decisions, they feel that they are not getting the full spectrum of scientific data, so that they can properly weigh the pros and cons.

Yes, that's a common message that I've received from members of the lay public.

36. Q. And are they right when they tell you that?

A. I -- I can't -- I have no idea who they've consulted prior to contacting me, so I cannot comment on whether they are right or wrong. I can only comment on the reasons that some of the -- these members of the lay public have cited when contacting me.

37. Q. So when you included that information in a previous answer, you -- you neglected to tell us that you have no idea whether those statements are true?

A. Well, I -- I can't confirm. I don't know the interactions that they had with the people before. When I made that statement before, what I was stating is that was the reasons they were citing for contacting me. But they were telling me that this is a reputation that I had, and, you know, they're welcome to hold that opinion.

But I can't comment at all on who they contacted before, nor can I contact (sic) on the validity or lack of validity of information they received, nor can I comment on the breadth of the information that they received prior to contacting me.

38. Q. So on this page, you refer to "Incident number 2". Do you see that?

A. Yes, I do.

39. Q. And who was the senior colleague who told you to be careful about your public messaging?

A. If I could say -- if I was going to say that, I would have said it in this report. But as I pointed out, if you read further along in the text, I do not feel comfortable revealing the name of this

individual, as well.

This is a senior colleague who, although senior, again doesn't differ a large amount in age, and, therefore, we will be working as colleagues for much of the remainder of my career. And this is somebody again who could have some influence on -- on the nature of my career for -- for the rest of my time working at the University of Guelph.

So for that reason, I don't feel comfortable revealing their name. I -- I do not want -- again, this is what I -- this is what I'm highlighting here. There's -- even as a tenured faculty member, I have been placed in some uncomfortable situations.

And I'm sharing the information here, but I think I -- I want it to be respected that I -- I don't want my career impacted negatively by simply answering the public's questions objectively. And -- and so I won't reveal this -- this name either.

--- REFUSAL NO. 3

BY MR. RYAN:

40. Q. You're concerned that your evidence in this proceeding could lead to negative career impacts for you?

A. No, not at all. Not the evidence. Not the evidence whatsoever. All of the evidence that

I've provided here -- I mean, if you go to my list of references, you'll see that it's extensive.

The comments that I make -- and the comments that I make when I'm answering any questions, whether it be from the lay public or from members of the media, I'm answering to the best of my ability, as objectively as I can, and based on the science, I -- I cite references, I like to show scientific papers, I like to show scientific data to individuals, much like -- just much like I have in these reports, right?

I've presented figures, I've presented examples of data, I've presented lots of references. And so this is nothing to do with the evidence. I'm totally confident on the evidence.

I mean, as a scientist, the reality is: Even individuals who may have differing views, for whatever reason, be they political or other, when it comes to the actual science, so even these individuals who have done this, when we talk about the science and we talk -- and we are able to show one another, publish scientific literature, we can readily come to agreement.

And it's this way. This is my philosophy as a scientist. And these two colleagues, you know, respect this, as well. So when they have challenged

me in these scenarios, it hasn't been based on the science at all.

And, in fact, this -- so this is the way that I function as a scientist, just to explain. If there's -- so any time there's a legitimate scientific question and we have no data, the best we can do is speculate based on the best historical data that's available.

But it's pure speculation. We can't state with any confidence whether the answer to that particular question is yes or no. Then that -- so the proper thing is, and the scientific method, is once a valid question has been posed, before making any firm decisions and acting on those decisions -- because the potential danger of acting on decisions that are based on assumptions, is those assumptions may be wrong.

So the proper scientific method, then, is once the question is posed, is to conduct properly-designed scientific experiments to generate answers to those questions. Now, the reality is, when research is done, I mean, the ideal outcome is then anybody conducting research to address that question, always comes up with the same answer.

If that's the case, then it's very easy to come to agreement among scientists, because there is

only one consistent answer coming up within the research studies that are being conducted. However, sometimes you get research studies -- and, obviously, it depends on the design of the study, and there's many different reasons why people might get differing outcomes.

And in that case, for example, if you have one study that says yes and one study that says no, then a scientist who's being objective about that would look at it and say there's some legitimate scientific evidence on both sides.

So then what you do as a scientist and as a scientific community is we then need to conduct further experiments to try and clarify this emerging scientific debate. And then the proper thing to do within the -- as a scientist, would be to go with the weight of the evidence. So now it's sort of like a teeter-totter, a balance.

And so, for example, if you eventually accumulate twenty-five studies that have been done to address that question, right, and let's say just say for the sake of argument, you know, twenty-three are in favour of one answer and two of the other answer, then as a scientist you have to follow the weight of the evidence that has accumulated.

And so these scientific colleagues, I mean, when it comes to the science alone, these are the kind of dialogues that we have, and we can come to complete agreement. We can disagree as individuals on things, we can potentially disagree on certain viewpoints, but it would not be -- a scientist would not be objective -- and these two individuals are objective scientists, right?

So we don't -- it's not that we disagree on the specific science. If I put -- if I show them the scientific evidence to support my side of scientific debate, they will accept it, unless they can present to me overwhelming scientific evidence that outweighs it.

And if that's the case, as a scientist, I have to, you know, objectively follow that. If somebody can show me overwhelming scientific evidence contrary to the scientific data that I have been looking at, I'm willing to change my position.

41. Q. Sir, this is a legal proceeding, you understand that?

A. Yes, I do.

42. Q. So everything you say today is your evidence, in the lawyers' use of the term, do you understand that?

A. Yes, I do.

43. Q. So you're concerned that if you answered the question about who was the senior colleague who told you to be careful, you're concerned that that evidence would have a negative impact on your career, is that what you're telling us?

A. Not that evidence, if I were to publicly release their information, their name.

44. Q. So the reason you provide citations to publications when you're talking about scientific evidence, is because you like to provide the details to your audience?

A. Both the details of the science, but also to show them -- when I'm speaking, my job as a scientist is not nec -- is to try and remove my personal opinions, as much as possible, from the answers, and instead focus on the objective scientific evidence underlying those answers.

So that's my job as a scientist, so that's where I go, is to try -- the reason why I provide the scientific citations is to, again, make sure that -- you know, if people are seeking information to try and make the most informed decisions that they possibly can.

My belief as a scientist is that: Whenever

possible, it is always in people's best interests to make decisions based on sound scientific data that's gone through the rigorous scientific peer-review process, which is designed to be as objective as possible, so that they are making decisions based on objective scientific data rather than people's opinions, or speculations, or assumptions based on historical scientific data.

45. Q. One of the benefits of providing citations is that the reader can go find that article independently and validate what you've said, is that right?

A. That is correct.

46. Q. We can't validate that the events in incident 1 and 2 in this page happened, because we can't go ask the person who was at those meetings, because you won't provide their identities, is that right?

A. That is correct. And I have admitted in here that that could, therefore, be viewed as circumstantial evidence. I -- this is the situation that we're in. That's the reality. I can't help that. I recognize that, I -- if I could have, I would have loved to have provided the names.

However, that is also why I was able to

identify two colleagues, albeit at very short notice, because remember I was asked to -- I only -- I was only given the weekend and had to take time away from my family, in order to put this together.

But at short notice, I was able to find, as you can see here, additional individuals to share their stories. You also see -- for example, in the letter that immediately follows this section here, that individual also wanted their letter to be anonymized, and I do hope that I did that properly. For their sake, I was careful about that.

But you also see that there were two colleagues -- scientific colleagues who were willing to have their names stand. And I feel that that was important, because you're correct. I recognize that without naming the people here, that aspect of my story could be deemed circumstantial.

But these other two letters from colleagues, they -- they were willing to have their names stand, so that they -- they are -- they are happy for you, or the court, or anybody else who wants to, to contact them about the information that's here.

They're aware that it's in here, they gave me permission to put it in here. I specifically asked if they're okay with having their names associated

with it; they stated that they are. Those two individuals -- and so that would be Dr. Bonnie Mellard and Dr. Stephen Pelech, they -- they are both happy to talk to anybody about the content of their letters here.

47. Q. You refer on this page to the "fear of reprisal", do you see that?

A. Yes, I do.

48. Q. And who would bring about this reprisal against these people, scientists, physicians, and other regulated professionals?

A. Well, so, again, using myself as an example, as I've stated, the potential fear of reprisal is the fact that -- so when it comes to a member of the administration in my university, there's -- there's many -- many activities that I need to do as a scientist that require sign-off by administrators of my institution.

A good example would be often there are competitions. There might be even -- you know, if we're putting together a grant application, often there'll be internal ranking -- rankings of grant applications that take place by committees that are put together, that will rank these applications outside of my purview, right?

And so an individual, in theory, could have influence over decisions that are made, therefore, that are relevant to my career. So that's kind of -- that's the example. That's the kind of fear of reprisal that I have. What has been stated to me by several of my physician colleagues, what they're particularly fearful of in terms of reprisal is being called into a potential disciplinary hearing by the Ontario College of Physicians and Surgeons.

49. Q. So your concern is that the reprisal against you would be losing support for funding applications, because you are telling the scientific truth about COVID-19 in this proceeding and in media appearances?

A. That's -- that's one -- one potential way where reprisal could occur. And, yes, that that's one potential outcome.

50. Q. What are the others?

A. Oh, the -- so I guess another example -- so as a scientist, you know, peer review is one of the processes that I mentioned and we -- our work has to be reviewed by others. And if a scientist chose not to use the objective approach -- now, typically, that's why the peer-review process involves multiple independent peer reviewers.

But that's another example where an individual, should they wish to, could (inaudible) any type of report, based on the, you know, peer review of a report. So in science, the way science works is we are -- we have to answer a lot -- we have to answer a lot -- you know, to our colleagues.

And our colleagues keep us in check quite -- quite a lot, right, in terms of making sure that we're adhering to strict scientific principles. But, you know, they're individuals, as well, so should they, for some reason, not take an objective approach, there are ways that they could use that non-objectivity to potentially have an influence on some of our scientific activities.

One example -- one example -- a theoretical example that I'll give you, is I serve on grant review panels. So an example, I'm asked -- I've been asked to serve a three-year term for our national scientific granting agency, the CHR, the Canadian Institutes of Health Research.

Because of my expertise, I serve in a couple capacities, actually. I've done some service on the Cancer Biology and Therapeutics Panel, but most of my service has been on the Virology and Viral Pathogenesis Panel.

And the competition for funding is -- is very fierce. And there is -- the success rate now for CHR grants is probably in the ballpark -- it averages somewhere between 8 and 12 percent, depending on the competition and on the exact amount of funding available.

And so what I can tell you is that the way the peer-review process works there is if -- unless there is essentially universal agreement from all of the reviewers that have been responsible for reviewing a grant application, a grant application will not be funded.

All it takes is being knocked down even -- even -- so we had to use a scoring system between 0.1 and 0.5, with increments of 0.1. So having one dissenter, even if -- even if it's just a weak dissenter for a particular application, it's certainly enough to knock a score down out of the fundable range.

And so that's the type -- that's the theoretical situation, but it's one of these things that, you know, scientists -- that we're aware of. And so, you know, if some -- if a scientist were to take that kind of approach, then they can, in theory, have some negative influence on another scientist's

career.

51. Q. So you're not talking about submitting research for peer review about COVID-19? The example you're thinking of is where you submit unrelated research and the reviewers hold it against you that you've expressed objective scientific truth about COVID-19, is that right?

A. What I'm giving are theoretical examples, right? I mean, "fear of reprisal", that's exactly what it is. It's fear of something happening in the future. I can't comment specifically on what those incidents might be nor what the content of the research may be.

I have no evidence at this point in time that any of the research that I have submitted or grant applications, you know, have been treated unfairly in any way, shape, or form. This fear that I mention here, a fear of reprisal, this is -- this is a fear of what could happen in the future.

So what I've given you is a couple theoretical examples of what could happen in the future. That's the best I can do. Because we're talking about potential future incidents and not real incidents that have happened historically, I can't give any more specific details than that. Simply

theoretical examples.

52. Q. On this page, you mention your "Department Chair", do you see that?

A. Yes.

53. Q. And that's the Department of Pathobiology?

A. That is correct. And that's Dr. Brandon Lillie, yes.

THE REPORTER: Sorry, Mr. Bridle -- Dr. Bridle, can I just have the doctor's name one more time? You're just -- can you just slow down when you're speaking just a little for me while I take notes?

THE DEPONENT: Yes, I will.

THE REPORTER: Thank you.

THE DEPONENT: Yes, so my ---

THE REPORTER: Thank you.

THE DEPONENT: Yes, so my Department Chair is Dr. Brandon Lillie, L-I-L-L-I-E.

THE REPORTER: Great. Thank you.

THE DEPONENT: You're welcome.

THE REPORTER: And is it "Brandon" with an "n"?

THE DEPONENT: Yes, B-R-A-N-D-O-N.

THE REPORTER: O-N. Great. Thank you.

THE DEPONENT: You're welcome.

BY MR. RYAN:

54. Q. And does your Department Chair agree with your views on COVID-19?

A. We have not discussed that. We recognize -- so what I -- what I say here is -- so my Department Chair, Dr. Brandon Lillie; my college Dean, and that is Dr. Jeffrey Wichtel; and our university President, Charlotte Yates; and the Provost, as well, of our university, have all -- I have met with them all, you know, one-on-one -- well, I met with the university President and Provost together.

And as I mentioned here, it's not to talk about the science. What I'm -- what -- what they have stated to me very clearly is that I -- they -- our institution values freedom of speech, it values academic freedom. These are -- these are pillars for our institution.

And we have not talked about science per se. But what they have stated very clear to me is that I have every right to answer questions coming from the public in the best way I see fit, and specifically based on -- you know, based on if I'm providing objective scientific answers to members of the public, they've given me that blessing. It has nothing to do

with whether or not we agree on science.

55. Q. You haven't suffered any reprisals from the people mentioned in this sentence?

A. No. In fact, like I said, that's what I want to highlight here. One of the things that I want to make sure, because of the preceding statements, one of the reasons why I put this in here, is I want to make sure, yes, that this isn't -- this is not the -- it's not that the University of Guelph in any way aims to silence any of their academic members.

The university -- what I want to point out here is that the, you know, key members of the -- of our administration fully support and encourage the valued tenets of academic freedom and freedom of speech.

56. Q. And you haven't suffered any reprisals from anyone else?

A. I -- I -- I have from members of the public. So, for example, often when -- you know, I mean, this is well established. So whenever anybody is providing any information to the media, a good example would be when information is published, especially in the context of written stories, there's often comment sections.

And in those comment sections, members of the public are free to say whatever they like. And you'll see when it comes to COVID-19, often very quickly these comment sections get into these heated debates between members of the public. But sometimes the comments -- there are negative comments directed at people quoted in these articles.

And so I have had cases of people making -- even though I don't know these individuals personally and these comments are often anonymous, certainly there have been comments that I have read that I would consider to be negative comments and even potential personal attacks, even though we don't know one another personally.

You know, I would call them -- in some cases, the comments are -- the comments are inappropriate, they're unprofessional, and they're disrespectful. So that would be another example. But, yes, that's outside of the context of my academic institution.

57. Q. You consider comments on a media article concerning a tenured public academic to be a reprisal?

A. Not necessarily a reprisal, but, again, it's -- they're disrespectful and unprofessional.

58. Q. So the reference in this paragraph is to "fear of reprisal", do you see that?

A. Yes.

59. Q. And none of the university officials that you mention on this page have enacted any reprisals against you?

A. That is correct.

60. Q. And no one else has enacted any reprisals against you?

A. I can't comment on that, actually. Again, because there are -- in academia, as with the examples that I have given you, there are examples where people could potentially enact reprisals without my knowledge. And so I can't comment on that, right?

Again, when there's meetings held where I'm not present, when there's decisions being made when I'm not present, I have no idea how those decisions are being made. I have no idea what the rationale is that's being provided for those.

So I actually -- I honestly cannot answer your question, because I'm not privy to many of the decisions that these individuals that -- from whom I do feel reprisal, I am not privy to the vast majority of the work that they do here on campus.

61. Q. You don't have any evidence of any

reprisals against you professionally?

A. At this point, I have no evidence whatsoever, no. Just the fear of potential reprisals.

62. Q. A fear that's based on no evidence to date?

A. A fear that has no -- yes, no objective evidence to date, yes. It's a fear of potential future reprisal.

63. Q. You've referred a few times to a notice from the Ontario College of Physicians and Surgeons. Did you receive that as a member?

A. I'm not a -- I'm not a member of that organization. I -- I do not hold an MD, I'm not a physician, nor am I a surgeon. I actually saw that on my own. Again, because I do daily research on document -- you know, on trustworthy documents that are issued regarding COVID-19, I actually saw this as part of my own daily search. This came up and I read that.

But certainly I've received numerous copies of it from physician colleagues and I've been in many meetings where this has been the subject of many discussions.

64. Q. Your daily research includes statements by professional regulators?

A. In terms of my literature search, yes, I keep apprised of this. In terms of regulator -- again, my -- my job is not directly related to regulation, development of regulatory policies. But because I'm involved in medical research, yes, a lot of the decisions made -- my research focuses primarily on the pre-clinical and translational stages of research.

And as a consequence, you know, my vision is to have my research eventually translated into clinical practice for the benefit of, you know, people in Ontario and beyond. And so as a consequence, I do have a keen interest for sure in medical regulatory policies, yes, because they could potentially have impact on the future outcome of my research program.

65. Q. Do you check the College's website every day?

A. No, I do not.

66. Q. Did you first see the notice on the College's website or somewhere else?

A. The first one I saw on the website and then there was an update made to it where they added some text, you know, prior to the original comment that they made. And so I've seen both of those versions on their website.

67. Q. How did you end up on that website, if it's not part of your daily research?

A. Oh, I mentioned it is -- I do literature searches. And as I mentioned, I -- I am keen on knowing what regulatory policies are within the context of medicine, because again that's the ultimate future, you know, goal for my research, is to get it into clinical practice.

So, yes, when I do my literature searches, I -- yes, this came up on that literature search that I did.

68. Q. What service was the literature search run on that included a notice from the College of Physicians?

A. It was a -- a Google search. I can't remember the exact search terms, but it was just a basic Google search.

69. Q. And that's Google Scholar?

A. Give me one moment, I'll see what ---

70. Q. Sir, you can limit your answers to what's in your memory. We're not going to do research on the fly during this cross-examination. Do you recall whether that was a Google search or whether that was Google.com?

A. Okay, it's whatever the default search

engine is for Google Chrome.

71. Q. And so when you say your "daily literature search", that's not limited to peer-reviewed articles?

A. No.

72. Q. That includes anything that's been indexed by Google?

A. Yes.

73. Q. And that's how you conduct your daily scientific research to make sure you're well-informed of new important facts related to COVID-19?

A. That is not the sole way, no, absolutely not. I -- for example, I would say, you know, the dominant search engine that I would use for much of my research would be PubMed, because I'm wanting to acquire, again, solid, validated, scientific information. So Google search ---

THE REPORTER: Sorry, sir, can I just have the name of the website?

THE DEPONENT: Yes, PubMed, P-U-B-M-E-D. And that's a ---

THE REPORTER: Thank you.

THE DEPONENT: That's a search engine of peer-reviewed scientific and medical literature that's run by the National Institutes of Health in the United

States.

THE REPORTER: Thank you.

BY MR. RYAN:

74. Q. And was the College's notice published in PubMed?

A. No. It's not an indexed publication, no.

75. Q. Now, what search terms do you use when you're doing a daily Google search on COVID-19?

A. Oh, I could not give you a -- an accurate, detailed list. It's huge. I mean, it's enormous. It's anything to do with science that I'm interested in. I think -- I can give you an example of some of the search terms, but it would be a very partial list.

So that would include "COVID-19", it would include the full written term. That's the abbreviation, so the "novel coronavirus disease that emerged in 2019". Another search term would be "SARS CoV-2". Another one would be "severe acute respiratory syndrome coronavirus 2". Another one would be "immunology". Another one would be "vaccines". Another one would be "virology", "viruses".

I mean, as an immunologist, I search all

kinds of things. So I would search on -- do searches on, you know, a combination of terms, I'd be searching on -- I mean, I have interest in every aspect of the immune system, so it would include chondritic cells, neutrophils, T cells, B cells, antibodies.

I mean, I could go on and on. I have no idea. But as a scientist, I'm not limited to a certain set of search terms. I would use, over time, especially over the past sixteen months -- my goodness, I would hazard a guess -- and this is only a guess -- that I probably used hundreds, if not thousands, of search terms.

76. Q. Do you see in this passage where you refer to "physicians and surgeons feeling uncomfortable relaying information about vaccine safety concerns"?

A. Yes, that's -- that is what my physician colleagues have expressed to me as their primary concern. And the reason being, for exactly what's stated there, is that although -- this is where they're conflicted.

Because they recognize that if they are to administer anything that's experimental, they recognize the incredible importance of fully-informed consent. I mean, the emphasis there is on the

"fully".

They want to be sure -- if they are to adhere to their credo as physicians and surgeons, they need to be able to provide fully, meaning comprehensive information. And so they are -- many of them are fully aware of the scientific literature documenting issues with these vaccines, but they -- there is this -- I mean, if you want to read the statement here, it's been implied that if they are issuing information that could be construed as going against Public Health messaging regarding vaccination, which is that, you know, the goal is to get everybody, now down to the age of 12, in Ontario vaccinated, then, you know, they're worried that can be construed as -- you know, the word -- the wording is vague enough that they feel -- they're worried that it can be construed as providing messaging that goes against the Public Health messaging.

And so their concern, therefore, is they feel conflicted in how well they can fulfill their commitment to providing fully-informed consent. They have no problem providing all of the cons on the vaccination side, right?

I'm very much pro-vaccine, in general, when they are well-vetted vaccines. I'm a vaccinologist.

And they, as well, know the incredible value of well-validated, well-studied vaccines with a long -- an appropriately long track record of safety, safety data collected for, you know, multiple years prior to being used in people.

So they have no problem sharing the pros. The issue here is with -- the messaging that they receive is -- the question is: How comprehensively can they provide the cons without this organization, the Ontario College of Physicians and Surgeons, making a decision that they have crossed the line of contradicting current Public Health messaging too much.

And I'd like to point out that there's a very valid reason for this. And I hope you'll let me follow through with the science, because I need a bit of time. And I just want to double-check, I am -- my understanding is I am allowed to show scientific documents to back up what I'm saying, is that true? Can I share my screen and show the scientific documents that I'm referring to?

77. Q. The way this works, sir, is that if I ask you for any documents, then you can provide them afterwards. We don't do research on the fly. And the question ---

A. It's not research --

78. Q. The question --

A. -- on the fly.

79. Q. -- was about a statement in your Reply Affidavit. So you see that statement in your Reply Affidavit about "feeling uncomfortable"?

A. Yes. And I'm trying to answer that question, because it ends with anti -- they're worried about promoting anti-vaxxer sentiments and their in -- and they're worried about their ability to provide all of the cons, which is founded based on scientific literature.

So my answer will not be complete until I can -- I can explain to you what those cons are, and then I think it'll be fully appreciated why they want to be able to share this information. So ---

80. Q. Sir, the question was about a statement in your Reply Affidavit. You don't need any other documents to answer a question about what's in the document in front of you. Do you understand that?

A. Yes, I do, because I've been asked to comment on this, and it's ---

81. Q. You haven't been asked to comment. You've been asked whether that statement is in your Reply Affidavit?

A. Yes, it's in the -- it's in this. Yes, it's in this Reply Affidavit.

82. Q. And the discomfort being expressed in this sentence is physicians who are worried that the College will discipline them for speaking true facts about the COVID-19 vaccine, is that right?

A. The messaging was vague enough that, yes, they are concerned that -- they are uncertain of where -- how much of the cons with respect to vaccination they can express before it is deemed that they have crossed a line and have shared too much information contradictory -- that would be viewed potentially as contradictory to current Public Health messaging.

83. Q. Too much accurate messaging information, not misinformation? They're worried that the College will punish them for providing too much accurate information to their patients, is that right?

A. Yes.

84. Q. And physicians have told you this?

A. Yes.

85. Q. And which physicians told you that?

A. I'm definitely not going to name these physicians. They definitely want to remain anonymous. The only physicians that I have spoken to that -- that

would potentially feel comfortable are retired physicians. But as retired physicians, they're not actively engaged in this messaging to patients.

86. Q. And did they use the words in this sentence that you have conveyed, those exact words when they communicated that to you, the anonymous physicians?

A. Yes.

87. Q. And how many physicians echoed those exact words?

A. So with the group that I meet with on a weekly basis, it's approximately twenty. Twenty physicians.

88. Q. And they each said these exact words to you orally in turn?

A. They actually have one physician who generally likes to represent the group, and that physician stated this and the rest affirmed their statement.

89. Q. How did they affirm it?

A. By agreeing, nodding their heads, or stating yes, that they agreed with this statement during our weekly online Zoom meeting.

90. Q. And how many people attend those weekly meetings?

A. Our group has grown to over sixty now. They're -- they're not all physicians, I should point out. It's a group that's largely composed of -- the majority membership is -- are physicians; the second-largest group would be scientists; and then there are a whole bunch of other health professionals; and some other professionals that we have meeting with us, as well.

But I would say probably two-thirds of the group are -- are made up of physicians and scientists from across Canada.

91. Q. And are minutes taken of the meetings?

A. There are minutes that are taken, but our group is not official yet.

92. Q. And is this exact statement in the minutes of a meeting of that group, that I've highlighted on the screen?

A. No, it would not appear in the minutes, no.

93. Q. So the lead physician said that and his colleagues affirmed it, but it wasn't included in the minutes?

A. That is correct.

94. Q. And do you know why it was omitted from the minutes?

A. Yes, physicians and -- these physicians and surgeons fear for their jobs. And unfortunately they will not go public with these statements. I'll acknowledge that. So we have to take it at face value. We have to take it as what it is.

And they'll not -- they will not put their names to this, out of fear. So within this group, I think it should be pointed out that, as I just mentioned, out of sixty-three members, there are two of us -- two of us who have volunteered.

The entire group was asked, "When this group does go public" -- you know, we're getting organized right now, the question was posed to all of the members, "Who within the membership would be comfortable to, in essence, front this group, be open to publicly answering questions -- many questions that will come from the public?"

And only two of us, you know, were willing to put our names forward. One of the reasons why this group has formed is to provide a safe haven for scientists and physicians to have open discussions about the science underlying the -- underlying COVID-19, and without, as I stated here, this fear of reprisal.

And we will respect that and we will honour

that, and I acknowledge that in the context of a statement like this and my (inaudible), it could be construed as hearsay. But it is what it is. I -- I can't put people's names to this, when they do not feel comfortable having that done.

95. Q. Who takes the minutes?

A. Well, we have a person assigned to do that task, one of our members.

96. Q. And how do they -- they're the person who decides what is omitted from the minutes that's discussed?

A. They record -- I mean, they record their minutes and provide it to the -- they provide these minutes to the Steering Committee.

97. Q. So how do you know the basis for omitting this statement from the minutes, if you're not the person who takes them?

A. Because I'm a member of the Steering Committee, and I see the minutes, and it was not recorded in the minutes. And it is a general agreement among the entire group that we will not name people, because we understand that once we become a formal organization, that things like minutes can be obtained.

And I -- like I said, the whole purpose of

this group is to provide a safe haven for open, honest, objective, scientific, and medical discussions about COVID-19, without putting anybody's jobs at risk.

And as I mentioned, we have identified only two people in our group who are willing to have their names stand alongside any official documentation associated with this group and our meetings. And so that is a uniform group decision, and so there is no, you know, thinking about whether or not this will be done.

If people have not explicitly stated that they would like their names recorded and identified for potential release to the public, then that -- their names will never be recorded in documents or notes that we take.

98. Q. Did a physician say out loud: `Do not include my previous statement in the minutes, because I fear College discipline'?

A. I'm sorry, which -- which statement are you referring to exactly?

99. Q. The highlighted statement on the screen, sir.

A. This, again, was stated by the physician and surgeon who tends to take the lead for

the others, and as I said, it received broad agreement based on nods or verbal affirmations after that individual making the statement.

100. Q. Sir, you told us you knew why this statement was omitted from the minutes, do you remember that?

A. No, I -- what I stated was that the names of these physicians and surgeons were omitted. Sorry, yes, the names of the physicians and surgeons. And, yes, this statement itself did not -- was not in the minutes, yes. That is correct, it was not recorded in the minutes. This is my statement. This is me relaying the information.

101. Q. So this statement about "feeling uncomfortable relaying information about emerging safety concerns surrounding the vaccines, for fear that it may be misconstrued by the Ontario College of Physicians and Surgeons as promoting anti-vaxxer sentiments", that statement was not in the minutes at the meeting at which that sentiment was expressed, do I have that right?

A. That is correct. But this -- this information that I'm relaying here is also not limited just to that meeting. This is -- there are many ---

102. Q. Sir, the question was about the

minutes. That statement wasn't in the minutes, do you agree?

A. Yes, I agree.

103. Q. Do you know why it was omitted from the minutes?

A. It wasn't specifically omitted. It was not included in the minutes.

104. Q. Why was it not included in the minutes? Do you know the answer to that?

A. Yeah, because the minutes would have been focusing on the scientific discussions that we were having. The science. This is a -- or this weekly meeting is a roundtable scientific discussion. And so in that case, the minutes focus on the science that's being discussed.

105. Q. So this statement in your Reply Affidavit is based entirely on your recollection of that meeting?

A. No. It's based in ---

106. Q. What else is it --

A. It's based ---

107. Q. -- based on?

A. It's based in part on the recollection from that meeting as well as many media releases. There have -- there have been many stories that are --

that you can find, again, through these searches on the Internet, that the media has highlighted.

It's not just -- because, of course, it's not just limited to the relatively few physicians and surgeons in this group that I meet with. There has been broad-based blowback from physicians and surgeons, not only in -- throughout Ontario, but well beyond Ontario, going well beyond Canada.

This has caused a ripple effect through the whole world, because this is recognized that this kind of messaging is not appropriate to give to physicians and surgeons. They need to feel 100 percent free to provide fully-informed consent.

So there are many media articles quoting many physicians and surgeons. So it goes well beyond this group and even well beyond Ontario, that speak against this statement that was made. And also from this -- these media releases that I have been seeing, it is my understanding that, if needed, this -- this will go to court, because this is not appropriate for physicians and surgeons.

I can tell you that as a researcher. I'm a researcher who has some experience conducting some clinical research, and the -- this whole concept of informed consent is absolutely imperative and there

can be no hesitation on the part of a professional to provide all of the potential cons along with all of the potential pros. This is for the safety of anybody who agrees to enter an experimental trial.

108. Q. What's the name of the weekly group you participate in?

A. We're called the "Canadian COVID Care Alliance".

109. Q. And how did you get invited to the group?

A. Okay, that's actually an interesting question. It has an interesting history. So this is the -- how I got invited to the group. I received funding early on in the pandemic to -- by the Ontario Government and the Federal Government -- actually, early on in the pandemic from the Ontario Government, later from the Federal Government, to -- to make and test novel COVID-19 vaccines.

As I mentioned, as a researcher -- so this is from the ground up, so this is starting at the pre-clinical research phase. So as a researcher, right, I was working in -- and especially when you're conducting pre-clinical studies, you don't want to waste the time, energy, and resources, especially of your research team, to, you know, invest in research

that has no clinical outcome, no potential clinical use.

So you always want to see a potential avenue into clinical use. And as a reason -- so as a consequence, I mean, I understood that the -- the only way the COVID-19 vaccines could be used clinically at this point in time, without undergoing the proper scientific process, right -- so, typically, it takes, on average, about ten years for a vaccine to navigate the clinical trial process, let alone the pre-clinical and translational research phases.

It was well recognized that the only chance these vaccines had of having a clinical application now, during the pandemic, would be through emergency use authorization. And emergency use authorization is -- this is not the same as licensing of a vaccine, right?

Emergency use authorization is taking a vaccine and -- that's experimental, and then authorizing it on the basis of there being a declared emergency. And this can only be done if there are no legitimate treatment strategies that can be implemented for the disease.

So specifically in this case, we're talking about COVID-19, which is caused by the virus, SARS

CoronaVirus-2. So having received funding and intending to develop vaccines for COVID-19, I knew that there had to be no suitable early treatment strategies.

So as a consequence, I have kept close tabs on some of the key, you know, early treatment strategies that were proposed early -- very early on in the pandemic. And those included hydroxychloroquine, Ivermectin, and as an immunologist, certainly vitamin D3 is high up on that list.

And what I focused on mainly, out of those three, was Ivermectin and vitamin D. And that's simply because, you know, I have to limit it. I have a limitation in time and resources, so I focused on those as great examples. And the Ivermectin story is kind of interesting.

So the reason why I focused on those is because if these were legitimate, good intervention strategies, then there would be no emergency use authorization for the vaccines. So that's why I wanted to keep an eye on this, right, is because I wanted to make sure that there wasn't going to be a potential outlet for COVID-19 vaccines.

So I followed the science. Early on, there

were a couple of key randomized control trials done with Ivermectin. And like I mentioned, I'm a scientist who goes with the evidence -- the scientific evidence that's available. These -- these initial couple of trials had negative outcomes, that they didn't show a statistically significant benefit for Ivermectin.

So there were a couple things that I noted from that. One is, as a scientist I noted that there were key flaws in these -- in these early randomized control trials. And what those flaws were is any time you conduct an experiment, you want a -- you have a treatment group and you're comparing that treatment group always to a control group.

The problem was, in the control group, these -- these studies were done in countries where Ivermectin is readily available, unlike Canada. In these countries where these experiments were done, Ivermectin is readily available over-the-counter, and so anybody can readily get a hold of Ivermectin. And in many of these countries, people are self-treating with Ivermectin.

And so the problem was, in the control groups, there was no control for how many of those people were taking Ivermectin. So essentially what we

had was a comparison in the treatment group of people being treated with Ivermectin, and a control group for which there was an unknown number of people being treated with Ivermectin.

So it was essentially comparing the benefit of Ivermectin to the benefit of Ivermectin. So it wasn't -- it wasn't surprising that they then show a benefit in those early studies. But as a vaccinologist, I was happy enough with that outcome, right? Because I now had a couple of peer-reviewed scientific papers showing here's a key, you know, drug that people are claiming is an effective treatment strategy.

These papers would suggest that, yeah, there's going to be -- in the context of Ivermectin, there's going to be a valid reason why vaccines could get emergency use approval. So that's why I was following that literature. However, again, I have to follow the bulk of the literature, and if you look at my first report, you'll see the results of my, you know, research in this.

And what I did, just to be very open about this, is I included an appendix of all of the, you know, massive number -- you know, very large number of scientific publications now that have amassed in the

area of Ivermectin.

And again to relay honestly the information to the court, I highlighted where -- which papers provided a negative outcome, meaning they did not show a benefit of Ivermectin, and those that did. And now if you look at that list, it is -- again, as I mentioned, as a scientist, right, you have to go with the weight of the evidence.

The weight of the evidence now is vastly in favour of showing that Ivermectin is an effective treatment strategy, to the point where I was then shocked when we provided -- as a vaccinologist developing COVID-19 vaccines and wanting to see, you know, a clinical application for these in the future, I was shocked to see that we issued emergency use application, because as a scientist, I couldn't help but see that Ivermectin clearly, based on the weight of the scientific data, is an effective early treatment strategy.

And so this as well as the vitamin D story. So the other -- this is the other aspect. So that was the other one that I was following. So when it comes to vitamin D, I included, actually, in this most recent report that you have up on the screen here, some information about vitamin D, including

ElectroSlide.

So I teach my students about the importance of vitamin D. All immunologists know vitamin D is a critical, critical component to the proper functioning of the immune system. So even this example of a slide that I use when I teach immunology to my students, there's a great example.

They love this, because it has a real historical context. Many people have heard through history lessons about the specialized institutions, the sanitoriums that we had for people who were suffering from tuberculosis, which is caused, interestingly, by an intracellular bacteria.

So it's an intracellular pathogen, just like SARS CoronaVirus-2 is. So this is a mechanism that's relevant also to SARS CoronaVirus-2. What was interesting was these observations that people in these sanitoriums did better than those who were not in the sanitoriums. And there were three observations that were made as to why this was.

One is that the -- it was noted that one of the correlates was exposure to fresh air, the other one was exposure to sunlight, and the other one was the provision of nutritious food. Now, interestingly, the exposure to fresh air was irrelevant. The reason

why they were exposed to fresh air is simply because they were exposed to the sunlight, and the actual scientific mechanism underlying this was the vitamin D.

And, you know, the important thing to know about vitamin D is when we are exposed to strong sunlight, our skin is able to manufacture vitamin D. So that's why in the northern climates during the summertime, we get intensive enough sunlight that if we go outside for at least fifteen minutes and get exposure to the sunlight for at least fifteen minutes every day, our bodies will manufacture a sufficient quantity of vitamin D.

And this vitamin D -- and this is in a slide that I included here in this report -- is critical. So, for example, in this case, one of the things it does is it's critical for a mechanism of action used by macrophages to kill intracellular pathogens, such as microbacterium, which cause -- microbacterium tuberculosis, which causes tuberculosis, and also viruses like SARS CoronaVirus-2.

So it's a critical component. Without sufficient vitamin D, people's immune systems cannot function properly. And I also provided in here -- I mean, there are thousands of references. Vitamin D

has been studied in the context of basic fundamental immunology for decades.

So there are thousands of references showing how important vitamin D is to the functioning of the immune system. However, I limited the -- I think it was about seventy-five -- I'd have to actually look at it. It was about seventy-five references, I believe, to vitamin D, specifically in the context of COVID-19.

So the point is: It's absolutely critical to the proper functioning of the immune system, it's very -- when we have sufficient vitamin D in our bodies, our immune systems are much better able to deal with SARS CoronaVirus-2.

So, for example, in these publications are included this concept that more northern countries -- so, for example, Canada compared to the United States, where we get weaker sunlight because of the angle of the sun, therefore we get less natural production of vitamin D.

The more -- the more northern you go in latitude, the higher -- in general, the higher the incidence of cases of severe -- of COVID-19 and especially severe COVID-19. And we also see this seasonally, right?

And this is well-known and established, for

example, in the context of influenza infections. So we often refer to the "cold and flu season", right? The reality is: Yes, there are some physical changes that do make us more prone to infection with viruses in the cold.

So, for example, the dry air can reduce the thickness of our mucus that line our respiratory system. But the key component, the dominant component, is this is not that it's necessarily cold and flu season, but that it's a low vitamin D season, right, where we don't get enough exposure to the sunlight, and so we don't manufacture enough vitamin D.

So supplementation with vitamin D -- vitamin D is very cheap and inexpensive, and it is a very effective strategy for reducing the incidence of respiratory infections, including COVID-19 caused by SARS CoronaVirus-2. It's also very good at dampening the severity of disease caused by respiratory pathogens, including SARS CoronaVirus-2.

So this -- this -- I have been surprised, as an immunologist, that this has not been widely promoted in Canada. So, again, this represents a very cheap and effective strategy. And as an expert, I can tell you unequivocally, based on the overwhelming --

like I said, thousands of publications on vitamin D and its importance to a functioning immune system -- had we in Canada actively promoted early on in the pandemic, the proper supplementation, especially from mid fall to mid spring, there's -- there's no question in my mind that we almost certainly would have had a lower incidence of cases of COVID-19 and fewer cases of severe COVID-19.

So these are the two things that I was following, right? And this is actually why -- and the reason why I say this, this is why I was invited to the group, because this group of physicians, one of their primary interests, actually, is in using effective early treatment strategies for the treatment of COVID-19.

And so what they saw in me was a scientist who, early on in the pandemic, based on scientific evidence, right, these -- this very limited early scientific evidence suggesting that -- although the studies were flawed, did suggest that maybe there was not a benefit of Ivermectin.

They saw me go from that and saw me as someone who was willing to follow the weight of the evidence to the point where, even though I would like to see a clinical outcome for the vaccines that my

research team is working on, I can't deny the benefit, the overwhelming science in favour of the fact that Ivermectin is an effective treatment. And certainly vitamin D3 is, as well.

And that's why they recruited me, because, again, they saw: Here's a scientist who actually, you know, in quotes, was "our enemy" at the beginning, right, was using the limited scientific literature early on to actually make the argument that Ivermectin may not be an effective treatment and, therefore, we need emergency use authorization of vaccines to follow the weight of the science, and now stating clearly that I have to admit, on the weight of the science, that Ivermectin is an effective treatment strategy, right?

So they viewed me, again, as somebody who was willing to follow the science and change my scientific opinions, based on the weight of the science. That's why they invited me to be part of this group. And the other -- and the other key reason is -- again, these two things interface. It wasn't even just that they saw that I'm willing to follow the science and I was going to change my opinion on the validity of Ivermectin -- and I never questioned the validity of vitamin D3, because an immunologist, as I

said, that's just to me, as an immunologist, common sense.

But the other reason is as I mentioned: The two are at loggerheads. You can't have emergency use authorization of vaccines without having -- you can't have that and simultaneously have acknowledgment of the fact that there are effective early treatment strategies present.

And so the other aspect to why they invited me was on the vaccination side. And on the vaccination side, when I see that there are effective early treatment strategies, the other thing that becomes very important -- and this is the second reason why they invited me -- is there are major concerns that have developed scientifically with the -- with the vaccines.

And what I mean by this is -- and this is also kind of interesting, because this stems, actually, from pathogenesis studies. So solid scientific literature looking at how SARS CoronaVirus-2 causes damage to the body in cases of severe COVID-19.

So when severe COVID-19 develops, one of the things that has been noted is that there is a lot of damage to the cardiovascular system. So it's now

known that when affected with SARS CoronaVirus-2, if people develop -- you know, are prone -- the relatively few people who are prone to developing severe COVID-19, these individuals can have the spike protein from the virus enter into blood circulation.

And if the spike protein gets into circulation, it can cause damage to the cardiovascular system. And the reason for this is we know that the receptor for the spike proteins is -- I should explain.

The spike protein is this protein, it sticks up on the surface of the virus. It's the protein that binds to a receptor on the cells that we have lying in our respiratory system. And when that happens, the virus can then infect ourselves. That's how infection occurs.

This spike protein, however, was also discovered it's not just responsible for the virus getting into cells. When that spike protein on its own gets into blood circulation in these infected individuals, we've discovered that this receptor it uses is also expressed on the cells that line our blood vessels and it's also expressed at high concentrations on our platelets.

And so this is why the virus can cause a lot

of cardiovascular damage. It can cause heart problems, it can cause bleeding, it can cause clotting, and this is the reason. And so as scientists, therefore, we were suspecting that the spike protein itself was responsible for these cardiovascular events.

So, indeed, a pivotal study was done in monkeys where they were injected with a purified spike protein and all of this cardiovascular damage was recapitulated. It was found that if the spike protein on its own can get into circulation in the blood, it can bind to the endothelial cells, or these cells lining the blood vessels, and/or platelets.

They can also cross the blood-brain barrier and cause neurological damage, as well, including damage to the blood vessels in the brain. And when this happens, the reason why we get damage is -- there's a couple mechanisms that have been shown.

One is when this protein binds to this receptor on these cells and activates a protein that we have in circulation called "C5" -- this is a part of our innate immune system. It's called the "complement system". And when that happens, it activates what we call a "complement cascade", and the end result of this cascade is damage to a cell. This

can result in cell death.

The other thing that can happen is if this protein binds to the receptor on platelets, it can actually signalling through the receptor on platelets, and it can cause these platelets to become activated. Activated platelets tend to clump, they aggregate.

And so you can see here there's two -- that's why there's two possible outcomes. If, when that binds, the complement kills a platelet, then you get loss of platelets. We call it "thrombocytopenia", and somebody can end up with a decrease in their platelet count. But if it leads to activation of the platelet through signalling through that receptor, then it can cause aggregation of the platelets, and that can promote what we call "thrombosis" or "blood clotting". And so that's how the virus causes these cardiovascular problems, right? And so it's been shown that this -- this key aspect of the disease pathogenesis is mediated almost entirely by the spike protein on its own.

And so this -- this is the key, then, is -- so when we were designing these vaccines, all of the current vaccines, or the vaccines that have been approved for use in Canada, right, we have to be aware of, are all targeting the spike protein.

So the way a vaccine works is you want to show the immune system a piece of the virus, tell the immune system that that piece of the virus is dangerous, and, therefore, worth responding to. And at the beginning, it was logical to choose the spike protein, right?

Because as I mentioned, the spike protein is responsible entirely for allowing that virus to infect our body. So if we can get the immune system to respond to that spike protein, the idea is we will get antibodies.

And, ideally, if the antibodies end up in the right location -- or where we want them is in the airways, because that's where we get infected -- those antibodies will bind to the spike protein and prevent the virus from being able to infect ourselves. And that is what would protect us from infection. That's the theory.

What we didn't know at the time -- so that was all logical in terms of the vaccine design. That's why all of our vaccines are targeting the spike protein, and only the spike protein. What we did not appreciate at that time is that the spike protein, as we now know, is a pathogenic protein and it can cause serious harm to our cardiovascular system and possibly

other tissues, including, as I mentioned, once it's in the blood, it can get past the blood-brain barrier.

Now here's the issue: The assumption -- again, too much of the science -- so a lot of the decisions that were made early on in the pandemic were legitimate, they were based -- I mean, we had no choice without -- in the absence of science specifically about SARS CoronaVirus-2 and COVID-19 vaccines, we had to go based on assumptions.

So the historical assumption with vaccines -- remember, historical vaccines were dominated by vaccines that we call -- they're either inactivated viral viruses where you take the virus, you inactivate it so it can't cause disease anymore, and you mix it with what we call an "adjuvant", and you inject it, or you take pieces of the virus and mix it with an adjuvant and inject it. These are what we call "sub-unit vaccines".

What happens with these vaccines is you inject them into the shoulder, right, like we are the COVID-19 vaccines, the vaccine will stay in the shoulder, it has a dipal (ph) effect, it doesn't go anywhere else in the body, it just stays in the shoulder.

The only other place where you will find any

components of that vaccine is in the local draining lymph nodes, and that's because the immune system comes and picks up the pieces of the virus, takes them to the local draining lymph nodes, and it's in the lymph nodes that we've got -- that the immune system gets activated.

That's why whenever we get sick or vaccinated, it's not unusual to be able to palpate -- like, for example, we get a throat infection, physicians will often palpate behind the jaw and feel for -- to see if there's swelling of the lymph nodes. That shows that an active immune response is being mounted.

So the reason why that happens is because pieces of the virus are taken to the local draining lymph node and you get this massive expansion of B cells and T cells, which are these cells that we want to protect us from the virus. That's why the lymph node swells. And then these leave the lymph nodes and go throughout the body.

This was the assumption. However, this is -- these are novel vaccine platforms, and what we have now discovered is -- this is the problem: That was the assumption. But as scientists, we've been trying -- we've been demanding to see what we call

"biodistribution data". What "biodistribution data" is, is it tells us where exactly the vaccine is going in the body.

And with these novel vaccines, there's two things that we're interested in. So now -- I just focused on the mRNA vaccines, because of the fiasco we had with AstraZeneca, and the safety issues, and the -- you know, all the issues with the Public Health messaging around that.

We have scrapped the AstraZeneca vaccine, so I'm not even going to focus on that. So what we have left right now at the moment that we're using are the Messenger RNA vaccines. So in that context ---

THE REPORTER: Could you spell that?

THE DEPONENT: (inaudible) little "m" -- yeah, little "m" -- little "m", capital R-N-A. So that -- that stands for "Messenger ribonucleic acid". And thank you for bringing that up. What that is, is that is a piece of genetic material, and specifically the Messenger RNA or the piece of the genetic material that is used in the Pfizer/Moderna vaccines provides the genetic blueprint for the spike protein from the SARS CoronaVirus-2.

So the way it's -- so the way it's intended to work is once that vaccine is administered, it's

delivered in what we call “lipid nanoparticles”, so these are coated in basically a layer of fat. Our cells, interestingly, are coated in a layer of fat. The cell membrane is made of fat.

So when the lipid nanoparticle comes into contact with a cell at the injection site, the lipid nanoparticle will fuse with the lipid membrane of the cell, and the Messenger RNA will be essentially injected or fused into the cell into what we call an endozome, be taken up by the cell, and then it’ll use the cell’s own machinery, right?

It provides, then, the genetic blueprint for the spike protein, and it uses the cell’s own protein manufacturing apparatus to manufacture the spike protein. So these vaccines get -- get a person’s own body, their own cells, to manufacture the spike protein. How much spike protein will be highly variable, because it’ll depend on the individual, it’ll depend on the metabolic activity of the cells that get -- that receive this payload from these lipid nanoparticles.

And so the idea is that the cells produce the spike protein. And, again, in theory, if this worked like the traditional vaccines, the only place that spike protein would go would be the draining

lymph node, and it would get presented to B and T cells, they'd be activated, right, and then go throughout the body and look for the SARS CoronaVirus-2.

And if it saw the spike protein anywhere, it would then, you know, attack it. And the only source of the spike protein should, in theory, be, therefore, the virus. And that's how we would be protected from infection of the SARS CoronaVirus-2.

However, with these new -- novel vaccines, it's absolutely essential with any novel therapeutic agent, that you do what we call a "biodistribution study". And so what a "biodistribution study" is, is it says: `Okay, based historically -- on history, we're assuming that the vaccine is only present at the injection site and the local draining lymph nodes'.

But what you do is you look throughout the body. It's an anatomical study, you look throughout the body, and in the context of these mNRA vaccines, there's two relevant questions. One is: Where exactly do the lipid nanoparticles go? Are they limited only to the shoulder and lymph node -- draining lymph node?

The other question is: These lipid nanoparticles are carrying a Messenger RNA payload

that's designed to cause cells to produce the spike protein. So the second component of a properly-conducted biodistribution study would be to then say: Where does that spike protein go in the body, right? Is it also limited to the injection site and the draining lymph nodes?

Now, this is the key. This should have been done --- (dinging sound)

MR. RYAN: I believe that's one of the parties. Perhaps the other counsel could confirm that?

MR. CHAND: Yes. Perhaps we could -- I'm wondering if we could take our morning break at this point? I know that Dr. Bridle was in the midst of completing his answer. I think we can hold off on admitting Mr. Skelly for the time being.

But once Dr. Bridle has completed his answer, Counsel, I'm wondering if now would be an appropriate time to take a break?

MR. RYAN: That's fine with me. Whenever Dr. Bridle's finished.

THE DEPONENT: Sure, yeah, I understand. Sorry, I get a bit passionate when I'm talking about science. I'll (inaudible). No problem. Don't hesitate to interrupt me. And if there's any term

that you want me to define, or anything, please. Because I also don't -- I want it to be accessible (inaudible). Sure, okay, so I'll try and wrap up the question so we can get to the break.

So I was at the point of the biodistribution study. And so the key here is Health Canada and -- there's been no public release of what the biodistribution data looked like. So through a -- you know, an access to information request, it turns out that the Japanese government, interestingly, requires some pre-clinical data to be submitted alongside the clinical data.

So for Health Canada and the USFDA, for example, they usually just require clinical data to be submitted. And a company's never going to submit data that they aren't -- that they haven't been asked to submit. So this was the first time.

So through the -- so a report from Pfizer to the Public Health agency in Japan did provide detailed biodistribution data. It was an improperly-conducted study because one of the issues with it is it never captured the peak of accumulation of the lipid nanoparticles that Pfizer uses in their vaccine.

Nevertheless, it was very revealing information, and what it showed is these lipid

nanoparticles that carry the Messenger RNA -- and the way it worked is, what they did is they used these lipid nanoparticles, but instead of the mRNA (inaudible) the spike protein, they put into it an mRNA encoding a protein that can be used for imaging studies, so they could see where the Messenger -- where the lipid nanoparticles were going.

And so that means, by definition, what they were seeing in the tissue was a protein that was being expressed from this vaccination platform. And so what -- and so they knew, then, that the Messenger RNA was being expressed in the tissues.

Interestingly, as you expect, a lot of the lipid nanoparticles were found at the injection site, right? That's what you expect. But, surprisingly, after forty-eight hours, only approximately 25 -- I think the exact number was 25.8, but don't quote me on that. It was about 25 or 26 percent of the vaccine dose remained at the injection site.

That's troubling, because then the question is: What happened to the other, you know, approximately three-quarters of the dose? Well, when you look at this biodistribution data, it's very clear that over time -- so they monitored it at fifteen minutes post-administration, one hour, two hours, and

up to -- at multiple time points up to forty-eight hours.

And what they found is that there was clear evidence that the vaccine platform, right, these lipid nanoparticles, were being distributed systemically. They were clearly detectible in the blood from the circulation.

When you see that something is circulating in the blood, a tissue that you naturally look at is the spleen, because the spleen is designed to filter the blood. And so what they found there is that these lipid nanoparticles were accumulating in the spleen, they found there was distribution of the vaccine into the bone marrow, they found there was distribution of the vaccine into the adrenal glands.

Remarkably, after forty-eight hours, 16 percent of the vaccine dose had accumulated in the liver. They found evidence of a lot of accumulation in the ovaries. That, I have a concern about because vaccines are quite pro-inflammatory. They call them "reactogenic".

That's why a lot of people, when they receive the -- after they receive the injection, some of them can't even lift their shoulder afterwards, because of the amount of inflammation. So if you

cause inflammation, for example, in the ovaries, that could cause damage, right?

A female, when born, that's -- they have a fixed number of eggs, right, for potential fertility, right? That's it. They're programmed, they're set with that number of eggs. So if there's any damage to the ovaries and any kind of inflammation in the ovaries, there can be potential damage to the gametes.

If there were to be inflammation in the ovaries, that's something you never want because one of the issues there is that our immune systems learn what to become tolerant to in our bodies by about the age of 6. And the problem is, therefore, during adolescence, there's a lot of changes in the ovaries and the testes, and so there's a lot of proteins that are present that the body has never seen before. We call these "immunoprivileged tissues".

And what happens then is that if there is damage and -- inflammation in a tissue like that and there's damage caused, it can cause release of antigens (inaudible) we've never seen before, and it can cause induction of autoimmune reactions.

So you can see there's no scientific proof for this, but there's a legitimate scientific question when you see this kind of biodistribution data. In

terms of could this result, for example, in infertility and people that get vaccinated? And that would reveal itself, potentially, (inaudible) if somebody tries to get pregnant.

There's other tissues. I won't go through all the tissues, but the net result is that there's wide distribution of this, evidence -- evidence of it getting into the blood and getting into many different tissues.

Now, the other key component here is there was a scientific study that was just accepted for publication last week. And again in a very well-respected scientific journal. This is very important, because it took thirteen healthcare workers, they were young -- relatively young healthcare workers, many of them were in their 20s, thirteen of them, and it asked a simple question, right?

A lot of these scientific questions can be asked if we just pause with these vaccines and take the time to run the studies. So they asked this question: "Does the spike protein" -- because this biodistribution study was looking for the Messenger RNA encoding this imaging protein, a protein that could be used to identify where the lipid nanoparticles are.

So they specifically asked about the spike protein with the actual vaccine itself. So after receiving, in this case, the Moderna vaccine, they looked in the circulation -- the blood circulation of these thirteen individuals, healthcare workers, and what they found, remarkably, was that in eleven of the thirteen, they had the spike protein circulating in their blood at various concentrations.

And also it was detectible as early as one day post-vaccination in the blood, and in one individual, as long as twenty-nine days later, it was still detectible in the blood. And then it seemed to disappear -- wane and disappear from the body as the antibody -- as an antibody response was mounted. Now, typically, it takes -- for us to generate any substantial number of antibodies post-vaccination, usually it takes in the ballpark of about ten or so days.

So that's why most individuals, they could no longer detect the spike protein after about two weeks. But in one person, they could still detect it up to twenty-nine days after vaccination. So this is important because this shows now -- now that we know what the science is, the spike protein itself, if it gets into the blood, causes damage.

It can cause damage to the brain, it can cause damage to our cardiovascular system, and now what we understand is that we are inadvertently, unfortunately, through using these vaccines, inoculating people with a pathogenic protein. This is something that we never appreciated when we first started designing our vaccines.

And this is a dangerous scenario. So this explains a lot of what we've been seeing. So, for example, with the AstraZeneca vaccine, right, we've been seeing that. So with all the vaccines now, it's acknowledged that there can be these blood-clotting disorders, and this is why.

Because if an individual produces a sufficient quantity of spike protein that gets into the blood at a high enough concentration, this is why you can see for the reasons I cited earlier, combined with the platelets, potentially activate them, cause damage to the -- to the blood vessels, and promote clotting.

The other thing it can do is there's an equal number of -- I've been doing a lot of research with collaborators into the adverse event databases through the CDC, so in the United States, and we're seeing an equal number of bleeding disorders.

We're also seeing a lot of emerging reports of vaccinated individuals -- for example, one just came out a few days ago that got a lot of press, where fourteen soldiers in the United States who were being investigated because they suffered heart problems post-vaccination.

And this is all explained. This is all explained from the basic pathogenesis. So when we understand that the spike protein is a pathogenic protein that causes damage to the body, and now we know that we were wrong with the assumption that the vaccine limits that spike protein to the injection site and draining lymph nodes, but rather allows it to get systemically distributed through the blood, now we realize we're inadvertently inoculating people with this pathogenic protein that causes damage.

And so this is, I appreciate, a long story, but this comes back again to why these people recruited me, because now that I, you know, understand the full scope in terms of the benefits of the early treatments and the incredibly, you know, concerning safety implications now that we have this full under -- full scientific understanding of the vaccines, I'm very much of the mindset that these vaccines have a lot of legitimate safety questions surrounding them.

Like I said, I gave you one example of one that we may not appreciate at the moment. We may be inadvertently, in some people, causing damage to the ovaries. And we're never going to know that until somebody attempts to get pregnant later in life.

And this is, of course, a serious concern when it comes to children for whom the SARS CoronaVirus-2 itself is no more dangerous than the average annual flu. In fact, arguably, the average annual flu is likely more dangerous to young people, because it can cause severe disease in some of the very young Canadians.

But, nevertheless, this is where we're at. So I come to this conclusion as a scientist following all this science, that there's serious concerns -- safety concerns with these experimental vaccines. And as a scientist, I would like to see the proper scientific process followed, right? I recognize that that can't happen.

Now, so once I saw the legitimate treatment strategies and now this emergence of legitimate safety questions around the vaccines, I now, with a great confidence, right, feel that, in my professional opinion, we could safely stop the use of these vaccines.

They're no longer the be-all and end-all in terms of ending this pandemic because -- and the reason why we can safely stop that to conduct the proper safety studies and proper biodistribution studies is because there are effective early treatments available.

And so that is the sum total of the story as to why I was invited to this group that wants to focus on promoting effective early treatment strategies in Canada.

BY MR. RYAN:

110. Q. Are you done?

A. I am.

111. Q. Do you remember what the question was I asked you about half-an-hour ago that led to that answer?

A. Yes, why I was invited to the group, yes.

112. Q. And in your view, everything that you've said over the previous half-hour was relevant to that question?

MR. CHAND: Don't answer that question. It's already been answered.

--- REFUSAL NO. 4

MR. CHAND: Can we have our break now?

MR. RYAN: We can have a break. I'm going to ask when we resume that Dr. Bridle listens to the question being asked and responds directly. And that way, we will all be here a lot less time than in the alternative where we might not even finish today, if every answer is going to be like that. But I'm happy to resume in fifteen minutes/12:05.

--- OFF THE RECORD (11:49 A.M.) ---

--- UPON RESUMING (12:05 P.M.) ---

BY MR. RYAN:

113. Q. Dr. Bridle, the group you meet with on a weekly basis is the Canadian COVID Care Alliance?

A. Yes, that is correct.

114. Q. And Karen Levins is a member of that group?

A. Yes, that is correct.

115. Q. And Stephen Pelech is a member of that group?

A. Sorry, can you repeat that last name? Did you say "Steve Pelech"?

116. Q. P-E-L-E-C-H.

A. Yes. He's from the University of British Columbia. Yes, I can confirm he is part of that group.

117. Q. And David Ross is a member?

A. Yes, that is correct. He's one of the two founding members, yes.

118. Q. Who's the other founding member?

A. I'm not going to name individuals that have not given me permission. You know, I'm sorry, I would have to -- I would have to be given an opportunity to ask them if they're okay with me stating that.

119. Q. And did the three people whose names I asked you about give you permission?

A. The -- Steve Pelech did. The other two, technically, no, you're right, I -- I probably should have requested their permission before answering that question.

120. Q. How many members did the alliance have when you were invited to join?

A. Approximately eight. And they were physicians and other health professionals, and so I was the first scientist invited to join the group. And for the reasons that we just discussed before the break.

121. Q. And when was that?

A. I'd have to check my records. I don't know how to do that right now, so I can't give you a specific date, but, you know, ballpark, we started to

form as a group, sort of a grassroots movement, maybe, ballpark, a couple months ago. But, again, I can't say with accuracy without checking my notes.

122. Q. In 2021?

A. In 2021, that's correct.

123. Q. And you described in your previous answer, the group having enemies. Do you remember that?

A. No, I don't recall the term "enemies" being used.

124. Q. You don't recall using that word, "enemy"?

A. The -- oh, sorry, I was using that -- yeah, and I made the quotation marks, right? So that's a -- that's a colloquial term, right? A colloquial phrase, referring, in fact, to myself, when giving that story.

And that's because -- I won't rehash the story, but, again, as I highlighted at the very beginning, it's the idea that -- again, I follow the science, scientific studies, you know, the randomized trials for Ivermectin did yield outcomes, right, conclusions that could be cited as scientific purview, scientific literature, saying Ivermectin didn't seem to be effective in those trials.

And so, as a consequence, that put me, as a scientist, on the scientific foundation that would, in theory, be at odds, therefore, with those who -- who did know at that time or were confident at that time, because of their experience with Ivermectin, that it was an effective treatment. That's what I was referring to. And, again, I remember giving the quotation marks. So, yes, the term "enemy" was used, referring to myself, as a colloquial term.

125. Q. And is there anyone else that that colloquial term would apply to, an "enemy" of the alliance?

A. Not that I'm aware of, no. I would have no idea, no.

126. Q. There's no one who is out there expressing the views that you expressed that led you to describe yourself as a, quote, "enemy", unquote?

A. Oh, there are many that express those views. But, again, I wouldn't rely on the people expressing those views. I would refer to people to my first report, where I detailed quite extensively the scientific basis for this transition that I had from, you know, initially relying on a very limited amount of scientific evidence to what is now an overwhelming amount of scientific evidence clearly showing that

Ivermectin is an effective treatment strategy.

And so, yeah, again, I don't rely on what other people are saying or their opinions. I like to follow the science. But the reality is that many other people looking at that -- there's many others who have looked at that same science, and, again, because they -- if they're showing objectivity and go with the weight of the science that has accumulated, they would share those views.

Yeah, there are many people -- many people in the world. I mean, there's countries that have actively promoted the use of Ivermectin for the effective treatment of COVID-19. So I -- yeah, I -- I mean, I'm certainly not alone in those viewpoints.

And when it comes to the other -- the other viewpoint that I mentioned is the vitamin D3. I mean, again, I can't comment. You'd have to, you know, ask specific immunologists, but, in general, I mean, it's just basic fundamental immunology. Again, like I said, it's why I included this lecture from my Basic Immunology course.

Vitamin D is just understood, based on thousands of published studies, to be a critical component of the immune system and something that we should have been actively promoting on that basis.

So, again, many, many experts who understand that science, would share that viewpoint of mine.

When it comes to the vaccines, that -- that is specifically something that -- you know, I have shown you the literature that's been put together. That messaging may not even be known by a lot of people.

So scientists have known, like I said, the science that's -- the reason why these vaccines are potentially dangerous, and we realize now that we are probably -- you know, we're inadvertently inoculating people with what could essentially be defined as a toxin in the circulation, remember that was well established in the literature based on the pathogenesis studies.

So we already knew that if that spike protein on its own got into the blood, we knew it could cause lots of damage. That's one of the reasons why we argued we needed the vaccines, because you want to prevent severe COVID-19 from happening, so you avoid all of that damage when the spike protein gets into the -- into circulation.

But we did not realize, like I said, because we were going based on assumptions -- because the thing is, we have to -- we have to move away -- with

the change of policies, we have to change the way that we're approaching COVID-19 when the science tells us it's time to move away.

And so, again, the original assumption was that the vaccine was remaining -- the spike protein was not getting into the blood, but rather remaining at the injection site and/or going to the draining lymph node.

So this literature that I mentioned to you is -- is, you know, quite recent. So I can't say as many people are -- would be aware now of this complete connection that the science has made, because, like I said, this particular report from the Japanese government, I didn't -- I saw last week, and this paper that was kind of the final link to this whole cyclic chain was accepted for publication last week, as well.

So there hasn't been as much of an opportunity -- and, again, it's been accepted for publication, so it's been fully peer-reviewed, but actually hasn't appeared in its final version post-proof in the -- in the scientific journal. So there might not be as many people who are aware of the dangers of the -- of the vaccine.

But that's the way I would answer the

question in terms of, you know, how many others may share my -- my opinions.

127. Q. How does the alliance meet every week?

A. We meet online.

128. Q. And you receive an invite every week?

A. Yes, a Zoom invitation.

129. Q. And does the invite indicate who else is invited?

A. No, it does not. The invitation -- well, to a certain extent. So the invitation that I receive is given to the Steering Committee, and I'm a member of the Steering Committee. But I don't see the invitation that is sent to the broader membership.

130. Q. Does the Steering Committee vet potential new members?

A. At the moment, the only, quote, "vetting" that's done, because we're a developing organization, is we would like to limit ourselves -- we welcome any -- any physicians, surgeons, scientists, other health professionals, to join the group right now.

We would like to restrict the current members who are joining to those -- to that demographic, largely. We haven't opened it up to general membership -- so, for example, from the

general lay public -- because at this point we're still, you know, establishing ourselves as a group and we are, you know, discussing the science around COVID-19, and we'd like that to do -- to be done largely within the context of experts, you know, in the area of COVID-19, before we get the general lay public involved.

131. Q. Who decides who gets invited as a new member?

A. Well, I mean, it's just been traditional. The two co-founders of this group are the -- are the people right from the beginning, right, that have had a say over -- over who gets enrolled. So I can't say exactly what the process is, but exactly what -- but what we've agreed to is, you know, simply bringing on-board people right now who have -- who appear to have deep expertise and objectivity when it comes to the science underlying COVID-19. But in terms of specifically how they do that recruitment, that's out of my hands.

132. Q. There's no public application process someone with the relevant credentials can use to apply to your group?

A. Not at this point, no. We have -- we're in the process right now of designing a website.

We hope to go public in the -- you know, the relatively near future. But as you can probably appreciate, it's new, and for many of us this process is new, because for many of us, we're scientists and physicians, so we're -- you know, it's taking us some time to navigate the process.

But, yeah, so we have -- we have no formal mechanism that way, and that will come, hopefully, once we have a website that can go live.

MR. RYAN: I'm going to pause, because we appear to have lost Madam Reporter on the call, so I'm just going to --

THE DEPONENT: Oh, okay.

MR. RYAN: -- allow her to rejoin.

THE DEPONENT: Okay, sure.

--- OFF THE RECORD (12:15 P.M.) ---

--- UPON RESUMING (12:20 P.M.) ---

BY MR. RYAN:

133. Q. The question I'll repeat is: There's no way for -- there's no public process for an academic or a physician with the relevant expertise to apply to join the alliance, is that right?

A. That's correct. At this point in time, we do hope to have a website go live at some point in the future, and that'll formalize the process. But up

until now, it's been a grassroots movement, and so it's just word-of-mouth that we're working with at this point.

134. Q. A grassroots movement that doesn't include any lay people from the public?

A. That's correct. Again, because we want to stay focused at the moment at discussing and organizing thoughts around the objective science around COVID-19, and that's best done in a more limited group of experts. But we do hope, once we're formalized and have a website presence, we do hope to be able to recruit anybody who's interested from the public.

135. Q. And are you aware of the full membership list or is that restricted to the two co-founders you mentioned?

A. No, they, on a regular basis, update us with the current e-mail list. So, yeah, so I'm aware of, you know, the general numbers of people that are part of the group.

136. Q. I take it you won't share that membership list with us?

A. No. Again, without permission, I -- I need to try and adhere to that for exactly the reasons that have been cited in my most recent report, that I

want to honour the fact that many people feel intimidated. And I already, admittedly, made a mistake with two people already, that I shouldn't have allowed to happen.

--- REFUSAL NO. 5

BY MR. RYAN:

137. Q. Are you a member of any other academic groups like this, where the membership lists can't be shared?

A. No.

138. Q. Is the alliance how you received the letter from the College of Physicians and Surgeons of Alberta, that you include in your Affidavit?

A. No. So typically what happens -- no, absolutely not. That was not the source. I do not use this group as a substantial source for my research. That's done separately. As a researcher -- in fact, it's quite the opposite.

I am also -- also, I'm a member of the Scientific Committee for this organization. And, in fact, one of the things that I lean upon is to -- I'm one of the people that helps to promote the scientific roundtable discussions that occur.

139. Q. You told us earlier that you did the redactions yourself from this letter from Alberta, is

that right?

A. Sorry, which letter specifically are you referring to?

140. Q. So the letter at page 6 of your Reply Affidavit, using the numbers in the lower bottom corner, is dated April 20th of this year, it's from the College of Physicians and Surgeons of Alberta. Do you want me to put it on the screen?

A. Yes, please.

141. Q. Do you see it now?

A. Yes, now it has come up. Yes, so this is correct. I was the one who, at the request of this individual -- this was e-mailed to me, and in that e-mail they requested that I anonymize the letter.

142. Q. So you have the original without redactions in your e-mail?

A. That is correct.

143. Q. And you won't produce it as part of this proceeding?

A. I can't. I mean, I have to honour, you know, a fellow professional's request. I mean, not even just a fellow professional, I would honour anybody's request for anonymity, if that's the basis on which they'd be providing information to me.

--- REFUSAL NO. 6

BY MR. RYAN:

144. Q. So we'll have to take your word for its authenticity?

A. Yes, that is correct.

145. Q. And the letter refers to the College speaking with the recipient on April 14th, 2021, do you see that?

A. Yes, I do.

146. Q. And you were part of that discussion?

A. No, I was not.

147. Q. So you don't know if the bullets below accurately reflect the conversation that was had between the College and the recipient on that date?

A. This was reported on the College -- this is a letter from the College ---

THE REPORTER: Sorry, Mr. Bridle, I'm sorry. Mr. Adamson's microphone came on and it sounds like he may be in a vehicle, so I'm getting some feedback. So, Mr. Adamson, if you're there, if you could put yourself on mute, please?

MR. CHAND: I apologize on his behalf, Madam Reporter.

THE REPORTER: That's okay, I ---

MR. CHAND: I'll send him a message accordingly. Thank you.

THE REPORTER: No problem. Thank you.

THE DEPONENT: So to pick up -- may I resume, Jody?

THE REPORTER: Yes, yes. Thank you.

THE DEPONENT: Okay, so, yeah, this is a letter from the College of Physicians and Surgeons of Alberta. So for myself personally, I have to take it at face value that this is -- that they're relaying accurate information in this letter.

BY MR. RYAN:

148. Q. And how do you know the licensee who provided it to you?

A. This was -- when I was asked -- you know, in thinking about this issue of -- you know, to opine on the issue of potential intimidation that people have experienced, I -- I reached out to some of my physician colleagues and asked them if they or any of their colleagues would be willing to share their experiences and stories.

And I indicated that it obviously would carry more weight if they were willing to have their names associated with this, but I was also willing to anonymize the letters, if required, so that's how I received this particular letter.

149. Q. When you say "colleague", that's a

colleague in the Department of Pathobiology?

A. No. So specifically for this letter, this would have been -- this would be a colleague in Toronto, actually.

150. Q. In your Affidavit, you indicate you've been invited to two conferences about COVID-19, is that correct?

A. That is correct.

151. Q. And these were organized by universities?

A. They -- I can't comment specifically on which organizations were actively involved. They're certainly academic members of university. At least the majority of the Organizing Committee, is my understanding. These -- I was contacted and invited by academics that are located in New Zealand, and they all have university affiliations, but I don't know if it was formally organized through their -- through their institutions.

All I can say with certainty is that they are -- you know, they're academic scientists who invited me.

152. Q. Is that common that you attend a conference and you don't know who's organizing it?

A. Oh, I know who's organizing it. I

thought your question was: `Was this organized through a university there?' That, I can't comment on. I can say they're academics all affiliated with universities, but I don't know if it was a formal university-sanctioned event.

153. Q. Was there a name for the conferences, a title?

A. Yes, they were the International -- I think the first one is International COVID-19 Symposium. I think they were both titled that, actually. I believe they had subtitles, but I can't, you know, recall exactly. If you want the exact title, I'd have to look in my records.

154. Q. And was there any named group that hosted both conferences?

A. Any named -- yes. It was sponsored by -- I believe that they're called "Plan B" in New Zealand.

155. Q. And what does "Plan B" refer to?

A. My understanding of their mandate is that it -- so first of all, having talked to -- so, again, this is based on conversations that I had with the organizers and understanding what -- you know, what exactly their mandate was.

And it is that -- so just so you have some

history, in New Zealand, they went into very strict lockdown and isolation policy, where they strictly locked down their borders and restricted international travel.

And so it -- much along the lines of what we had, right? Our original plan in Ontario made perfect sense. We didn't know what we were dealing with at the beginning of the pandemic, and so going into lockdown like we did, right -- we had planned to go into a lockdown -- a temporary lockdown for two to three weeks to, quote, "flatten the curve", and that refers to the daily number of cases that were being tracked.

And then once our medical, you know, community felt that we were able to handle the stresses that may be imposed upon them, we were going to learn to live with this virus, so… But since then, you know, that never happened, and we have lacked -- like, at the moment, I still don't know.

It would be great if you or somebody else could tell me what our current plan is, like what the end goal is. Well, that's the same philosophy that they -- that they have, right, is that, again, the science has progressed a lot and these endless ongoing lockdowns no longer are validated by the accumulation

of the massive amount of scientific literature that's been generated in the last sixteen months.

And so this idea, this name "Plan B" is literally that there needs to be a clearly defined way out of this pandemic. And, you know, I share, as an expert, many of the same philosophies that they have, right, is that if we look historically, we -- we should have -- the science told us that we're dealing with a pathogen that, by all rights, we needed to take very carefully at the beginning, because it was a novel pathogen.

It was thought this could be something akin to the Spanish Flu pandemic, right, that occurred in 1918. But it hasn't turned out to be that way. And the reason why we actually declared the pandemic, if we remember and go back to the beginning, was that -- the fear was that the -- what we're calling the "infection fatality rate" with the SARS CoronaVirus-2 could be as high as between 1 percent up to 10 percent, which is -- which would be phenomenal. Like, a phenomenally dangerous virus.

So what I mean by "infection fatality rate", it's an equation. We have a numerator and a denominator, and the denominator is the number of people who get infected with the virus and the

numerator is the number of people who die once they're infected with the virus. So it's called "infection fatality rate".

So when you're talking about 1 percent, a 1 percent infection fatality rate, that means if you have 100 people infected, one would die. And so that's obviously, you know, a completely inappropriate level to not respond to -- you know, with very strict measures.

So our initial lockdown measures seemed very appropriate. However, the science has changed dramatically and we now recognize that the infection fatality rate is nowhere near 1 percent. So just to put this into a perspective, for a bad influenza season, the infection fatality rate would be in the ballpark of 0.1 percent.

So if we're talking about an infection fatality rate of 1 to 10 percent, we're talking about one to two orders of magnitude greater. So that was the initial justification for declaring a pandemic, because that's an unacceptable infection fatality rate.

However, there have been several issues, right, when calculating this infection fatality rate. And unfortunately we've done a very poor job of

accurately being able to determine what the infection fatality rate is in Canada. So we've had to rely largely on other countries that have done a better job of surveillance.

And what I mean by that is: Again, for infection fatality rate, you have to know how many people have been infected. And for that, we've been relying on almost exclusively a PCR test, a polymerase chain reaction test. And this -- and that tells us how many, quote, "cases" we have, right, of infection with SARS CoronaVirus-2. And then -- and the on the other side, we don't even know how many die.

So, you know, we can do it -- we can get a pretty accurate -- we've had a pretty accurate assessment of the number of people dying from COVID-19. The problem is we now know that at the beginning of the pandemic, we had an incredibly inaccurate denominator, because we had no appreciation at the time for how many people were actually being infected.

So, in fact, if you remember at the beginning of the pandemic, we were even limiting testing of individuals for this PCR test, and that's just because we didn't have the testing facilities available. So early on, just, you know, people like frontline workers were allowed to get the test. Many

other people were getting sick, but weren't allowed to be tested, so we didn't capture that data. We don't know how many early on were actually being infected.

And then we made some inaccurate assumptions. So there was a government-run study -- a government-sponsored study through Canadian Blood Services that was -- and, of course, and it was flawed, in that it was looking at blood donors for an evidence of antibodies against the SARS coronavirus and blood donors.

So this is important, because one of the ways you can assess whether somebody's been infected is whether they -- if they've been infected, they will mount an immune response. And as part of that immune response, antibodies will be produced, and these antibodies will be in circulation in the blood. And so this allows -- so this testing for antibodies allows you to determine if somebody was exposed to the virus.

So this study was done by Canadian Blood Services and blood donors. But of course blood donors are highly screened, and so these are incredibly healthy individuals. These are actually individuals who would, on average, be at relatively low risk of infection of the SARS CoronaVirus-2.

Nevertheless, the assumption was that the number of people that had been actually exposed to the virus, therefore infected, was relatively low. However, a landmark study was published out of -- in British Columbia. Now, this is very important, because what they did is they developed a very comprehensive antibody test.

So the current -- the antibody test that was used in the study for screening blood donors is one that looks for antibodies against a spike protein. Now, there's a couple of issues with that. A lot of the antibodies against a spike protein will be relatively short-lived and they disappear fairly quickly.

So that actually led to an erroneous conclusion early on, as well, in the pandemic, that naturally-acquired immunity was short-lived. That's not true. Immunity is confirmed by memory cells, which are very long-lived. And it's been shown in publications that memory cells of SARS CoronaVirus-2 are very long-lived. There was a paper published by -- Asteti (ph) and Parrotti (ph) are the senior authors -- co-senior authors. It clearly demonstrates this.

Nevertheless, because those antibodies wane,

when there's no antibodies present, it doesn't mean that somebody isn't immune. If they have these memory cells, they can be protected against the virus. The other thing is, the test tends to lack a lot of sensitivity. The other thing it does is you can't differentiate between naturally-infected and vaccinated individuals, because in both cases, you'll have responses against the spike protein.

So this test that was developed in British Columbia assesses antibody responses against all of the components of the virus. And when they used this test, they randomly tested several hundred adults -- healthy adults in British Columbia, and remarkably found -- in the Greater Vancouver Area, and remarkably found that 90 percent of them had evidence of naturally-acquired immunities against SARS CoronaVirus-2.

And this is very important, because -- now, admittedly, the percentage of people who are naturally infected and acquired -- naturally acquired immunity to SARS CoronaVirus-2, likely would be lower elsewhere in Canada, because the Greater Vancouver Area is considered to be, quote, "ground zero" for Canada. Likely the entry point for SARS CoronaVirus-2, because they have a very large Chinese-Canadian population,

that simultaneously have businesses in Canada and China.

So it was thought due to the international travel, that was likely -- you know, one of the most likely places where the virus entered Canada. And, nevertheless, if you think about that for a moment, so if we're thinking, you know, and the assumption is being made that -- so based on this Canadian Blood Services study, right, the thinking was that fewer than 2 percent of Canadians had evidence of having been infected to SARS CoronaVirus-2.

But now if you look and we appreciate, at least in the Greater Vancouver Area, as many as 90 percent may have been infected already, that dramatically alters the denominator in this equation for infection fatality rate.

And so, again, we haven't been good at tracking this. Again, we've had to rely on researchers who've been willing and able to find funding to conduct these studies. But other countries have tracked it, and so I cited this in my first report.

That's where you'll find the paper. A very important study was conducted, a meta analysis of data, and this has updated the infection fatality

rate. So in other words, the current -- most current and most accurate number that we have now suggests that the true infection fatality rate is 0.15 percent. So we're getting down to the ballpark of what you'd expect for a bad flu season.

And also within that 0.15 percent, we know very well with this pandemic and we've known for a long time who the high-risk individuals are. They are, for example, the frail elderly and those who are immunocompromised. So if you go outside of those well-defined demographics for the rest of the people, the infection fatality rate drops to within the realm of a typical annual influenza outbreak that we would experience.

So had we known this at the beginning, a pandemic would not have been declared, because that is not an infection fatality rate that would be -- for which one would deem a pandemic -- the declaration of a pandemic would be necessary. But, again, we haven't followed the science, so we're still -- we're still -- and it was declared a pandemic, but the data no longer supports this definition of a pandemic.

And it's not like the infection fatality rate has fundamentally changed. That infection fatality rate was valid at the beginning, but it's

just we didn't -- we had inaccurately estimated what the true infection fatality rate is.

It would still be an under-estimate because, again, this study came out -- from British Columbia came out after this. So it still suggests that we probably don't know the full scope of people that were infected, because we haven't tested everybody.

So children are a great example. Children are often asymptomatic. They're very good at clearing this virus from their bodies, right? And so if somebody's asymptomatic, they're not going to be tested. And so we're not capturing the full extent of people who have been infected, so almost certainly the infection fatality rate is even -- overall, is even lower than 0.15 percent.

The other error in our calculation is -- with this, remember, is the testing, this PCR testing. And this comes directly to what I was just talking about with the children, who are asymptomatic, right? One of the reasons again, you know, for example, why we want to use these experimental vaccines is we're declaring that asymptomatic individuals are at risk of being super-spreaders of the virus.

And the problem with this is -- I guess it doesn't make sense from an immunological perspective,

right? We're talking about a highly pathogenic virus. And to have an individual who has so much of this highly pathogenic virus in their body, that they're shedding substantial quantities and they could put others at risk of being infected, it makes no sense that they wouldn't be experiencing any damage from such a highly pathogenic virus.

And we know that these individuals who are -- that clear the virus are -- develop immunity. And, again, so it wouldn't be consistent for a person to have a virus that they're shedding in substantial quantities, if they're immune to the virus. And again that's based on scientific literature showing that immunity develops.

And the other key thing is that this relates to the PCR test, right? So when it comes to the asymptomatic -- this implication that asymptomatic individuals can be substantial spreaders of the virus, it comes from the PCR test, right? And this is very, very important for us to discuss in the context of this case, because what's missing in this is the PCR test has been used, unfortunately, as a gold standard test.

It's largely taken the responsibility of diagnoses of cases of COVID-19 out of the hands of

medical practitioners, who would normally be using that simply as one tool in their arsenal, one piece of information in the arsenal they would use for diagnosis. And also never -- never historically would a PCR test on its own be used as the gold standard test.

The PCR technology in and of itself is accurate, but it has to be -- the interpretation has to be made very carefully. So the gold standard test for -- the gold standard virology test is a very different test. It's a functional test, as you would expect.

And what that is, is you take a sample -- so, for example, these nasopharyngeal swabs that we're using to run these PCR tests, those samples could be taken and half the sample could be used to run the PCR test.

The other half could be used to run what we call a gold -- the true gold standard test, which is you take cells that have been stripped of all their antiviral defence mechanisms, and it means these cells are very permissive. We call them "permissive to viruses". They get readily infected. And under a microscope, if there is replication-competent virus, or a virus that could potentially be infectious to

somebody else, it will replicate in these cells and kill them. We call it “sadopathic effect”.

And our own national microbiology laboratory, early on in the pandemic, did run this, and there’s many other laboratories around the world -- and, again, I’ve put in citations in my first report about this -- and what they found is that there was no evidence of -- and, again, this procedure, the method varies from lab to lab. They even use different sets of what we call “primers” that recognize different pieces of genetic material from the virus.

So what you have to do when you’re running this gold standard test, is what we should have been doing is running this gold standard test alongside every unique PCR method that’s being employed. So, for example, Public Health Ontario has their specific method that they employ for the PCR test. So we’ll talk about that.

So the proper thing that Public Health Ontario should have done is they should have run that PCR test head-to-head with the gold standard virology test to determine what their cut-off is going to be for designating somebody as having been positively identified as being truly infected with SARS

CoronaVirus-2 that could potentially be spread to other people.

And what you do -- and what has been found with these tests is that the -- this test is based on cycles. It amplifies pieces of the genetic material in the virus, and so with each cycle, if that genetic material is there, you amplify the amount of that piece of genetic material. And if it's there after a certain number of cycles, you'll get enough of it that you can detect it with this test method.

And so what has to -- what you have to do, is you have to set off a cut-off. How many -- what are the maximum number of cycles at which you detect this piece of genetic material, right, would represent a true positive test result. Meaning that sample has a high risk of passing on transmissible SARS CoronaVirus-2 for somebody else.

What the scientific literature tells us is that cut-off, depending on the lab that's run it, ranges anywhere from twenty-two to thirty cycles, meaning that -- so, for example, if a laboratory has defined that the cut-off is twenty-five cycles, that means any -- if they detect any of that genetic material at cycle numbers above twenty-five, there is no evidence that that sample has potentially

infectious bioparticles in it, right? And so that would not be somebody -- a person who would be at risk of transferring the virus to others.

Now, this is very important, because in that context -- so the cut-off, like I said, ranges from twenty-two to thirty. If you -- now, if you line that up, in Public Health Ontario -- so for Ontario, we've been finding a case of somebody infected with SARS CoV-2 -- worse, we often define them -- we're actually defining them as cases of COVID-19.

That's a misnomer with medical technology. COVID-19 is the disease that's caused in some people by SARS CoronaVirus-2. So the actual thing is these people were declaring them positive for the presence of a piece of genetic material from this virus. And the issue here is that, as you imagine, if we're having the cut-off at thirty-eight, but the labs around the world have told us that for sure above thirty cycles, and maybe above as few as twenty cycles, there's no replication-competent virus.

All of these cases we're declaring are of people that have no risk whatsoever of passing on potentially infectious viral particles to other individuals. And what you find is that most of these -- most of the individuals who test positive,

especially asymptomatic individuals -- and I put an example of this.

I put an example of data from a paper that was used to justify why we need to vaccinate asymptomatic carriers, right, to try and justify this idea that they put everybody else at risk of getting potentially lethal COVID-19. And what you'll see is, when you actually look at that, they actually have the cut-off at thirty-eight cycles.

And then you see all these dots on these graphs -- like, there's three graphs there -- and that's because they look at three different -- they ran three different PCR tests looking at three different pieces of the genetic material from the virus. Each of those dots represents a positive test result.

But what I put on there, is I put on the cut-off. If we go at the high end, that's thirty cycles, and on the low end, twenty-two cycles. And when you look, if you put it at thirty cycles, the vast majority of positive results you see are not true positives. If you actually have the cut-off at twenty-two, you have zero. Remarkably, zero that are positive.

There's one -- one test result that would

come up as positive, but in the other two PCR assays, it's actually negative, so you would maybe call that a "suspect" case of an individual that might have some potentially transmissible virus.

So that's kind of the problem that we've had, and this is why it's led to this incorrect assumption that asymptomatic individuals can potentially cause, you know, transfer or be a substantial source of transmission to other people.

I mean, there's a case study that was done, actually, in China that was published in a very reputable journal -- and I cited that in the report, as well -- where they were unable to detect any substantial -- very, very few cases where they had evidence of asymptomatic transmission in this large study they did in China.

So that's important because that's part of this -- of this Plan B. It shows that we can safely migrate to another area to get out of these constant lockdowns, right? Because we -- we don't have all these individuals that we thought were spreading the virus and putting everyone else at risk, right? That's a key reason why -- you know, why we've justified our lockdowns and isolation of individuals. And again, like I said, so it relates to this -- you

know, to this -- to this PCR testing.

The other one that we have concerns about right now, right, in terms of this -- again, defining what this Plan B is, or an alternative way out, is the other reason why, you know, we've been afraid to move out of these lockdowns more recently is because of the SARS CoV-2 variants, right, and this argument that they're more dangerous.

So there's no question the variants -- some of these variants have modified their spike protein in a way that does allow them to bind with higher affinity to this receptor that allows them to infect. So they can potentially be more transmissible, but there's no evidence so far -- no scientific data to suggest that they are more dangerous, that they cause more lethal COVID-19.

And I would argue all the more reason to allow the people for which they are -- for which they are at low risk of COVID-19 to acquire the natural immunity. The reason being is the benefit of natural immunity is very broad-based. When somebody mounts a natural immune response to this virus, they're going to mount immune responses to all the components of this virus, and they get a very balanced response.

The vaccines -- the Messenger RNA vaccines

we're now limited to here in Canada are very good at inducing antibodies, but they don't induce particularly robust T cell responses. That's a critical component to the immunity against this virus.

The other thing is, is the vaccine induces very limited -- a very narrow scope of immunity focused on the spike protein. And a good example -- and so what that requires is -- with these novel variants, as we've been seeing, is when they mutate their spike protein.

Because all it's going to take is a novel variant that can sufficiently alter its spike protein, such that it can evade vaccine-induced immunity, and all the vaccinated individuals in Canada will be at risk. Whereas those who have acquired natural immunity will have these very broad-based and balanced immune responses that will be highly cross-reactive, because these novel variants are not going to be able to change all of their components without affecting their own fitness for survival.

And so the people who have acquired natural immunity, which is long-lasting, will certainly be protected from -- to a certain degree from these novel variants, if not from infection altogether, at least from severe and potentially lethal disease by novel

variants.

So if we keep -- stay in these lockdowns, the concern is we are applying with these -- so I have concerns on the safety side, as I already pointed out. But also with these vaccines, as a vaccinologist, I'm concerned by whenever you apply narrowly-focused immunity, immunological pressure, on a biological entity that is prone to mutation like the SARS CoronaVirus-2 is, you help select for variants that can evade that pressure.

We've seen this in the context of bacteria, where if we inappropriately use antibiotics, antibiotics that haven't been shown to be lethal against the virus, or we don't administer the antibiotics at a high enough dose, or for a long enough duration, we promote antibiotic resistance.

In cancers which are very prone to mutation, if we don't kill them upfront with a chemotherapy or radiation therapy, what we end up doing is we drive the emergence of recurring tumours that are highly resistant to radiation and/or chemotherapy.

And the same thing can happen here. So we have to be very careful. My concern is if we keep in these lockdowns and rely entirely on these vaccines that have key safety issues and that are overly

narrowly focused in the immunity that they confer, that we're going to leave people very open to -- we may have the emergence of more dangerous variants.

So right now, the variants are not more dangerous in the context of disease severity. But there's a possibility of them emerging, so all the more reason for us to abandon this method that may promote such a thing occurring. We don't want to be exposed to -- you know, I would not then want to be naturally exposed to a future highly pathogenic version of SARS CoV-2, one that might genuinely have an infection fatality rate of between 1 to 10 percent, because then we'll have no choice but to go into very strict lockdowns.

And so these are the kind of aspects, right, that lead to this Plan B. And so we're like-minded in that sense. And that's what they're seeing, as well, that there are a lot of shortcomings the science no longer justifies. There was full justification -- full justification, like I said, for lockdowns at the beginning, because we didn't know what we were dealing with.

But the science has progressed so far, we know what we're dealing with, we could safely let -- for all those for whom the SARS CoronaVirus-2 is

really no more dangerous than your annual flu virus, and we know who these individuals are, we could remain -- keep the high-risk individuals isolated, right.

And so really we focus the isolated quarantine on the high-risk -- the few high-risk individuals, let the rest of us learn to live with this virus. Like I said, based on the study out of British Columbia, we are -- we already may be very close to herd immunity.

Once we have achieved herd immunity, then these high-risk individuals would no longer be at risk, because we will -- we will have achieved our goal of herd immunity and the virus will no longer be a risk to these other individuals.

Honestly, in my -- in my professional opinion, had we -- we had the information and the knowledge to do this quite some time ago, and had we done that, it's my honest professional opinion that there -- that we would have saved a lot of Canadian lives.

We have had much -- we would have reduced to an unknown extent mortalities and morbidities associated with severe COVID-19, had we done that quite some time ago. We had the scientific evidence to comfortably back that up. And of course the final

link here is none of us want to remove the lockdowns, and so even individuals who -- you know, if we talk about low-risk demographics, I understand that people still don't want to be -- you know, they don't want to take the risk of being one of the few, even though they're a low-risk demographic, that does acquire, you know, a fatal COVID-19.

So, you know, even if you look at the amount of children, we've only had three children -- well, we had three Ontarians under the age of 20 die in sixteen months. Just to put that into perspective, that's in the same ballpark with the number of young people in Ontario that would die in that same period of time outside of a lockdown from lightning strikes, remarkably, right? Which is an incredibly low-risk event.

But, granted, you know, you still don't want to necessarily be in that low-risk group, but that's the whole point. That's why I've also emphasized, as an expert witness, that we have several great early treatment strategies in our arsenal to ensure that the few people -- the very few people who, if we move away from these lockdowns, who might be at risk of COVID-19, the vast majority of them could be readily treated with these -- these effective early intervention

strategies.

So we do have a safe way out. I like to view it as if there's a -- if we have a -- we view it like a plane, right? We got into the lockdown, that's fine. But since that time, there's been more harm, I believe, than good caused by the ongoing, you know, cyclical lockdowns that have been occurring. So I kind of view it like a plane in a nosedive, right? And we've had no plan stated to get out of this nosedive.

But what I just highlighted, right -- again, I'm not a policymaker, I can just provide you with the science behind this and scientific ideas. But I do believe when equipped with this science, our policymakers could find a way for -- to get us out of this nosedive and make a gentle landing, if I can put it into, you know, sort of a visual representation that way, and through what I just said.

And so that really represents the, quotes, "plan B". That's what I have viewed as a logical plan B. And it's my understanding that this group in New Zealand, that's the type of plan B, as well, that they envision, based on following the science. So on that basis, they saw me as an international scientist who, again, has been following the science and come to that

same conclusion of a similar plan B. And that's why I was invited to both of these symposia.

156. Q. You refer in your Reply Affidavit to the infection fatality rate for the flu, is that right?

A. Yes.

157. Q. And you don't include in your Affidavit the absolute number of fatalities that that fatality infection rate results in, in Ontario for any years?

A. No, actually, yeah, I haven't been able to actually find good reliable data on that.

158. Q. You didn't include the number of days of work lost due to the flu annually in Ontario in your Reply Affidavit?

A. No. In terms of days of work lost, that's not the kind of data that's in my area of expertise.

159. Q. And you didn't include an absolute number of fatalities for North America from the flu?

A. No.

160. Q. And you don't favour any interventions that would reduce transmission of influenza?

A. I absolutely do. I'm glad that you raised that. One of the things that I'm hoping that comes from this pandemic is a general understanding

from the public of what I would call “basic hygiene” or “health” -- oh, what’s the term I’m looking for? So I can’t think of the term offhand that I’m thinking of. But I guess general respect to others in the context of Public Health.

So, I mean, I, for a long time -- for a long time, have -- so I have -- I mean, I have children. And so when they -- when they were in elementary school -- and my youngest is still in elementary school -- I did some volunteer time, right, helping -- helping get -- one of the things I did, as an example, as a volunteer activity as a parent, was going into the school.

I’d arrive just before recess and help -- help the teacher and the teacher’s assistants get some of the kids ready, dressed in their winter clothes so that they could out to recess. Because without a lot of adults there, by the time a few adults -- you know, a couple of adults get them all dressed, it’s time for them to come in from recess.

And, you know, so I can tell you, any person who’s been in elementary schools, again during -- whether you call it “cold and flu season” or “low-vitamin-D-level season”, right, is there’s a lot of illness that travels through the schools. And

workplaces, right? If we put a high -- if we put a spotlight on those like we have with SARS CoronaVirus-2, right, like I said, the infection fatality rate tells us that we're getting into that ballpark, especially when you get out of the high-risk demographics.

And sure enough, if we put the spotlight, it would seem very scary at any institution. You can imagine in a school, if we reported: Okay, here's a child in a classroom that has tested positive for the influenza virus', right? Then the next day, three have tested positive. Now the next day, it's ten, plus there's two children in another classroom. Then the next day, there's four classrooms involved.

This happens year after year, right, in our schools, and we don't really think a whole lot about it. And the issue here is, you know, people who are working -- you know, if you have both parents working or it's a single-parent family, like, it's just not uncommon for people to send children who clearly are sick -- clearly are sick with a respiratory pathogen to school.

And there is no question that, for example, strict lockdown measures prevent that. We have to look no further than the current lockdown measures.

We have had a reduction in the cases of the annual flu. So I'm not promoting this, but, again, I'm just trying to put it into a risk/benefit analysis perspective, right, so people can properly assess the risks.

So if it's true that these kind of lockdowns would help prevent the spread of influenza virus, then the question as a society is: Are we going to start implementing this every cold and flu season, you know, for -- I don't know, four to six months of every year, every year moving forward?

It would be a partially effective strategy for reducing the incidence of severe influenza and potentially fatal influenza. And what is different about influenza as compared to SARS CoronaVirus-2, right, which is very unique, is that SARS CoronaVirus-2, okay, is almost exclusively a very high-risk pathogen in the very elderly.

The older a person is, the more at risk they are. And those that are at particularly high risk are what we call the "frail elderly". So very elderly individuals with other health conditions. Children. The younger we go with SARS CoronaVirus-2, the less dangerous it is.

But this is not true for the influenza

virus. The influenza virus kills not a lot, but some Canadian children every year. And this I can certainly attest to, because within my own school district a few years ago, we had, unfortunately, a case in one school of two young children dying from the influenza virus.

So, you know, I've seen this. I've witnessed this with my own eyes in our school district. And that's kind of unusual, because there's not a lot of deaths. But the reality is there's more deaths on an annual basis from the annual influenza virus than -- than we've seen from -- from the SARS CoronaVirus-2. And so this is the issue with influenza.

So then we ask, you know: Do we want to be in these type of lockdowns? Well, when we look historically, we've agreed as a society: No, we're not going to compromise. We're not going to destroy our economy, and we are not going to compromise people's mental health, we're not going to shut down businesses, you know, to prevent the spread of the influenza virus, again because the infection fatality rate is not of pandemic proportions. We've accepted that as an acceptable risk for the trade-off of our quality of life.

Now, the one thing that I want to point out is -- because it's great that, you know, you've got, for example, the influenza. I want to point out there's actually something -- so in other words, what I'm getting at -- one of the things that I'm getting at here is: What I hope people have learned is, you know, if -- in the future, once we get out of this lockdown, right, when somebody does have an infectious disease, especially when it's infectious diseases that can put our young at risk of death and severe illness, like the influenza virus, you know, please don't send your child to school.

I hope we've learned that as a society. Please do not send your child to school when they are coughing and sneezing. I think I mentioned, when I was putting on this clothing -- you know, like, winter clothing, I couldn't believe it, I was tying up one boy's shoe, and, I mean, I looked up just at that last second just to kind of smile at him as I was finished tying up -- or his winter boot, and he sneezed all over my face. All over my face. You know, I'm thinking: My goodness, you know, right in the middle of cold and flu season/low-vitamin-D season.

So these -- so I hope that's one thing that we learn is: Please do not send your children if

they're actively coughing, and hacking, and sneezing to school to spread these infectious diseases, right? And if that -- if that is the case, maybe keep them at a little bit of a distance.

Now, I mean, the other thing is, we never apply masks to the influenza virus, but this -- this is a very important distinction. Masks actually might -- could, in theory -- I'm not promoting this. Again, as a society, we've decided that this is not something we're going to do for influenza virus. But this is the whole thing: Masks can do a reasonable job at preventing the spread of the influenza virus.

But it is -- we now know -- and that is exactly why. And I had no problem with the masking policy at the beginning of the pandemic. Again, because we didn't know, we didn't have the science specifically for SARS CoronaVirus-2. So we had to go based on historical scientific evidence and make assumptions. And the assumption was that this virus was going to be like the influenza virus.

And a majority of infectious respiratory pathogens are passed from our respiratory system on large water droplets. And what's interesting -- or what's important to note is these large water droplets, right, because they're large, and these

droplets -- I mean, scientifically, we define these large water droplets as being up to what we call 500 microns in diameter.

But the point is, under the force of gravity, these large water droplets typically fall to the ground within 1 metre or, interestingly, maximum 2 metres away from us. That's where we came up with this 2-metre distancing -- physically-distancing policy.

Also, at 500 microns, you know, are larger -- these larger water droplets are large enough that the pores -- the pores in what we call a "low-cost mask", right, whether they actually be a 3-ply surgical mask like this one, which we consider a higher-quality mask, or the cloth masks that many people are using, right -- again, I cited this scientific study. Again, it's published science.

So the pore sizes in these masks, right, range -- in these low-cost masks range -- and there's usually a variety of pore sizes within a mask, because they're not strict quality control measures making sure that every pore in the masking material is exactly the same size. So they range from usually 80 to 500 microns in diameter, the pores, right?

Now, this is where it's important.

Influenza largely travels based on these large water droplets. So these pores would be capable of stopping a lot of these large water droplets, so they would actually be somewhat effective against the spread of influenza virus.

But when it comes to SARS CoronaVirus-2, that assumption that we started with that these masks would help limit the spread, was based on that assumption. And it's not true. The science now clearly shows that the dominant mode of spread, the dominant mode of transmission of SARS CoronaVirus-2, is actually on aerosols, not large water droplets.

So I'll just explain for a moment what that means. Aerosols are not composed of these large water droplets, they are composed of smaller water droplets. And they actually have scientific names. So aerosols are composed of two types of water droplets and they're defined based on their size.

One is simply called, as opposed to "large droplets", they're called "small water droplets", okay? And what you need to know is that the maximum size of a small water droplet is defined as 60 microns, okay? And so they're larger than 10 microns, but maximum size is 60 microns.

And then there's always what we call

"droplet nuclei". These are very tiny water particles that are 10 microns in diameter or smaller. And now this is -- so this is the important thing here, right, is as I mentioned -- so if we go with the largest possible water droplet, right, in an aerosol, then what you come to understand is 60 microns.

And then the other thing you need to know is the virus, the SARS CoronaVirus-2 particles is approximately 1 micron in diameter. Well, if you have the largest droplet that's present in a -- an aerosol at 60 microns, then you coat it -- it's coated with the virus particles, that means it's a diameter now -- it's going to have one virus particle on either side, so it's -- so the maximum diameter is 62 microns.

The maximum size of a virus-laden small droplet. And as I mentioned, that the smallest pore size in our low-cost masks is 80 microns. So once you realize that, what you realize is that for this virus, the way it gets out of our respiratory system, with these masks, it doesn't respect these masks whatsoever, for it -- it is akin to us being placed in a barn, and then somebody leaving the massive barn doors open, and then trying to be confident that we are now locked into that barn. There's no way we can possibly get out of that barn.

The reality is, the virus, because it's -- because it's coming out on these particles that are so small, in most cases way smaller -- because, remember, the maximum pore size in these masks is 500 microns, but we could be dealing with the virus coming out on particles that are smaller than 10 microns.

I just want to show you something very quickly, because I actually have this for teaching purposes. So this is representative of the largest pore size in a low-cost mask. So this would be representative, if we're doing it on scale, of a 500-micron pore size in a low-cost mask.

This is the size -- and I've added the diameter that would be equivalent to adding -- if this was coated entirely with the virus, this, by scale, would be the size of the largest water nuclei laden with the virus. So I think, you know, you can appreciate that low-cost masks are not going to stop this transmission.

And so the reason why this is important, of course, is when we're talking about the masking, is this means that all this masking that we're enforcing -- and I have -- I have honoured it, because I'm, you know, a law- and rule-abiding citizen and I have made sure my -- you know, I'm teaching my kids that you

don't disobey the rules just because -- even when you know they're wrong. Rather, you try and effect change. Which is one of the reasons why I'm talking here today.

So these -- and I've done -- and I've done demonstrations. As a matter of fact, as part of my second report, I submitted a short video that documents exactly what I've shown you, right? And the other thing with the masks and even beyond -- and that's assuming your breath is going through -- is being forced through these pores.

And also in my first report, I showed -- I showed pictures. And in the video for my most recent report, I actually went to the point of saying, "Okay, I'm going to put on five masks. We've been told we can put on more". I actually have my right ear pinned. I don't know if you noticed, but it actually sticks out more from my head now than my left one, and that's from the masking, actually, informing this.

And so I, in that video, actually put five of these masks on, my ear pin wouldn't support it. But the point is, when I put the five masks on and sealed it around my lips so there was no leakage, right, I was able to fog up my glasses. When we fog up our glasses, like I just have, right, that fogging

that's happened, that's the aerosols coming out of my lungs.

And I was able to fog up my glasses through fifteen layers of these higher-quality, you know, 3-ply surgical masks. And so this shows the futility of masking, now that we know that the primary mode of transmission is through these aerosols. But still, the other issue that I wanted to point out is: That's if, you know, you have a properly -- a properly-fitted mask.

A properly-fitted mask is actually one that would be sealed around the skin. None of us would be allowed to have a beard like I have, because that provides, you know, a filtering material that keeps my mask actually away from the skin, that obviously has massive pore sizes.

And so what happens when we put on these masks, is we're actually blasting air -- air is always going to primarily take the easiest route out, so rather than going through the mask, we know the leak points are around the nose and at the back, you know, going past our ears. So there's these leaks.

So we simply breathe out these aerosols, these clouds of aerosols, and if we are -- if somebody does have a really well-fitting mask, the aerosols is

going to pass through them anyways. So this is what I'm trying to point out, right, is that the -- the masks clearly -- now that we know that they are -- that this virus is being spread by aerosols, again we need to follow the science. It just doesn't make sense, masking.

So when I see our children -- for example, when they were in school in person in Ontario, and all the places we were going to, I mean, I know as a scientist, this is crazy. If anybody was okay being 2 metres from me in any public location, I knew, as a scientist, that there was no valid reason why we couldn't be standing there without our masks on. That's just the reality.

Because I know as a scientist, I'm looking at them and saying: If this person is really infected with SARS Co-V-2, if I really thought they were infected and I was scared of this virus, there's no way I'm going to be standing 2 metres away with their mask on, because it's doing nothing with the aerosols that they're firing my way. That's just the reality, right?

And so anywhere that we've been comfortable now with the masking, we should -- knowing the science behind this now, we should be equally comfortable

being in those same social scenarios without the masks, because that's what the science tells us.

And then, of course, what you say to that is: But, you know, we were told that these masks are an effective -- and is physical distancing, which was based, again, on the science behind the large water droplets and that mode of transmission, right? We were told, thinking -- people were thinking that they were protected. And so when they actually thought they were being protected, they weren't.

We were actually putting people in potentially dangerous scenarios, because if you really thought somebody has SARS CoronaVirus-2, and you know it's being spread primarily in aerosols, and you're really afraid of the virus, and you really want to stop transmission, you are not going to go near anybody with a mask or within 2 metres. That's just how it is. That's what the science tells us.

And so then people would say `Well, if that's true, what you're saying as a scientist is that when we've been out thinking -- we've been told we've been protected, what you're telling me is the science now understands that this is not like influenza virus, that this virus actually travels rather than on large water droplets primarily, these tiny aerosols, that

would suggest that many of us have probably unknowingly been exposed to this virus'.

And then I go back to this study, this hallmark study done in British Columbia, which again showed that when they randomly test 90 percent of people -- of adults in the Greater Vancouver Area, they found evidence of pre-existing immunity in 90 percent of them. And which is exactly what you would predict if people are artificially walking around thinking that they're restricting the transmission of the virus.

And so that's a key difference. So in other words, yes, I hope that people will take this into account, will realize that there are certain protective -- so knowing this as a scientist, if I get sick in the wintertime and I have to come into work, because I have to -- I'll be honest, my preference is that we show respect to our fellow citizens, and if we're sick, we should not be going out into public spaces.

But I'll admit, I sometimes break my own goal that way, because my job is just so demanding. There are certain things that, unless I feel too ill to perform my job, I feel I do have to come in. And what I do is, because I don't know if it's the

influenza virus, I will wear a mask. And that is because masking is partially effective in the context of influenza viruses, okay?

And I try and stay away from people. And I forewarn them that I'm sick. And so if I have to go into a room -- if it's a meeting, I will sit off at a distance, because it makes sense for influenza virus that travels largely on these large water droplets. But for SARS CoronaVirus-2, the science tells us that that -- we know that is false now.

And, again, we need to follow the science out of these policies that are harming people. There's no question that these masks can be harmful. Children, when they're in a school setting -- and a lot of our communication is based on reading facial expressions, and, you know, we're removing that from them.

We're also -- this -- this will affect -- I mean, when any of us put it on, especially if you're wearing a mask and you go outside, and you're breathing, and you take the mask off, it's amazing how fresh that air feels. That air, you know, when you inhale it.

And that's because, of course, you are slowing down the escape of the air through these leak

points, and what we're doing is we're actually slowing down the air exchange. We're allowing some build-up of carbon dioxide behind these face coverings, right? So it's not stopping the aerosols, but it is slowing down the removal of carbon dioxide from our lungs. So we are actually having some measurable impact on oxygen level, right, that we're breathing in.

And the other thing, of course, is -- so there's a number of harms, and I'm not going to go into all the details, because that was in my report, all the potential harms, as well. But just recognize that there are harms.

So if there's harms associated with this and its benefit now is -- it's established scientifically as being absolutely minimal at best, right, again, as a scientist -- as scientists, we have to do this risk/benefit analysis. If the whole idea always, always, always, always in medicine, right, is `do no harm', you can also view it as `do as little harm as you need to'.

And so what that means is: Any time you're dealing about medicine, you evaluate the problem you're trying to deal with and you look at the solution you're applying. And any time the solution, you know, is deemed to be more harmful than the

disease, you never apply the solution, okay?

So scientifically now, the data shows us that the potential harms of masking outweigh the potential benefit of masking in terms of restricting the transmission of SARS CoronaVirus-2. So, yes, the annual influenza virus is a great example of how, hopefully, people will have learned a lot about jus basic social hygiene when it comes to respiratory infectious diseases.

But we also, by using that as an example, now know that we can't -- we no longer can apply the assumptions from all of our experience with influenza virus to dealing with the SARS CoronaVirus-2. It's a completely different pathogen, it behaves differently, spreads differently, and we have to move away from using the traditional strategies that would have been effective against viruses like influenza virus.

161. Q. You received provincial funding to develop a vaccine for COVID-19?

A. That is correct. Both provincial funding and federal funding.

162. Q. And is the vaccine you developed being administered in Ontario today?

A. No. Again, like I said, I was commissioned to start developing a vaccine at the pre-

clinical level. So what I actually have, is I have a number of vaccine platforms that we were developing, actually, for use in the context of cancers, and we -- but we were able to -- a vaccine platform is quite a -- modern vaccine platforms are quite flexible in that once the technology is -- once we have the technology, we simply have to insert into that vaccine technology a target -- what we call a "target antigen". Something that's dangerous to the immune system.

So what these vaccines were originally were designed for was to put in a piece of -- like, a protein from cancers -- or multiple proteins from cancers to educate our immune systems that these cancer cells are dangerous and, therefore, to go and kill them. So it was quite easy to switch these over to COVID-19 vaccine platforms.

And, again, as I mentioned, because -- you know, at the beginning of the pandemic, the very logical target was the spike protein, because that's the first target you look for. You always ask yourself -- when it's a novel virus, the first thing you want to know is: What protein on that virus is responsible for allowing that virus to get into cells?

Because if you -- the ultimate goal of a vaccine is to achieve what we call "sterilizing

immunity". "Sterilizing immunity" means the virus cannot replicate in your body. Our T cells are very good at getting rid of the virus after they've infected cells, so you want those T cells for when the virus can bypass the antibody response.

But the reason why there's been such an emphasis on the antibody response is that if you can get neutralizing antibodies -- and these have to be the appropriate antibodies and the appropriate location.

Ideally, what we want is what we call "secretory IGA" type of antibodies in our upper airways. And we want that because these antibodies, when they bind to a virus, they don't cause much inflammation, and you don't want inflammation in the lungs, right? The whole -- the whole problem with severe COVID-19 is severe inflammation occurring in the lungs, right? That's why it's called "severe acute respiratory syndrome".

So this is the goal. So that's the logical target. So we also picked the spike protein, because if you can get antibodies that neutralize that spike protein, the virus can't infect any cells and you achieve this ultimate goal of a vaccine of sterilizing immunity.

Now, the vaccines that have been generated, we now know, do not come anywhere close to generating sterilizing immunity. In fact, there is incredibly -- you know, an incredible amount of data mounting that, at best, there's a non-peer-reviewed, you know, article -- a pre-print article that was submitted, and this is probably the best I've seen, and it does suggest that the risk of transmission may be reduced up to 50 percent post-vaccination.

And we do know that the vaccines are pretty good at dampening the severity of the disease. But people are -- there's all kind of breakthrough infection -- called "breakthrough infections" that are occurring. What a "breakthrough infection" is, is after somebody's been fully vaccinated, they -- they get infected with the SARS CoronaVirus-2.

This is not what we wanted to see with these vaccines, right? And these breakthrough infections -- and we are seeing some cases where they're fatal. We were being told they were stopped, because in the clinical trials -- because you always have to remember with these manufacturers, you know, rushing these vaccines so quickly, that we have not -- these companies have not finished full-scale clinical trials.

So in their limited datasets, it suggests that there was 100 percent effectiveness against -- in the context of preventing severe COVID-19. However, we now, in the real-world rollout, you know, have clear evidence of people dying from severe COVID-19 after being fully vaccinated. So we call these "breakthrough infections".

And one of the concerns, actually, interestingly, and it's really relevant to interpreting the data that we've been talking about, is the -- in the United States, the Centers for Disease Control, interestingly, were -- were starting to report the number of breakthrough infections.

But if you actually go to the CDC's website, you'll see that it was hitting quite a high number, and it was alarming to people, so they actually posted -- if you go to their website -- and I would think it's still there. I can't guarantee you, but it was there as of, you know, a week ago.

They have a posted notice that they were no longer going to report breakthrough infections for anybody -- for any cases that were deemed mild or moderate, only for severe, or potentially lethal, or confirmed lethal cases of COVID-19 after being vaccinated. So that, of course, is going to skew the

numbers, so we're not going to have a real appreciation for the true number of breakthroughs.

The other thing related to this PCR testing that I mentioned to you, which is interesting and I'm bringing this up because as a -- just as a forewarning, right, that hopefully Ontario -- Public Health Ontario will not adopt this strategy in terms of -- in terms of looking at the numbers, is the CDC now has advised, when testing for evidence of the SARS CoronaVirus in suspected cases of breakthrough infections, they are dropping their cut-off for positive -- positive test results from thirty-eight, which is the same we currently have and for Public Health Ontario, down ten cycles to twenty-eight.

Interestingly, that puts them in that range of what I was telling you about, where you start having a reasonable confidence that positive test results at twenty-eight cycles or lower do have a reasonable chance of being indicative of the presence of potentially infectious viruses.

Whereas, you can imagine if you're dropping that now, that bar down ten cycles to define breakthrough infections, the number's going to look completely -- it's between apples and oranges, because prior to the vaccinations, we were defining cases

based on thirty-eight cycles being positive.

So now we're just going to artificially make the vaccines look like they're performing far better than they are. So this is the issue with the breakthrough infections with these vaccines, and this is a concern. And so that's why we have to be very careful.

So when -- when designing these vaccines, then, that's why we want ideally -- we wanted ideally the sterilizing immunities. Another thing I should point out as an issue with these vaccines that's come up, is they're being administered parenterally, meaning -- so what that term means is they're being administered into the body, right? So they're bypassing the surfaces of the body. It's a way to get something past the physical barriers of our body.

So an example of another type of vaccine -- and this is why I bring this up. So, actually, the vaccines we've been developing, based on our understanding of immunology, is this is an infectious pathogen, right, that enters through the respiratory system.

So we're actually looking at -- in our vaccination development, we're looking at administering these vaccines through either intranasal

-- installation intranasally to target the lymphoid tissue, what we call the "nasal-associated lymphoid tissue" to activate immunoresponse, or through aerosols, so it would be inhaled and it would go through, then, the nasal passages and down into the lungs, and that would target both the nasal-associated lymphoid tissue and the lymphoid tissues that are throughout the lungs.

And what that does, the immune system typically will send effector mechanisms predominantly to the areas that are being drained by the lymph nodes and which -- or the immune system has been activated. So in other words, if you vaccinate in the lungs, you tend -- the effector cells that get induced by that vaccine tend to home back to the lungs, so it will potentially give you better -- give you better protection in the lungs.

And again the idea behind this is, why this is important is, if you generate a mucosal -- we call it a "mucosal immune response" in the lungs, it's going to be dominated by IgA, and IgA is this antibody that you want, and it will be in the upper airways. And then if you want maximum protection from this virus, you want to stop it in the upper airways, because once it gets into the lower airways, that's

where you're at risk of getting pneumonia and then the severe COVID.

Now, what you have to understand is, in the lower airways, the types of antibodies that dominate there are what we call "IgG". All you need to know about IgG-type antibodies is that they have -- they're more powerful antibodies. They're equipped with more effector mechanisms. And what that means is they're also much more pro-inflammatory.

And the idea being that if you're dealing with a dangerous pathogen -- and a pathogen that gets in the airways is not as dangerous when it's in the upper airways. But once you get down into the lower airways where all the air exchange happens, that becomes a very -- a potentially very dangerous infection.

And our immune system pulls out all stops. Once you hit, like, that kind of really dangerous level of an infection, our immune pulls out all stops, because at that point you're potentially -- your life is potentially at risk. And so the -- what the immune system does, is it pulls out all stops and brings all of its weapons to bear. So it uses its best weapons in its arsenal, which in the lower respiratory tract would be the IgG antibodies.

But the consequence of using very potent effector mechanisms is that you get a lot of inflammation, and that inflammation can cause bystander damage to normal tissue, right, which is not ideal in sensitive tissue like the lungs. But that's exactly why, for example, athletes, if they get a physical injury, they're often told to ice the site.

The reason is, is if you have a lot of physical damage, they're going to be a lot of inflammation present, and that inflammation is going to cause a lot of off-target damage to normal tissues, right, and which you don't want. So by icing it, you minimize the inflammation, you minimize the bystander damage, and then after a while you stop doing that, so the immune system -- the components of the immune system that get called in can start the healing process.

So it's the same thing. So what we have to understand is with these vaccines -- so the ones we're developing, the idea was that we're going to try and maximize these IgA antibodies, to neutralize the virus in the upper airways, to try and get closer to that strategy of sterilizing immunity.

These parenteral vaccines -- so this is the -- another issue that's of interest -- they're very

good at producing antibodies systemically, and these are the IgG antibodies. If you're getting enough antibodies, they will get into the respiratory tract, but primarily the lower respiratory tract, right?

And again that's not ideal, because in the lower respiratory tract, these viruses -- these antibodies can be somewhat pro-inflammatory. And also it means if your antibodies are primarily lower airways, it means you -- your effector mechanisms don't engage that virus until it gets into the lower airways.

And so that's probably the scientific reason why the current parenterally-administered COVID-19 vaccines are not good and are not coming anywhere close to achieving sterilizing immunity, okay? So that's what we've been doing in terms of our vaccine that we've been developing and funded to do, is we're also targeting the spike protein -- and I have serious concerns about that now, as I mentioned to you.

Because the information -- the scientific information that I showed you is clearly not of advantage to me. The vaccines that I currently have sitting in my lab are targeting the spike protein, and I have considerable -- now that I know that this is a pathogenic protein, just so you know, I have actually

had to sit down with one of my graduate students who's taking the lead on this work, right, and to make sure that -- because I don't want to -- I don't want to be responsible for inoculating people with a toxin, a known toxin, a known pathogenic protein.

But knowing the science -- this is the thing, it can guide -- it can guide us. There is -- there is a way out. So the way forward with these vaccines, to me, is we can modify -- there's a potential to modify the spike protein, so it still can be a target for the immune system, so that we generate neutralizing antibodies, which we need if we're going to achieve sterilizing immunity.

But I've asked him: Can he alter the spike protein so it no longer activates complement, right, and no longer causes -- so can we figure out what is the active portion of this protein that's causing signalling through the platelets, right, to cause them to aggregate.

And if we can modify just those two regions, maybe we can come up with a non-pathogenic version of the spike protein, right, that could then -- that we could then use as a legitimate antigen. And of course what we also want to do, is we want to better simulate the natural immunity, which, like I said, is broader

immunity and is going to be more resistant to novel strains that might emerge in the future. So we also want to target additional components of the virus, so that a virus will have a very difficult time to change sufficiently to evade immunity conferred by our vaccines.

So, yes, I received funding, and that's the backbone and rationale on our vaccine development program.

MR. RYAN: It's 1:30, so I'm going to suggest we take a thirty-minute break for lunch and resume at 2:00. Is everyone okay with that?

THE DEPONENT: That's good with me. Thank you.

MR. CHAND: Thank you.

THE REPORTER: Thank you.

--- OFF THE RECORD (1:30 P.M.) ---

--- UPON RESUMING (2:00 P.M.) ---

MR. RYAN: Dr. Bridle, I'll have you unmute yourself before I get back to questions. Thank you.

BY MR. RYAN:

163. Q. Did you apply for the provincial funding you received to work on a vaccine for COVID-19?

A. Yes, I did.

164. Q. And did you write that application yourself?

A. For that application, I -- I think I drafted the bulk of it, but it wasn't written entirely by myself. I have two collaborators that I -- that we work closely together on this project.

165. Q. And did that application express your view that the goal should not be to get everyone vaccinated per se, as you indicate in your Reply Affidavit?

A. Well, at that time, we were focusing on the -- I can't comment exactly. I mean, I have to pull up the exact application. And a lot of the introductory material was not my text, but rather my colleagues'. Usually, when we're writing these things as a team, right, we have different components that we write.

So as I recall, for a lot of the rationale, I wasn't involved with a lot of that writing, but rather focusing more on, you know, as an expert, more on the technical side with the vaccine, and so on. So, again, in terms of that -- so that document really represents the views and opinions that we, as a team of three scientists, could come to agreement on for the submission.

Again, at that time, my personal opinion -- I mean, as an immunologist, I fully recognize that there are two ways -- when there's an outbreak of an infectious agent, the ideal goal -- and, I mean, the way you stop the spread of an infectious agent, you know, as we -- like we all know, is through herd -- acquisition of herd immunity.

And herd immunity is a scenario where you need the majority, but not all, of the individuals within a population to become immune. Once you have a sufficient -- a sufficient number of people immune, chances are anybody who's susceptible would be physically separated from anybody who could potentially transmit the disease. And that's why the concept of herd immunity requires that a majority, but not everybody, become immune.

And that immunity can be acquired in two ways. I mean, that's just sort of, you know, a basic -- basic immunology. One is through the natural acquisition of immunity and one is through vaccination. And clearly what we now know, which we didn't know at the time with SARS CoronaVirus-2, we didn't know how prone it would be to mutations and the emergence of variants.

So an argument based on that that, that I

would add, is ideally you also want maximum breadth of immunity when targeting a virus that can mutate, especially when it's capable of showing -- has the capability of mutating a key target antigen, right?

So an example is with this current SARS CoronaVirus-2, there's, for example, a South African variant, which proved to be a major issue for the AstraZeneca vaccine. The cut-off for emergency use authorization for the vaccines was that they had to show at least a 50 percent, you know, ability to reduce the instance of COVID-19 by 50 percent in a critical phase 3 clinical trial in South Africa, where the South African variant was dominant. The AstraZeneca vaccine failed in that context and only showed approximately 10 percent effectiveness.

So, yes, those are the two ways that a population can potentially achieve herd immunity.

166. Q. In the portion of the funding application that you, yourself, wrote, did you indicate your view that it is imperative that we learn to live with SARS CoV-2?

A. The -- in that application, I -- again, without having that application -- the text in front of me, I can't make any specific comments. I -- I don't think I -- I can't recall that text being there.

And again in the context of my co-applicants -- yeah, I -- honestly, I would need -- I would need to be able to look at the text exactly.

I mean, I can't -- I can't -- that application was written -- you have to appreciate that that application was written, you know, approximately one year ago. I think it was even March, 2020 approximately. And I've written many more grant applications, manuscripts, so many things, I simply can't recall the exact text that was in there.

But if -- if you could show me the text, I mean, I'm happy to comment. But otherwise I can't with accuracy recall exactly what was in that application that was written over a year -- one year ago.

167. Q. And do you still have a copy of that application in your records?

A. Yes, I do.

MR. RYAN: I'll ask Counsel for an undertaking that you produce it?

MR. CHAND: We'll take that under advisement, sir.

--- UNDER ADVISEMENT NO. 1

MR. RYAN: And I'll ask for the same undertaking with regard to the application for federal

funding, assuming that was a separate application?

MR. CHAND: We'll take that under advisement, as well.

--- UNDER ADVISEMENT NO. 2

BY MR. RYAN:

168. Q. Dr. Bridle, you've referred in media interviews to a study where 50 percent of pregnant women who received a COVID-19 vaccine experienced spontaneous abortions?

A. Yeah, that was not a study, that was -- like a published study, that was data from the VAERS, which is the Vaccine Adverse Event Reporting System from the UK. And so that was early information that had been reported there, where at that point in time when I had seen the data -- observed the data, they had received reports of eight individuals who were pregnant, who had received the vaccine, and, yes, there were four of those eight that experienced spontaneous abortions following the vaccination.

169. Q. And is eight a big sample size in your field?

A. Eight is not, no.

170. Q. It's not a significant ---

A. Now, sorry, with that said, it's all in context, right? But, no, eight, when you're dealing

with a complex issue like that in a human population, no. But the fact that there were four out of eight is, I guess -- so this is a very important -- this is something we need to understand, I guess, is how we can use data from these what we'll call "VAERS" databases, right?

So the way these VAERS databases work is they are -- in the UK and in the United States, they are -- they're always going to be leaders in identifying vaccine-related adverse events. Canada -- Canada will not -- never be, just because of how our system works.

So even though we have mandatory reporting, we actually have a bias built into the system where there's screening done by, in fact, remarkably different individuals, because it's done on a health-unit-by-health-unit basis, where a physician can submit a report of a suspected adverse event, but then the Public Health Officers will then determine, on a case-by-case basis, whether they felt it was related to an adverse event.

Whereas these other adverse-event databases, what they do, is they -- they're unbiased, and anybody can voluntarily submit an adverse event. So that could mean it could be the person who received the

vaccine, it could be the person who administered the vaccine or somebody who was involved with the administration, it could be a friend, it could be a family member. And so it's an unbiased base.

And so what -- so why that is important, is because often, especially early on when vaccines are first being used, what you need in order to start really looking for or potentially making a possible link between a vaccine and an adverse event, is you need strong correlative data.

And so the best way to obtain that correlative data is you look at these unbiased databases and see if there's an accumulation of a particular problem appearing, you know, that's occurring within relatively the same proximity to vaccination, and so on. And that will then be a potential safety signal that can -- that a person can then focus on.

So if you look at our database in Canada, for example, a lot of the adverse-event reports submitted get screened and get actually -- they do not receive approval to go into our adverse-event reporting system. But what's -- interestingly, right, once other countries had identified a potential link, for example, between the AstraZeneca vaccine and blood

clots, right, then -- you know, remarkably, a lot more of those types of reports were allowed to be submitted to the Canadian adverse-event database, right, because others had made that link.

So, I mean, if you see that -- so the problem is, if you deal with it on a case-by-case basis, the first time you see somebody who has a blood clot, because it doesn't fit with the scientific assumptions that surround that vaccine, there is no reason why you would necessarily suspect it's related to the vaccine, and so that's easy to screen out and say `I see no scientific reason', right. `I see no accomplished scientific data that would -- that would suggest this is related to the vaccine', so it gets -- it gets removed.

But once there's a publication available of scientific data showing that, yes, there is a strong link, you know, from this growing number of countries, and so on, then you draw potentially different conclusions.

But because these databases like the one in the UK are voluntary, what it also means is there's -- there tends to be a lot of under-reporting, because they're only -- people are only going to report this (a) if they know about the -- that the database is

available, and so they tend to be -- they under-report adverse events. And that's well established.

There's been estimates from anywhere from under -- the actual adverse events that get reported in these systems might be as low as 1 percent, maybe it's 10 percent. I can't say. Nobody can say with accuracy. All we know is that there's a certain degree of under-reporting. And so, therefore, these databases are not good for accurate quantifications of adverse events.

Instead, what these databases are good for -- because any number you come up with is almost certainly going to be an under-estimate of the true number of adverse events. So what these are good for is driving hypotheses, for coming up with legitimate scientific questions.

So when one looks at -- even though it's -- so you're right. In the context -- when I said that a number -- an N of eight is not particularly large -- a particularly large sample size in the context of a well-controlled scientific study where you're trying to apply statistical analyses and you want accurate quantification, no.

But remember, this -- these databases are not for that purpose. They are designed to help us

identify potential safety issues and identify them as legitimate questions that then should be followed up with prior scientific testing.

So when one sees eight individuals that have been vaccinated, and four of them had spontaneous abortions, there is no -- there's no proof of a cause-and-effect relationship there. That could be a natural -- now, a 50 percent spontaneous abortion rate is remarkably high. Well above the average that you would expect. But when you're dealing with four individuals, there's no way to prove cause and effect, and so they can be completely unrelated to the vaccine. We have no idea.

But when you see that, when you see that you have four out of eight, even though it's a small sample size, so you say: `Yes, we don't know for sure if there's a cause-and-effect relationship here, nor can we tell anybody that there's going to be a 50 percent risk with great confidence, right, of a spontaneous abortion'.

Instead, as scientists, what we say is: `This is an eye-catching number. This is a potential concern and this is worthy of scientific follow-up'. And this is what's been missing largely from this pandemic. Again, at the beginning of the pandemic, we

had no choice but to make lots of assumptions.

But once the scientific data starts to accumulate, right, we need to follow that. But that doesn't mean that we lose sight of the fact that there's new questions that emerge, as well, right? As these are being answered, new questions emerge, especially on the safety side.

So the proper scientific method, right, as a scientist, I cannot condone -- I just cannot condone the use of vaccines until they've undergone proper testing. So, again, these received emergency use authorization on the basis of what we now know is faulty data based on an original assumption of infection fatality rate and many other things, and on the basis now that we know that there were effective early treatments available.

And so there's no reason why we can't be pulling the proper scientific method with these. And so just at face value, I mean, look at what happened. These vaccines, the clinical trials that were run, at face value, one might say -- so for the Pfizer vaccine, right, the first one to be -- to receive emergency use approval in Canada, they had 48,000 volunteers involved. At face value, that sounds like a lot.

But then when you consider, right -- we have cancelled the AstraZeneca vaccine program in Canada, so originally -- I mean, there's a lot of flip-flopping. So, originally, the first safety indication that was reported to us, we were -- we were told that probably it's only 1 in 250,000 Canadians that might be at risk of a potentially serious blood clot. So 1 in 250,000. When the program is finally shut down, it was admitted that maybe -- maybe it's as high as 1 in 50,000.

But, I mean, take your pick. So let's say it's 1 in 50,000. So that was deemed to be too dangerous. And this is very important. Even -- the messaging. A lot of people have mixed the messaging around this, right? So we were told -- even now -- even now, because there's people, 3.1 million Canadians, who have been left in a great state of fear.

I have been overwhelmed with calls from these individuals about "What do we do now?", right? And that's because they received one dose of the AstraZeneca vaccine, and now they're wondering, you know -- and the messaging that Public Health has put out to them, right -- and we're talking about hundreds of thousands in Ontario, they're sitting with one

dose.

And the Public Health messaging now is that `This vaccine is too dangerous to be used in Canada, that's why we're phasing it out'. So now these people are also being told -- and this is legitimate, right, it sticks to the approved protocol, is that you don't mix-and-match the vaccines from different manufacturers.

So they're left with: Do I remain unprotected, not properly protected by getting my second dose, or do I play a little bit of Russian roulette and hope that I'm not one of these 1 in 50,000. So, for example, if you have 250,000 Ontarians that are -- that have received one vaccine and the risk of death associated with that vaccine is now being reported in Canada at 1 in 50,000, that would just tell us by simple math that five people, if they were all to receive their second dose, might die from that vaccine. And none of those individuals want to be that person.

So this is the messaging. So this is why the safety is so important. So what we have to remember, then -- so let's say it's 1 in 50,000 -- oh, and the thing before I get back to the 1 in 50,000, so we'll come back to that. But the issue here is that

this -- even with that 1 in 50,000, the Public Health messaging is that that's a very -- an incredibly rare event.

But as I pointed out to you, the way we always evaluate medicine -- always, always, always -- is you look at the risk associated with the disease and the risk associated with the treatment. And so what we've done in Ontario is we've said: `Okay, the risk associated with the AstraZeneca vaccine outweigh the risks associated with COVID-19, so we're going to shut down that program, because the risks might be as high as 1 in 50,000', right?

But that's also in the context of stating that that is an extremely low risk. We have to remember that language, right, because if you're telling people that your -- that the risk associated with AstraZeneca is an extremely low risk and, therefore -- yet too dangerous relative to the dangers associated with COVID-19, then what you're really telling people is that the dangers associated with COVID-19 are even less than extremely low and are extremely rare, right?

So that is a direct message to Ontarians, an admission that this COVID-19 is not a major issue for them. In fact, the risks associated with COVID-19 in

Canada clearly are less than the risks associated with this very rare adverse -- potentially serious adverse event with the AstraZeneca vaccine. So that's an important point.

But getting back to the 1 in 50,000, the reason why it's important is then when you look at enrolling 40,000 people, if you have an adverse event that is too dangerous for 1 in 50,000, then the question: What are the chances you're capturing that in a population of 48,000? When you're testing less than 50,000 people -- I mean, even if you tested 50,000 people, what are the chances that you have that one person that's going to show that serious adverse event?

So that's why when it comes to testing these vaccines, the onus is on us to properly vet this. So when we understand that there's good treatments available and we didn't have to provide the emergency use authorization, there's no excuse for skipping on the safety side of these vaccines. I'm very adamant about that as a vaccine developer, myself.

My career revolved around vaccines, I preach the value of vaccines that have been properly tested and vetted, and we are at risk right now of causing a lot of people to lose faith in vaccines. And if they

start losing faith in other vaccines that are controlling what are otherwise -- that are worth -- that are controlling very well serious infectious diseases, we could be -- we could cause a lot of damage if we don't treat these vaccines properly.

People have to have faith in the system that we use to develop vaccines, and safety has to be paramount. I've already shown you the biology of what we now know -- to our great dismay, we now realize that not only are these vaccines, but they're actually inoculants of a toxin.

And so when we understand that, when it comes to the safety side, 48,000 people is not enough. And we saw this with the rollout. The very first day of the rollout, we saw the first major, serious, potentially life-threatening consequence of vaccination emerge. The very first day. And it was not captured in the clinical trial work.

And that was the anaphylactic reaction. This happened in many countries upon the first day of rollout. And these -- and that's why, and people don't realize, the AstraZeneca vaccine could be administered in pharmacies, but not the Pfizer/Moderna vaccines.

They have to be administered in clinics

where there are professionals present who can revive somebody from the verge of death, should they experience an anaphylactic reaction. And that's because those vaccines, which has now been discovered, right, and people, it's suspected, that have some kind of pre-existing hypersensitivity -- maybe it's to the polyethylene glycol that's present as one of the ingredients in the vaccine.

But if they have a pre-existing sensitivity, they may respond with this anaphylactic. It's like a very acute and serious allergic reaction that can be life-threatening. And now we've seen these other ones that have emerged later on, right? Like the blood clotting.

And I can tell you from looking at these various databases, as much as there is blood clotting, there's also bleeding disorders. It will just be a matter of time before we'll have to publicly acknowledge that there's also bleeding disorders and heart disorders. Because I already explained the biology and why this is to be expected, when we know that this protein is getting into circulation.

And then I even pointed out that there are longer-term safety issues. And we could determine whether there is a high or low risk of those longer-

term things. Again, if we would slow down, pause the vaccine rollout, and conduct the proper studies, right? So, again, with a lot of these longer-term things, we have no proof, we have no evidence whether these long-term concerns are legitimate or not.

But they are legitimate scientific questions that are dealing with long-term health. I told you a few -- how if we have the spike protein circulation and accumulating in the ovaries, for example, it leads to the legitimate scientific question of whether that could lead to infertility. It wouldn't be seen 'til well down -- down the road, many years later.

And so that pregnancy study, that is what that information tells us. Yes, we can't use it to accurately quantify the risk of pregnant females having spontaneous abortions. But what it does tell us is that we should address that question. That is not an acceptable trade-off for vaccinating an individual. So we need to address that and, you know, we have to recognize it, right?

Remarkably, our College of Gynecologists and Paediatricians have formally advocated for vaccinating those individuals. The companies themselves, Pfizer and Moderna and Health Canada, have told us they have not tested this in these demographics, right? They

have not tested these vaccines in anybody under 16, they have not tested these vaccines adequately in -- I should -- Pfizer now has run a very small-scale clinical trial in young teenagers, so under 16, between 12 and 16.

But it's very underpowered. We're talking 1,800 vaccinated children only. And again I put that in the context of: If 1 in 50,000 blood clots is deemed too dangerous for Canadians, how are you ever going to find that kind of dangerous adverse event that is not acceptable to Canadians in a colfort (ph) of 1,800 children?

So this is what it comes down to, is these are only used to drive hypotheses, to develop scientific questions. And then we need to answer these scientific questions. We need to get a definitive yes or no. Is this a real danger or not? And if it's not a real danger, then we may proceed with confidence.

But we can't keep going based on assumptions, especially when we have alternatives, like effective early treatment strategies, and when we recognize that outside of the limited high-risk demographics, this is a pathogen that has -- that has been greatly exaggerated in terms of its

pathogenicity, in terms of its deadliness.

And so we have to address these issues. And that is why the typical timeline for development of vaccines is usually in the -- is in the ballpark of years. And again, on average, about ten years, maybe longer, sometimes shorter. But even -- what's important is that these companies themselves have -- cannot condone and -- nor can Health Canada. Health Canada is supposed to be our overriding agency that dictates -- that's supposed to be responsible for the safety of Canadians.

If you ask Health Canada right now: `Should we be vaccinating people with a four-month interval?', they will say: `No, the method that we approved was based on a three-week interval for Pfizer and a four-week interval for Moderna. Anything outside of that would require conducting another clinical trial using that new protocol, we'd have to see that data and see if it meets our requirements to do it'.

If you ask them right now: `Would you, as Health Canada, or do the companies condone -- will they -- will they go on record and state definitively that these vaccines should be used in pregnant women?', they will say: `No, not until we have conducted a proper phase 3 clinical trial in that

demographic'.

And it's not just about looking at the safety of the pregnant female, it would also have to have longer-term follow-up to look at the safety to the fetus and the development of that infant. And so that's why these trials typically take years.

And the promise -- the promise that was made to the public, when these vaccines received emergency use approval, was there would be no cutting corners on the safety testing, in the sense that the companies would be required to continue to conduct safety assessments -- which would include in the context of the public rollout, because everybody's receiving these vaccines as part of, you know, a national-scale experiment -- for another two years. For another two years, before they would consider applications for full licensing. And the FDA, there's already been applications submitted to be considered for full licensing.

So this does meet the -- that commitment. And so now knowing that there is not this urgency for the vaccines, also knowing that these vaccines have some very well-defined mechanistic safety issues, and that we haven't properly conducted the duration, right -- when you keep seeing this emergence of novel safety

signals, and we're using these vaccines in untested populations, untested demographics, using a methodology in Ontario that was never approved by Health Canada nor the vaccine manufacturers, we can't compromise the safety.

We have to look at the mid-term and long-term potential safety implications. So that four of eight, that information, yes, I was using that appropriately as a scientist to highlight that we have to be very careful with pregnant females. I, as a vaccinologist, cannot condone vaccinating anybody in which there has not been a large -- and I'm talking about larger than 50 -- more than 50,000 people.

Because if we've defined in Canada that if a serious adverse, potentially lethal adverse, event of 1 in 50,000 is too high of a risk compared to SARS CoronaVirus-2, then we need population sizes that exceed 50,000. And because we still have emerging safety issues, we have to look for much longer periods of time. Periods of years.

So as a vaccinologist, there is no way I can condone the use of experimental vaccines that I now know are dangerous, I know exactly why they're dangerous, in these populations. So that's where that four of eight came from and that was what my comment

was related to.

So, in short, no, that -- we can't use that as an accurate number to determine risk, but we can use that as a way to pose a legitimate scientific question that demands a proper scientific investigation.

171. Q. Do you recall a presentation where you devoted a slide in a Powerpoint presentation to this "four out of eight" figure?

A. Yes, I do.

172. Q. And did you include any text on that slide to provide all the important context that you just told us about how to interpret that four out of 8 number?

A. I don't recall. Yeah, there's text on that slide, I don't recall exactly what that text is. And also keeping in mind that whatever text I have there, it's only -- any time we put text down on slides, right, as instructors, we're using that to trigger key points. But the -- the full story that we tell is based on the -- the words, right, the oral presentation that we provide.

173. Q. Is this the slide that you were referring to?

A. Well, you're referring to the slide. I

mean, is this the one that you were referring to?

174. Q. I asked you if you prepared a slide that dealt with this figure, and you indicated you did. So when you answered that you did prepare such a slide, is this the one that you were referring to in your answer?

A. Yes. Yes, this is a slide that I prepared, yes.

175. Q. And I'm going to ask you a question about the content of this slide. Does it include any discussion of the statistical significance of eight cases anywhere within the four corners of this slide?

A. The statistical analysis? No.

176. Q. And is statistical significance of this eight-case figure discussed anywhere else in this slide deck?

A. Again, without going back and reviewing the slide deck, I can't say with certainty.

177. Q. Well, let's just make sure that you recognize the entire deck. I'm going to take you to the beginning.

A. Okay.

178. Q. Do you recognize this cover slide?

A. Yes, I do.

179. Q. And this was for a presentation you

gave at a Plan B conference?

A. Yes, it was hosted by that group, that's correct.

MR. RYAN: I'll ask that we mark this presentation as Exhibit 1.

--- EXHIBIT NO. 1: Slide deck authored by Dr. Byram Bridle.

BY MR. RYAN:

180. Q. And you didn't prepare this slide in response to a specific question from the audience at that conference about this eight-case sample, did you?

A. Yes, I did. Prior to the presentation, it was a member of the audience who was going to be attending that submitted this table that's inserted here, and they wanted to ask for my opinion on -- on this.

181. Q. And your opinion is reflected in the title on this slide, that it's:

"One of the risks of using COVID-19 vaccines in ways for which they were not approved"?

A. Yes. Yes, they have not been approved. They -- they -- they still have not been formally approved by Health Canada for use in pregnant individuals nor children, that's correct.

182. Q. And when did pregnant people beginning receiving COVID-19 vaccines in Ontario?

A. Again, in terms of a specific date, I don't know. In fact, we can't -- we can't have an accurate indication either, because remember there's the -- even when -- without it being approved, there's the risk of accidental vaccination of pregnant individuals, right? An individual could be vaccinated and not even realize they're pregnant at that point in time.

183. Q. You were talking about the announcement about --

A. So it's not really possible to get ---

184. Q. -- people who know that they're pregnant, became eligible in Ontario. Do you recall that announcement?

A. No, I don't.

185. Q. Do you know if they're eligible to receive it from the Ontario Government today?

A. It's been actively encouraged, yes. It's being promoted by the -- again, the licensing body for gynecologists and pediatricians.

186. Q. And they're encouraging people to receive a vaccine that they are eligible for from the Provincial Government, not to mislead or to create

fabrications for their eligibility?

A. My understanding is -- again, I go with our overriding body of Health Canada, and my understanding is that Health Canada's stance on this is that they do not formally approve of it being used in pregnant individuals until a properly-conducted phase 3 clinical trial has been performed, and they're comfortable in the effectiveness and safety of the vaccine.

187. Q. You don't follow who's eligible under the conditions set by the Provincial Government here in Ontario, who was eligible to receive the vaccine? That's not something you follow?

A. Oh, I follow -- I'll follow it to a certain degree, but Health Canada's the overriding body. They're the ones that, as a scientist ---

188. Q. The question is about whether you follow the provincial rules, so that's what you can address in your answer. Do you follow the ---

MR. CHAND: Well, hold on, hold on a second, hold on. Please let the witness finish his answer.

THE DEPONENT: Yeah, so as a scientist who wants to see things going into clinical trials, it would be Health Canada that I would be required to develop a phase 3 clinical trial design, and they

would be the ones who would be ultimately approving it.

So they're the ones that I look to in terms of guidance with respect to the safe approval of vaccines. I would not be going through the Ontario Government. It would be Health Canada that I would be -- that I would need to consult with. They would be the ones who ultimately would approve or disapprove of the use of any, you know, novel clinical strategy that I develop in my research program.

BY MR. RYAN:

189. Q. Do you know whether the people that the Provincial Government gives COVID-19 vaccines to matches the Health Canada approval? Do you know whether those are the same groups or whether they're different?

A. Sorry, can you repeat your questions?

190. Q. You've told me you only follow Health Canada approvals for vaccine eligibility. Do you remember that?

A. Yes, I -- yes.

191. Q. And you ---

A. No, no, sorry, I'm going to -- I want to revise that answer. I don't just follow them. They're the ones that I look to for the ultimate

guidance. The ultimate guidance regarding the safety of these vaccines and how they should be used, how they should be administered. I don't -- I don't believe that they should be over -- that their protocols and approvals should be overridden by provincial Public Health officials.

192. Q. And are they being overridden? Do you know?

A. Oh, yes, we know that definitively. Yes. A great example, as I mentioned, is the four-month interval. Health Canada does not approve of that. So one of the things you need to understand with that -- I can give you a great example. This actually had its origin with an epidemiologist in British Columbia who published an editorial -- you know, so an opinion piece -- in the "British Medical Journal", claiming that they had gone through Pfizer's early, you know, partial phase 3 clinical data, and remarkably had found that Pfizer had missed a remarkable discovery.

And they did their own epidemiological modelling, which has, you know, data based on a lot of assumptions plugged into it. And, again, they've admitted that, right. Assumptions based on historical vaccination data. And they came up with this idea

that a single dose of the Pfizer vaccine was remarkably efficacious. And that was published in the "British Medical Journal".

What a lot of -- and that got a lot of press coverage. And that was the primary reason why our National Advisory Committee on Immunization made the recommendation that we could safely go to a four-month interval, although there was no idea at that point -- there were many additional questions, as an immunologist, as to why you would question why you would do that.

We didn't know anything about the duration of immunity out the four months, etcetera, etcetera. But the point being, that was the initial justification. And so, yes, the National Advisory Committee on Immunization recommended that the Health Canada protocol be overridden and we extend the interval to four months.

What a lot of people don't realize is that in that same issue of the "British Medical Journal", and you can look it up, side-by-side with that is a rebuttal published by Pfizer saying that their trial was never designed to address single-dose efficacy, it was underpowered, and they could not formally approve extending the interval beyond the three weeks that

they had tested and that was approved.

So, yes, this use of a four-month interval in Ontario completely contradicts what has been approved by Health Canada. Health Canada has approved a three-week interval for the Pfizer vaccine and a four-week interval for the Moderna vaccine, but it was left to the provinces to decide whether or not they wanted to override those recommendations. And we have.

193. Q. Your view is that COVID-19 isn't a serious issue for young Canadians?

A. For those that get serious COVID-19, it's serious. My concern is that we have to put it into a proper perspective. So, again, the number of Ontarians under the age of 20 that have died from COVID-19 is three.

We also know that often -- so often with those outside -- what we would call the "classic high-risk demographics", which we know are, again, the frail elderly and those who are immunosuppressed, because they don't have a functioning -- a proper-functioning immune system to protect them from infections.

Outside of that, the incidence is quite low. And of those who develop this, develop COVID-19 --

severe COVID-19, there's usually also well-defined predisposing factors. So as an example, the most recent teenager to die in Ontario, the third one -- sorry, one was a non-teenager, they were under the age of 10. We've had two teenagers and then one under the age of 10 in Ontario.

Now, this was a 15-year-old female who died, unfortunately. They were overweight. And adipose tissue is a -- having a lot of adipose tissue or obesity is a strong predisposing factor towards severe COVID-19. This gets back to the biology that I was mentioning, in terms of why we know the spike protein is pathogenic and why the same spike protein that's generated post-vaccination that gets into circulation is also pathogenic.

What happened -- so as I mentioned, the cells lining the blood vessels in our bodies express fairly high concentrations of the receptor for the spike protein. As I mentioned, if the spike protein is in the blood and binds to these receptors, then it can cause a lot of damage to the cardiovascular system.

Now, it's interesting, there's an anatomical study that was published where they actually looked where -- you know, outside of the respiratory system,

is this receptor expressed at the highest levels, the highest concentrations on cells?

Interestingly, two places that were highlighted is that it's expressed in particularly high concentrations on the -- in the blood vessels in the brain. And that certainly would help explain why a lot of the fatal blood clots that were occurring post-vaccination and also in the cases of severe COVID-19, have been associated with blood clots in the brain and neurological damage.

But, interestingly, the other place that's highly in (inaudible) for expression of this receptor is fat tissue. Now, if you have a plot that forms in fat tissue, that's not going to -- that's not going to be a serious issue, right? We can live without fat tissue. I mean, we can remove fat tissue, right? And some people do, through surgery. But the issue is if those blood clots break free, and lodge and block blood vessels in critical tissues.

So that's the biology and that's why there's a strong association. So for many of the individuals, we also know those who are at potentially high risk. And the issue with this is then -- so when you look at that, so that individual, there was -- you know, obesity was there, so it's not necessarily surprising

that they might have had -- because they had a predisposing condition that can help promote a propensity towards more serious disease.

But, again, that situation is actually quite interesting and it highlights something that I have a concern with just as a citizen, let alone as a scientist, right? A moment of silence was held in the Provincial Parliament for that individual, and I have -- I mean, hey, it's a tragedy. And I -- and full kudos for that.

But my concern is: With this pandemic, right, unless we do a proper cost/benefit analysis and look at the weight of the scientific data, my fear is that we are starting to place a much heavier value on lives lost to COVID-19 than to any other cause. Even when we look to what the government did in that situation with that moment of silence, one has to ask: Why haven't they held moments of silence for all the children that have died from cancers during this pandemic?

And I am a cancer researcher. There's many chronic, potentially fatal diseases that we are going to see an increase in morbidities and mortalities due to these diseases because of the relative lack of attention to these other diseases, by devoting so many

resources to SARS CoronaVirus-2, through all of the lockdown policies that we have imposed.

And so as a consequence, we are going to see others -- others can give -- I mean, psychologists -- psychology's not my area of expertise, but I certainly have seen reports of psychologists who are concerned about mental health issues, exacerbation of mental health issues during these lockdowns and suicides. So one must wonder: Why aren't these others -- why aren't moments of silence being held for all these others?

So we have to be very careful, because it's a tragedy that three young Ontarians have died from COVID-19, but during these past sixteen months, there have been many, many, many more that have died from other causes. And, remarkably, I mean, we could go through a shopping list, and many of these other causes, remarkably, could be prevented with strict lockdowns.

The example I gave with three Ontarians dying over those sixteen months, that's not out of the ballpark of the number that would die from a lightning strike in a sixteen-month period, outside of a lockdown. Remarkably, if we impose stay-at-home orders on people, there'd be no risk of dying from

lightning strikes.

If we impose stay-at-home orders, there would be no risk of people dying from motor vehicle accidents, right? So my point in this is that we have to remove the subjectivity, the emotion, and we have to look at this objectively, like scientists would. We have to look at the numbers, we have to look at the mortality data.

The other thing, remember, that's caused a lot of fear with people is this issue of cases. This is a tragedy that the Ontario Government has reported cases generically. I always point out to people: If somebody gets the common cold, whether it be from a rhinovirus or a common-cold-causing coronavirus, that is a -- you know, technically, for most people, just simply a nuisance. You know, they get sick for a few days, then it passes, and our immune systems clear that.

But from a technical perspective, that is a case of an infectious respiratory disease, right? And so what we have failed to do in Ontario when we're reporting cases -- there's two issues. I'll go back to the PCR. And this is in my report and I talked about it earlier, so I won't go on at length about this.

But I told you about the gold standard that would suggest that our cut-off in Ontario at thirty-eight cycles is far too high to have accurately assessed cases. So first of all, on that basis we know that we have over-estimated the number -- the total number of cases and we do not know to which degree, because scientists are not privy to how many cycles were used to define the positive case or what cycle number, right?

There has been a request for the CT values, which is the cycle number, at which somebody tested positive, so that we could see this data, you know, objectively and look at it. But it's not available. It's not available to public scientists.

Now, the other thing we failed to do, is we failed to define cases properly. Again, a case can be very, very different. We could have -- again, so -- again, I understand the science, so I always want to talk very specifically as a scientist. So there have been cases of COVID-19 defined in people who are asymptomatic.

By simply going around -- because, again, of this unfounded fear that asymptomatic individuals are substantial sources of the virus that are going to kill others from COVID-19. So there's been -- and

there's voluntary testing right now for people who are asymptomatic. You know, teachers, students can go to these -- do this voluntary testing.

So if they test positive, remarkably that gets listed as a case of COVID-19. And I pointed out that that is not correct. That is a case of somebody having been identified to have had, in theory, a piece of the genetic material from the virus, through this PCR test.

And I've already pointed out that that test result would be completely invalid and it would have no biological relevance if that test result was obtained at a cycle number at above -- somewhere between twenty-two and thirty cycles.

And the other thing that's important with that is -- so in other words, these are not cases of COVID-19, because they don't have disease. Whereas COVID-19 is the disease. The "D" in that is "disease". It's the coronavirus disease, right, that emerged in 2019. And so that's not a case of COVID-19, that's a case of somebody who tested positive on a test that may have been run at too many cycles.

The other thing I want to point out when we're dealing about this and -- you know, when we're talking about the numbers and how we should interpret,

you know, really the risk in Ontario. There are situations where, as an immunologist, right, we would expect that we would have asymptomatic individuals, such as children, for example, but we also have asymptomatic adults, who would genuinely test positive.

I would be surprised if we didn't. We should. We should have people genuinely testing positive, meaning they really have pieces of the genetic material from this virus in their body. And this has been -- also been misinterpreted. That doesn't mean -- again, the PCR test -- this is the problem, this is why it's not the gold standard: It's not a functional test.

It doesn't tell us anything about the potential for that piece of genetic material, a tiny piece of the virus' genome, right, whether that is representative of a potentially infectious viral particle. And this is why: When we respond -- and children, in particular, do that. They seem to have very efficient antigen immune responses. That's why many of them aren't getting sick, showing signs or symptoms of illness when they get infected.

And the first cells that respond in our immune system -- we have three sets of cells, and

they're known as what we call "phagocytic cells". Their job as part of our immune system is to gobble up viruses that infect the body. The first one to respond, they're called "neutrophils". They're very small cells, they come in, they're very good at gobbling up the virus, and they die very quickly. So those ones are irrelevant into the context of the PCR test.

However, macrophages and dendritic cells are these other two phagocytic cells that gobble up the virus. These are long-lived cells. These, once they gobble up -- once they gobble up that virus, that virus is no longer replication-competent. That virus is inside an effector cell of the immune system. In fact, in many cases, the viral particle will be degraded or partially degraded. And so that -- but these cells hang on to those virus particles for long periods of time. It can be up to several weeks.

And there's an important reason for that. Because it's those cells -- that's the ones -- remember I mentioned that when we inject the vaccine traditionally and with these ones we're assuming it stays in the shoulder, but you would expect to see some in the draining lymph node?

These macrophages and dendritic cells are

the cells that are -- that take the antigen from the injection site to the local draining lymph node, and their job is to show pieces of the virus to B and T cells.

These T and B cells then, if they can recognize those pieces of virus, then proliferate to large numbers -- that's why our lymph nodes swell -- and then they get distributed throughout the body to protect us from infections. That's why these cells hold on to the pieces of the virus.

So it's not uncommon for somebody who has cleared the virus to actually test positive for the presence of a piece of the viral genome. But what's being detected is not a replication-competent viral particle that puts people at risk of infection, right? So we really have to understand the underlying science to properly interpret this.

So now moving on from the asymptomatic situation, then there's the rest of the spectrum. We aren't defining, in addition, cases that are mild versus moderate versus severe but non-lethal versus those that were severe and lethal. And that would have a very different look to it if we were reporting those data, because what we would see over time is that, you know, the majority of the infections are

mild. Especially when you're dealing with the younger individuals.

And we know the majority of the people who are in the category of having severe but non-lethal and severe and lethal COVID-19, right, we know who the majority of those people are. So that's -- those are very misleading statistics. So the only thing publicly -- that has really been made publicly available -- and I showed this in my report, right? -- then, is -- so what is the -- since we aren't being -- since we aren't being told what proportion of these cases -- so, again, as I said, there's the PCR test, there is some level of over-estimation of the number of cases, and then we also don't know what proportion are actually very serious.

But what we do know is the most serious outcome of COVID-19 is death. And so what we do know is, when we look at the three waves that have occurred in Ontario, we had a peak in the number of cases, right, the daily cases that were occurring in the first wave. And a lot coinciding with that was, you know, a peak in the daily deaths that were occurring due to COVID-19. Now, so that kind of set the baseline.

And the second wave that occurred, we hit a

far higher peak, a peak that swamped, that dwarfed, the first peak, the first wave, and the number of cases -- daily cases of COVID-19 in Ontario. However, the daily deaths peaked at a slightly lower -- slightly lower peak than the deaths in that first wave, okay?

So what that tells us is that, on that basis, in terms of the cases that were severe and lethal, right, the proportion of those had dropped dramatically in the second wave. And now if we look at the most recent third wave, right, that we've just come out of, again the number of daily cases reached a new high, a new record high, such that -- higher than the second wave and far higher than the first wave, and yet the number of deaths peaked at a far lower -- far lower peak than even the previous peak in that wave.

So what we're seeing is what you expect with a typical infectious agent. Again, there's nothing really special about SARS CoronaVirus-2. It's behaving like any typical infectious disease that we've ever been exposed to, right, as a society. And so what we're seeing over time is the danger is waning, right, that it's becoming less dangerous over time.

And there's a couple of reasons why that may be. Of course, one is that we have found more effective ways to treat it. And like I said, especially many physicians have been effectively using early treatment strategies. So although it's not been publicly -- not being publicly promoted in Ontario, Ontario doctors do have the legal right to use medications off-label if they have the fully-informed consent of their patient, right? So there have been doctors who recognize the science and are confident in this, and have been able to very effectively treat people.

And this is the other concern, right, is we're also told that the seriousness comes down to the capacity of our intensive care units and that our intensive care units are at risk of overflowing with cases, if we were to remove these current lockdown strategies, right? And that's just not true. If we look at the statistics on intensive care unit capacity, we were at or near capacity for years before the pandemic.

We have had an insufficient infrastructure in terms of our ICU capacity for years prior to the pandemic. And then the other thing to keep in mind is, you know -- yes, if that were the case, if people

had no -- if people were at risk -- if we removed these lockdowns and then a bunch of them were at risk of getting very severe COVID-19 and we couldn't do anything about it, yeah, we didn't -- we wouldn't want to take the infrastructure that was already inappropriate in Ontario and risk really overwhelming it.

But that's the whole thing, is we don't have to worry about that, because we do have, based on the science, some very effective early treatment strategies. Again, I'll just go through the list briefly: Hydro -- and it's not limited to this, but for example, hydrochloriquine, vitamin D ---

THE REPORTER: Sorry, Doctor, sorry, you just have to slow down when you're naming medications or ---

THE DEPONENT: Okay, sure.

THE REPORTER: Thank you.

THE DEPONENT: Yeah, so three examples are hydrochloriquine, and vitamin D, and Ivermectin. And they're not just limited to that, but there's other -- but people have been working on very, very good medical cocktails, right, where they're mixing a lot of effective medications in a lot of these things, and they've proven to be even more effective.

So that's where I come from when we start talking about, you know, sort of risk analysis and putting it into a context within Ontario. So we have to keep it in the context of the bigger picture and weigh the costs -- you know, all the costs and all of the benefits. And I do fear that we have started to place an unrealistically high value, which doesn't make sense from a moral perspective, on lives lost to COVID-19 due to all other -- all other causes.

194. Q. You used the phrase "serious issue" in relation to young Canadians. Do you remember that?

A. Which issue specifically did I deem "serious"?

195. Q. You said COVID-19 is not a serious issue for young Canadians. That was my last question to you. Do you recall that?

A. Yeah, no, that was not my statement. I -- what I said, as I recall, or certainly what I intended to say, is it is -- it's obviously serious for those who would be at risk of developing serious COVID-19. But that's why I got into the risk -- the risk of that, right?

To highlight, the most serious outcome of COVID-19 is death, and we have only had three Canadian -- Ontarians under the age of 20 die from COVID-19.

But to say that that is not a serious event for those individuals, I mean, obviously, I would be wrong to say that. And for those very few individuals who are at risk, it is serious. But that's the whole point, is even in those -- even though it's very rare in young Ontarians for them to experience severe and potentially lethal COVID-19, as I would point out, there are effective treatment strategies.

So, for example, I have two children. Should they get COVID-19, I'm quite confident with what the science tells me, to go to a physician who would be willing to treat with something like Ivermectin. And, for example, we are. We are. Like, as an immunologist, we are -- have been supplementing, you know, my whole family with vitamin D, right? And so these are very simple, easy strategies that can be implemented.

So if a child develops serious COVID-19, that is a serious issue. But it can be mitigated. That risk can be mitigated with the effective early treatment strategies that we have.

196. Q. Do you think the death of a grandparent is a serious issue for a young Canadian?

A. Absolutely. All lives matter. All lives matter. In fact, one of -- one of the things

that I'm actually focusing on in my own vaccine research program is -- we're very good at developing vaccines in general for the young. That's because all of the animal models that are used to develop vaccines almost exclusively use young animals that are representative, actually, of teenagers, the equivalent of teenage immune systems.

And one of the weaknesses we have in our vaccines is properly developing them, and this has to start at the pre-clinical level, for the elderly. And one of the reasons for this is cost issue. So to do work in old animals, for example, means housing for very long periods of time, so that kind of experimentation gets very expensive.

But that's one of the one things that I wanted to do, is actually focus on optimizing vaccine development for the elderly. Because one of the issues with the elderly, and one of the reasons why the elderly in particular are at risk -- this is for any infectious disease. SARS CoronaVirus-2 is not unique in sort of this phenotype that we're seeing playing out clinically.

Anybody who's older tends to be at risk of any infectious disease, and that's because of a concept that we refer to as "immunosenescence". And

so that's aging of our immune system. So as we age, our immunological function declines, and a consequence of that is we tend to become -- we tend to be -- develop greater risk of acquiring infectious diseases. And if we do get those diseases, there's a greater risk that they might be more severe. What it also means, though, as a consequence, because older immune systems -- immunosenescent immune systems don't function well, is it's literally a form of a type of immunosuppression, as they also tend to not respond well to vaccines. Their response is ---

THE REPORTER: Sorry. Sorry, Doctor, "immuno"...? -- can you just repeat that word? "Immuno"...?

THE DEPONENT: Yes, immunosenescence. So it's ---

THE REPORTER: Senescence?

THE DEPONENT: Yeah, it's all one word: I-M-M-U-N-O, "senescence" is S-E-N-E-S-C-E-N-C-E. Immunosenescence.

THE REPORTER: Thank you. And you said "phenotype"?

THE DEPONENT: Yes, phenotype.

THE REPORTER: Can you spell that for me, please?

THE DEPONENT: Yes, P-H-E-N-O, pheno, and type --

THE REPORTER: Right.

THE DEPONENT: -- T-Y-P-E.

THE REPORTER: Thank you.

THE DEPONENT: You're welcome. And so, yeah, I actually love -- I mean, personally, again in terms of my own personal, you know, philosophy in life, I always look at other countries. There's a lot of other countries that I look to with great respect, right, where they give great respect to their -- to their elders and older individuals, right? I really look up to that where they're showing great -- a great deal of respect.

I'm one of those individuals, as well, I try and teach my children to be incredibly respectful of the elderly, right? They're the ones that have successfully got us to where we are now, they were the leaders in our country, right, they were the innovators before we were, etcetera.

So I'm of the -- I'm of the personal opinion that every human being in Canada -- like, I don't buy into this concept, for example, about VIPs, very important people, and all that kind of stuff, right? Literally, every single person in Canada is of equal

value, every life is of equal value, and that includes the elderly.

BY MR. RYAN:

197. Q. How about the scenario of a young Canadian who has a dine-in meal at a restaurant, and subsequently visits a grandparent who lives alone, and that grandparent subsequently dies of COVID-19, would that be a serious issue for a young Canadian?

A. I can't comment on a theoretical scenario. I'm sorry, as a scientist, there -- and I don't even know if we can adequately set up such a scenario for me to answer a definitive yes or no, because there are an incredible number of variables that I would need to find there.

So in that situation, for example, I guess -- you know, in terms of: Is it always upsetting for a young person to see an older family member die? Of course. Always. No matter what the cause is. There would be no way in that scenario, based on the information that I've been given, of knowing what the cause of death was for that person. Like, if it's COVID-19, fine.

But, I mean, in terms of the source of the virus that caused that death, I have no way, based on the information that I've been given, knowing where

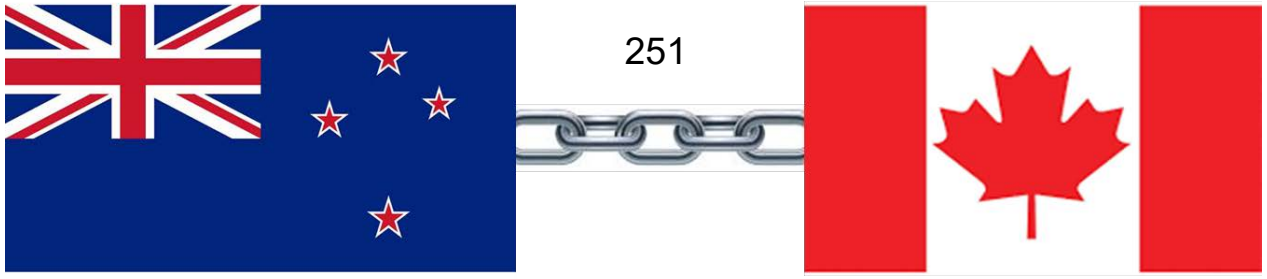
that SARS CoronaVirus-2 came from.

MR. RYAN: No further questions.

--- WHEREUPON THE EXAMINATION WAS ADJOURNED AT 3:02 P.M.

I hereby certify that this is the examination of DR. BYRAM W. BRIDLE, taken before me to the best of my skill and ability on the 27th day of May, 2021.

Jody Sauve - Court Reporter



COVID-19 Science and Policy Symposium Webinar

(New Zealand)

Answers to Outstanding Questions About COVID-19 Vaccines Will Dictate the Success or Failure of the Rollout

Dr. Byram Bridle, Associate Professor of Viral Immunology
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Disclosure statement[252]

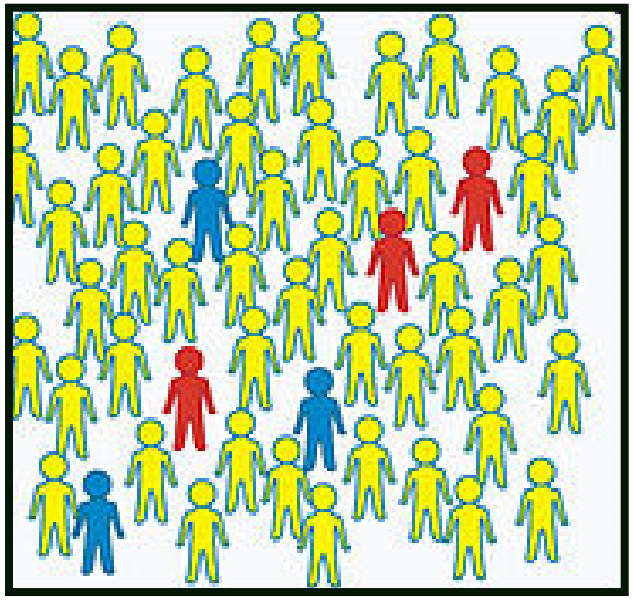
Preamble

- Anti-vaxxer: tends to hold an extreme, negative view of all vaccines, regardless of the scientific data
- Vaccine hesitancy: unsure of commitment to taking a vaccine because of outstanding questions

COVID-19 Vaccines: How do They Work?

https://seuss.fandom.com/wiki/Thing_One_and_Thing_Two

herd immunity’



COVID-19 Vaccine Development: A ‘Record’-Shattering Pace

- Prior to this pandemic, vaccines took ~10 years to traverse the clinical trial pipeline and receive regulatory approval
- The previous record was an ‘astounding’ 4 years
- COVID-19 vaccines reached the public rollout phase in <1 year (but by ‘cutting corners’)
- This means we are lacking information about COVID-19 vaccines that was always available for previous vaccines
- There is a lack of peer-reviewed data (much won’t be released for ~2 years)
- Further, the nature of SARS-CoV-2 and perplexing decisions during the rollout are raising additional questions

COVID-19 vaccines have raised hopes that the pandemic is nearing an end. Hopefully, this is true. But here are some potential sticking points…

What is the long-term safety of COVID-19 vaccines?

looks good

anaphylactic reactions in a very small percentage of vaccine recipients hasn't helped the optics for those with vaccine hesitancy

died shortly after receiving the Pfizer vaccine

open letter: increase in non-COVID deaths in long term care homes compared to before the vaccines

Is there an example of a long-term consequence of a vaccine?

257

PLOS ONE

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

Increased Incidence and Clinical Picture of Childhood Narcolepsy following the 2009 H1N1 Pandemic Vaccination Campaign in Finland

Markku Partinen, Outi Saarenpää-Heikkilä, Ismo Ilveskoski, Christer Hublin, Miika Linna, Päivi Olsén, Pekka Nokelainen, Reija Alén, Tiina Wallden, Merimaaria Espo, Harri Rusanen, Jan Olme, Heli Sätilä, [...], Turkka Kirjavainen [view all]

Published: March 28, 2012 • https://doi.org/10.1371/journal.pone.0033723

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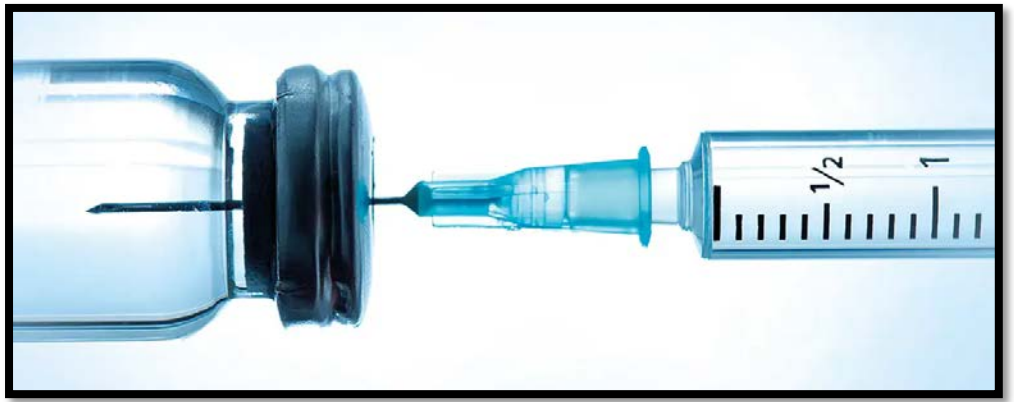
What is the ‘duration of immunity’ of COVID-19 vaccines?

herd immunity’ is achieved, previously vaccinated individuals will become susceptible to infection again and the rollout could fail



Are COVID-19 vaccines as effective as we have been told?

Moderna and Pfizer vaccines

summary report issued by the US-FDA

19-29% effectiveness

FDA Briefing Document

Pfizer-BioNTech COVID-19 Vaccine

Among 3410 total cases of suspected but unconfirmed COVID-19 in the overall study population, 1594 occurred in the vaccine group vs. 1816 in the placebo group. Suspected COVID-19 cases that occurred within 7 days after any vaccination were 409 in the vaccine group vs. 287 in the placebo group. It is possible that the imbalance in suspected COVID-19 cases occurring in the 7 days postvaccination represents vaccine reactogenicity with symptoms that overlap with those of COVID-19. Overall though, these data do not raise a concern that protocol-specified reporting of suspected, but unconfirmed COVID-19 cases could have masked clinically significant adverse events that would not have otherwise been detected.

Are COVID-19 vaccines as effective as we have been told?

dropped from 78% early in a clinical trial in Brazil to 50.38% in the late stages of the trial when a previously excluded group was incorporated into the analysis

50% effectiveness

What are the risks of using COVID-19 vaccines[262] in ways for which they were not approved?

single-dose regimens, combining vaccines from different manufacturers, or altering intervals between doses

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IMPROVE LIFE.

What are the risks of using COVID-19 vaccines in ways for which they were not approved?

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Case Series Drug Analysis Print

Name: COVID-19 mRNA Pfizer- BioNTech vaccine analysis print analysis print

Report Run Date: 31-Jan-2021
Data Lock Date: 28-Jan-2021 19:00:04
Earliest Reaction Date: 19-Jan-2001
MedDRA Version: MedDRA 23.1

Reaction Name	Total	Fatal
Pregnancy conditions		
Abortions spontaneous		
Abortion spontaneous	4	0
Maternal complications of pregnancy NEC		
Morning sickness	1	0
Normal pregnancy, labour and delivery		
Pregnancy	3	0
Pregnancy conditions SOC TOTAL	8	0

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What is the risk of emergence of SARS-CoV-2 variants that can evade vaccine-induced immunity?

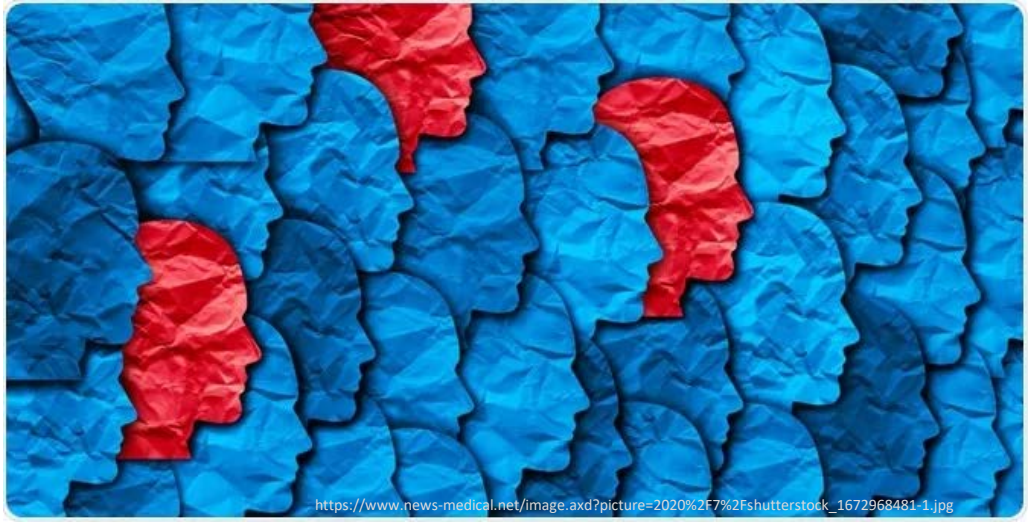
mutations

spike protein

Can ‘herd immunity’ still be achieved if COVID-19 vaccines don’t do the job?

protect them from re-infection

cross-protect some people against SARS-CoV-2



Examination No. 21-0714 Court File No. CV-20-00652216-000

ONTARIO SUPERIOR COURT OF JUSTICE

B E T W E E N:

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO

APPLICANT/RESPONDENT

- and -

ADAMSON BARBECUE LIMITED AND WILLIAM ADAMSON SKELLY

RESPONDENTS/APPLICANTS

****

VIRTUAL CROSS-EXAMINATION OF DR. MATTHEW HODGE on an Affidavit sworn May 14, 2021 pursuant to an appointment made on consent of the parties to be reported by Catana Reporting Services, on May 25, 2021 commencing at the hour Of 1:30 in the afternoon.

****

APPEARANCES:

Michael Swinwood for the Respondents/Applicants
Liza Swale

Padraic Ryan for the Applicant/Respondent

Also Present:

William Adamson Skelly
Carly Benjamin
Emil Graham
Sonya Molyneaux

This Examination was taken down by sound recording by Catana Reporting Services Ltd.

INDEX

NAME OF WITNESS: DR. MATTHEW HODGE

VIRTUAL EXAMINATION BY MR. SWINWOOD:

NUMBER OF PAGES: 104

ADVISEMENTS, OBJECTIONS & UNDERTAKINGS

NO EXHIBITS ENTERED

DATE TRANSCRIPT ORDERED: MAY 25, 2021

DATE TRANSCRIPT COMPLETED: June 2, 2021

DR. MATTHEW HODGE, AFFIRMED:

VIRTUAL CROSS-EXAMINATION BY MR. SWINWOOD:

1. Q. Good afternoon, Dr. Hodge. You're here to be cross-examined on your Affidavit of May 14th, 2021, is that correct?

A. Yes.

2. Q. You have a copy of your Affidavit with you?

A. I do.

3. Q. All right. I'm just going to explain to everyone that I do have a bit of a challenge in that there's a power outage here and so I've asked our colleague, Carly Benjamin, to put things up on the screen. So, I've asked them to put your Affidavit up on the screen because I don't have a copy. So, I'll take you directly to Paragraph 1. It says here that you joined Public Health Ontario October 2020 and you were the co-lead for Epidemiology and Surveillance and then I see that you were there until April 9th, 2021, is that correct?

A. Yes.

4. Q. So, it was a seven month period and in this Paragraph 1 you've indicated you're now a consultant?

A. Yes, I've been retained to support Public Health Ontario and the Government of Ontario in regard to some of the pieces of the Covid response.

5. Q. Okay, thank you. You've described this as the global Covid-19 pandemic. Can you help me with what the definition of Covid-19 is?

A. Perhaps you could clarify your question because Covid-19 is a virus. I assumed we shared that basic understanding, so could you be more specific?

6. Q. Well, and it seems that you've discussed it in relation -- that it has a relationship to -- excuse me for the background noise, just a moment. Okay, I'm sorry. What's is it's relationship to SARS-CoV-2?

A. I'm sorry, I didn't hear your question.

7. Q. What is the relationship between it and SARS-CoV-2?

A. My understanding is they're different naming systems.

8. Q. Well, is it possible that SARS-CoV-2 is the cause of Covid-19?

A. As I said, my understanding is they're different naming systems. They describe the same entity in the same way you may be a lawyer and an attorney; you're not two different entities, you're two different descriptions of the same thing.

9. Q. Okay and you've indicated that it constitutes a public health emergency. Can you tell me on what basis it constitutes a public health emergency?

A. I think in Ontario it was the recognition that if measures were not taken thousands of people would potentially die, our acute care health system would be overwhelmed which means in addition to being unable to care for people with Covid, people with other health conditions would die needlessly because they couldn't access the care they needed and the global aspect was because many countries were facing a similar situation and have implemented similar measures.

10. Q. And so the idea of public health emergency is on that paradigm that you've just described?

A. In the case of Covid-19, yes.

11. Q. Okay and public health and preventative medicine how long have you been practicing in that area?

A. I was qualified in the year 2000, so I guess that makes it 21 years and that included four years of post-graduate training. So, 25 years I guess since I started.

12. Q. All right and you've indicated you're responsible for strategic input and work on data management analysis and reporting. Does that reporting, does that include surveillance?

A. At the strategic level it's more a matter of how do we report, what do we report, how do we -- we in this case being Public Health Ontario, identify user

needs and meet those with the reporting that's going on.

13. Q. Let's go to Paragraph 2 now. Sorry, you just have to give me a minute. So, in Paragraph 2 you're describing basically setting out your history and I note that you indicated you worked for the United Nations and the WHO. We understand that to be the World Health Organization, is that correct?

A. Yes.

14. Q. And that was from 1999 to 2001?

A. Yes.

15. Q. Was that in Geneva?

A. Yes, it was.

16. Q. What was your role when you were there?

A. I was a Medical Officer. So, I had three different contracts staffing at the WHO's country quota base and Canada is way over quota. So, these were essentially contract work. The first was with the Tobacco Free Institute – sorry, initiative; the Tobacco Free Initiative which was a global effort to address the harms of tobacco and to implement a treaty which was implemented called the Framework Convention on Tobacco Control. The second was with a group working on poverty and health in the context of the world trade organization and its various agreements. That was the main focus of that work and the third was a six month

period with the Division of Child and Adolescent Health working primarily on preparations for the special session on children at the U.N. general assembly which was to have been held in September 2011 -- sorry, 2001.

17. Q. Okay and then UNICEF, what was your role there? 2001 to 2012.

A. I was the Senior Health Advisor for HIV AIDS.

18. Q. Where was that?

A. In New York City.

19. Q. HIV AIDS, did you have any work that you did with Dr. Fauci?

A. Well, Dr. Fauci's a U.S. Government employee so ---

20. Q. No, I understand that.

A. The United Nations is a global intergovernmental organization.

21. Q. No, I understand that, but he was instrumental in working in HIV AIDS.

A. So, Dr. Fauci's work at that time, as you may be aware, was primarily laboratory based and policy based and the work at UNICEF was primarily around addressing the burden of HIV infection in countries with no access to treatment.

22. Q. Okay and what is UNFPA?

A. United Nations Population Fund.

23. Q. And that was for two years?

A. Yes.

24. Q. Where was that?

A. In New York City.

25. Q. Okay and then Cancer Care Ontario for one year?

A. 15 months.

26. Q. 15 months and where was that, in Toronto?

A. Yes.

27. Q. Okay and Ontario Ministry of Long Term Care, you had two sessions there, one for one year and another one year, is that correct?

A. Yes, the actual months are slightly less so the 2003 period was approximately 7 months and the 2015/16 period was approximately 15 months.

28. Q. Thank you and you received a Harvard Master's in Health Care Management in 2011?

A. Yes.

29. Q. Okay and then Paragraph 3 you've indicated that March 17th, 2020 you had six months with the Peel Public Health Response, correct?

A. Yes.

30. Q. That was guiding the implementation of provincial case and contact management system?

A. That was one of the pieces of work, yes.

31. Q. Yeah. Paragraph 4 is your CV and then Paragraph 5 it's Exhibit B. Paragraph 6 is the questions that you were asked, correct?

A. Yes.

32. Q. I'd like to take you to Paragraph 7 now.

A. Mm'hmm.

33. Q. Here you state that your opinions are detailed -- I'm sorry, I'm going to have to lift this to see it. Yeah, your,

"Opinions are informed by the realities of public health practice including the role of public health professionals as providers or advice to governments"

and I'll just stop there. In relation to the opinions that you are expressing do you have access to documentation from the World Health Organization?

A. I think you'll note that one of the data sources is Exhibit G is the WHO Coronavirus Dashboard which is publically available.

34. Q. My question is do you have access to all of their documentation?

A. Well, anything that's publically available I, like any citizen of the world, may access that. I'm sorry, I'm not catching your question.

35. Q. Do you avail yourself of it?

A. I see. When it's relevant to my practice, yes, I keep a sort of watching eye on what they're doing. I mean I think that for our discussion today their particular role as an intergovernmental organization means they can provide us with the most accurate data available on the number of cases globally across all the countries that are member states of the WHO.

36. Q. Are you familiar with their international health regulations?

A. Yes.

37. Q. Are you familiar with their guidance in relation to pandemics?

A. In the context of the IHR or in general there's actually two distinct bodies of work there.

38. Q. Yes, we'll come to that. I note that you make the statement "and need to make decisions with imperfect information." What do you mean by that?

A. Well, public health officials, medical officers of health, provincial public health officials, federal officials as with many aspects of the practice of medicine we have an incomplete set of information and we have to make a choice among balancing risks, benefits, recognizing that to wait for complete

information may cause more harm than to make a decision with incomplete information.

39. Q. You could say that at the beginning of this issue called Covid-19 that would be the place of imperfect information. Is that a fair statement?

A. I think the global response is a clear demonstration of that, yes.

40. Q. And that as matters progress, information and data is accumulated?

A. It certainly is.

41. Q. Yes. Now, you discuss something here called the burden model. Can you tell me where does that expression “burden model” come from?

A. I think I would describe it as sort of a framework or a set of principles that guide public health practice. So, courts and law have similar sets of principles I would suppose. So, for example if we look at Ebola back in the mid-teens Ebola, if it came to Canada, could be potentially very dangerous, but the probability of it arriving, the exposure to Canadians was very low. So, we didn’t put in place the same stringent public health measures that were put in place for Covid-19. So, because those two infectious diseases behave differently, the public health practitioner as a physician would be expected to acknowledge that in

determining what is the best set of measures to balance the harms and the risks of the measures themselves to the population, provide that advice to typically to governments in the Canadian model and then support the implementation decisions that follow.

42. Q. What I'd really like to know is does the expression "burden model" have a scientific provenance?

A. I think that there are elements of scientifically derived information that fit into this framework. I think it would be more described as a practice framework.

43. Q. I guess what I'd really like to know is, is this a terminology that you made up yourself or that you used or can you point to where it comes from in terms of the scientific basis?

A. Well, I think -- maybe I can clarify what you mean by scientific. So, science provides information or knowledge which practitioners then have to incorporate to make practice decisions. Science doesn't leap out of a bush and say here's the answer in most cases particularly with respect to public health practice in a time of imperfect information. So, you could, for example, reference the global burden of disease project which was a massive WHO undertaking around the millennium where this idea moves from being

sort of an academic construct into more practice and policy framework.

44. Q. In the statements that you've made in Paragraph 7 this is a statement that you have put together I take it yourself and there is no -- you don't have any source for the statements that you make in Paragraph 7, do you?

A. Well, I imagine you've read the rest of the Affidavit which actually builds out the initial argument that's made here. I believe the document does include evidence on the increasing number of cases, the rising pressures on hospital and ICU capacity and that is the basis for the determination that the current burden associated with Covid-19 is extremely high.

45. Q. So, in other words your Paragraph 7 relates to the rest of the Affidavit where you flesh this out, is that what you're saying?

A. Yes.

46. Q. Thank you. One of the things I wanted to ask you and forgot to ask you at the beginning is did you have the opportunity to read the Affidavits of the Respondent's experts?

A. I did.

47. Q. Did you have an opportunity to read the Reply Affidavits of the experts?

A. Sorry, I don't recall seeing those.

48. Q. You haven't seen those?

A. There was an article from Dr. Ketner or a piece from Dr. Ketner which I read. I think Dr. Ketner and I are in different provinces and thus we'd have a different framework for making these decisions.

49. Q. So, are you telling me that you haven't seen Dr. Berdine's? You haven't seen Dr. Bridle's?

A. Why don't we have a look at them now then?

50. Q. Okay, let's do that. Let's go have a look at Dr. Berdine's. So, if you wouldn't mind, Carly, putting up Dr. Berdine's. Can you just go beyond that please, Carly to the actual report? There we go, okay. Can you see that all right, Dr. Hodge?

A. Yeah, there's a section entitled General Comments?

51. Q. Right, right. So, I'll just put to you what he basically says. One point is,

"The evidence from across the world demonstrates no benefit with respect to mortality from the severity or intensity of lockdowns."

Do you agree with that?

A. I would ask what evidence your witness is citing because I think a broad statement like that is difficult for me to engage with.

52. Q. Okay. What I'll do is then I'll just go to where he does make his point in relation to science. The one issue that he takes with Paragraph 7 is that his basic idea is that this assertion that you make about high community prevalence increasing number of cases and rising pressures on hospital and ICU capacity, the current burden associated with Covid-19 in Ontario is extremely high and what is it that you base that opinion on that it is extremely high?

A. Return to Paragraph 11.

53. Q. Sure. So, you're talking about your Paragraph 11 where you're talking about cases, an increase of cases, et cetera?

A. No, I'm actually talking about hospitalizations and ICUs.

54. Q. Yes, okay.

A. Ontario has the lowest rate of hospital beds. If your expert actually had spoken to the experience in Ontario he might've appreciated that. That an emergency for Ontario when we have only 1.4 beds per thousand population is fundamentally different than an emergency for even the Province of Alberta which has roughly twice that number of beds and certainly for the State of Texas.

55. Q. Well, I'll come back to Paragraph 11 in a

moment. Let's just stick with Paragraph 7. The assertion is this, that you said in Paragraph 7,

> "Accordingly in my opinion limiting restaurants to take out operations contributes to reducing Covid-19 transmission and harm from Covid-19."

And this is what Dr. Berdine says,

> "Although higher prevalence increases the protective value of effective measures, the evidence remains that during periods of high prevalence, exposure in restaurants are rare."

And what he cites is then he gives us Table 6 from the Public Health Agency of Canada. Can you see that? If we could just go to -- there we go. So, do you see that Table 6, Dr. Hodge?

A. I see Figure 1 so perhaps your assistant could adjust the screen?

56. Q. Yes. The statement is,

> "According to Table 6 in the Public Health Agency of Canada report fewer than 2 percent of Covid-19 cases and fewer than 1 out of 4000 Covid-19 deaths could be attributed to transmission from a restaurant or pub."

Then we have the table which shows the percentage of total cases. Do you see that?

A. I don't see a table, so I'm afraid I don't

know what you're referring to. There's only a figure on the screen.

57. Q. You don't see the table?

MR. RYAN: So, what we're looking at is a bar graph and the text refers to a table in the PHAC report, but what's in front of us is labelled Figure 1 and it's a bar graph, not a table. So, I think it's just a difference to some other document which is the PHAC report versus what's in front of us.

THE WITNESS: I think it might be more helpful to look at Table 2 in the Affidavit that I prepared because that's actually data from Toronto and I understand that your client operates a restaurant in Toronto.

BY MR. SWINWOOD:

58. Q. Well, no, I'm talking to you about a Public Health -- yeah, I'm talking to you about a Public Health Agency of Canada report and this table that I have in front of you indicates that,

> "Fewer than 2 percent of Covid-19 cases and fewer than one 1 out of 4000 Covid-19 deaths could be attributed to transmission from a restaurant or a pub."

And then these are the figures that illustrate this data.

A. Okay.

59. Q. So, do you agree with this outline?

A. It's not something to agree with or disagree with. It's a report from a public health agency. I think the practical issue for public health practice and if we wish to return to Paragraph 7 is that limiting restaurants to take out operations contributes to reducing Covid-19 transmission and harms. So, if roughly 15,000 Canadians are dead and we attribute 2 percent of those deaths to restaurants, that's 300 people who'd still be alive.

60. Q. Well, it's a -- I'm sorry?

A. So, I think that restaurants and transmission -- sorry, restaurants account for only 2 percent of transmission is not a matter of dispute, it's a matter of degree for the courts and others to determine are the measures commensurate with the risk?

61. Q. When we deal with going over to Figure 2, if you could go to Figure 2, please and this is case fatality. I'm looking at case fatality percentage. Well, we'll deal with percentage of total deaths right here and the percentage of total deaths the graph doesn't even show anything in terms of restaurants. Health care, corrections and long term care take up most of the percentage of total deaths. Do you agree with

that, sir?

A. In the Canadian context the fact that most people died in long term care is going to make these data challenging to interpret. So, again, this is not a fact for dispute. I think the question is what is the relevance to the matter at hand and I believe -- I would say I would assert as an expert that the goal of Covid-19 risk reduction has been to reduce transmission. So, if you were to go to a restaurant and then go to a long term care person -- sorry, visit somebody in long term care, there's two ways to reduce the chances you give Covid to somebody in long term care; one is to stop you visiting long term care, the other is to close restaurants. Let's imagine that you were infected with Covid in a restaurant. So, we don't take individual measures, we think of them as a bundle or a package with the overall goal of reducing transmission so that we don't blow up the health system and so that needless mortality is minimized or reduced.

62. Q. Well, in case fatality percentage on the next graph, if we go to the next graph, Carly if you've got -- yeah, case fatality percentage. It would indicate that,

"Fewer than 1 out of 4000 Covid-19 deaths can be attributed to exposure in a restaurant and the

explanation for the difference between Figures 1 and 2 are related to the much different mortality by age. It's not so much the venue that is responsible, rather it is the age distribution of the people in a venue.

Do you agree with that?

A. I'm sorry, I don't understand what you're asking me to agree to. People in long term care are generally older on average than people who attend restaurants, but those who die as a result of an infection in a restaurant are no more or less valued than those who die as a result of an infection in long term care. So, if you're suggesting that elderly people are expendable, I would respectfully disagree.

63. Q. Well, I wouldn't be suggesting that, sir. That would be preposterous.

A. It might not be in your self-interest, but I'm not sure about that.

64. Q. Well, I wouldn't be suggesting that, that elderly people are expendable. That's ---

A. Because many of the people perhaps including your expert who focused on case fatality rate have made this point about the age distribution and so ---

65. Q. Yes.

A. --- I can't speak to whether your expert is

of the view that the elderly are expendable or not, but the case fatality rate is not the framework that -- is not the only piece of a framework for thinking about what are a reasonable set of public health measures?

66. Q. No, but it would tend to indicate to you, would it not, that there is a segment of the population that is much more at risk than other segments of the population? Wouldn't that be a fair comment, sir?

A. By segment are you defining that in terms of exposure, venues or age?

67. Q. Let's just deal with age. If we can deal with age first and then we can also deal with venue because we have the graphs for both. What I'm saying to you is that these graphs for instance show a very vulnerable segment of the population, would you not agree?

A. Well, I think that what these graphs show is that we've gathered together people who have elevated risk because of age and elevated risk because of underlying health conditions and they live in what's called long term care or they live or work in long term care. If we were to gather a similar group of people and put them in a restaurant I would propose to you the case fatality rate would be quite different for restaurants, it would be much higher.

68. Q. What was the variant that you introduced to that?

A. I said if we take a group of people of the age of long term care residents with the health conditions of long term care residents and we have them in a restaurant, I submit to you the case fatality rate associated with restaurants would be much higher.

69. Q. The case fatality percentage on this table demonstrates that it's less than 1 out of 700, fewer than 2 percent could be attributed to exposure from a restaurant and fewer than 1 out of 700 would die from Covid-19. Do you agree with what is being said there?

A. I don't disagree with the arithmetic. I'm questioning the validity of this presentation to the sorts of decisions that we were asked to advise on as public health people.

70. Q. I'd like to take you to Paragraph 10 of your Affidavit and we were talking about variants of concern. Now, you make the statement that variants of concern are more transmissible and cause more severe illness and can you expand on that, please and give us the reason for that?

A. I think the reasons are still an area of evolving knowledge. What's clear from biology is that something called a variant of concern we identify it

because it produces a different pattern of illness in the human population and then we go and study the virus sequences and say "a-ha this has this change or that change at this particular amino acid or receptor site." So, the experience was seen in the U.K. initially that all of a sudden instead of one person infecting slightly more than one person, one person was infecting another almost two people. So, the so called reproductive rate was going up. That variant is referred to as the B117. It appeared in Canada and over time as PHO and others have documented, these variant strains have become a larger and larger proportion of all the strains of Covid that are circulating in Canada.

71. Q. Now, you're aware of -- or are you aware of the situation in Florida and Texas as it relates to lockdowns?

A. I have read news reports, yes.

72. Q. It would appear that variants of concern were an increasing percentage of new cases in Florida and Texas, however they have showed increased hospitalizations and then deaths over the time the prevalence of the OC has increased and this is a statement made by Dr. Berdine. Do you agree with that?

A. I would need to see the data to treat it fairly.

73. Q. Well, we're going to come to that in a moment. Dr. Berdine makes comment on your Paragraph 11. You say in Paragraph 11,

> "The number of cases and hospitalizations in Ontario have increased significantly over the past few weeks."

His statement is that,

> "Ontario has seen an increase in cases, hospitalizations and death over the past few weeks because past restrictive policies prevented herd immunity from developing among young and healthy people."

Do you agree with that?

A. No.

74. Q. Why not?

A. Because unless you're going to show me something new, Dr. Berdine has not defined herd immunity in such a way that I can fairly assess it and when we looked at when PHO and others examined data on zero prevalence of antibodies in the pre-vaccination era, the number of Ontarians who had antibodies to Covid-19 was in the single digits and so it's biologically implausible that Ontario was in a position to experience any scientifically valid form of herd immunity.

75. Q. He's making the point that locations such as

Texas and Florida have seen cases, hospitalizations and deaths decline to low values because policies permitted herd immunity from occurring. Do you agree with that?

A. I would need to see the data that he is citing and I then would be able to have an opinion about his opinion.

76. Q. Well, are you aware that hospitalizations and deaths have decreased in Florida and Texas?

A. I'm actually -- to be honest with you, I have not followed the data because it's not particularly relevant to my practice in the Canadian context. The State of Texas and the State of Florida have very different healthcare systems and so as we mentioned at the outset one of the goals, if not the major goal, of Ontario's public health response to Covid-19 was to prevent our acute care health system from being overwhelmed and our acute care health system is profoundly different from those in the States you cite.

77. Q. But from the perspective of protocols such as lockdowns, social distancing, masking, et cetera, would not States that are doing something different from Ontario serve as a reference point in order to bring about proper planning in this crisis?

A. Well, I would say yes and because the Country of New Zealand has been very successful with a

series of measures that limiting the harms caused by Covid and what we could learn from the New Zealand experience is that it's much, much better to be an island than to be adjoined to the country that you mentioned, the United States of America. So, while that may be true, it's not practice relevant. Canada cannot become an island, we're not New Zealand, so with all due respect to your expert and his expertise, what's going on in Texas and Florida for many months was actually seen as a cautionary tale for us in Canada because given how few hospital beds we have in the country and particularly in Ontario if we were to countenance this march to herd immunity that some experts have proposed it could be catastrophic in terms of the effect on the health system.

78. Q. And catastrophic on what basis?

A. Catastrophic based on the percentage of people with Covid-19 who require hospitalization and information that's certainly a significant part of decision making about the people at highest risk in the Province of Ontario in terms of neighbourhoods, characteristics of their homes or work. Those are the sorts of features that really drive public health decision making rather than these broad comparisons to other jurisdictions.

79. Q. Do you give any merit to the comparison in other jurisdictions that are apparently suffering the same pandemic?

A. If they have a similar structure of their society policy framework and health system and that's where I think the other Canadian provinces are probably the more appropriate comparators.

80. Q. Paragraph 15 of your Affidavit, Dr. Hodge you state,

> "Younger Canadians experienced higher rates of excess mortality corresponding to high rates of infection among younger people."

It would appear from Dr. Berdine's perspective that younger people in the United States have been doing the predictable consequences of lockdowns on deaths of despair including suicides and drug overdoses. Do you think that this factors into the statement that you've made about excess mortality?

A. So, the point you are referring to is related to Covid-19 related deaths. So, these are deaths where Covid-19 was the cause of death. Many jurisdictions in the United States and in Canada have identified concerns about mortality from non-Covid causes as a result of the Covid related measures. I think the extent of that is going to vary by each place

and what's -- the statement here is simply that as infection in so called wave two and three was more among younger people, more younger people died from Covid than had been the case when infection was primarily among the older people.

81. Q. Dr. Berdine says that,

"Officials from the CDC are constantly warning about Covid deaths, yet according to the CDC's own data there was nothing unusual about this past winter. There are more deaths each winter due to respiratory viruses and there had been no excess of deaths from respiratory causes except during April of 2020. Total deaths are currently below normal, yet the CDC is nonstop fear mongering about stepping outside without a mask."

Do you take issue with this concept of no excess deaths from respiratory causes except during April of 2020?

A. I have no opinion on the CDC's reporting or Dr. Berdine's opinion. I'm focusing on what Statistics Canada said happened in Canada.

82. Q. Again, do you find that there is any usefulness in making comparisons to the CDC and what the CDC has to say in what's happening in Canada?

A. With respect to the number of deaths from

Covid, no. I'd focus you back on Paragraph 15 and the reference there cited.

83. Q. Okay. Now, I'd like to take you to Paragraph 18 of your Affidavit. Here you're talking about asymptomatic people and you're of the view that asymptomatic people can infect others. Is that correct?

A. So, this is actually a statement about transmission risk. So, some persons are asymptomatic and subsequently become pre-symptomatic because they develop symptoms and we can say when we thought they were asymptomatic they were in fact pre-symptomatic. So, the timing here is critical to the organization of the point. What's quite clear ---

84. Q. Well, it's ---

A. Go ahead.

85. Q. No, I'm sorry, you go ahead.

A. No, what's quite clear is that transmission risk from a person with Covid to other people seems to be highest just prior to when a so called indexed person develops symptoms.

86. Q. Dr. Berdine says "there are no reported transmissions from asymptomatic cases." Would you agree with that?

A. It all depends on timing, sir. So, you can be asymptomatic from time zero until time infinity, but

a substantial number of people that are called asymptomatic are in fact pre-symptomatic because at some future moment they will develop symptoms and then we will look back and say ah, they were not asymptomatic, they were pre-symptomatic.

87. Q. Of course which is splitting hairs, right? Because an asymptomatic person is someone who does not have symptoms and is therefore not ill. Is that a fair statement?

A. It's not at all splitting hairs. It's a critically important logical error that some people seem to have made when they state that there is no reported transmission.

88. Q. Dr. Berdine uses in his Reply, Footnote 5 can you bring that up, please Carly? Footnote 5. It would be at the end of the document. You'd have to click on it, it's a hyperlink I think, Carly. There.

MS. BENJAMIN: Did you want me to screen share the document?

MR. SWINWOOD: The footnote, yes, please. Actually what I'd like to do right now is I'd like to take a five minute break because the power has come back on where I am and I'd like to rejig myself onto a computer. Is that okay?

MR. RYAN: It's fine with me.

(SHORT RECESS)

BY MR. SWINWOOD:

89. Q. Dr. Hodge, one thing is that -- sorry, I'm having some technical difficulties here, but maybe I'll overcome them. You, yourself, you rely on other reports in your own Affidavit. You rely on some American studies; for instance in Footnote 15 it's National Academy of Sciences of the United States of America, you rely on that?

A. That's a journal that happens to be published in the United States, yes.

90. Q. Yes and you rely on a United Kingdom study in Exhibit J?

A. So, Science is a journal of the American Association of the Advancement of Science. These are scientific journals, both those references.

91. Q. Right, but you'll agree with me that you're going to avail yourself of any sources that you feel is going to be helpful to the science that you're dealing with. Is that a fair statement?

A. Yeah, in fact during the break I wanted to try to provide a better response to your point about Dr. Berdine and so I looked at May 11th which was the date when we prepared the material in Table 1 in my Affidavit. At that time Ontario had 8,000 deaths,

Ontario has approximately 14.5 million people and on that date the State of Texas had 49,651 deaths in a population twice as large. Six times more deaths, twice as many people and I think that probably summarizes my reticence about engaging in hypotheticals regarding your expert witness' perspectives.

92. Q. Well, he's not engaging in hypotheticals, he's engaging in his science that he's looking at.

A. Well, you told me he believed that deaths had gone down, but that's perhaps because they've already killed three times more people and I am of the view as a public health physician that it would be incompetent for me to have recommended measures that tripled the death rate on a population basis.

93. Q. The death rate that you're talking about in relation to the situation in Texas has to do with the concept that there were no lockdowns?

A. Right. So, my point would be if I understood your line of inquiry, you, I believe said, that Dr. Berdine was of the view that lockdowns were not effective in preventing deaths. Lockdowns and restaurant closures, which is the matter at hand in this proceeding, were part of a bundle of measures implemented by the Government of Ontario and if we had applied the death rate in Texas to the population of

Ontario we would have three times as many people dead. We'd have 16,000 more people dead and I, as a public health professional, do not feel that it would be appropriate for me to have recommended measures that killed 16,000 additional people.

94. Q. I doubt that that's the point that is being made in relation to the number of deaths and the number of people who are affected ---

A. But I think this does highlight the difference between these two jurisdictions and why I hope you can appreciate my relative lack of interest in the State of Texas as a model for the Province of Ontario.

95. Q. In Paragraph 25 of your Affidavit you state that,

> "From an epidemiological perspective, restaurants pose a distinct transmission risk as gathering spaces and work places."

What I would like to know is that how would you quantify that statement based on science?

A. Well, I think maybe I can start by making sure we're clear on what I'm referring to. So, restaurants are workplaces and there can be transmission among employees in the same way as can happen in a factory or a hospital or a law office. Restaurants are

also gathering spaces and the act of gathering can infect patrons and staff. So, when you say science, do we accept that basic foundation?

96. Q. Well, the foundation actually that we might want to look at is the low percentage of transmission as evidenced in those tables that I showed you.

A. I would actually frame it differently. In Ontario there is a legal obligation for employers to provide a safe workplace and so in Table 2 we looked at data from Public Health Ontario reporting on the number of outbreaks in bars, nightclubs and restaurants and as you can see from the three rows the rate of outbreaks per 100 days varies as the restaurants are more or less open. The average number of cases which public health practice tells us is significantly lower than the total number because we have no way of knowing all of the people who may have been exposed shows a similar pattern. So, there is a workplace obligation under the law in Ontario to protect employees from health hazards at work and that would include Covid-19 infection.

97. Q. You use the word “cases”. What do you mean by that? What do you mean when you say “cases”? What does that mean?

A. A human who has a positive Covid-19 test.

98. Q. And a human who has a positive Covid-19 test

I've heard experts say that it was unwise to use the word PCR and test in the same sentence. Do you understand what's meant there?

A. I'm afraid that's out of my area of expertise. That's not within the scope of my expertise.

99. Q. Well, when you say "cases" and you say test, Covid test, what's the test?

A. The test in Ontario is generally a PCR test.

100. Q. So, do you know what a PCR test is?

A. Yes, I do.

101. Q. Okay. What is it?

A. It's a test for Covid.

102. Q. No, I know, but what does PCR mean?

A. Polymerase Chain Reaction.

103. Q. Do you know what the PCR test cycles are set at in Ontario?

A. They vary because the laboratories have different approaches depending on what the context is for the testing. -- questions that are more appropriately directed to laboratory expertise.

104. Q. Well, you don't know anything about the cycles that are set in Ontario for PCR tests?

A. I didn't say that I don't know anything, I said it's not my area of expertise.

105. Q. Well, do you know what they're set at?

A. I also said that it varies depending on the testing context.

106. Q. Okay. Do you know the variants?

A. Variants? I don't understand. Do you mean the range?

107. Q. Yes.

A. It could be as low as 20, it could be as high as 40.

108. Q. Are there any PCR tests in Ontario that are as low as 20 in cycles?

A. I think you'd have to direct that question to the laboratory.

109. Q. Are you aware that there's quite a controversy over PCR tests and the cycles that they're set at and their ability to demonstrate something positive or negative?

A. I'm aware of vigorous discussion among people who also have identified controversies about other matters of which I am not expert. So, I'm declining ---

110. Q. You've not thought to look into it?

A. That's not what I said.

111. Q. Well, have you looked into it?

A. I have and I noticed a correlation between those who deny the existence of Covid, deny the

existence of a pandemic, in some cases deny the existence of patients in hospital and who take issue with PCR tests and so given my limited cognitive capabilities as a public health physician I try to work with the settled science and the PCR is an acceptable settled science test for Covid infection.

112. Q. Would you agree with me that there is quite a bit of controversy in relation to the statement that you just made that PCR tests are a valid scientific measurement of the existence of Covid?

A. I do not agree with you there.

113. Q. Are you aware of scientific controversy in relation to PCR testing?

A. You'd need to define scientific controversy for me.

114. Q. Well, number one it has been suggested that anything that is set at a cycle of between 35 and 38 is going to result in many, many false positives; as high as 96 percent.

A. As I said, it's not my area of expertise, but perhaps I can help reframe our conversation by inviting you to go to a hospital full of Covid patients; they're definitely not false positives, they're people fighting for their lives.

115. Q. I'm not engaged here, sir, in a discussion

about people who are dying and sick. I'm not suggesting that. What I'm saying to you is this: that when you use the word "cases" is it directly tied to the concept of PCR testing?

A. I think you know the answer to that, yes. The case definition is that one has a positive test result.

116. Q. All right and that within this concept of false positives, there's a high percentage who do not have Covid whatsoever, but test positive. Do they become a case?

A. I cannot pursue this line of questioning because I don't have access to the information you are citing when you say a high rate of false positives. The word high has no scientific meaning, except perhaps with the relation to the use of marijuana.

117. Q. Severe and high and those kinds of terminologies have to be eliminated, is that correct?

A. I want to try and help you understand the public health perspective. In no small measure because it's been really hard to figure out a perfect test for Covid-19 and because many people may become infected and may have mild symptoms, one way of understanding Ontario's journey over the last 15, 16 months has been when the healthcare system hits a wall because there are

no beds for anybody and we have people who are sick who need a bed, we take measures that seem to be associated with a subsequent reducing of the burden of hospitalizations. So, somebody who's in hospital we can split hairs about their Covid-19 test, but if they're on a ventilator and they have a positive Covid-19 test and they don't have any other organism causing that infection, I think most people would call them a Covid-19 case.

118. Q. Well, I guess that's the interesting part about the whole idea of whether we call something a Covid-19 case or not. You've indicated that over the course of time here that you've dealt with many, many Covid patients, is that correct?

A. Mm'hmm.

119. Q. Yes? And in that you've done it as an emergency room doctor?

A. Yes.

120. Q. In treating such patients do you ever take samples from them to determine the existence of the virus?

A. Samples are taken. I may not be the individual who does the sampling, but the typical workup for a person who's sick enough to require admission to hospital would involve a Covid-19 test if they haven't

previously tested positive and tests for alternative diagnoses.

121. Q. But is that just a PCR test that's conducted then?

A. The tests for alternative diagnoses are a range of tests.

122. Q. And what would those range of tests be like?

A. Blood cultures most commonly, sputum cultures in some cases, pleural fluid cultures.

123. Q. Would those be undertaken by you when you're treating a Covid-19 person?

A. It depends. I mean, again, I would typically order a blood culture if a patient presented with a fever and was sick enough to require admission to hospital. The actual sample procurement is done by a nurse or a laboratory technician. The culture work is done by a laboratory medicine physician.

124. Q. I just -- I'm curious to know given that you are dealing in a situation where you're advising public health and you're also treating Covid patients why you wouldn't be interested in this concept of the efficiency of a PCR test. You don't seem to think that that's an important point for you to look at because you're saying it's not your field of expertise?

A. No, I think you were asking me specific

questions about cycle time in Ontario and I don't have that information. The point I was attempting to make is that Ontario's response to Covid has been in no small part driven by a stated desire to not blow up our health system so that it's available for all Ontarians, whether they have a heart attack or a broken leg and we could spend an infinite amount of time reviewing the vigorous discussions and conspiracy theories and science about PCR, but I would propose we side step that because if we have a plan that's grounded in we increase the measures when our hospitalizations are going up that might be a way for us to at least explore some of the other perhaps relevant matters in the Affidavit.

125. Q. I'm just curious to know because this is the area that you were practicing. This is the area where you were advising and it seems passing strange that in an area where there is controversy you have used the word conspiracy, I would use the word controversy and where there's a controversy surrounding the testing it would seem that this would be a very important point for you to investigate, do you not think?

A. I think that perhaps your experience of controversy is different from mine. If I work an Emergency Department shift and I see 20 patients and 10 of them are sick with Covid and require admission to

hospital which was unfortunately where we were in the late spring, all of those people have a positive Covid PCR test. There may be some other people out there who have a false positive Covid test, but I hope you can appreciate the logic that if it's false positive they're not sick and so it's not going to receive a lot of attention. What I'm focusing on is, as an emergency physician, can I do what I can to help save this patient's life? And in my public health role, can we as a society take measures so that the healthcare system doesn't implode which would have the effect of women dying during child birth because they couldn't receive a safe delivery and people having heart attacks and dying at the hospital steps because there's no space in the Cath Lab. I think we saw that in other jurisdictions and that was a sobering experience that Ontario wished to avoid.

126. Q. Have you read Dr. Mark Trotsy's Affidavit in these proceedings?

A. I have.

127. Q. He's diametrically opposed to what you just said. He suggests that in his 25 years as an Emergency Room physician and most particularly during this Covid crisis that the hospital was empty and he rarely saw any Covid patients.

A. He's certainly a very fortunate physician.

128. Q. Well, it doesn't square with what you're saying though in terms of overwhelming of hospitals. He was working for three hospitals in the Emergency Department and he didn't see one Covid patient.

A. Where did he work?

129. Q. Well, it's in his Affidavit. We want to go back and look at it, but, you know, it doesn't matter, he worked for three rural hospitals. I believe there was one in Ottawa.

A. If you wish to go there I'm available for you this afternoon. I would point out that Public Health Ontario, the Government of Ontario, the medical officers of health in Toronto and Peel have all spoken about the degree to which Covid is not an equal burden for people in Ontario and I happen to work in a community that was very highly affected.

130. Q. Well and Dr. Trotsy's not the only person who has made statements regarding empty hospitals. There are Canadian physicians who have made these statements that the hospitals are not overwhelmed ---

A. Well, except for the no visitors rule, I'd be happy to give them a tour of our place, but as I said if you wish to go there, let's turn to that Affidavit.

131. Q. Well, sure, and then you would go for a tour

of the places that are empty, that would be -- like, you'd do the same?

A. Well, it might be helpful for you if we could have a shared view of empty. So, I believe that Dr. Trotsy was referring to beds that were unoccupied in his Affidavit. I would wish to give him the benefit of professional courtesy that that's what he meant. Every hospital has unoccupied beds because there's no one to staff them.

132. Q. Well, what he actually specifically said in one part is that in a 14 hour period there was nothing to do.

A. Well, and that's because the public heeded the direction of government. If you think back to the first phase in March of 2020 the pertinent information that we had; the visuals, the data were driven by the Italian experience and the New York City experience and there are, to me as a physician, horrific pictures of people literally getting trampled to death outside hospitals in New York City. So, in Ontario a series of public health measures were put in place which included the cancellation of non-urgent care, elective surgeries and the public understood that we needed to have the hospitals available in case we became New York City or Italy. We were fortunate in Ontario that that didn't

happen and it didn't happen in large part because people adhered to the measures. Subsequently in later waves of Covid some communities, including Scarborough where I work, was much more heavily affected. So, Dr. Trotsy may be right about the places where he worked, but I think unless you wish to disagree with the data on the transfers of patients from Scarborough and other highly affected communities that the most recent era has been different.

133. Q. I'd like to move over to -- did you have occasion to read Dr. Bridle's Response?

A. Yes. Could you put it up on the screen so we can follow it along, please?

134. Q. Yes. So, if we could have Dr. Bridle's Reply Affidavit? Go to Page 14, please, Carly. On Page 14 -- oh, I'm sorry, make it Page 11. I'm sorry, Page 11. When you, Dr. Hodge, are talking about the patients that you dealt with, you use the terminology in Paragraph 1 that "your work includes caring for dozens if not hundreds of people" and that's quite a variance, dozens and hundreds. Can you qualify how many people you've dealt with in the last 16 months with Covid?

A. I don't keep those records, they belong to the hospital.

135. Q. I'm sorry, I didn't hear that.

A. I don't keep patient level records, they belong to the hospital.

136. Q. Would you have any idea yourself how many Covid patients you treated?

A. Well, that's why the range here is relatively broad. It's certainly dozens, it might be a few hundred. I don't know.

137. Q. Well that's ---

A. It's not something ---

138. Q. Dozens and a few hundred are quite a big difference. You'll agree with me on that?

A. Well, no, nine dozen is 108, so, dozens would be perhaps 100 to 200. If you tell me it's 300 I wouldn't be surprised.

139. Q. No, I'm asking you to tell me. Can you give me a guesstimate? Are you saying 300 in 16 months?

A. I'm not in the guessing game, sir. I don't keep individual patient records because those records belong to the hospital.

140. Q. So, we'll just have to stick between dozens to 100. Correct?

A. I stand by my statement in the Affidavit.

141. Q. When a person presents in the hospital with Covid-19 how is that determined by you as the attending physician?

A. So, it's going to depend. When you say they present with Covid-19, people don't present saying I have Covid-19, they generally present saying I have a symptom; I have a cough, I have a fever, I'm short of breath, if they're brought by ambulance because their family was concerned they can't breathe.

142. Q. Right and then -- and so they present with these symptoms, how do you determine that they have Covid-19?

A. Well, I can check in records and see if they've had a recent test. Sometimes they're well enough to tell me that they had a positive test a day or so ago. Sometime they'll say people at work have been sick with Covid, people at home have been sick with Covid. Some patients we have no information. Patients without a recent positive test would likely receive one if they're going to be admitted to the hospital or if they request one and they're well enough to be discharged.

143. Q. In this report by Dr. Bridle on Page 11 and 12 he goes into a dissertation on the PCR test and the cycles. Do you see that here? Page 11 and Page 12 -- go over to Page 12, please, Carly and you'll see the cycles that we were talking about earlier and again it would be your evidence that you don't know anything

really about the PCR test and the cycles in Ontario?

A. I'm not familiar enough with the details to claim expertise. Can we go back to Page 11 for a second, please?

144. Q. Sure.

A. I think that I'd just like to make it clear that Dr. Bridle and I are actually in agreement that in the lower part of his Section 1 Page 2 he notes that "confirmation by a physician on the presence of signs or symptoms indicative of Covid-19." That's exactly what I just described to you. That's what I'm doing when I'm working as an emergency physician. So, it sounds like we have agreement there.

145. Q. Well, yeah, but yet the only thing we don't have any kind of *ad idem* on is the idea that the PCR test is faulty ---

A. But if I understand your expert's point, he says,

> "A positive PCR test plus confirmation by a physician of the presence of signs or symptoms indicative of Covid-19"

That's what gets you into a hospital bed. There's enough of those people in hospital beds that Ontario's health system was in danger of being overwhelmed unless you are disagreeing with your expert's assertion that

that would represent a legitimate SARS-CoV-2 infection.

146. Q. In one statement he makes at the bottom of Page 13 is ---

A. Just to confirm, you're agreeing with me then, are you?

147. Q. No, I'm not agreeing with you.

A. Oh, you just don't wish to pursue this line of questioning any further?

148. Q. No, I'm pursuing it.

A. I see, but we're moving on so I just wanted to return back -- you had started at Page 11 and I felt it was important to make it clear that your expert and I appear to be on the same page in regard to my hospital based practice.

149. Q. Well, it appears that he's putting into question deeply the concept of the PCR test and again, this is something that really doesn't seem to have an impact on you in relation to advising, in relation to you treating. From your perspective then the PCR test really has nothing to do with anything, it's just the symptoms is what you're telling me so that the person --

-

A. I wanted to make sure that I had not created a misunderstanding for you. So, your expert identifies that the combination of a positive test result and a

physician assessment with symptoms consistent with the human infection by that virus would be I think, without putting words in your expert's mouth, being reproach and I just want to make clear that that's the basis of how people end up admitted to hospital. We don't admit random people and test them with a test that doesn't work.

150. Q. Well, he does say at the bottom of Page 13, "It was even concluded in a study by La Scola, B et al. concluded that patients testing positive with CT values above 33-34 could likely be discharged from hospitals."

A. So, I think in order to assess that in regard to Ontario I would return to the point that's made and has not been a matter of dispute that Ontario has the fewest number of hospital beds in the OECD among all of our comparators, so called developed economies. So, the idea that we were admitting patients to hospital who could be discharged I think is difficult to support. Certainly if you or your experts wish to provide a breakdown of CT values for hospitalized and non-hospitalized patients I'd be happy to review it.

151. Q. One of the issues that he identifies is your statement in Paragraph 7 that talked about the need to make decisions with imperfect information and is it

possible that what you meant by imperfect information is the beginning of the crisis and would you say that the imperfect information continues to this day?

A. Absolutely.

152. Q. Would you not agree with me that there's much more data from which you could make more specific conclusions over the course of the 16 months?

A. I would wish that were so. I was talking with a colleague from Toronto just last week about the fact that when they call up somebody who tests positive and has symptoms and asked them where did you go, who might you have exposed, where might you have become infected, people are unable or unwilling to provide complete information. So, we're still working in an environment with lots of incomplete and imperfect information.

153. Q. There is a tremendous amount of data that's been generated over the last 16 months, would you not agree?

A. Thousands of papers, yes, but it's not clear their application to the sorts of decisions that we're asked to provide advice to government about.

154. Q. Well, is it possible to be in a situation now to develop epidemiological studies and scientific facts to present to the public in relation to where this

is at today? Not talking about overwhelming hospitals now, I'm just talking about the data in relation to the pandemic so called to outline to the public what the situation is as it presents now.

A. I'm sorry, I don't follow -- was there a question in there?

155. Q. Yeah.

A. Could you repeat it, please?

156. Q. Is there not enough data now to make presentations to the public so that they can understand better what the situation is today?

A. There are publically available data which the public is certainly able to access and has been able to access since the beginning of the pandemic. I think if you take for example the Public Health Ontario Covid Data Tool, the amount of information that's available there has grown over time both in terms of breadth and depth so in that sense absolutely there's more information available to the public.

157. Q. So, in Paragraph 8 you make the statement "Covid-19 is a deadly infectious disease." How would you quantify that? How would you say to the public here's why I say it's a deadly infectious disease?

A. I would say that I would turn to the Statistics Canada reference and point out that if, as a

society, we had two full planes flying from Montreal to Toronto and crashing every week with no survivors, we would probably as a society wish to take steps to bring an end to that and that represents the death increment attributed to Covid-19.

158. Q. So, and that's based on modelling?

A. That's based on Statistics Canada reporting and that is at -- let me just find you the Exhibit. Exhibit N for Norman, Reference 10.

159. Q. Yes, but my question to you is, is that based on modelling?

A. It's based on reporting from the provincial and territorial jurisdictions and then comparing to seasonal and age adjusted death rates from the previous year. So, I think that it would be not so much thought of as modelling as statistical analysis in the comparison sense.

160. Q. Well, one of the things that he says and I'll go to Page 15. Go to Page 15, please of Dr. Bridle. He states that,

"Infection fatality rate or IFR is a way to assess how dangerous a pathogen is. It is calculated based on the number of people that die from among the total number that were infected. Early in the declared Covid pandemic

it was estimated that IFR for SARS-CoV-2 was tenfold higher than for a serious outbreak of an influenza virus or less than 1 percent. Indeed the IFR for a bad flu season can be as high as 0.1 percent."

Do you agree with that?

A. I mean this is arithmetic so I don't disagree. I think that your expert and I may have different perspectives because one of the beauties of being an academic is you don't have to practice and in practice the infection fatality rate is often not very useful because we can't know the number of people who are infected and I believe the subsequent paragraphs go into that.

161. Q. Well, he does say,

"This is due to the phenomena such as the large number of people that were infected, but did not realize it because they never became ill. As a result the actual IFR for SARS-CoV-2 has been steadily declining."

Do you agree with that?

A. We don't know.

162. Q. Well, he is quoting a study and it's Footnote 24. He says,

"Remarkably as the data regarding total

infections has become more accurate the IFR for SARS-Cov-2 has dropped to only 0.15 percent. It is likely that this IFR will drop even further as the extent of unnoticed infections is further elucidated."

Do you agree with that?

A. Again, you're asking me to agree to arithmetic. I'm happy to agree with arithmetic, sir. If you increase the denominator and you don't increase the numerator the fraction goes lower, the percentage goes lower.

163. Q. Well, this suggests -- this is what he says, "This suggests that the denominator for determining the two IFR is likely substantially higher than previously appreciated which would mean the IFR is less than 0.15 percent."

A. And that is precisely why the IFR is generally not used in practice settings.

164. Q. It goes on to say, "Further this IFR includes the high risk, frail, elderly and immunocompromised. For Canadians who are outside of these high risk demographics the IFR would be much less than 0.15 percent."

Do you agree with that, sir?

A. I feel I'm repeating myself. If we increase

the denominator the IFR would go down. We don't know what the denominator is and that's why this is generally of academic interest rather than practice or policy interest.

165. Q. In Page 16 Dr. Bridle says,

"As of April 1, 2020 the population of Ontario was 14,745,040 and as seen in Figure 3A there have been two complete waves of reported cases of Covid-19 as of writing and the third wave is declining."

And then he states,

"Unfortunately Ontario has refused to document the severity of cases which can potentially range from asymptomatic to mild to moderate to severe, but non-lethal to severe and lethal."

Are you aware that Ontario has not documented the severity of cases?

A. I'm not sure what's meant by Ontario. There's information available about severity, whether it meets the categories that your expert wishes, I can't comment. A simple proxy for severity is death, hospitalized, not hospitalized.

166. Q. Right. He says that on Page 19,

"Remarkably only four Ontarians under the age of 20 have had their deaths attributed to Covid-19

over the past 16 months. Among all Ontarians under the age of 60 only 490 have had their deaths attributed to Covid-19 in the past 16 months and this includes people who had predisposing medical conditions."

Do you agree with those figures?

A. I would just have to verify them with the Public Health Ontario data. There's clearly an age associated increasing risk of death.

167. Q. In the age group over 60?

A. Well, he's got three age groups here implicitly; under 20, 20 to 60 and over 60 and I think your expert and I would agree that the death rate increases with increasing age.

168. Q. Well, let's go over to Page 17 and we have Covid-19 case and mortality data for Ontario; a) is the graph shows the number of daily cases of Covid-19 in Ontario and he says that the definition of a case is controversial due to issues related to how these are defined and then b) the number of daily deaths attributed to Covid-19 in Ontario and this was data downloaded on May 11th, 2021 from Covid-19 Dashboard which is curated by Covid-19 Canada Open Data Working Group from the University of Toronto. Do you see those two graphs, sir?

A. I do.

169. Q. Do you agree with what is being said there in terms of the cases?

A. You mean do I agree with the numbers that are highlighted?

170. Q. Correct.

A. I have no reason to doubt that your expert is faking the data. The data source is a legitimate data source. I assume he can make a graph.

171. Q. Okay. Let's go over to Page 18.

A. Can I just ask a clarifying question? Could you remind me of the qualifications of the expert?

172. Q. Oh, well we'd have to go back to his CV.

A. Yeah, could we just take a moment for that because I think it might be helpful to acknowledge that there are different ways of looking at the same data and I'm just not remembering what it is that his, I'm sure highly esteemed, qualifications are.

173. Q. You can have a look at it when we take a break.

A. Well, let's go back to Page 17 then because I think I want to understand this a little better.

174. Q. Okay. So, Graph A ---

A. From an epidemiologic perspective the number of peak deaths is an almost meaningless statistic. It's

certainly downloadable from the Covid Canada Open Data Working Group website, but the deaths lag the hospitalizations and they lag the cases and they're not -- the data here do not appear to be adjusted for age. So, from my perspective given the expertise that I bring if someone brought this to me I would say nice work, now go back and correct it.

175. Q. Correct it how?

A. Adjust it for age.

176. Q. Well, we'll get to that. We're going to come to that I'm going to say. Let's go over to the next page on 18. This is counts and rates of deaths among cumulative Covid-19 cases by age. So, we see here the breakdown by age. Do you see that graph, sir?

A. Yes.

177. Q. And it does what you just asked.

A. Well, no, perhaps I don't -- I don't mean to sound insulting maybe I should provide some more exposition. Age adjustment means calculating a rate based on the population that's at risk for death and so death counting is the top part of the appropriate epidemiologic indicator, population counting is the denominator that's not presented in this information.

178. Q. Well, what he basically says is that, "SARS-CoV-2 is not demonstrated novel or

unprecedented population dynamics. From an immunological perspective the data in Figures 1 and 2 are indicative of infectious agents that has been running a typical course in the population. Its harm is decreasing over time and mortality data for Ontarians under the age of 60 demands that a proper risk benefit analysis be performed to place the high cost of pandemic associated public health policies into a proper context."

Is that a fair statement to be made, sir?

A. I think that the risk-benefit analysis is the province of the democratically elected officials.

179. Q. And not those who were advising the government in relation to the protocols and lockdowns that should be taken in order to deal with this?

A. Alas, I do not move in those circles so I can't tell you what was or was not said. I think that as a general principle we as citizens expect our governments to engage in risk-benefit analysis and to ideally consider tradeoffs in ways that are not about any one specific source of advice or sector.

180. Q. Now, is it fair to say that within the situation that you're describing in your hospital that because of Covid-19, chronic fatal diseases; cancers,

heart disease, et cetera get neglected when resources are diverted to Covid-19?

A. I would defer to the science table. The Covid-19 science table has presented information on this which is a more complete discussion of those issues.

181. Q. His statement here is at Page 18 he concludes "revising or revoking lockdown policies could result in a net saving of lives in Ontario." Do you agree with that?

A. I think I would defer to Statistics Canada which has shown that we've got a pretty deep hole of lives that Covid caused and if we go back to our Texas example, if we'd done as Texas we would have had three times as many excess deaths. So, I would respectfully disagree.

182. Q. "Statistics from the Public Health Agency of Canada highlighted settings that had been associated with severe Covid-19 as measured by deaths. Based on these date the high and low risk settings for acquisition of lethal Covid-19 have been obvious."

Do you agree with that, sir?

A. Can we go to those data then if you're asking me to agree to them, please?

183. Q. Yeah, sure. That would be in Footnote 29

and that would be -- so that's Canada Covid-19 Weekly Epidemiology Report 14th of March to the 20th of March, 2021 from the Public Health Agency of Canada. So, that's 29. Are we able to look at that, Carly?

MS. BENJAMIN: There's no hyperlink so let me just look for the actual document.

BY MR. SWINWOOD:

184. Q. Well, let me just say that this is a conclusion that comes from that document, Dr. Hodge.

A. Perhaps we could go back to the language you're asking me to agree with just so I could refresh my memory then?

185. Q. Sure, I'll just bring you to this because this is the point I wish to make. This is a statement that Dr. Bridle makes,

> "As expected, based on their enrichment for high risk demographics i.e. the frail, elderly, immunosuppressed and others with pre-existing complicated medical conditions, 97 percent of the total deaths attributed to Covid-19 were associated with long term care and healthcare facilities as of March 20th, 2021."

That's the conclusion from the public health agency. Would you agree with that?

A. So, I'm not going to disagree with the 97

percent. I want to make the point though that Covid has to get into a long term care facility and so part of the thinking around the public health measures was to put in place limits that would reduce the chance of Covid-19 being introduced into settings full of high risk people. The first wave unfortunately was not very successful in that regard, but I think that focusing on where the deaths happened is a bit like closing the door after the horse has left and been turned into glue. The focus of the public health measures has been to reduce transmission and that with respect to long term care is the people who go in and out of the building every day to care for those who live in long term care homes. So, we could spend a lot more time discussing where the deaths happen. The deaths are too late. Public health practice is focused on reducing transmission and that means moving upstream to where the transmission events occur. Those transmission events for people in long term care require the infection to be brought into the facility typically by a staff person or a visitor.

186. Q. The concept here though is that the 97 percent figure identifies a segment of the population that’s most at risk and it has to do not only with age, but it also has to do with venue, correct?

A. So, again, I’m not in the death business.

As a public health physician my role is to give advice or provide expertise about how to prevent death and that means the focus of the public health measures has been reducing transmission. So, I would turn to you and say how do you think those people got their Covid-19? Because if we can agree that it was staff and visitors coming into the facility it would seem appropriate that we turn out focus to how do we prevent infection among staff and visitors because that will prevent deaths among the elderly and the medically compromised.

187. Q. Well, exactly and the concept that we're driving at and I'm driving at here with you is that there's a very identifiable vulnerable place of the population both in age identification and venue. You're suggesting for instance that the transmission is coming from those going into the care to look after them, et cetera, but I would suggest to you that that's just speculation on your part.

A. I would respectfully disagree because otherwise you seem to be -- are you proposing the spontaneous arrival of death in these communities from an infection?

188. Q. Well, I'm not suggesting anything ---

A. The infectious agent ---

189. Q. I'm sorry?

A. The infectious agent -- would you agree the infectious agent has to be introduced into the facility?

190. Q. Well, there's no doubt that it has to be introduced into the facility. The concept here is ---

A. If the residents of the facility don't leave how would you propose it's introduced?

191. Q. Well, it's possible that it's one of those, it's one or the other, but there's no -- we're not going to quibble over that ---

A. Well, we're not quibbling, sir, we're actually trying to establish a logical basis for an exchange here. You're questioning my expertise and I'm trying to ensure that I've adequately explained my expertise to you because if you hold a reasonable belief and I'm not disagreeing with you that this infection magically appeared in these facilities and was not introduced by staff or visitors, I respect your opinion and disagree. If, on the other hand, you do not accept that, I'm asking you do we have a shared agreement that staff or visitors who circulate in the community; go to restaurants, go to parties, go to churches, are the way the infection is introduced into what's effectively a closed community of very vulnerable people.

192. Q. Which would lead you to believe that therefore certain definite measures would have to be

taken in terms of long term care homes which weren't taken.

A. So, you should not be presuming my beliefs. I was trying to establish that we had a shared scientific understanding of the basis for reducing transmission in the community to protect the very people who were at highest risk.

193. Q. Well and the statement made by Dr. Bridle in the next sentence is,

> "In stark contrast locations frequented by people in low risk demographics have been associated with extremely few deaths attributed to Covid-19. For example food drink and retail settings have accounted for only three deaths."

A. So, I would suggest that Dr. Bridle's public health practice experience is no doubt different from my own. If I have Covid-19 and I'm a healthy young person, I'll call myself young, I went to a restaurant with a bunch of friends, somebody had Covid, they gave it to me and then I visit my 87 year old father who lives in long term care and he dies, his death will be attributed to long term care, but the way he got that infection was because I visited him after going to a restaurant with my friends. So, our public health approach distinct from the academic virology approach is to focus on

transmission because that's how we protect those who are most vulnerable by reducing transmission.

194. Q. Well, the concept here though is that what we're talking about is the difference is the long term care home and a restaurant and the statistics are vastly different and what we're actually talking about here is the need for closing down restaurants and I take it that what you're saying is from your perspective these are petri dishes?

A. I didn't say they were petri dishes, I wanted to make clear that the public health science is focused on reducing transmission rather than analyses of where the deaths happen because the death is the event we're seeking to prevent; the death is the failure of the public health measures. So, because people in long term care require the services of staff to take care of them for their activities of daily living, the focus of protecting long term care is two parts. One is reduce transmission if it gets in the building, but ideally prevent transmission by preventing transmission in the community so that workers don't have Covid and bring it in to the building. So, it's not that it's a petri dish, it's just the attribution of deaths to restaurants is actually tangential to the entire thrust of the public health response here.

195. Q. Dr. Bridle makes the point that an average of two to three Canadians have died from lightning strikes in each 12 month period since 2002 and contrast that to the 15 months of the pandemic, three deaths due to Covid-19 have been attributed to the food and drink retail settings and at that same time four Canadians died of lightning strikes. It seems in that 16 month period to be an extremely low place of transmission.

A. Sir, I'm going to have to perhaps go over this again and I apologize if I'm repeating myself. The rationale for measures that limit restaurants is to prevent Covid transmission and in preventing Covid transmission it protects all those vulnerable people who live in long term care, who live in extended multigenerational households. So, if you ask me, do I agree where the deaths happen? I don't disagree, it's not the relevant framework for defining the scientific basis for public health measures because it's transmission reduction that is the goal not counting the deaths.

196. Q. Well, back to this concept of conducting let's say a cost-benefit analysis in relation to the idea of lockdown and the idea of closure. Do you think that that's an important element in the overall undertaking of healthcare as it applies to this sector;

cost-benefit analysis being conducted to determine what's best for the society?

A. I think it's a useful framework. It's not clear to me how we would come to any societal agreement about what are the relevant costs and how to value them. There's a whole bunch of details there, but I think that all of the recommendations of public health officials are typically framed in terms of if this than that and so elected officials then make their decisions based on the advice they receive from public health officials, from advocates for other stakeholders.

197. Q. Dr. Bridle makes a statement that,

> "A failure to conduct proper cost benefit analysis in Canada during the pandemic has inadvertently resulted in greater value being attributed to lives lost due to Covid-19."

Do you agree with that?

A. I'm not privy to whether those cost-benefit analyses have been completed or not. So, I can't ---

198. Q. No, it's not -- I'm not asking you to be privy to that, I'm saying his statement is a failure to conduct cost-benefit analysis.

A. But because I'm not adequately informed as to whether that failure exists, I can't comment on that conclusion.

199. Q. But in providing advice to Public Health Ontario you don't think that that's an important point that should be dealt with?

A. Sorry, who's providing advice to Public Health Ontario?

200. Q. You as a consultant.

A. No, no, my consulting is related to supporting the government in relation to actions like the one initiated by your client. So, if you're ---

201. Q. Supporting actions like what was the initiative ----

A. So, I am retained as a public health expert for the purpose of supporting Public Health Ontario and the government's response to various legal actions.

202. Q. Oh. I got the impression that what you were saying when you said you were a consultant to Public Health Ontario that you were advising them in relation to measures to be undertaken in relation to this pandemic.

A. That's not stated in the Affidavit.

203. Q. So, you're clarifying for me then what your actual -- your actual role then if I understand you correctly is that you're there to assist Public Health Ontario in any legal proceedings that are commenced vis-á-vis this pandemic?

A. At this time, yes.

204. Q. So, you're a specialist then when it comes to any legal challenges to the protocols and lockdowns, et cetera?

A. I think it would be hard to define a specialist in that regard. I'm a public health and preventive medicine physician. I have 20 years of practice experience and public health Ontario asked me to take on this work when my role in regard to their IMS structure came to an end.

205. Q. On Page 21 of Dr. Bridle's report, again, Carly could you put that up, please? At the top of the page he says,

"Conclusion: the IFR for SARS-Cov-2 was vastly overestimated at the beginning of the declared pandemic."

Do you agree with that, sir?

A. Yes.

206. Q. "It's now approaching the range of serious Influenza outbreak, but with severity of disease limited to a more restricted demographic in that it's not particularly dangerous to the very young [is his statement]. An IFR of only 0.15 percent is not suggestive of an infectious disease of pandemic proportions."

Do you agree with that?

A. No.

207. Q. Why not?

A. Because as I may ---

208. Q. I'm sorry, you froze there. I didn't hear your answer.

A. As I've said repeatedly so I'll say it again. The IFR is not a particularly useful measure for practice. If there are no hospital beds in Ontario available it really doesn't matter what the IFR is, the government will presumably feel some compulsion to act to protect the health of its citizens whether from Covid-19 or lightning strikes, more importantly heart attacks, cancer, other health conditions. So, we can have an academic conversation, your expert and I that could go on for years about what the IFR is, there's no way of knowing and its actual value is unlikely to be relevant to decision making that governments have faced in the last six to nine months since really the rise of wave two.

209. Q. Well and Dr. Bridle says that,

"Historically successful public health policy of isolating the relatively few high risk individuals, not the entire population; in fact places like the State of Texas in the U.S.A.

have demonstrated that lifting of Covid-19 associated restrictions can even be done successfully without any non-pharmaceutical interventions."

Do you agree with that?

A. I defer to the tens of thousands of Texans who are dead who would be alive if they'd been in Ontario.

210. Q. Well, the statistics will speak for themselves as you said, but this ---

A. I just want to have it on the Record that the number of deaths in Texas if applied to the Province of Ontario would be a threefold increase with roughly 16,000 additional deaths in addition to the 8,000 people who are already dead and so I'm not going to agree with this statement.

211. Q. Okay. Dr. Bridle says,

"Certainly the evidence suggests that food service establishments have not been a substantial source of severe cases of Covid-19 based on the only three reported deaths associated with it."

Do you agree with that?

A. Dr. Bridle has a very simple model of infectious disease transmission and as a public health

practitioner I need a more complex model. Dr. Bridle's absolutely correct that people who got Covid in a restaurant may not have died from it, but they gave it to family members, they gave it to people they cared for in hospitals and long term care and those people are dead.

212. Q. You told me earlier on that we shouldn't be counting deaths that that's not what we should be doing.

A. No, but that's -- my point is the reason for limits on restaurants is to try to break that transmission chain. So, whether the number of deaths in restaurants is higher or lower than would be acceptable to this or that expert, the focus of public health practice is on the transmission chains and how do we break those in a way that we can prevent deaths down the road and prevent hospitalizations which for Ontario have probably been the main driver of the stringency or lack thereof of public health measures.

213. Q. Well, one big conclusion that he makes here is that,

> "Closing businesses that are not associated with a substantial risk of transmission of severe Covid-19 and causing many of them to go bankrupt seems to be counterproductive."

What do you think of that statement?

A. I would need data on how many of them have gone bankrupt in relation to previous years.

214. Q. Well, let me put it to you this way. It's probably something that you could take notice of that in the 16 month period there are many, many businesses that are failing. Have you observed that?

A. I've observed empty storefronts, but I live in a part of the city with many empty storefronts, so it's not my area of expertise to comment on the failure rate of businesses.

215. Q. You keep saying these things about it's not being your area of expertise and yet you are here as an expert in public health and it seems to me that there are certain things that you're prepared to notice, but other things you're not going to notice and specifically when we talk about cost-benefit analysis and these kinds of things. Do you not think that these issues are extremely important when we're talking about the whole setup of humanity in let's just say the Province of Ontario? That cost-benefit analysis for instance is an extremely important issue as it applies to mental health, as it applies to physical health, as it applies to psychological health. What do you think?

A. I think you're absolutely right and in fact those issues are so important that those discussions and

tradeoffs happen -- should happen at the highest levels of our elected governments.

216. Q. Perfect. Let's deal with what he has to say about your variants of concern. Again, that was in your Paragraph 10 and I'll just quote,

> "Ontario's context has evolved with increases in the prevalence of variants of concern. Variants of concern or VOCs are reported to be more transmissible and cause more severe illness."

This is what Dr. Bridle says, and this is again this is at Page 21 and I'm just under Number 8. He says,

> "Although this can promote transmission, that is VOCs, there is no evidence that the current VOCs cause more severe illness. In fact the very citation that was used to support this claim from Dr. Hodge states the following in the abstract: "the authors saw no clear evidence for a change in disease severity.""

That seems to be contrary to what you're saying.

A. Your expert has actually selected among the three Exhibits at Footnote 7.

217. Q. Well, he's taken the Citation 33 ---

A. So, the paper in science reported on the transmissibility in England. Exhibit H from the science table and Exhibit I from Public Health Ontario both

raise concerns that these are causing more severe illness and in part because the phenomenology of the VOCs in Ontario was increasing hospitalizations among younger people.

218. Q. The footnote that he refers to is "estimated transmissibility and impact of SARS-CoV-2 lineage."

A. Right, so I want to be clear though that the way the Affidavit that I wrote is laid out in Paragraph 10 Reference 7 references three distinct exhibits. He has chosen one of those and I do not disagree with what he says here. I also note that he did not choose to acknowledge that this paper in science reported increased transmissibility and that was the point of including it because the first evidence we had from the U.K. was that the B117 caused increased transmissibility. The experience in Ontario captured in Exhibits H and I speaks to the concern that it's causing more severe illness.

219. Q. Well, his statement at Page 21 is that, "However the historically successful strategy to deal with a pathogen especially one that has an IFR of less than 1 percent and that is only a major concern for a very limited well defined demographic is to let the low risk individuals learn to live with the virus thereby naturally

acquiring protective immunity and by doing so abrogating the risk for those for whom the pathogen may be lethal. To understand this latter strategy some basic virology and the concept of natural acquisition and immunity need to be discussed."

Do you agree with that statement, Dr. Hodge?

A. Again, as a matter of academic interest I'm not in disagreement. The practical problem or the practical challenge we face in Ontario is that in the course of "allowing the low risk individuals to learn to live with the virus" in multigenerational families across the GTA they will kill their grandparents and parents and that is a -- in the social context of Ontario, the most highly affected communities are marked by significant numbers of multigenerational, high density households and the public health advice from the science table and from public health Ontario has been -- has needed to acknowledge that the risk is not the same for all Ontarians. Dr. Bridle perhaps has the good fortune and the space not to live in a high density household, but the fundamental -- this is not factually incorrect, it's just theoretically impossible -- sorry it's theoretically abstract and practically impossible because the cost of that would be death and infection

within those households. And so to speak to your point about tradeoffs and cost-benefit analysis we can infer from this that the government decided that rather than detain people who are younger out of their multigenerational households to "protect their parents and grandparents" the government would opt for a set of broad public health measures that apply to the entire population. We can disagree or agree about whether that's the right choice, but I think that's an example of the very real practical tradeoff that this Covid-19 situation, pandemic if you prefer, has forced upon public health officials and governments.

220. Q. Dr. Bridle says this,

"Like many other viruses including other coronaviruses and Influenza viruses, SARS-CoV-2 will likely become endemic meaning that we may encounter new versions of the virus on a regular and long term basis. As such, it is imperative that we learn to live with SARS-CoV-2 rather than attempting to hide from it just like we have done with the other respiratory pathogens that we have accepted as a tradeoff for living our lives outside the confines of lockdowns."

Do you agree with that, sir?

A. I'm sorry, I can't follow the language

you're reading. Could you scroll to that section?

221. Q. Sure. Page 22 and it's just under Conclusion and it'll be the last two sentences of the Conclusion.

A. I mean I think that Dr. Bridle is certainly establishing an aspirational goal for all of us. What's missing from the analysis here is the notion of time in that it will take time for societies globally and communities in every country to figure out what are those tradeoffs and that's an evolving area which 15 or 16 months or if we go back to December 31st, 2019 when it was first characterized in Wuhan 17 months is probably not enough time for us to have come to a settled place about what this endemicity means for us and I note that he doesn't propose a timeline for how long it should take us to learn to live with this.

222. Q. Well, he makes commentary on your Paragraph 29 wherein you state,

> "It may be theoretically possible to argue that contact tracing would be a reasonable alternative arguing that if an infection occurred then patrons could be contacted and advised to self-isolate and be tested or other public advice."

And then you argue that this does not represent a

reasonable alternative. What about other alternatives in relation to the treatment and prevention of Covid-19? Are you aware of any other alternatives that would be safe and effective for the treatment of Covid-19 aside from vaccination and lockdowns?

A. Well, we know that patients who are requiring oxygen will have improved outcomes if they're treated with intravenous steroids, but I sense that's not the treatments you have in mind.

223. Q. Well, what about things such as Ivermectin?

A. I think the science is a dynamic evolving space. My understanding is that there have yet to be trials of Ivermectin that would meet the standard for a regulatory approval of Ivermectin.

224. Q. Well, as a treating physician have you ever administered Ivermectin?

A. Not for Covid-19.

225. Q. Has there been any directive that Ivermectin is to be suppressed or downplayed?

A. No, not that I'm aware of. There's a fundamental principle, perhaps as in your profession, that if a professional practice involves following certain regulatory and legal frameworks and so medicines that are not approved for human use in particular conditions can only be prescribed under special

circumstances and my understanding is that Ivermectin has not been -- the makers of Ivermectin have not pursued that with respect to Covid-19.

226. Q. Well, I don't understand what you mean. The makers of Ivermectin have not pursued what?

A. Marketing approval so that I could prescribe it for Covid-19.

227. Q. Are you saying Ivermectin is not on the market presently and not available for alternative remedy for Covid-19?

A. I'm saying that the professional standards for medical practice in Ontario there's a process that is to be followed for the prescribing of medicines and so prescribing medicines for so called off label use some physicians may do that, but it's not my usual practice and it has not been my practice with respect to Ivermectin.

228. Q. What about Hydroxychloroquine?

A. No.

229. Q. You don't view that as being an alternative treatment?

A. The science that I've reviewed and the lack of a regulatory framework for making it prescribeable for Covid-19 would preclude my doing that.

230. Q. At the bottom of Page 22 Dr. Bridle says,

"My original report described in detail the overwhelming science in support of the use of Ivermectin as an effective early treatment strategy for reducing severity of disease, reducing admissions to hospital especially intensive care units and for preventing deaths. Indeed since my first report a peer reviewed scientific article was published that summarizes the cutting edge data regarding the effective use of drug combination therapies this paper is entitled *Early Ambulatory Multi Drug Therapy Reduces Hospitalization and Death in High Risk Patients*. There are also simple preventative measures that are available including supplementation with Vitamin D."

What do you say to that, Dr. Hodge?

A. Science is dynamic and evolving and at such time as there's a settled consensus on a regulatory approval for the use of agents, whether Ivermectin or others, that's great, but at this time there is not.

231. Q. Well, his statement is that, "There's overwhelming science in support of the use of Ivermectin as an effective early treatment strategy."

A. He's certainly welcome to do it in his own

practice then.

232. Q. And as far as you're concerned then that's not something that you think is worthy of consideration?

A. It may be worthy of consideration, but absent a regulatory framework for its safe and legal use, I think it should be reserved for the parasitic conditions for which it's been shown to be of outstanding benefit.

233. Q. He's saying that there's overwhelming science in support of the use of Ivermectin for the treatment of Covid-19, very specific.

A. As I said he's entitled to use it in his own practice. I would direct you to Health Canada pharmaceutical approval approaches and perhaps you're already familiar with that. There can be science in the sense of people write papers and they all agree with each other and then there's a separate process where that science informs regulatory approval and that exists entirely to protect patients quite honestly from the science getting ahead of practice and perhaps studies that are poorly designed to not include appropriate comparisons, do not have randomized trials. So, I hope you can appreciate that I haven't read all of the references that your expert provided, but I think it's important that you appreciate that medical practice is

not just about going out and doing science and suddenly applying it to a patient, it involves a whole series of processes and safeguards so that patients are protected from or have reduced risks of bad outcomes.

234. Q. What about the idea of the benefit of Vitamin D in the context of the function of the immune system? What do you think about that in terms of you'll see here at Page 20 -- go to Page 23 Dr. Bridle says,

> "As an immunologist I routinely teach the benefits of Vitamin D in the context of the function of the immune system."

Are you familiar at all with the impact and effects of Vitamin D in relation to this?

A. In relation to his teaching, no.

235. Q. No, immune system. The function of the immune system.

A. You know, science is dynamic and evolving. The immune system in the laboratory setting or in a mouse often behaves quite differently from the immune system in an intact human and in order to -- the science that would be relevant is not 77 peer reviewed articles, it's actually a randomized trial where patients are given Vitamin D versus placebo and the outcomes would need to better in the Vitamin D supplemented group and I noted reading this briefly that Dr. Bridle does not

identify any such study.

236. Q. Well, he's identified 77 peer reviewed scientific articles that demonstrate the importance of Vitamin D to the proper functioning of the human immune system to kill SARS-CoV-2.

A. So, I would ask your expert to produce any of those which are randomized controlled trials in intact humans and I submit to you that these are a variety of studies, I haven't reviewed them all so I hesitate to pronounce judgement, but when I see this type of thing in the scientific literature it's typically going to include laboratory studies, studies of cells in petri dishes, perhaps some studies in humans, non-randomized studies; the standards are very high for substances we're going to give humans with randomized trials where people are blinded to the allocation, people are blinded to the outcome and if that's -- I would propose to you that if Dr. Bridle had identified such a study he would have given it much greater prominence because we probably wouldn't be having this conversation because if that study existed governments would be rushing to get something as inexpensive as Vitamin D into people to reduce hospital use, get out of this pandemic, get back to life.

237. Q. Well, that's exactly the point. You're bang

on the money there. He basically says that these studies,

> "Clearly demonstrate that Vitamin D insufficiency follows a seasonal trend in Northern countries such as Canada. This is due to a lack of exposure to sunlight which allows Vitamin D to be naturally produced in the skin. These studies also show that Vitamin D sufficiency is strongly associated with lower risk of developing Covid-19, less severity of Covid-19, reduced hospital admissions, faster recovery if admitted to hospital and importantly, a reduced risk of Covid-19 induced death."

So, all of the things that you're telling me that are extremely important to deal with these studies demonstrate that they have an impact, a very high level impact on hospitalizations and on deaths and on the severity of the disease. Is that not persuasive at all to you?

A. So, if it were to be persuasive I would expect Dr. Bridle following the academic conventions in which I was trained, to have called out the specific studies and the extent of the impacts. So, when I see this general portmanteau statement which no specific

reference because there's a list of references from 39 through 115 and then a series of assertions with no references, I am cautious and I had not expected our conversation to include a review of this. If that's felt to be of interest to both parties I can go back and do that, but my position remains unchanged. I see no evidence of a randomized trial that would meet the standards for a recommendation to prescribe Vitamin D for this particular condition.

238. Q. That's about as circuitous as it can get, but when we're talking ---

A. No, it's very straightforward, sir.

239. Q. When we're talking about 77 peer reviewed studies as you've indicated 39 through to 115 and the conclusions that they come to impact directly on the issue that we're speaking about. In fact this is what Dr. Bridle said,

"It is shocking that such a large body of scientific evidence has been ignored and/or dismissed by public health officials in Canada."

And this would appear to be what you're saying is that really those 77 peer reviewed studies, while the fact that they come to these conclusions, doesn't convince you. Is that the way you see it?

A. No, I think I'm going to say it again. In

order for a substance to be prescribeable for human use it typically has to receive regulatory approval and part of that process, a significant part, is the provision of high quality scientific evidence from randomized trials in humans. A randomized trial means that half the people get the active medicine and half don't. They don't, in the best designed trial, they don't know which one they got and the people who determine the outcomes don't know which one they got because that's the way to avoid bias, to avoid a whole bunch of factors that can affect science, but that can be misleading. So, if we look back in recent human history there have been unfortunate situations where medicines were rushed into production because it was felt to be so important, we don't have time to do the right studies and patients were harmed. So, at such time as Dr. Bridle or others have a randomized controlled trial showing that Vitamin D is supplementation because that's the issue here, is prescribing or giving Vitamin D which is different from whether you have Vitamin D insufficiency or sufficiency. That it can reduce risk of Covid death and Covid hospitalization? I think people would be thrilled to see that, but I think if you imagine that there's this elaborate system where there's a simple cheap medicine called Vitamin D that's being actively withheld from

patients by governments or physicians, I don't have anything to say in response to that.

240. Q. Vitamin D is not something you have to prescribe, correct?

A. Well, for many patients if they're in a long term care facility they're only administered medicines which are prescribed by a physician. Other people may not be able to afford it, but I think you're missing the point.

241. Q. Well, there's something that you can buy right off the shelf, right?

A. And that -- you're entitled to take Vitamin D if you believe it's going to fix your Covid. I think the basis for a population recommendation the standard of evidence must be higher and our government has made that clear to us.

242. Q. Vitamin D is not being used to solve the problem of Covid, it is as he's indicating, an effective preventative strategy. Let me just read to you,

"According to the massive body of scientific evidence public health officials by not promoting the use of Vitamin D have caused Canadians to miss an effective preventative strategy. As a result Canadians have suffered substantially greater Covid-19 induced

morbidities and mortalities. Indeed many proactive physicians were trying to promote this. None of this science is novel for infectious respiratory pathogens."

Would you agree with that?

A. I'd have to review the 77 papers, but I stand by my initial statement that if there were a randomized trial that showed that Vitamin D use promotion would have prevented Covid-19 I think we'd be having a different conversation and because we're having the conversation we have I think I'm on fairly solid ground to say that evidence has not reached the threshold that would meet the standards for governments to make the sort of recommendation that your expert chastises them for not making.

243. Q. Well, he's not saying that Vitamin D prevents Covid-19, he's saying that it's a preventative measure ---

A. I think that's exactly what he's saying.

244. Q. A preventative measure that reduces the severity of it and ---

A. So, then let's see the randomized trial that shows that because it's not here.

245. Q. Well, I guess this is a good point is that will you look at those 77 peer reviewed studies?

A. I would have to discuss with Counsel.

246. Q. All right. Irrespective of this does it intrigue you at all as a physician that there are 77 peer reviewed studies on the effectiveness of Vitamin D in relation to Covid-19, does that intrigue you at all?

A. No, it doesn't and I'll tell you why. There's probably an equal number that suggest that Aspirin prevents colon cancer and after years of -- hundreds of papers talking about Aspirin would prevent colon cancer I believe the NIH in the United States funded the definitive study among humans. People were given Aspirin, people were given placebo and low and behold there was no effective protective Aspirin on colon cancer. So, my professional career has been punctuated by these episodes of bursts of scientific papers and then when we do the real study that's going to change human health unfortunately they don't meet our expectations.

247. Q. So, I take it your answer is it doesn't intrigue you at all?

A. There are many things in life that intrigue me, but unfortunately in the pandemic my job has taken over most of the time that I have available. This particular one I would simply say if your expert can produce the randomized trial that shows the definitive

change in outcome associated with Vitamin D supplementation, I'd be thrilled to see it, but when I look at the literature I don't find that.

248. Q. Okay. Well, we'll take that under advisement. This might not be a bad idea for us to take a break. You've been here since 1:30. So, why don't we take a 15 minute break and come back let's say at 4:15. Is that okay with you, Counsel?

MR. RYAN: The break is fine. Do you have an idea of how long you'd be continuing after 4:15?

MR. SWINWOOD: Yeah. It looks to me like we'd have to continue tomorrow.

MR. RYAN: We can continue another day. I'm not sure of everyone's availability tomorrow, but I think we can agree that we can adjourn for today I think shortly around the close of business, 5:00?

MR. SWINWOOD: Yeah, okay. So, if we come back at 4:15 we'll finish off at 5:00 and then we'll figure out where we go from there.

MR. RYAN: Okay, thank you.

(SHORT RECESS)

BY MR. SWINWOOD:

249. Q. Dr. Hodge, in our discussion about Vitamin D and the position that you've taken in relation to the studies, et cetera and how you see the need for there to

be more definitive study, how does that compare to the treatment by way of vaccination? In other words what kind of studies do we have to rely on as regards to the effectiveness and safety of the vaccinations?

A. Well, with respect to the MRNA vaccines by Pfizer and Moderna, they undertook studies in multiple countries where people were randomized to vaccine versus placebo and they then followed those people very closely to look at infection rates and they published those results in peer reviewed publications and made them available to regulatory authorities in multiple countries where those vaccines are now being given to humans.

250. Q. Can you point to me where those studies are?

A. So, I believe the Pfizer one is in the New England Journal of Medicine. I can get back to you through Counsel with the details.

MR. SWINWOOD: Yeah, would you be kind enough, Counsel, to undertake to provide those studies that Dr. Hodge has referred to, please?

MR. RYAN: Yes, we can do that. *U*

THE WITNESS: Could you just clarify the scope, please, sir? Just for Pfizer, just the vaccines approved in Canada?

BY MR. SWINWOOD:

251. Q. All the ones that have been emergency approved.

A. In Canada?

252. Q. Yes, in Canada, yes. What about the concept of study of the results of those who have been vaccinated in terms of injury and harm? Are there studies, are there statistics available presently in relation to that?

A. So, Canada has what's called AEFI reporting system for adverse events following immunization. Those data are maintained by provincial ministries of health and rolled up to federal level for national data.

253. Q. Are you aware of those studies presently?

A. I think it's helpful to distinguish between studies which is an experiment where for example the randomized trial half the people get one thing, half get another and reporting systems. So, the AEFI system is not a study, it's a reporting system. Are there reports available from the AEFI system? I would have to get back to you on that.

MR. SWINWOOD: Yes, please. If I could have your undertaking to look at that and provide us what you can from those studies.

MR. RYAN: We'll take that under advisement. *A*

MR. SWINWOOD: Did you take the other one under

advisement or just this one?

MR. RYAN: We agree to provide the first undertaking and this one we'll take under advisement.

BY MR. SWINWOOD:

254. Q. Okay. Now, I'll just -- I guess I'll just try and finish off with Dr. Bridle's thing here. That'll probably be the best way for us to finish the day is to finish off with Dr. Bridle rather than get into another section that I'll have to split up. I'll just finish the day here with Dr. Bridle. So, one of the issues that you raised in your report that you've mentioned masks and you've mentioned masks particularly in relation to restaurants. So, I'll go to Page 28. Now, Dr. Hodge have you yourself done any studies or looked at any studies in relation to the effectiveness of masks during a pandemic?

A. Yes.

255. Q. Can you tell me what you've looked at? Can you identify that?

A. So, I don't have the specific file with me. Roughly a year ago when I was working with Peel we undertook a review informally to understand how to approach the sort of contending perspectives where we had people who were particularly assertive that masks would be helpful and people who were adamant they would

be of no benefit whatsoever and you know the challenge with Covid-19 is it's a relatively new pathogen so we looked to evidence primarily from healthcare settings for other respiratory pathogens and it was a general pattern within those sort of heterogeneous studies of some benefit.

256. Q. Again, can you undertake to provide us with the studies that you looked at a year ago?

A. No.

257. Q. Why?

A. Because I don't have them.

258. Q. Oh. Do you know, are they in existence?

A. I'm sure the studies still exist, but it was work I did with Peel Public Health, so it's their intellectual property.

259. Q. Oh, I see, I see. So, how long a study was that?

A. I'm sorry, I don't follow your question.

260. Q. Well, you said that there was an informal study undertaken at Peel.

A. Yeah, so we looked at what were other jurisdictions recommending, what were the -- were there any sort of systematic reviews which are typically efforts to bring together the results from multiple studies.

261. Q. Okay. Now, Dr. Bridle is basically stating the proposition that the primary mode of transmission of SARS-CoV-2 was via large water droplets coming from the respiratory system. Do you agree with that?

A. I'm sorry, can you show me where Dr. Bridle's referring to that?

262. Q. Yeah. Page 28 under Number 11 and it would ---

A. The language I see about large water droplets is actually the opposite. He's setting that up to then refute it. So, maybe you could develop your question a bit more, please?

263. Q. Yeah, sure.

"It is now widely recognized that SARS-CoV-2 is effectively spread via aerosols coming from the respiratory system. A pulmonary aerosol is a suspension of fine water droplets suspended in exhaled air."

Do you agree with that statement?

A. I think that I would say that I cannot agree with the statement as written because it seems to be establishing an either or and I think the scientific consensus is currently both and.

264. Q. Please amplify that for me. What do you mean "and"?

A. So, SARS-CoV-2 Covid-19 is spread by droplets with a range of sizes and public health people, infection prevention and control people, engineering people, perhaps virologists do not have a shared view of what happens with different sizes of those droplets and even what they're called.

265. Q. Dr. Bridle goes on to say,

"The masks in common use among Canadians, surgical and cloth masks, lack standardization, users are not required to undergo fit testing and even if they were done they would still lack the ability to prevent the spread of aerosols."

Do you agree with that?

A. I think Dr. Bridle is using very absolute categorical language and I think the evolving science to my understanding is that there is a continuum and so I would not choose this assertive statement way and thus I do not agree.

266. Q. Do you agree with him that the eyes can potentially serve as a portal of entry and a source of person to person transmission?

A. Those are two distinct concepts. So, I would say that there's evidence that a virus introduced via the eyes can cause infection in humans. My eyes don't infect you.

267. Q. That's not the statement. The statement is that to potentially serve as a portal of entry and a source of person to person transmission. That's the statement.

A. So, I would need to understand what your expert means by a source of person to person transmission. My eyes are sufficiently sunk into my head that I'm not able to rub them against another person's eyes.

268. Q. All right.

A. So, what does your expert mean?

269. Q. Well, we'll come back to that because there are other reports that we can reflect back on this. For now I'll just leave it at that for now, but we'll come back to it at a moment when we ---

A. So, I think it would be helpful if you're coming back to it to clarify the language because ---

270. Q. Yes.

A. --- a source of infection for person to person transmission that needs to be more specific for me to be helpful in my response.

271. Q. Okay. One of the things that he says is that,

"The low cost masks fail to stop the spread of SARS-Cov-2. One of the biggest challenges in

relaying the science is the invisibility of the microbial ---

A. Would you be so kind as to scroll to the material you're reading so I could follow along?

272. Q. Oh, I'm sorry. Page 29. Very sorry and it's at the bottom of the second paragraph.

A. Thank you.

273. Q. The sentence "once of the biggest challenges".

"To place this into context that is easier to picture this would be akin to thinking that a person is locked inside a house when the walls have huge gaping holes. The leakage points were there, proper seals are lacking and the front door is opening representing the poor size of a mask. The reality of this scenario is that the person is free to come and go as they wish."

I take it that his point is, is that in essence the mask itself has no effect in relation to the concept of transmission. Do you agree or disagree with that?

A. I respectfully disagree. I think that if the expert wishes to take the view -- your expert wishes to take the view that all transmission is by small droplets then that would run counter to the general sense of the science of which I note is dynamic and

evolving of Covid transmission. So, there will be a range of size droplets produced and the goal of masking is not to prevent all those droplets, it's to reduce the number and thus the number of viral particles that could be delivered to another person. So, in the same way that a condom is not 100 percent effective against STIs or pregnancy because it may not be used correctly there are a whole bunch of other factors, masks have some similarity to condoms. We recommend them because they produce a risk reduction, not because they're perfect.

274. Q. Well, the whole concept here is this idea of transmission. Have you seen any studies or have you availed yourself of any studies that speak to the harms that can be caused by people who wear a mask eight hours a day?

A. I'm certainly aware of the reports of individuals who cite health concerns that arise from wearing a mask. There are people who have a philosophical position that it undermines our social interactions as humans and ---

275. Q. But let's talk -- I'm sorry.

A. I think we can see in the behaviour of Ontarians and people in other jurisdictions that individuals balance the public health advice with the other things that are important to them and they reach a

personal choice around mask use or not.

276. Q. Well, I'm not even talking about that concept, I'm talking about health concerns; I'm talking about rashes, I'm talking about breathing in your own air which is supposed to be expelled. What about those kinds of situations?

A. I think you'd need to direct me to the science that you have in mind.

MR. SWINWOOD: So, that's what we'll do is because I do believe that there are many articles in what's to come here in the finalization of this Cross-Examination that will allow us to return to that. I have two other Affidavits of Reply that I want to go into and I think for now what we'll do is we'll leave it here now and then Counsel and I will discuss when we can continue this. I would expect half a day will do it. So, Madam Reporter, Counsel and I will discuss this and then we will get back to you about setting another half day.

THE COURT REPORTER: Would you like to go off Record now?

MR. SWINWOOD: Yeah, I think so.

--- WHEREUPON THE EXAMINATION ADJOURNED AT THE HOUR OF 4:30 IN THE AFTERNOON.

THIS IS TO CERTIFY THAT the foregoing is a true and accurate transcription from the Record made by sound recording apparatus to the best of my skill and ability.

.....

Amberley Stevens, Catana Reporting Services

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Examination No. 21-0776 Court File: CV-20-00652216-000

VOLUME II

ONTARIO SUPERIOR COURT OF JUSTICE

B E T W E E N:

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO
Applicant/Respondent

- and -

ADAMSON BARBECUE LIMITED and WILLIAM ADAMSON SKELLY

Respondents/Applicants

****

CONTINUED VIRTUAL CROSS-EXAMINATION OF DR. MATTHEW HODGE on his Affidavit sworn May 14, 2021 pursuant to an appointment made on consent of the parties to be reported by Catana Reporting Services, on June 2, 2021 commencing at the hour of 9:24 in the forenoon.

****

APPEARANCES:

Padraic Ryan and Liza Swale for the Applicant

Michael Swinwood for the Respondents

ALSO PRESENT:

William Adamson Skelly
Chris Weisdorf
Carly Benjamin
Emily Graham
Amy Leamen
Sonya Molyneux

This Virtual Examination was taken down by sound recording by Catana Reporting Services Ltd.

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ADVISEMENTS, OBJECTIONS & UNDERTAKINGS

EXHIBITS

DATE TRANSCRIPT ORDERED: June 2, 2021

DATE TRANSCRIPT COMPLETED: June 8, 2021

DR. MATTHEW HODGE, RECALLED

CONTINUED VIRTUAL CROSS-EXAMINATION BY: MR. SWINWOOD

277. Q. So for the Record, this is a continuation of the Cross-Examination of Dr. Matthew Hodge in relation to his Affidavit sworn May 14th, 2021. And I'm wondering, do we need to have Dr. Hodge affirmed again?

MR. RYAN: That's up to you. You could ask him if he understands whether his previous affirmation continues to be in effect, maybe.

MR. SWINWOOD: Yeah, okay, thank you.

BY MR. SWINWOOD:

278. Q. Do you understand, Dr. Hodge that your previous affirmation continues to be in effect?

A. I do.

279. Q. Okay, thank you. Okay, Dr. Hodge, I'd like to deal quickly, if I can, with the Reply Affidavit of William Briggs -- I'm sorry, Douglas Allen, Professor Douglas Allen. Did you have an opportunity to read the Reply Affidavits?

A. I did, thank you.

280. Q. Okay. And so I'm going to take you to paragraph 24 of his Reply Affidavit.

A. Could it be displayed on the screen so we're all on the same page?

281. Q. Sure. I think that's one of my problems is I don't have Carly Benjamin on here yet. Can we take five minutes, please? Can we go off Record so I can get that setup? Sorry.

(OFF RECORD DISCUSSIONS)

BY MR. SWINWOOD:

282. Q. Again, I apologize for the delay. So Dr. Hodge, we're looking at paragraph 24 and Professor Allen is referring to Exhibit N from your Affidavit. And he's taken an excerpt from Exhibit N and we're talking about excess mortality here. Professor Allen is saying that -- you're referring to our -- for all cause mortality. And suggests that Exhibit N suggests otherwise. It's encased in the quote from Exhibit N. Can you read that, Dr. Hodge?

A. Yes.

283. Q. Okay. And specifically,

"As these shifts imply an increase in deaths not directly caused by Covid-19, it is important to note that some deaths may be due to the indirect consequences of the pandemic which could include increases in mortality due to overdoses."

Do you find that to be a fair statement, Dr. Hodge?

A. I think it's entirely consistent with what I stated in my Affidavit. So I'm not sure where you're

going, but it says very clearly about Statistics Canada and looks at the specific reasons for the increase in deaths will likely require further analysis.

284. Q. So from your perspective, this would require further analysis?

A. Oh, I think that's very clear in the Affidavit.

285. Q. Yeah. And the conclusion in Exhibit N is that,

> "This could be an early indication of the indirect impacts of the pandemic in advance of the period when excess mortality started to trend among younger age groups."

And is that what you're referring to is what would need to be further researched?

A. Yeah, I think that's the Statistics Canada position and that's entirely consistent with the data they reported in the exhibit.

286. Q. And given that we're some 15, going on 16 months into this issue, the pandemic, we have a lot of data now that can be looked at. Is that a fair statement?

A. It depends what the question is, sir.

287. Q. Well just straight up data. Straight up data in relation to Covid-19 mortality rates, cases,

that kind of thing, Dr. Hodge.

A. I don't have a measure for whether we have enough, too much, not enough. I think it's clear that we have an accumulated experience and as your expert notes here, there's been an increase, for example, in overdose deaths in Alberta. I think if you contextualize that with the increase in deaths that's attributed to Covid, you'd see there's at least an order of magnitude difference. So part of the challenge for a public health practice is that we have to choose among a series of least worst alternatives.

288. Q. Over on the next page, if we go into paragraph 25 and then over into the next page, we have a figure one, "Excess deaths in Canada over 2020." And Professor Allen makes this statement. He says,

> "The excess deaths that Dr. Hodge refers to then in the fall of 2020 are not evidence of how lethal the virus was, but rather they are evidence of how lethal lockdown restrictions were."

Do you agree with that, Dr. Hodge?

A. The expert's opinion is his and he's entitled to it. I don't think we have enough information to have a clear absolute truth about this.

289. Q. Well let's look at the graph. Let's look at

figure one, "Excess deaths in Canada over 2020." The --
-

A. Could you expand it a little bit so we can -- I can't read the legend, I'm afraid.

290. Q. Okay. You mean the legend at the bottom?

A. Yeah, so I can understand which line is which.

291. Q. Okay. So the blue line is adjusted number of deaths. The light blue line is expected number of deaths. The red line is -- the lower red line is 95 percent prediction interval of ---

A. Yes, thank you. I can read it now.

292. Q. I'm sorry?

A. I can read it now. So I ---

293. Q. Okay, perfect. Perfect. So this graph would tend to indicate that what Professor Allen is saying has merit.

A. Can you be more specific about what Professor Allen is saying?

294. Q. He's saying that,

"The excess deaths in the fall of 2020 are not evidence of how lethal the virus was, but rather they are evidence of how lethal lockdown restrictions were."

That's the proposition.

A. That's your expert's opinion. I think what's clear here is if this is all coded as mortality, we just don't know. We have not attributed any of these deaths to Covid or to whatever causes Dr. Allen believes are the mechanism by which lockdown causes deaths. What's quite clear is that if we were to plot the number of cases and hospitalizations for Covid, they track the increase in mortality seen in the second half of 2020.

295. Q. I'd like to take you now to ---

A. I think I would also add that if you were to put the timing of the restrictions on this, it would be difficult to identify a clear relationship such as is proposed by your experts. So if your expert is of this opinion, then I would expect to see more data to support that.

296. Q. Well you have the opportunity as one who is advising the Province of Ontario in relation to these issues. Would it not behoove you to have done studies in relation to this yourself?

A. I want to thank you for vastly overestimating my influence. As I indicated to you in my initial Cross-Examination, I'm a consultant retained exclusively for the purpose of assisting the Government with actions arising from the pandemic response.

297. Q. And when you say actions, you mean legal

actions?

A. That's correct.

298. Q. Right. And so within the framework of that, do you not think it behooves you to do this kind of research to determine the proposition that I put to you about Professor Allen that the excess deaths could be in relation to the lockdowns specifically?

A. Actually, I don't, sir and I'll tell you why. Because this is a public health emergency. There's a limited number of hours in the day. And Ontario's death reporting system will not allow a definitive answer to this question until probably nine to twelve months after the deaths that are in question. So it would be a waste of my time and a waste of public resources for me to attempt an analysis that's impossible to complete. Dr. Allen appears to have far more confidence in his opinion, but I don't see any indication that restrictions are mapped against deaths in the analysis that he provided.

299. Q. Well we'll come to that.

A. But it's incumbent upon your expert to at least provide me something to respond to because Ontario's death reporting system does not enable me to complete the analysis you're proposing.

300. Q. Well we'll come to that. We'll come to

those statistics later on here. For the moment, we'll just leave this. And now what I'd like to do is go to Dr. Kettner's Reply Affidavit, May 17th, 2021. So if we could go to that, please, Carly? And go to the attached Reply. Okay, this is good. Right there. I'm going to -- I just want to read you the statement at the top, Dr. Hodge and then ask -- ask you for your opinion.

> "To meet the expectations of good public health's strategic practice and to comply with Ontario Emergency Management and Civil Protection Act and to comply with the Canadian Charter of Rights and Freedoms, public health officials and their governments are required to show that the severity of a threat has justified the use of restrictive interventions. How the effectiveness and benefits of the interventions will sufficiently outweigh the harms and that there are no alternative strategies that would be more effective, less harmful, and or less restrictive."

So on the first part of that statement, do you agree with Dr. Hodge [sic] that this is what public health officials and governments are required to do? The first part, which is comply with Ontario Emergency Management and Civil Protection Act and to comply with the Canadian

Charter of Rights?

A. So I think it's important to distinguish between the intent of actions by governments and whether they are deemed to be in compliance with the law. Certainly all governments seek to comply with the law. It's the job of the courts to determine if they have overstepped the authorities and those laws. That's not an area of my expertise. I also note that Dr. Kettner has been somewhat incomplete and perhaps he's unfamiliar with Ontario's legislative framework, but Ontario has actually enacted specific language in several pieces of relevant legislation that refers to the precautionary principle. And in fact, the precautionary principle is as or more relevant as Dr. Kettner's somewhat academic discourse here.

301. Q. Well really, specifically, my question is, do you think that compliance with the Canadian Charter of Rights and Freedoms is an important evaluation in identifying measures?

A. I do, but ---

MR. RYAN: Mr. Swinwood, Dr. Hodge is not here to opine on questions of law and his evidence would be inadmissible if he did. So I'm not really sure this is something that the Court needs his assistance on.

MR. SWINWOOD: I'm not asking him for his

opinion in law, Counsel. I'm simply asking him if the statement that is made by Dr. Kettner holds validity in relation to the balancing. That's all. Just ---

THE WITNESS: And I think I made it quite clear. It's incomplete.

BY MR. SWINWOOD:

302. Q. Okay. The second statement is that, "Public health officials and governments are required to show that the severity of a threat has justified the use of restrictive interventions."

Do you agree with that proposition?

A. I think I would defer to Counsel's point about I don't have the expertise. Require has many meanings. If you want to spend our time together this morning wordsmithing my beliefs about an area where I have no expertise, that's your choice, but I don't think that's the best use of our time.

303. Q. Well, Dr. Hodge, I'm not asking you for that. What I'm saying to you is that, is there merit in suggesting that health officials, such as yourself and governments, are required to show the severity of a threat that has justified the use of restrictive interventions. Simple.

MR. RYAN: Sir, you're asking him a legal

question. The paragraph refers to a requirement of a statute and of the Canadian Charter of Rights and Freedoms. You are asking him his opinion on the content of those legal documents. I do not think that is admissible or relevant in this proceeding.

BY MR. SWINWOOD:

304. Q. Okay. And I'll say it again. I'm not asking him about that. I'm not asking him for his opinion in relation to law. I'm asking him about the severity of a threat justifying restrictive interventions. Is that an important evaluation by someone like you who is a public health official? Is that important, that evaluation?

A. I'm not familiar with Manitoba, but I'll say in Ontario that the public health officials provide advice to governments and governments make decisions. And those decisions reasonably include assessing the severity of threats and the restrictiveness of interventions.

305. Q. Thank you. So you agree with that. That's all I needed to know. And the next proposition is,

"The effectiveness and benefits of the interventions will sufficiently outweigh the harms."

Again, do you see that as being a proper evaluation?

A. I see that as being a useful criteria. I do not move in the circles at which these balancing, if we use that language, decisions are made. And as you can appreciate I hope, the government gathers advice from many parties including public health officials, economic officials, small business owners. The government then makes decisions. So Dr. Kettner's somewhat academic sterile description of the policy making process does not describe what we've been through in Ontario. So I'm happy to have an academic conversation with you, but as I say, I don't participate in those conversations.

306. Q. Now at some point -- I'm sorry. At some moment in time, you were advising Peel Health Regional in relation to these matters. And I would take it that in that role, that you might have engaged in these kinds of evaluations. Is that not a fair statement?

A. In my role in Peel, I provided advice about how to balance the impacts of interventions both desirable and undesirable, yes.

307. Q. Yes. And what about the idea of alternative strategies? That would be more effective, less harmful and less restrictive. What about that aspect of things?

A. Well it's a lovely idea. I think that part of the challenge with our Covid response has been, we can sit here today comfortable in the knowledge that we

know a lot more than we did a year ago when some of the decisions were made that may be at issue in this matter. One of the challenges is identifying alternatives that meet the requirement or -- that have some evidence of effectiveness. Governments have shown a distinct discomfort with experimenting during a time of crisis.

308. Q. And we have discussed this, you and I previously, about the alternative therapy such as Vitamin D, Hydroxychloroquine and Ivermectin. These would be alternative strategies that would be offered up here and ---

A. I did not see any references to those strategies in Dr. Kettner's reply Affidavit. If it is your opinion that those are alternatives, I encourage you to engage with the elected officials and provide them with the evidence that they would be effective.

309. Q. Well, you're a medical doctor and you work out of Scarborough Emergency and you've treated Covid patients. What is your view of the alternative remedies and therapies that are available to those with Covid?

A. I think it might be helpful, sir, if we can understand that a public health physician is providing advice regarding an entire population. And sad as it is, and perhaps you have some magic bullet of which we're all unaware, we have no system for directing or

requiring an entire population of 14 and a half million people to take an unproven medicine to protect them from Covid. So I think you -- my time is yours. We can talk more about individual patients, but the matters at issue in this -- with regard to my expertise with respect to your client's concerns are about public health measures which apply to an entire population. So I leave it with you how you wish to proceed.

310. Q. Again, it's a straight forward matter. There are alternative therapies that are advanced by many, along the lines of what I've identified to you, the three matters -- or the three therapies ---

A. Yeah, and I can direct you back to our conversation last week and I encouraged you and your client to produce evidence that would meet the standard for regulatory approval and I did not receive any and I am unaware of any.

311. Q. Okay. Well come back to that for sure.

A. Sure.

312. Q. There's on page, the next page, "Public Health Strategy making decisions and taking action." At the very bottom of it he says,

"Based on the best available data and evidence which is essential, in addition, critical thinking and equity considerations are also

essential for optimal decision making."

Do you agree with that, sir?

A. I think that equity is critically important. I think that virtually everyone in the room will have a different definition of what equity is. And so your expert chose not to specify that. I'm unable to comment directly on what his notion of equity is.

313. Q. What's your notion of equity?

A. I think that it depends on the question.

314. Q. Well let's talk about the equity considerations in the pandemic called Covid-19.

A. Well I think one of the important considerations was how can measures be taken that protect those who are most vulnerable to infection, severe consequences of Covid infection and death? We can have a lengthy conversation about the degree to which the Government of Ontario was successful in that regard.

315. Q. Well one of the things that he says in the next paragraph is,

"Even when one specific disease becomes the focus of attention, decision makers and advisors must consider the morbidity and mortality from all diseases and injuries, especially when interventions for one disease may increase the

rates of severity of other conditions."
Do you agree with that statement?
A. I would go -- I agree with the sentiment. I would choose different language. Dr. Kettner's musts are statement of opinion rather than scientific fact.
316. Q. Well I just want to know, does it make sense to say that the morbidity and mortality from all diseases and injuries be taken into account?
A. It does, but I would ask -- I didn't see Dr. Kettner's data that would provide that. I mean, part of the challenge, as I've said repeatedly, and I'll say again, is that decisions during the time of Covid and in fact in public health practice in general are often made under conditions of uncertainty and incomplete information. So I would love to be an academic and be able to tell you what we should have done in 2005 or 2010 because we now have complete data, reasonably complete data for those time periods. But it's much more challenging to be making decisions in the moment.
317. Q. I want to take you then over to under the section, "Dr. Hodge's overview and preliminary observation." There. And then go over to the next page, please, to the paragraph, "Taken literally..." Thank you. There we go. In that second paragraph, in the second sentence he says,

"The job of the public health scientist is the estimate the effect size of an intervention, its benefits and harms, its costs, and its fairness."

Do you agree with that statement, Dr. Hodge?

A. It's Dr. Kettner's opinion and he's entitled to it.

318. Q. No, I'm asking you if you agree with that statement?

A. I don't know what a public health scientist is, sir. So if perhaps your expert would define that, I could have a more useful conversation.

319. Q. Okay. The public health scientist is somebody who is a scientist who works with public health and is advising the government in relation to what is considered to be a crisis. And in that role that you somewhat touch on by virtue of your own expertise, does this statement accord with what you know to be the manner in which the government should be advised?

A. I think governments take advice from many places. The public health scientist's job definition in Ontario, and perhaps your expert was unaware of this not being familiar with Ontario is actually a career position at Public Health Ontario and those individuals typically publish academic studies which are thought to

be adding to the knowledge base that can inform practice and policy. So in Ontario, the job of a public health science is not as your expert proposes.

320. Q. So ---

A. And absent to reference, I don't think there's any global definition or even a Pan-Canadian definition of what the job of a public health scientist is.

321. Q. Well let's just deal with the premise itself,

"...estimate the effect, the size of an intervention, its benefits and harm, its cost and its fairness."

Does that proposition, does that corollary make sense to you?

A. I think that all of those things are valuable inputs when governments ask for advice. Whether they choose to follow them or not is their decision.

322. Q. Of course, but you agree that it has application in giving advice to the government on the measures to be taken?

A. Yes.

323. Q. Thank you. Now next paragraph. When he's referring to the reference that you made in your

Affidavit about high burden and he's talking about it here and saying that,

> "Infectious disease epidemics in which measures that restrict rights and freedoms were neither considered necessary nor appropriate in influenza, a respiratory infection transmitted in a similar way to Covid-19 has resulted in more deaths in children and healthy young adults than Covid-19."

Do you agree with that sentiment?

A. Your expert provides no data. So I would not be able to agree or disagree.

324. Q. Okay. Well we'll come to the data on that. We'll suspend your answer on that and when we come to the data, we'll deal with it.

> "Despite annual occurrences, some with more burden than others, it is not been deemed generally appropriate to close schools, churches, restaurants, recreation centres, or other settings. The reasons for restraint from implementing more restrictive public health measures are the lack of evidence of effectiveness and the public health ethic and laws which require a proportionality of response."

Do you agree with that statement, Dr. Hodge?

A. It's Dr. Kettner's opinion. I think it's one perspective. I think one could make an equal argument that the reasons for restraint are that influenza primarily kills the elderly and we just don't care. So I'm happy to have you read me Dr. Kettner's opinions, but there's no evidentiary support to use your framework for my Affidavit in regard to these statements. These are matters of philosophy or ideology.

325. Q. Well they're not philosophy or ideology, they're straightforward what's been happening on the ground. They're straightforward what's been done here. It's a complete repetition of what has happened since the declaration of a crisis. This is exactly what's happened.

A. The matters to which you're referring are actually describing Influenza if I understood your expert's perspective.

326. Q. Well he's casting a light on the idea of Influenza and what happens annually with the flu and that there's no necessity to do all these restrictions is basically what he's saying.

A. Well that's -- as I said, that's his opinion. The data would indicate the death rate from

Influenza is approximately 20 percent of the death rate from Covid. The hospitalization rate for persons in younger age groups is much higher for Covid and the transmissibility of Covid appears to be on a par with Influenza. So if Covid and Influenza are equally transmissible and Covid causes many more hospitalizations and five times more deaths, then by the burden model, I would stand by my statement; it's generally appropriate to have more restrictive measures for Covid-19 than we do for Influenza. I would also add that when these measures were put in place, we had no effective vaccines against Covid-19. We have an effective vaccine against Influenza. The public chooses not to take it by and large, but where it's used, it can prevent severe illness. So if we were to be making decisions today, we would likely make them differently in the context of vaccine availability and I think without having inside knowledge, the Government of Ontario that it will be making a different set of decisions actually driven by the population coverage of an effective vaccine.

327. Q. If I take you over to the next page. Yes, "What are the harms?" thank you. It makes a statement in the second paragraph.

"A risk assessment takes into account several

factors such as the probability of infectiousness and the source, the duration, distance, nature of exposure, and the presence of barriers to respiratory droplets or droplet nuclei."

And his suggestion is that there's no risk assessment that has been provided in relation to these issues in your Affidavit. And I'm asking you, what do you take of his statement in this regard?

A. I think if he's looking for a formal risk assessment, he's correct. The Affidavit was not written with a view that being a scientific or journal publication. And I think you can find in paragraphs 24 through 27, a number of the elements that he describes, how the infection -- probability of infection assists in the source. The language in the Affidavit refers to the level of infection in the community. We make reference to features of restaurant dining experience that affect duration, distance, nature of exposure, and presence of barriers. So I'm not sure why he didn't acknowledge that, but I can appreciate that perhaps it was not in a language of which he's familiar.

328. Q. Well it -- he looks to me to be fairly familiar with the language of public health measures. You keep making this reference to the idea that he's not

from the Province of Ontario. Do you view that as being therefore he doesn't know what he's talking about in terms of public health?

A. No, I think Dr. Kettner has the advantage of having a long career involving a number of roles. My understanding is his current role is in an academic institution and academics, as you may know, have the benefit of -- they tell people how to practice, they're not responsible for practice. I was struck by how Dr. Kettner did not appear to be familiar with or at least acknowledge the role of a precautionary principle in Ontario's legislative framework for public health action. And so that raises for me a question, perhaps similar to the questions you're asking me about, "Does he know what he's talking about?" Manitoba and Ontario have different legislative frameworks for public health action and unfortunately Manitoba, right now, has the distinction for having probably the highest rate of Covid in North America. So that's unfortunate for the Manitobans, but I imagine Dr. Kettner and others are giving advice to government there.

329. Q. You're not really suggesting that that's linked to Dr. Kettner's experience as a public health medical officer, are you?

A. I don't know. I know that there were

circumstances under which he was the Chief Medical Officer of Health and then was no longer in that role. I understand he's now an academic and that gives him the freedom to make assertions about what should or shouldn't be done. I go back to my original point which is the elements of a risk assessment which he identifies in the document we're reviewing are present in my Affidavit.

330. Q. One of the statements he makes is that "Ontario is not provided valid estimates of the ratio of cases to actual infections."

Do you have any such statistics?

A. Could you point me to that, please?

331. Q. Yes, it's at the bottom under A. "What are the harms caused by Covid-19?" Yes. It's the paragraphs beginning, "Using the data table below."

A. So I think that, you know, you've -- you and your expert have both identified one of the really missing elements when it comes to Covid. I think we would all love to have estimates of this ration. The science table, which in Ontario functions as the -- perhaps the body with the greatest expertise in these matters, in one of their publications did note that the ratio was probably ten to one in the first phase. So actual infections was tenfold higher than the caseload

and that by the fall of 2020, that had dropped to an estimate of three to one based on the increase in testing. More recently, we've seen decreases in testing. So I would defer to the science table to update that ratio.

332. Q. Well he's offering up two graphs here. The first one is age group cases as you see there. And it continues over onto the next page, I believe. No, go back, please, Carly. So yeah, there is the -- there's the graph. There's one before that. Okay, that's good. No, Carly, just go back. Go back to the graph that we had. Yeah, there you go. Thank you. And then below in the paragraph, Dr. Hodge refers to variants of concern. He says,

> "He's unable to find any data on this dashboard pertaining to hospitalization and ICU admission rates of people in their 40s and 50s."

Are there any statistics in that regard that you're aware of, Dr. Hodge?

A. Sure. If you go to the science table's website, the March 29th report makes -- they state that hospitalizations are 63 percent higher and I believe ICU admissions 103 percent higher. So I apologize if the footnoting did not meet Dr. Kettner's academic standards, but the science table data are all publically

there and it's easily accessed.

333. Q. Do you have the science table data in your Affidavit?

A. I have a reference to the science table so that the reader can explore the multiple sources of -- or multiple reports that are available there. And that is Exhibit H.

334. Q. But can you point to what you just said about the increase, percentage increases that you just identified? Where would we find that?

A. So if you go to the -- do you want to do it online now? We can look at it together.

335. Q. Sure, that would be great.

A. So if you're colleague can go to the science table website?

336. Q. Well let's just suspend that for now. We'll come back to that because we're just going to get bogged down in doing that. Let me just put to you ---

A. Well it seems it's kind of germane to our conversation because Dr. Kettner was unable to find the information and I apologize that the footnote did not lead him in the academic mode to the right place. But --

337. Q. What I mean is on the break, we'll find that. We'll find it on the break and we'll come back to

it. He makes the statement that, "Hospitalization occupancy has been decreasing for the past month." That would be in the month of May. And then he says, "ICU occupancy has been decreasing for the past two weeks." And again, that would be in the month of May.

A. I'm sorry, can you go down a ---

338. Q. That's just below the graph in the sentence, "Dr. Hodge refers to variants of concern."

A. So I don't see the reference of two weeks. I would refer to the data in paragraph 11 of my Affidavit.

"Intensive care numbers reached a high of 820 on April 26th and have declined slightly to 818 on May the 5th."

Is Dr. Kettner disagreeing with those numbers?

339. Q. Well he's basically saying what you just said which they're decreasing.

A. So in public health practice, a change from 820 to 818 would be considered within the range of random variation and so would not be the basis for asserting that there's been a decrease. With the advantage of hindsight, we're now June 2nd. I will absolutely agree the intensive care count is higher -- sorry, lower today than it was on May the 5th. But Covid moves quickly.

340. Q. He makes a statement on page 11 which is continuing on -- there we go. No, sorry, it says at the top 11 of 14. I'm sorry. No, okay. So you've got to go back. Just beyond the graph and just beyond the paragraph we were talking about Carly.

A. If you could use the number on the left to help us all stay oriented.

341. Q. Thank you. Sorry, what do you mean by that, on the left?

A. Well on the left she has 11 to 14 which makes reference to paragraphs in my Affidavit.

342. Q. Yeah.

A. There's two different page numbering systems, so.

343. Q. Yes, correct. So find the paragraph -- yes, "Dr. Hodge asserted correctly..." There we go. In the paragraph that begins, "Furthermore..." He makes a statement at the bottom of that,

"Unless there is a clear reason otherwise, most hospitalized patients or death with a positive PCR test result are classified as Covid cases." Is that a correct statement?

A. Yes, that is.

344. Q. And when we have a situation of let's say is hospitalized and has a heart condition or other severe

health problems, is their death reported as a Covid death if they have a PCR test that's positive?

A. I mean, I think they also have to have evidence of Covid infection, clinical evidence of Covid infection. So -- and as you may be aware, Covid has unfortunately made worse some preexisting health conditions. So somebody with heart disease and without Covid would not have required hospitalization, but they get a Covid infection, they become short of breath from the Covid, their heart is unable to keep up and their in hospital with heart disease and a Covid infection.

345. Q. I'll take you over to see what are the risk factors for Covid-19 transmission. Yes, thank you. And under paragraph 21, it talks about the prevalence of infectiousness and he makes this statement.

"Dr. Hodge's statement that even low risk activities can pose significant transmission risks is inconsistent with case and contact tracing strategies of Public Health Ontario. Only high risk exposures are traced."

Do you agree with that statement?

A. Dr. Kettner is playing games here. Let's go to the Affidavit and read the entire sentence. It actually says,

"When community prevalence is elevated, even

lower risk activities can pose significant transmission risks and can tribute to pressures on hospital and ICU capacity."

I did not say, and I think we would agree if we look at the Affidavit, low risk. The Affidavit specifically says lower risk. And there's a reason for that because as community prevalence reaches that threshold point where the health system is going to go off a cliff, the goal becomes safeguarding the health system. So reducing any Covid infection or preventing any Covid infection that's going to drive the hospital numbers up becomes an imperative for government.

346. Q. Your paragraph 21 is under, "See, what are the risk factors for Covid-19 transmission." That's the paragraph you're referring to, correct?

A. Yes.

347. Q. Yeah. I just want to point out that there seems to be a numbering problem after 22 in that after paragraph 22, it goes to paragraph 19. Is that what you have in your Affidavit?

A. No, that's the 19 in Covid-19, sir. If you look at the previous line, there's a hyphen after Covid.

348. Q. Oh, I see. I'm sorry. But then it goes 22 and then it goes 20, paragraph 20.

A. That does seem to be a numbering error

because the 19 was detected by you and Microsoft Word, but was referring to Covid.

349. Q. Yeah, but the bottom line is, is that there is just a bit of a numbering problem after 22. 20 should be 23, correct?

A. Yes, I ---

350. Q. Yeah, okay that's fine. I just wanted to be sure that that was the way that was. That will do for that. And I'd like to go to now, the WHO document. I believe it's at number 38. Yes, and this is -- this is the World Health Organization's document entitled,

"Non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza."

Have you ever seen that document before, Dr. Hodge?

A. No.

351. Q. You're not familiar with it?

A. I mean, I know that it exists because there was a large effort around pandemic planning, but I'm not familiar with the details of this particular version.

352. Q. All right. Can we go to page 2, please, Carly? Is it possible for it to be -- there, thank you. Now, what they're talking about here are NPIs. Are you familiar with what NPI means?

A. Yes.

353. Q. And what does it mean?
A. Non-pharmacologic interventions.
354. Q. Right. And this paragraph,
"The evidence base for the guidelines included systemic reviews of 18 NPIs covering personal protective measures, hand hygiene, respiratory adequate and face masks, environmental measures, social distancing, and travel related measures."
So they're basically saying that this -- these are the areas that they have covered off in this document. And of course, you haven't seen that, have you? And basically this is a statement that they make in the second paragraph.
"The evidence based on the effectiveness of NPIs in community settings is limited and the overall quality of evidence was very low for most interventions."
Do you see that?
A. Yeah.
355. Q. And so their basic point is, is that on all of these issues that they've identified above, the evidence is low in relation to implementing those interventions. Do you agree with that?
A. With respect to influenza transmission, yes.
356. Q. Okay.

A. I hope we both agree that Influenza and Covid-19 are not the same thing.

357. Q. Well we go on to say that,

"Small effect on Influenza transmission, although higher compliance in a severe pandemic might improve effectiveness, however there are few RCTs for other NPIs and much of the evidence base is from observational studies and computer simulations."

And he's talking about the -- they're talking about the pandemic there.

A. No, sir, they're talking about Influenza. It's a virus that's different from Covid-19. In the same way that the Malaria parasite is different from Hookworm. So if you're asking me to agree whether this applies to Covid-19, I would say that this was part of the context where people thought through what to do about Covid-19, but with a five times higher death rate than Influenza and a different pattern of transmission. I'm happy to talk about Influenza, but I don't believe that's at issue in this matter.

358. Q. Well they're talking about higher compliance in a severe pandemic.

A. Of Influenza?

359. Q. No, they're talking about a pandemic.

A. I think you're mistaken, sir. If you go to the title of the document, it's actually the, "Pandemic Influenza." So a pandemic requires an organism and it requires global spread. Depending on the organism, there will be a different experience of the pandemic. So I don't mean to be insulting, but we can talk about apples here, but we're actually having a strawberry pandemic if I can use an analogy.

360. Q. Well in essence, what we're talking about is the guidelines that the WHO has set out in relation to Influenza and they're discussing pandemic.

A. So maybe it's helpful for me to try and reframe this then. Much of the planning for -- that went into this document and others was driven by the H1N1 Influenza strain in 2008 to 2010. So that was a strain of Influenza that caused illness in multiple countries and met the definition of a pandemic, multiple countries. These measures may apply to Covid-19, but we are currently in a Covid-19 pandemic. We are not in an Influenza pandemic.

361. Q. But you'll agree with me that these guidelines may apply to a Covid-19 pandemic?

A. I think I would say that when the Covid-19 pandemic arose, public health decision makers and governments looked for anything that would help narrow

the uncertainty to make sense of this unknown organism. And the analogies with Influenza were wide-spread. So I'm not surprised that this document and others may have influenced people's decision making or thinking.

362. Q. All right. Go to page 4. The -- there's a statement that there is insufficient evidence --

"Insufficient scientific evidence from RTCs to support the efficacy of hand hygiene alone to reduce Influenza transmission in Influenza epidemics and pandemics."

Do you agree with that?

A. As I said, I'm happy to have a conversation about Influenza. Covid-19 is a different bug.

363. Q. Well ---

A. I think the other thing that's important to bear in mind is that perhaps you can appreciate or maybe you're an unusual citizen, people don't want to sign up for a randomized controlled trial where they're told to not to wash their hands because they have to be told that it may reduce their risk of a viral illness. So there's insufficient scientific evidence from RCTs because in many cases, they're impossible to do. Do you agree with my -- you appreciate where I'm going with this? I just want to make clear that we can't do RCTs because we have human subject research guidelines, we

have respect for autonomy, and we also would have to have funding to do such a study.

364. Q. They also indicate that there is little evidence for effectiveness of masks being used during Influenza epidemics and pandemics.

A. So there's relatively little evidence of condoms being effective during Influenza epidemics because we use condoms for a different infection. Covid-19 and Influenza are different infections.

365. Q. The -- are you suggesting, sir, that what is being suggested here by the WHO are not applicable at all to the situation of Covid-19?

A. No, I think I've made very clear that Covid-19 was brand new, it was unknown, it behaved differently from Influenza and people looked to the Influenza evidence to at least provide some direction or frame for thinking about how to respond to this novel virus.

366. Q. If we go to page 10? Are you familiar with the International Health Regulations of the ---

A. Yes, I am.

367. Q. Yeah. And,

"The International Health Regulations set out obligations and mechanisms for a public health response to the international spread of disease in ways that are commensurate with and

restricted to public health risks and which avoid unnecessary interference with international traffic and trade and to strengthen the preparedness and capacities of countries so they can proactively detect, assess, report, and address acute public health threats early."

So would you agree with me that these are applicable to Covid-19?

A. For countries that are in compliance with the IHR, yes.

368. Q. Yeah, okay. And in the next paragraph they say,

"The IHR seeks to balance the sovereignty of individual state parties with the common good of the international community."

It then goes on to say that,

"Governments are entitled to implement public health measures to protect the health of their populations during public health events respecting three golden rules which are that such measures must be based on scientific principles, respect of human rights, and not be more onerous or intrusive than reasonably available alternatives."

Do you agree with that statement, Dr. Hodge?

A. This is a statement in the IHR, yes.

369. Q. Okay. But earlier when I was asking you about -- Dr. Kettner made the exact same point and you said he was entitled to his opinion.

A. So the IHR represents a political consensus among a group of state's parties that are signatories to the IHR. All of these elements are subject to interpretation and as you may know, the penalties for non-compliance are essential zero. So the IHR are like many international health related inter-governmental agreements perhaps best understood as aspirational.

370. Q. Well Canada, you know, is a signatory to the World Health Organization, correct?

A. Yes, it is.

371. Q. Yes, it is. And would you say that by virtue of its being a signatory, that it's obliged to follow the International Health Regulations?

A. In an ideal world, sure, yes.

372. Q. Next sentence in that paragraph is, "When measures exceed these parameters, countries are obliged to provide the public health rationale to the WHO within 48 hours of implementation and to rescind the measures if they are deemed unjustified."

So that's back to the assessments that we were talking about that Dr. Kettner was suggesting that needed to be done. And it's reflected in this document the exact same thing. Would you agree?

A. I think I would need to understand the definition of exceed, but yes. I mean, from a personal perspective, yes.

373. Q. Yes. And are you aware at all if there has been any advice to the WHO in relation to the protocols that have been undertaken in the Province of Ontario?

A. Well the Province of Ontario is not a state party to the IHR. So that's the limit of my knowledge about how Ontario's decisions would be relevant to this process.

374. Q. Well is there not a connection between the Public Health Canada and the Public Health Ontario? Do they not consult each other?

A. I'm not aware of those processes.

375. Q. Okay. Well we'll come back to that also. And, "1.4, pandemic Influenza severity assessment framework." And it says,

> "The severity of an Influenza epidemic or pandemic is evaluated and monitored through three specific indicators; transmissibility, seriousness of disease, and impact on healthcare

system and society."

So would you agree that that's applicable to Covid-19?

A. Well it reflects the burden model that I refer to in my Affidavit.

376. Q. So yes is your answer?

A. With respect to Influenza, there's a specific framework here. I thought Covid-19 was the infection we were meeting about today. But yes, with Influenza, this is -- the general model would apply to Covid-19, the specific levels perhaps less so.

377. Q. But you would agree, the general model applies to Covid-19?

A. I think I made that quite clear in my Affidavit, sir, with respect to paragraph 7.

378. Q. Page 13, please. The summary of the recommendations under 2, would you agree that these kinds of recommendations would be applied to Covid-19?

A. I think I've made clear that Covid-19 is a novel infectious illness with a much higher death rate than Influenza. So when looking for measures, public health decision makers looked to other respiratory infections of which Influenza is one. And so a combination of this type of, what we call, evidence syntheses where studies are brought together and simulations and modeling and the need to provide some

advice to governments lead to decisions that apply to some of the measures that are identified here.

379. Q. Okay. So the first one was hand hygiene. And then go to masks, face masks. And at the bottom it says,

> "Although there is no evidence that there -- that this is effective in reducing transmission, there is mechanic plausibility for the potential effectiveness of this measure."

And so they're basically saying that masks are really not effective. Low ---

A. Actually, no. Perhaps you're not familiar with the scientific discourse. What they're saying is that there's no evidence that they are effective, but equally that means there's no evidence that they are ineffective. It's in that middle; we just don't know.

380. Q. So essentially, the measure implementing masks is based on, we just don't know?

A. It's based on mechanistic plausibility.

381. Q. But you just said it's based on we just don't know.

A. No, I was speaking analogously. Perhaps in the law my understanding is in Scotland there's a notion of guilty, not guilty, and not proven. So and then in science, that not proven space is massively huge. We

use mechanistic plausibility for many public health measures. For example, seatbelts. There was never a randomized trial that seatbelts prevented death, but there was certainly an engineering model that showed if you stopped a person going head-first through a windshield and smashing into a fixed object at high speed, you reduce their risk of death.

382. Q. Page 20, please. Again, we're back to personal protective measures.

A. And back to Influenza.

383. Q. Well I'm at -- we agree that this is applicable to Covid-19.

A. No, we didn't, sir. What I said was that we had an unknown virus, we had much higher death rates than Influenza. We needed something that could help guide interventions. That's quite different than we agree that this is applicable.

384. Q. Well will you agree, sir, that this is being used by those who are advising in relation to measures that should be taken?

A. I think that this was one of many pieces of knowledge or evidence that was used to try to implement measures that would prevent infections and preventable deaths.

385. Q. Back again to the three golden rules, the

three golden rules as expressed in this document, you agree with me, that they're applicable to Covid-19?

A. Uh-hmm.

386. Q. Yes?

A. Paragraph 7 in my Affidavit, yes.

387. Q. Yes, okay. And I'm just going to summarize what they're basically saying in these pages 20, 26 -- 20 to 26. They're basically saying that there's no statistics to suggest that hand hygiene and masks are effective as a protective measure. That's what they're basically saying. Do you agree with that?

A. No, I would frame it slightly differently. If you go to the top -- the first line in paragraph -- section 4.1 in paragraph 3,

"Testing the efficacy of hand hygiene in randomized controlled trials is complicated by the fact the comparison groups cannot be asked to stop washing their hands."

So as we discussed during our first meeting with respect to your enthusiasm for Hydroxychloroquine and Ivermectin, non-randomized studies often give us very different results than randomized studies which are the gold standard for definitively saying, "Yes, there is evidence of benefit or yes there is evidence of no benefit." And if you look at the estimates, so for

example the last lane of summary of evidence paragraph it says,

> "In household settings, the efficacy of hand hygiene with or without a face mask is not significant. Relative risk 1.05, but the 95 percent confidence interval could be as high as 1.27 which would be a 27 percent risk reduction."

Moreover we know that Covid-19 and Influenza with the benefit of this 15 months of pandemic experience spread differently in household settings. So the efficacy of hand hygiene with respect to Covid-19 may not be a relative risk of 1.05, but could be something different. But those are studies that might be done albeit non-randomized at some future date when we -- people look back at the Covid experience.

388. Q. Their basic idea that they're putting across in relation to this is that these personal protective measures are not effective in bringing about the reduction of the transmission. That's what they're basically saying. And I know you're going to say about Influenza. I agree with you. It's Influenza. However, they're speaking to the NPIs generally that would be applicable and have been applied to Covid-19. And they're basically suggesting that they're not very

effective. Do you agree with that?

A. I think I would say that the evidence is inconclusive because the definitive study, as I made the point with respect to your expert's desires for pharmacologic interventions have not been done. So if you look at the RCTs -- in fact, you can read here that in Egypt where they actually did laboratory confirmed cases of Influenza which is a definitive outcome, they had a significant reduction. The relative risk was 47 percent. So more than 50 percent reduction in laboratory confirmed Influenza cases in the handwashing group. If I could reduce Influenza cases by 50 percent, I'd want to wash my hands.

389. Q. But their overall recommendation is that they are not that effective. That's the recommendation. That's what they're basically saying.

A. Right, but if you go back up a couple of pages, you'll see that the recommendations for action varied depending on the severity of the pandemic. So I think if we use your approach of applying the Influenza material to Covid, governments around the world have looked to implement measures because of the severity of the pandemic that they might not have recommended had it been less severe.

390. Q. I'd like to take us now to document -- I'll

have to find it on the index here. It will be at number 57. Number 57 on the compendium. This, Dr. Hodge, is a Statistics Canada Daily epidemiology report for May 7th, 2021.

A. Is the source on the document? I don't see it.

391. Q. It should be. But what we'll do is we'll provide that to you. We'll get that source. It's comparing deaths to Influenza and Pneumonia deaths in children aged zero to 19. Do you see that?

A. Uh-hmm.

392. Q. And so it would demonstrate by looking at it that the Covid-19 deaths are much lower than Influenza and Pneumonia.

A. Well I would propose to you that it's an apple and oranges comparison. If you take two conditions, Influenza and Pneumonia for each year, 2015 to 2019, surely we would wish to see Covid-19 plus Pneumonia. And the graph does not present that.

393. Q. Well what the graph is doing is simply putting forward what are the deaths in relation to Influenza and Pneumonia and what are the deaths in relation to Covid-19 simple and straight up.

A. But Pneumonia covers -- Pneumonia is a lung infection that can be caused by a range of organisms.

So the appropriate comparison for me as a public health person is what are the deaths from Influenza, what are the deaths from other Pneumonias and then for 2021, what are the deaths from Influenza, other Pneumonias and Covid-19? So I reject the presentation of the data in this way because it's misleading. And without a source, I can't really comment any further because I don't know if it's misleading with regard to the person who prepared this figure or if Statistics Canada has an explanation for why this was reported the way it is.

394. Q. Well I think it was reported the way it is simply because they wanted to make a comparison between Influenza, Pneumonia versus Covid-19.

A. I'm not willing to take that on faith. I would need to see the source.

395. Q. Well, all right. We'll provide the source which again, I'm saying to you is Statistics Canada, May 7th, 2021. And we'll get that source. If we can go to 58 which is figure 7? This is a definition from Health Canada which states,

> "The Covid-19 outbreak, two or more confirmed cases of Covid-19 epidemiologically linked to a specific setting and or location."

Do you agree with that?

A. It's a definitional statement. It's one

among many definitions of a Covid-19 outbreak. So why don't you continue?

396. Q. Well do you agree with it or not? Linked to a specific setting and or location.

A. So I think it's internally consistent. It's a way of defining a Covid-19 outbreak.

397. Q. Do you agree ---

A. If you continue the definition, the things that are excluded in public health practice may, in fact, be functionally similar to an outbreak. So a house with 21 people in it where 20 of the 21 are sick with Covid is from a public health practice perspective, not dissimilar from a workplace, like a restaurant where two line chefs both got Covid. One got it at work from another one.

398. Q. Can you go to Figure 8, please? This is a publication from Health Canada. It's a total number of Covid-19 outbreaks, cases and deaths by outbreak setting in Canada as of April 24th, 2021. So you see that?

A. Uh-hmm.

399. Q. So it would appear that what we get from this, again, is what we -- I think we've discussed previously is that the highest number of outbreaks is in long-term care and retirement residences.

A. Unfortunately, yes.

400. Q. Yes. Are long-term care residences and retirement residences controlled by government?

A. There is by province, a degree of control or funding.

401. Q. Province of Ontario. Does the Province of Ontario control long-term care homes and retirement residence through licensing?

A. My understanding is there is a licensing regime. I'm not familiar with the details.

402. Q. Okay. Are you familiar with the idea that regulations are promulgated in order to supervise or regulate these types of institutions?

A. Yes.

403. Q. Thank you. Under food, drink, and retail, we see the cases that we spoke about before that there's total number of reported death is three and outbreaks during the reported period was 11.

A. That was during week 16, yes.

404. Q. Yes, okay. And the total number of cases reported is 3,013, correct?

A. Uh-hmm.

405. Q. And it would appear to be the second lowest number on this scale with personal care being the lowest number. Is that a fair statement?

A. With respect to which column?

406. Q. It would be the column of total number of cases reported.

A. Yes.

407. Q. Yes, thank you. It's a quarter to 11:00. I think it would be appropriate to take a ten minute break. Is that okay with you, Counsel?

MR. RYAN: That's fine, Mr. Swinwood. As you had indicated at the conclusion of last day that you expected this would only be a half day, Dr. Hodges made himself available in accordance with that. So do you expect to finish by noon?

MR. SWINWOOD: I don't think I'll be finished by noon, but it won't be much after that. We make it until 1:00.

MR. RYAN: I'm not sure whether Dr. Hodge can do that. He's been called into practice this afternoon. Given that we were here to start at 9:22 this morning, I ask that you finish by noon.

MR. SWINWOOD: Well I'll do my very best. So let's just take ten minutes now.

MR. RYAN: That's fine. Thank you.

MR. SWINWOOD: Thank you.

(OFF RECORD DISCUSSIONS)

BY MR. SWINWOOD:

408. Q. Thank you. What I neglected to do is make

what we discussed at number 38 which was the World Health Organization document, I'd like to make that Exhibit 1 on this Examination, please?

MR. RYAN: I think we need to make that an exhibit for identification purposes only since Dr. Hodge said he wasn't familiar with that document.

MR. SWINWOOD: Well I thought he went on to say that he knew of its existence and he knew about the document. He said he hadn't read the document.

MR. RYAN: Why don't we make it an exhibit for identification and you can point to whatever he said as your evidence for whether it's been authenticated or not.

EXHIBIT NO. 1 FOR IDENTIFICATION PURPOSES:

World Health Organization Document.

MR. SWINWOOD: Okay. Also, I would like to make an exhibit, the Health Canada definition which was figure number 7.

MR. RYAN: So Mr. Swinwood, that's just an excerpt from some other document which I don't believe you've told us what the source of it is.

MR. SWINWOOD: Health Canada. Health Canada.

MR. RYAN: So that's the organization that's the source of it, but this was taken out of some other document which you haven't provided. Is that right?

MR. SWINWOOD: That's correct. But we will provide the document. So I'll make it Exhibit 2 for identification also.

MR. RYAN: That's fine.

EXHIBIT NO. 2 FOR IDENTIFICATION PURPOSES:

Health Canada definition of outbreak.

MR. SWINWOOD: Okay. And then Exhibit 3 would be the figure 8 which we're looking at right now. And that's from Stats Canada.

MR. RYAN: And that's also an excerpt from a longer document that we don't yet have.

MR. SWINWOOD: And so we will provide to you that also. So you're making it an Exhibit 3 for identification purposes.

EXHIBIT NO. 3 FOR IDENTIFICATION PURPOSES:

Figure 8, Statistics Canada document.

THE REPORTER: Okay. I'll just confirm that at the end of the Examination.

MR. SWINWOOD: Thank you.

BY MR. SWINWOOD:

409. Q. So it would appear from figure 8, the Stats Canada document that there would be -- if you add up total number of reported deaths, that there would be a figure of 13,789. That would be the calculation made in the third column. Do you agree with that math, Dr.

Hodge?

A. I can do the arithmetic if you allow me to go get a calculator. It seems about right.

410. Q. Well so we can deal with it as being correct and we can do the math after. But 13,789 outbreak linked death. So if we go to figure 9 now, please? Figure 9 is showing us cases per outbreak by setting. And what we have here again is an indication of long-term care and retirement homes as being one of the highest. And from communities is the highest level of case per outbreak. Do you agree with that graph, Dr. Hodge?

A. The bar is the highest for communities. Again, there's no source. So I can't speak to the accuracy of the numbers.

411. Q. All right. Well we'll provide the source. What I'm saying to you is I believe the source is taken from Stats Canada, but we will provide the source. So I'll make that an Exhibit for identification.

EXHIBIT NO. 4 FOR IDENTIFICATION PURPOSES:

Figure 9, Statistics Canada document.

BY MR. SWINWOOD:

412. Q. If we can now go to Figure 10?

MR. RYAN: Mr. Swinwood, we're not going to agree to a document provided after the Examination being

made an exhibit. That means the witness has never had a chance to see it.

MR. SWINWOOD: Well no, I understand that, but what we're going to be doing is dealing with these documents, for instance, just showing you the source of it. Like this document right here which is a Stats Canada document.

BY MR. SWINWOOD:

413. Q. So this document comes from Statistics Canada and this is showing international travel entering or returning to Canada. Do you see that, Dr. Hodge?

A. Yes.

414. Q. And it would appear from this document that there are approximately 4.5 million travelers and the figure $900,000 per month.

A. I don't see the dollar reference, sir.

415. Q. No, not dollar, but -- if you see total international travels is at the top line, 4.599473.

A. Yes.

416. Q. Okay. And it would show approximately 900,000 per month.

A. I don't see a per month calculation. What I see is numbers per month that range from 614,000 up to 4.59 million.

417. Q. Yeah, so ---

A. So if you can clarify your point.

418. Q. So it would be an average of 900,000 per month.

A. I didn't realize we were here to do arithmetic, but I will defer to your arithmetic in the interest of time.

419. Q. Okay. But we didn't see any of that in the cases outbreak that we talked about. There was no category for travel. There was no category for people travelling. You didn't see that in the previous graph, did you?

A. I think that's because of your exhibit 2, if I'm keeping track of it, which is the definition of an outbreak.

420. Q. Yes, but going -- just simple straight up, the graph before does not have anything about travel.

A. Well that's correct, sir, because travel is excluded from the definition of the outbreak. It's a tautology if I may say so.

421. Q. If we go to figure 12, please? And this is deaths per outbreak and again, I think we've seen a graph of this nature before, but again, it just reinforces the idea that long-term care has been -- long-term care residences has been the hardest hit in relation to deaths per outbreak. Again, do you agree

with that, Dr. Hodge?

A. I do, but deaths from outbreaks are, with the exception of the congregate living outbreaks, are largely irrelevant because it's the chains of transmission that are the focus of the public health measures, not the death prevention among the people whose cases are attributed to that exposure. And we certainly went through this in our first session. I'm happy to reiterate it if that would be helpful for you.

422. Q. If we could go to -- and just as an aside, would you agree that the people that are in long-term care residences are essentially have high levels of severe medical conditions that they deal with? Is that a fair statement?

A. Yes and that's why they require care from people who go to restaurants and churches and shops. And that's why measures were taken to limit those gatherings to try and reduce the importation of the infection into that population of highly vulnerable people.

423. Q. Well it would seem to me that the reason that they were -- or the manner in which they would be protected is to stop them at the door, not having them sitting in a restaurant, but to stop them at the door of the institution. Isn't that a fair statement?

A. I do not disagree with you theoretically, although if you -- perhaps you're not familiar with people who live in long-term care. They would require regular care on the -- or in some cases every few minutes or every hour. So to stop everybody at the door would leave those people to suffer and die in their beds uncared for.

424. Q. Well in most long-term care residences that when a flu or Influenza hits the institution, most of the employees stay in the institution so they can lock the place down.

A. I'm not familiar with that, but perhaps you can cite some evidence that I can respond to.

425. Q. Well it certainly is ---

A. --- not locked into their workplaces. There's no legal framework for that in Ontario.

426. Q. Well there's certainly practices of long-term care homes that bring this about in order to bring infections down. Would you not agree?

A. I don't know what practices you're referring to, sir. You said locked in which to me is barring exit.

427. Q. Yes, that's correct. Barring exit. Staying in residence for the six to eight weeks that it takes for a virus to run its course.

A. So just to be clear, I am unaware of legal or other measures that would direct long-term care homes to lock their staff and employees inside the building. If you are aware of those, you would be so kind as to provide the evidence that I can respond to.

428. Q. No, I'm not talking about regulations or anything. I'm talking just about a practice that would be adopted by the long-term care home. But that's okay ---

A. I believe you are speaking in the realm of fiction. So I would require some evidence of that.

429. Q. Is Influenza ---

A. We can do the thought experiment. If PSWs were routinely being locked inside the places they work, how would they get change of clothing or food? Where would they sleep?

430. Q. Well that's the whole point is that they would have that practice because they have accommodation for them. But ---

A. I think you're in the realm of fiction, sir. I'm going to ---

431. Q. I don't think so, but that's fine. Influenza, is that a respiratory virus?

A. It's a virus that is spread primarily through respiratory transmission, yes.

432. Q. Is Pneumonia a respiratory virus?

A. Pneumonia is a clinical condition that can be caused by a range of organisms, viruses, bacteria, potential fungi.

433. Q. It's a respiratory virus?

A. No, it's not, sir. It's a clinical condition in the same way that heart disease describes a constellation of clinical conditions. Pneumonia literally means an infection of the lung tissue.

434. Q. Okay.

A. That infection can be caused by a range of organisms, some of which are viruses.

435. Q. Okay. And Covid-19 is a respiratory virus?

A. It is a virus that is spread by respiratory transmission, yes.

436. Q. Thank you.

A. It also produces clinical effects in other physiologic systems beyond the respiratory system.

437. Q. Okay. Can we look at figure 13, please? Is it fair to say that given the graph of again, the deaths per 100 cases or percentage of cases that result in death, again we're visited upon the long-term care, is it fair to say that those with pre-existing conditions face a much higher risk of death?

A. So there's an interaction with age, but

generally at any age, people with, what you call preexisting conditions, will have a higher risk of death from all causes. And it would appear from the Covid experience, from Covid that applies too. People who are older have an independent age associated risk of death associated with their age.

438. Q. So one could say that it's not the building itself, but it's the specific characteristics of the people in the building?

A. If you say that, that's your opinion. I would propose to you that it's actually the organization of those people. If we take a healthy group of people, we put them in four bedrooms, we don't let them leave and we have staff move from room to room to assist them with toileting and feeding, we'll see higher rates of infection than if we stay in our own private residences.

439. Q. If we go to figure 15? This is a graph showing the deaths by setting. And it would show long-term care and retirement residences as 90.9 percent and hospitals and healthcare is 6.1 percent and gatherings, office and gyms is in the blue, you can hardly see it. So doing the math, it's about 4 point something percent. Would you agree with this line, Dr. Hodge?

A. Again, without any source, this graph doesn't meet the standards of reasonable presentation.

Are you referring to outbreak deaths or all deaths here?

440. Q. Well it's deaths by setting. So it's all deaths in those settings.

A. No, I believe you're mistaken. Are these outbreak deaths, outbreak associated deaths, the 13,000 that you showed us in the initial exhibit or are these all roughly 60 -- sorry, 25,000 deaths in Canada? Because that's important to my interpretation of your figure.

441. Q. It's the 13,000 that we referred to.

A. So you're referring to outbreak associated deaths?

442. Q. Correct.

A. And your question?

443. Q. Well I'm asking you if you agree with this outline of 90 percent in the long-term care and retirement homes.

A. So this is arithmetic subject to the source being valid, I don't disagree with basic arithmetic. Two and two is pretty much always four.

444. Q. Okay. So if we could go to figure 16? So it's a total outbreak linked deaths. This is virus roaming in the institutions versus virus roaming outside the institutional walls. That's community spread. Do you agree with this graph?

A. I would decline to comment it. It lacks the basics of source, definitions. You might as well ask me if I think the Montreal Canadiens will win the Stanley Cup.

445. Q. Well based on the numbers that we were talking about, it would appear that this proportion exists in the general population and in the long-term care population, that there appears to be two populations, one that's in institutions and one that's outside the institutions. And it's simply stating a proposition that the outbreak and linked deaths is way, way higher in the institutions than it is in the general population.

A. So if you wish to engage in the general population conversation, I think you have to appropriately consider deaths which could not be linked to an outbreak. So if we have 13,000 -- let's agree it's 13,000 for the purpose of not getting bogged down in arithmetic, outbreak linked deaths, Canada has had 25,000 deaths. Which means the community spread box is missing 12,000 dead. When you add those in, I think you'll find that 12,000 and 13,000 are broadly similar.

446. Q. Well we'll come to that in a moment here.

A. Do you see my point though, sir? I want to clarify that virus roaming outside institutional walls

has no public health meaning. Outbreaks by definition occur in institutions. Your earlier exhibits have demonstrated that very ably. So to now suddenly jump to say we're talking about outside the institutional walls, surely we should admit the deaths that occur outside institutions.

447. Q. Well so if we take those figures then we say that there's 24,402 Covid-19 related deaths in Canada, let's just take that as a statistic. Do you agree with that statistic?

A. I would defer to my Affidavit. The number is 24,714 in table one.

448. Q. Okay. So we'll go with 24,714. That -- let me go to Figure 18. Now this is a graph from Statistics Canada and it gives age distribution of death in Canada. And we're showing, again, the majority of the population over 60 is who is affected by this Covid-19. Would you agree with that?

A. The majority of the deaths occurred in persons of over 60. The term affected has a range of meanings.

449. Q. So deaths, you'll agree with me then it's deaths.

A. Yes, the appropriate way to present this is not proportional mortality which is the percentage of

deaths by age groups, but the rates of deaths. So how many deaths per 100,000 of each age group.

450. Q. Correct. And so this would -- over 60, it would appear that that accounts for 95.3 percent. Again, doing the math.

A. Again, from a proportional mortality point of view, yes.

451. Q. Yes. So in -- of all the 24,402 deaths, I believe the next figure 18 -- there's a statement that 9.4 million Canadians are over 60 which is a Statistics Canada number which would equate to about 25 percent of the population. Would you agree with that number?

A. Subject to verification, yes.

452. Q. Okay. And so that the 24,710 deaths that you described would be over a population of 9.4 million.

A. No, that's over the entire population, sir.

453. Q. Okay, but the people over 60 I mean. I'm talking about over 60.

A. My Affidavit does not speak to the age distribution of deaths.

454. Q. Okay. Also, Statistics Canada census suggests that there are approximately 160,000 living in long-term care in Canada. Would you agree with that?

A. Again, subject to verification.

455. Q. Okay. Can we go to figure 19, please? We

don’t seem to have it.

MS. BENJAMIN: I can pull it up if you want to give me a minute.

MR. SWINWOOD: Okay.

BY MR. SWINWOOD:

456. Q. So this represents the elderly population living inside versus outside institutional settings. And the green represents seniors living outside of institutional settings. And the red indicates Canadians living in institutions which is long-term care, hospitals, and prisons. So institutions, we’re suggesting there’s a maximum of 292,000. Outbreaks there would appear to be 13,611 which is outbreak linked deaths. And on the opposite side, we have the population of approximately 9.1 million and outbreak linked deaths of 178. Does that accord with what you know, Dr. Hodge?

A. The numbers seem broadly reasonable.

457. Q. All right. If we could go to figure 22, please?

MS. BENJAMIN: Can you confirm if it’s sharing the correct figure or if it’s stuck on the old one?

MR. SWINWOOD: Okay.

MR. RYAN: It’s showing figure 22.

MS. BENJAMIN: Thank you.

MR. SWINWOOD: Thank you.

BY MR. SWINWOOD:

458. Q. So we have outbreaks in long-term care, 13,000 and then we have long-term care not linked to outbreaks, 4,000. And hospitals and prisons not linked to outbreaks for a total of 18,275. And what we have outside the institutions is the 178 we saw before and the balance of deaths at 5,949 which gives us a figure of 6,127. And that brings us to the total of 24,402. It's off by your calculation of 24,710. But it's an approximate basis.

459. Q. Do you agree with that, sir?

A. I don't understand "give gov'd benefit of the doubt."

460. Q. Well it's talking about the balance of deaths and the figure that is estimated by the government. That's what it means.

A. But the material in the brackets.

461. Q. Yes, that's the material in the brackets. "Give Government benefit of the doubt." Meaning the balance of deaths, the 5,949. It's based on estimates.

A. Are you asserting that these people might not be dead?

462. Q. No, I'm not asserting that, sir. I'm suggesting to you it's a guesstimate number. But what

it does is it breaks it down in terms of institution versus those outside the institution. And I'm just trying to show the proportion in relation to the total number of deaths that we talked about.

A. Yes.

463. Q. And I'm suggesting to you that that's the breakdown.

A. It seems reasonable.

464. Q. Okay, thank you. I'd like to make that an exhibit, please.

MR. RYAN: Also for identification. We also don't know the source of this.

EXHIBIT NO. 5 FOR IDENTIFICATION PURPOSES:

Figure 22.

BY MR. SWINWOOD:

465. Q. Okay. And then if we could go to -- 22 is what we're on. So 25, please. Sorry, go to 26. This also is a Stats Canada document. You can see at the top it says, "Source to Statistics Canada." And it's total deaths per 100,000 population Canada February 20th. 2011 to February 6th, 2021. And you see that sir?

A. Yes.

466. Q. And so what it is showing here is the -- can you just make that a little bigger, Carly, please? Thank you. It's showing selected grouped causes of

death by week and the population estimates quarterly. And what we see here is Covid-19 is taking up the column, February 6th, 2021. And it would show that there's only a slight increase in the total number or groups of deaths caused. Do you agree with that, sir?

A. I think the figure is unclear. It says in the title total deaths, but in the fine print it says, "Selected grouped deaths causes of deaths." So I would need to know which causes of death were selected. I would also wish to see confirmation that this has been age adjusted for the change in the population structure between 2012 and 2021.

467. Q. But this is representing the severity of the Covid pandemic compared to previous years with normal mortality. That's what the comparison is about.

A. See, that's your opinion, I understand.

468. Q. Well that's what the graph is designed to do is to show the severity of Covid-19 over the years 2012 to 2021.

A. Right, but since ---

469. Q. It's a graph ----

A. --- the information presented in the graph lacks the basic context that I would need to provide an opinion, I just wanted to clarify that your opinion is that this is about Covid-19. I'm unable to comment.

470. Q. Well what it's about is the mortality rate over that period of time. That's what it is. It's representing the mortality rate.

A. So you say.

471. Q. Well that's what they say.

A. But again, sir, there's basics of what we might call effective scientific communication that are missing from this graph. I don't know who prepared it. I don't wish to impugn their motives, but I would need to see confirmation of age adjustment for change in population structure. I would need to see confirmation of which causes of death were selected and I would like to understand the construction of the black line.

472. Q. But it is -- the source of the document again is Statistics Canada.

A. As you say.

473. Q. Well no, I'm not saying it. It says right on the document.

MR. RYAN: Mr. Swinwood, in the lower right the graph says, "@Milhouse." That suggests to me that this is created by a Twitter user, not by Statistics Canada.

MR. SWINWOOD: Well the source is Statistics Canada. That's the table that it comes from. But in any event, we'll identify it for you. Go to figure 28, please?

MS. BENJAMIN: Give me a moment for that one.
MR. SWINWOOD: Yeah.
MS. BENJAMIN: Is this the one, Michael?
MR. SWINWOOD: Yes.
BY MR. SWINWOOD:

474. Q. This was a question to Toronto Public Health, why the media is recording death as Covid-19 even if the death was caused by unrelated conditions and reasons according to doctors. And the reply from Toronto Public Health was individuals who have died with Covid-19, but not as a result of Covid-19 are included in the case counts for Covid-19 deaths in Toronto. In your experience, Dr. Hodge, is this a correct statement?

A. Yes.

475. Q. And so is it -- if someone, let's take in a long-term care home, passes away, they are included as a Covid-19 death even though it's not as a result of Covid-19?

A. I think it's helpful to understand what you mean by result. Because -- I apologize if this is inadequately differential. Death is not a simple ascertainment of this caused that. And with the exception of trauma. So for example, if you get run over by a truck at high speed, we can be pretty confident that you died as a result of that. But even

then, you may have died of intracranial hemorrhage, you may have died from an aortic dissection. So the person in a long-term care facility, perhaps one such as you have proposed to manage where the staff are locked in or out and therefore can't work who starves to death and has Covid-19, Covid-19 likely contributed to their death. What is the immediate cause of death? Presumably starvation. The same goes with people who've had strokes whose risk is substantially indicated by Covid-19. The immediate cause of death, Covid-19. Contributing cause of death -- sorry, the immediate cause of death, stroke. Contributing cause of death, Covid-19. So in order to have a comprehensive picture of how Covid-19 is affecting mortality where a person dies with Covid-19, it would be attributed to Covid-19 deaths.

476. Q. But as Toronto Public Health says, it's not as a result of Covid-19 that they died.

A. Result has no epidemiologic meaning in the matter of death ascertainment. There's a notion of immediate causes and contributing causes. If you have an issue with Toronto Public Health, I encourage you to take it up with Dr. De Villa.

477. Q. Is there a protocol or is there a code in the hospital, for instance, that puts Covid-19 on death

certificates even if they've died of a heart attack?

A. So I would defer to each hospital's practice. There's a standardization of coding that happens. It takes places away from the clinical work. So you would probably need to seek expertise from people who do that work.

478. Q. What about in your own hospital where you work?

A. I don't do that work, sir. I'm not a coder.

479. Q. No, but when you're treating people and -- do you have to pronounce death at any time?

A. I do.

480. Q. And is there a protocol wherein you pronounce them a Covid-19 death if they have a PCR test that's positive despite the fact they died of a heart attack?

A. So, I have not had, in the emergency department, that situation arise because the PCR test results are often not available. So that's why cause of death coding involves a complex system of information management of which the physician is a very minor part.

481. Q. Well the physician is the one who has to fill out the death certificate, correct?

A. That's correct, but what the physician writes on the death certificate may not be the final

attribution of cause to death or death to cause, if you prefer.

482. Q. In -- just a moment. Just give me a second here. I have to find my document. Can we go to number 39, please, Carly? Not figure 39, but number 39 on the index. Are you familiar at all with this document, Dr. Hodge, Canadian Pandemic Influenza Preparedness Planning Guidance for the Health Sector?

A. I'm aware of its existence. I'm not familiar with its content.

483. Q. Okay. You haven't looked at this?

A. No, this is -- you did not submit this as far as I was aware.

484. Q. No, but I'm -- I just mean in your own experience that you haven't seen this or referred to this document?

A. No.

485. Q. No. Number 40, go to number 40, please. This is public health measures annex. And it's February 14th, 2019. Have you ever seen this document?

A. No.

486. Q. Okay, 41. This is surveillance annex. Have you seen this document?

A. No.

487. Q. Number 42, the Federal Emergency Response

Plan which is dated January, 2011. Have you ever seen this document?

A. No.

488. Q. Forty-three. Federal, Provincial, Territorial Public Health Response Plan for Biological Events, 2018. Have you ever seen this document?

A. No, not this version.

489. Q. Another version?

A. There have been previous FPT planning efforts and I was aware of their existence when I did some contract work for the Federal Government for Indigenous Communities.

490. Q. But the 2018 document you've never seen nor referred to?

A. No, I wasn't -- I was not doing that work at that time.

491. Q. Okay. And you haven't seen it, nor referred to it in preparing your Affidavit?

A. No.

492. Q. No. 44. These are the International Health Regulations from the World Health Organizations. You're familiar with that document?

A. Yes.

493. Q. And have you ever referred to it in your preparation of your Affidavit?

A. For this? No.

494. Q. Okay.

A. Because as I said, Ontario is not a state party.

495. Q. I'll just refer to number 45. And this is chapter one, Ontario Health Plan for an Influenza Pandemic. Have you ever referred to this document?

A. This version, no.

496. Q. Pardon me?

A. This version, no.

497. Q. What version would you have referred to?

A. There were previous versions that I was using when I was working as a consultant, as I said, for Indigenous Communities.

498. Q. Okay, but not in preparation of your Affidavit or anything like ---

A. No. Influenza was not, as I understand, material to your client's concerns.

499. Q. Document number 54, please. This is a publication of the Ontario Public Services Guide to Public Service Ethics and Conduct. Have you ever seen this document?

A. When I worked for the Public Service of Ontario, I was -- I reviewed this document when I was on boarded.

500. Q. And so you have worked with this document before?

A. I don't know which version you're using, but this document goes through various revisions. I was an Ontario Public Service member from 2015, January, through April, 2016.

501. Q. Okay.

A. Or January, 2016 through April, 2017.

502. Q. Okay, just go through, Carly, one page to see if there's a date on this. No, okay. And in relation to this guide for Public Service Ethics and Conduct, are you familiar with what's in the document?

A. Yes, when I was -- as I said, when I was an employee of the Ontario Public Service, I reviewed this when I started my employment.

503. Q. All right, thank you. If we can go to document number 55, please? This is Public Health Agency of Canada, the Act. Are you familiar with this Act at all?

A. Yes, generally. I'm not familiar with it at a level of the specific clauses.

504. Q. But you're familiar with the Act?

A. Uh-hmm.

505. Q. All right. I noticed in your CV that you've had experience with the United Nations in various

capacities in the past. Is that correct?

A. Yes.

506. Q. And you also worked with the World Health Organization. What were the years that you did that?

A. I had three separate contracts between 1999 and 2001.

507. Q. And do you -- are you aware of the setup of the World Health Organization today? For instance, are you aware of who is the head of the World Health Organization?

A. Are you referring to the Director General?

508. Q. Correct.

A. Yes.

509. Q. And you know Dr. Tedros?

A. Not personally, no.

510. Q. You know of him. You know he’s the Director General?

A. Yes, that’s correct.

511. Q. Yeah. Were you aware of his involvement in security forces in Ethiopia before his appointment to the WHO?

A. I was not aware of his existence until he was appointed.

512. Q. So do you know anything about his background?

A. I understand he's from Ethiopia.

513. Q. But are you aware that he was Head of Security Forces in Ethiopia?

A. No.

514. Q. Okay. Are you familiar with the relationship between the Bill and Melinda Gates Foundation and the World Health Organization?

A. I have read in public reports that the Bill and Melinda Gates Foundation makes donations that WHO uses to support countries in public health actions.

515. Q. What about the World Health Organization itself? Are you aware of their contributions to the World Health Organization?

A. I'm sorry, that sounded like a circular question. Could you rephrase, please?

516. Q. Sure. Are you aware of the Bill and Melinda Gates Foundation contributions to the World Health Organization?

A. So as I said, I have read in the newspaper that the foundation makes donations that WHO uses to support public health activities in countries.

517. Q. But specifically with the World Health Organization is what I'm asking you.

A. I don't understand your question, but I've given you the answer of the limit of my familiarity with

the Gates Foundation.

518. Q. Okay. Now we talked about -- when we were last together, we talked about vaccinations and we talked about studies that had been conducted in relation to the companies that are creating these vaccinations. Were you able to look at or find any of those studies?

A. I reviewed the material on the Canada Website which I believe was shared with you.

519. Q. No, there was an undertaking to provide us with the studies that you mentioned. I'm just wondering if you were able to access those studies?

A. As I said, I reviewed them on the Canada website.

520. Q. Well can you point ---

A. Can you clarify what you mean by access?

521. Q. Well, just can you tell me where the documents are on the Canada website? Is that what you're saying?

A. So I would defer to Counsel. I reviewed the Government of Canada's website on the vaccines that are approved for use in Canada. And shared that information with Counsel for the Crown with the view to clarifying if this would meet your needs and perhaps Mr. Ryan, can you update me?

MR. RYAN: Sure. So Dr. Hodge, we respond to

undertakings after the conclusion of the Cross-Examination. So we haven't passed anything onto Mr. Swinwood at this point, but we would do so once we're concluded. If Mr. Swinwood wants to ask you questions about what you looked at, that's fine. But that's the point in which the actual production takes place.

THE WITNESS: Thank you.

BY MR. SWINWOOD:

522. Q. Well that's what I would like to know, Dr. Hodge. What is it that you looked at?

A. So on the Government of Canada website, there is a series of tables that indicate the vaccine agents that have received emergency use approval and the information that was submitted in support of those applications.

523. Q. So those are the studies then that you're referring to that we would be looking at from your perspective? Those studies?

A. Yes.

524. Q. Okay, thank you. If we could go to figure 43? This is a -- there's the vaccine adverse events reporting system. This is maintained by the CDC in the United States. And what we're seeing here is that through May 14th, 2021, the statistics, 4,201 deaths, 12,625 hospitalizations, 29,707 urgent care. So these

statistics are through to May 14th, 2021. Have you ever had occasion to view the adverse effects of the vaccinations that have been underway?

A. When you say view, are you referring to looking at this website?

525. Q. Yes. Let's say that, looking at this website.

A. No, I -- the United States' experience with the vaccine is the United States' experience. I regret that I don't have time to consider every country. And so I'm not familiar with these numbers. And I would point out that the way this is presented lacks clear -- a way for us to verify that these are accurate.

526. Q. If we go to figure 53. So this is called global Ivermectin adoption for Covid-19 and it goes through various countries. And this is -- again, we're back to Ivermectin and your view that this is -- Ivermectin is not federally approved or regulated. Is that what your statement was, sir?

A. Yes, drugs are approved for specific clinical indications and at this time, Ivermectin is not approved for Covid-19 treatment or prevention in Canada.

527. Q. Do you know, for instance, of peer-reviewed studies that suggest that it's one of the essential medicines on the World Health Organization's lists?

A. And in that case, it's for the specific indication of parasitic infections, yes.

528. Q. Yes. So it's viewed by the World Health Organization as an essential medicine.

A. With respect to the indication of parasitic infection, yes.

529. Q. And there is some suggestion that Ivermectin has a protective effect in relation to those who contact Covid-19. Do you agree with that?

A. Are you asking me if I'm aware of the suggestion or do I agree with the substance of the matter?

530. Q. Do you agree with the substance of the matter?

A. I have no opinion about it.

531. Q. Have you ever looked into it and opined on it?

A. Well given your enthusiasm for Ivermectin, since we last spoke, I did a quick review looking for a randomized trial of Ivermectin use in persons with Covid-19 with regard to treatment or persons without Covid-19 with regard to prevention. And I was unable to identify one. I notice also that none of your experts identified one in the materials that they provided. So I concluded that that was a reasonable effort with

regard to your optimistic aspirations for this medicine.

532. Q. Have you read Dr. Risch's report in relation to Ivermectin? Have you read ---

A. I have.

533. Q. You have?

A. Yes.

534. Q. And he goes through all the science that's spoken to there and the studies that have been conducted.

A. I feel like we're going back to where we started last week. So I'll simply reiterate it. When we do studies that are not randomized, we come up with results that are often not supported when we do the definitive scientific test which is half the people get Ivermectin and half don't. That randomized study is necessary for regulatory approval in Canada. Absent that study, Dr. Risch and others, it would behoove them to do that study because if it's as good as they believe, it could save thousands of lives. But I note they haven't done it. And so I'm left unable to use that for patients. And as a matter -- I don't make my clinical decisions based on belief that a medicine works. We have a whole regulatory, marketing, and scientific framework for confirming that on balance a medicine is effective for the condition for which it's

prescribed.

535. Q. But there's a suggestion by Dr. Risch that there are all sorts of studies that give credence to the idea that it's very effective in the treatment of Covid-19 specifically.

A. There are all sorts of people who believe the Leafs would defeat the Canadiens. Non-randomized studies are not much better than sport fan beliefs as basis for policy making because too many people would be harmed if the drug has adverse effects that have not been adequately document or worse, has no benefit to offset those adverse effects.

536. Q. But those aren't his conclusions, those are your conclusions.

A. No, I'm stating that's a matter of broad scientific consensus. Drugs are approved for use in humans on the basis of randomized controlled trials. They're not approved on the basis of laboratory investigations in rats. They're not approved based on, "I gave the medicine to ten people and eight of them got better."

537. Q. That sounds like what's missing in the vaccinations. Exactly what you're talking about?

A. Not -- trials. Patients received ---

538. Q. What you're talking about is missing.

A. You are absolutely mistaken, sir. I would respectively note that vaccines were actually tested in randomized trials because trial participants, some of them received placebo which meant they got no vaccine, they got no protection. The rates of infection were tracked in the vaccine group and the placebo group and it was shown that the rates of infection in the vaccine group were 90 plus percent lower than in the placebo group. People were willing to donate their time and health for the benefit of the entire human community to confirm that these vaccines work. They might be willing to do so for Ivermectin, but that study has not happened.

539. Q. The clinical -- usually in relation to drugs that need to be approved, there needs to be animal testing, correct?

A. Animal testing is generally done as a prelude to human testing. That is correct.

540. Q. Has that been done in relation to the vaccines that we're looking at today?

A. So part of the challenge is, is there an animal model that's available? I'm not a vaccinologist, but my understanding is that in general, vaccines have been challenging to test in animal models because we don't have animal models that are adequate

representation of human physiology with respect to vaccines. We, as humans, are blessed with an immune system that's amazingly complex. So vaccine trials are typically done in human populations as were the Covid-19 vaccine trials.

541. Q. And the Covid-19 vaccinations presently skip the animal testing and the testing is now on the humans. Is that a fair statement?

A. If you wish to hold that opinion, I defer to your opinion. I do not agree with you because I made the point -- I will repeat it for you. If there is no animal model, there can be no animal testing.

542. Q. The clinical -- would you agree with me, the vaccination program that we have now is clinical trial?

A. No, I disagree wholeheartedly. The clinical trials were done prior to marketing approval. What we have now is a lifesaving intervention that has the potential to return, not only to prevent death and illness, but to return our healthcare system and our entire society to a more normal level of functioning.

543. Q. Can you please suggest to me the studies that back up what you've just said?

A. I'm sure they'll be provided to you at the end of this Cross-Examination.

544. Q. Well no, I mean -- I specifically would like

to see the study that substantiates what you just said about vaccinations for Covid-19.

A. So I said two things. I said there's no animal model and I said that it's producing dramatic reductions in deaths and hospitalizations.

545. Q. And what ---

A. We can provide you -- your undertaking initially was a request for the studies of the vaccine's effectiveness. If you wish to make an undertaking regarding the reductions in deaths and hospitalizations, please discuss with Mr. Ryan and I would be happy to support your request.

546. Q. Well terrific. That -- can we have an undertaking for those studies, please?

MR. RYAN: That's fine. *U*

MR. SWINWOOD: Thank you.

BY MR. SWINWOOD:

547. Q. Can we go to number 108, please? Are you familiar with Luc Montagnier, Dr. Hodge?

A. I actually have heard him speak, yes.

548. Q. Yeah. Yeah, you're aware that he was a Nobel Peace Prize winner in 2017 in Virology?

A. I believe he was actually a Nobel Prize Winner in Medicine and Physiology, not a Peace Prize Winner.

549. Q. Okay. I'm sorry. He was a Nobel Medicine Prize Winner. Do you agree with that?

A. It's a matter of public record, yes.

550. Q. Yeah. Do you consider him to be expert in his field?

A. In some areas, yes.

551. Q. Okay. In this article, he is suggesting that what you described in your Affidavit of variants of concern, he's suggesting in this article that the variants are coming from the vaccination itself. So if we could look at the article here? There we go. Can you make it bigger, please, Carly? Thank you. The first sentence says,

"While it is understood that viruses mutate causing variants, French Virologist and Nobel Peace Winner -- Nobel Prize Winner, Luc Montagnier contends that it is the vaccination that is creating the variants."

He goes on -- if you can go a little into the article here, please? Thank you. Just stop there. So first of all, he's basically saying that the variants are really being caused by the vaccination. Do you agree with him?

A. No.

552. Q. Why?

A. Because I look at what the goal of the

vaccination is and I see declining death rates in vaccine populations, vaccinated populations compared to non-vaccinated populations. And my job is to prevent death. And so vaccines work to prevent death. I also note that Dr. Montagnier has not backed up his assertions with a peer-reviewed publication whereas I can access peer-reviewed publications that show the deaths have decreased. And I'm also concerned that the article appears to have typographic errors which raises questions also for me about its credibility.

553. Q. I see. Well these are quotes coming directly from Professor Montagnier. And in this paragraph he says,

> "Professor Montagnier referred to the vaccine program for the Coronavirus as an unacceptable mistake. Mass vaccinations are a scientific error as well as a medical error, he said. It's an unacceptable mistake. The history books will show that because it is the vaccination that is creating the variants. [He goes on to say that] There are antibodies created by the vaccine forcing the virus to find another solution or die. This is where the variants are created. It is the variants that are a production and result from the vaccination."

You disagree with that, sir?

A. I simply would ask Dr. Montagnier to provide a scientific approach to his assertions. Professor Montagnier has made many assertions over the course of his career. Some of them backed up by science and some perhaps aspirational or innovative thinking. While I don't wish to frequent you in ten or twenty years, we could both look at the history books then and see whether the vaccination in fact created the variants.

554. Q. "Professor Montagnier said that the epidemiologist know, but are silent about the phenomenon known as antibody dependent enhancement. In the articles that mention ABE, the concerns expressed by Professor Montagnier are dismissed. Scientists say that ABE is pretty much a non-issue with Covid-19 vaccines. An article of today reported in March. [Thank you] Professor Montagnier explained that the trend is happening in each country where the curve of vaccination is followed by the curve of deaths."

Do you disagree with what he says there, sir?

A. Out of respect for Professor Montagnier, I would like to see the evidence of the trends in each country and the curves and those are not provided in

this source. I would also point out that the MRNA vaccines and Dr. Montagnier's career is, shall we say, in the twilight at age roughly 90. MRNA vaccines introduce no viral particles into the human host. If you have a virus in the human host, you can have selection pressure where stronger virus or more variant virus overtakes the less strong virus. The MRNA vaccine introduces no virus. So if Dr. Montagnier's explanation, if I'm generous given his many contributions to science, is about selection pressure from a live viral agent, he has perhaps omitted or failed to understand the mechanism of these new scientifically new vaccines. MRNA vaccines, Pfizer, Moderna introduce no viral material into the human host. So there's nothing to select against.

555. Q. Are you aware of the ingredients of the vaccination offered by these drug companies?

A. When you say ingredients, what do you mean?

556. Q. Just what I mean, the ingredients that go in to the product.

A. Ingredients is not a vaccine term. There's a vehicle, there's adjuvant. What are you describing, sir?

557. Q. Well that's what I'm asking you. I've got a vial in front of me with a substance in it. What is in

the vaccine? What is in that vial?

A. What is says on the label

558. Q. And are you familiar with what's on the label?

A. Well I've had a look at a couple of labels in the course of my practice, yes. I couldn't rhyme it off for you. I would refer to the product monograph.

559. Q. Well would you be so kind as to undertake to provide us with the ingredients of the vaccination?

A. I mean, I defer to Mr. Ryan. I think that would be more correctly or appropriately directed to the manufactures of those vaccines so that you would be confirmed that you've received accurate information.

MR. RYAN: We'll take that under advisement, Counsel. *A*

MR. SWINWOOD: Thank you.

BY MR. SWINWOOD:

560. Q. "In this article, Professor Montagnier continues to say that he is doing his own experiments with those who became infected with the Coronavirus after getting the vaccine. 'I will show you that they are creating the variants that are resistant to the vaccine.'" That's quite a statement from the Nobel Prize Winner. Don't you think, Dr. Hodge?

A. Well it's also about a statement of aspiration or future. "I will show you." And as you may recall from the HIV/AIDS era, Professor Montagnier and others made many statements of aspiration and the data came out and reshaped the conversation.

561. Q. Does it not concern you as a medical doctor that a Nobel Prize Winner in Medicine is saying such a controversial thing in relation to the vaccinations?

A. I don't have a measure for concern, sir. What I know is that I can make the best decisions for the patients, the population that I'm trying to assist or trying to serve based on the best science. Dr. Montagnier's experiments, if they are ongoing and they are published and they meet the standards of peer-review, they would be incorporated into that thinking. But at this time, this is at the level of the Toronto Maple Leafs announcing they're going to win the Stanley Cup.

562. Q. I take it from your answers in this regard that you are a Leaf fan.

A. No, not at all actually. I grew up in Quebec and one of my childhood traumas was being relocated to Ontario in the 1970s and having to tolerate Hockey Night in Canada never showing the Montreal Canadiens.

563. Q. Oh, so there you go. And you're happy that the Canadiens won?

A. I have no opinion about it. I was trying to add some levity to our conversation.

564. Q. Yeah, I get it. I get it. Are you aware of ---

A. I see we have just a couple minute left.

565. Q. Yeah, no problem.

A. Can I just ask Mr. Ryan, is there -- should we be continuing?

566. Q. No, no, we're getting close. We're getting close here.

A. I really do have a ---

MR. RYAN: So Dr. Hodge, if you have to leave immediately at noon then we will adjourn there as we advised Mr. Swinwood that that was the time at which you were no longer available. If you have any further time that might allow Mr. Swinwood to finish today, then we can do that, but it's entirely based on what your other obligations are today.

THE WITNESS: Yeah, regrettably, I was only available to noon. So if there's a decision to continue, we'll need to reschedule for continuing.

MR. SWINWOOD: Okay. We will -- in light of your commitments, we will end here. I'll take under

advisement whether we need to continue. I'll have a conversation with Counsel later today.

MR. RYAN: That's fine. Thank you very much, Dr. Hodge.

THE WITNESS: Thank you for your time.

MR. SWINWOOD: Thank you.

--- WHEREUPON THE VIRTUAL EXAMINATION ADJOURNED AT THE HOUR OF 11:59 IN THE FORENOON.

THIS IS TO CERTIFY THAT the foregoing is a true and accurate transcription from the Record made by sound recording apparatus to the best of my skill and ability.

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Leigh Meagher, Catana Reporting Services

Court File No. CV-20-00652216-0000

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO Applicant (Respondent on Motion)	- and -	**ADAMSON BARBECUE LIMITED AND WILLIAM ADAMSON SKELLY** Respondents (Moving Parties on Motion)

ONTARIO
SUPERIOR COURT OF JUSTICE
Proceedings commenced at the City of Toronto

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