My name is Gilbert G. Berdine, MD. My opinion on this case was presented to the court previously as an affidavit. My credentials were presented in that opinion. I am responding to the affidavit submitted by Matthew Hodge. I have some general comments that apply to expert Hodge's statement as a whole. I also have some specific comments about specific points made by expert Hodge.

General Comments

I and the other plaintiff experts made several points about the lockdown in Ontario which included the closure and/or limitation of capacity of restaurants in Ontario. These include, but are not limited to:

1. There are theoretical reasons why lockdowns fail to achieve the goals of reducing mortality from pandemics.
2. The evidence from across the world demonstrate no benefit with respect to mortality from the severity or intensity of lockdowns.
3. The lockdowns cause great economic harm. Even if there were a small benefit in mortality, and there is not, the small benefit would not be considered worth the economic harm by a reasonable and prudent person.
4. The lockdowns can make mortality worse than it otherwise would be by delaying or preventing herd immunity in the community. At the time of my original statement in this case, I expressed concern that Canada was entering a plateau of death, similar to that seen in France, rather than experiencing a decline of cases, hospitalizations, and deaths that would be expected following herd immunity. The data since my statement has confirmed this concern with the recent surge.
5. Jurisdictions that did not utilize lockdowns, including my city of Lubbock and my state of Texas, did not see a recent surge as predicted by so-called experts, but rather the cases, hospitalizations, and deaths continue to decline toward zero.
6. The variants of concern have not changed any of the above arguments as demonstrated by conditions in my state of Texas.

Expert Hodge did not address any of the above points. I submit these points were not addressed, because these points are irrefutable based on data. Expert Hodge makes a number of assertions which parrot claims made by organizations including the CDC and WHO. Unfortunately, these organizations often contradict their own statements within weeks of making them. Expert Hodge commits the fallacy known as appeal to authority. Expert Hodge makes assertions, claims these assertions are based on evidence, yet shows no evidence to support the claims. In the few cases where data are shown, the implications of the data are misrepresented by leaving out essential facts related to the data.

Specific Comments

In point 7, expert Hodge asserts that, "Due to 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. Accordingly, in my opinion, limiting restaurants to take out operations contributes to reducing COVID-19 transmission and harms from COVID-19." This is an assertion without any evidence. Although higher prevalence increases the protective value of EFFECTIVE measures, the evidence remains that during periods of high prevalence, exposures in restaurants are rare.[1] According

to Table 6 in the Public Health Agency of Canada (PHAC) report[1], fewer than 2% of COVID-19 cases and fewer the 1/4000 COVID-19 deaths could be attributed to transmission from a restaurant or pub. The following figures illustrate the PHAC data.

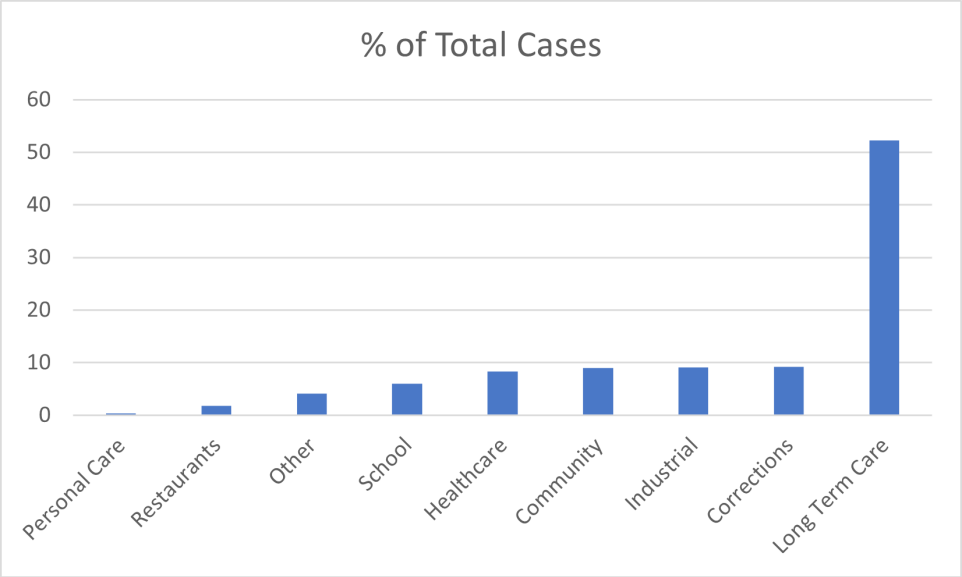

Figure 1: Percentage of total cases attributed to exposure in various venues. Data are from PHAC.[1] See text of PHAC document for details of definitions of venues. Personal care includes hair salons and nail salons. Restaurants include all food and beverage retail outlets such as pubs. Other is mostly office workplace. Community is mostly residences.

Note that this report on cases includes all the problems associated with looking at case numbers as a fungible quantity. The reality is that a case in a restaurant has a much different outcome than a case in a prison or long-term care facility.

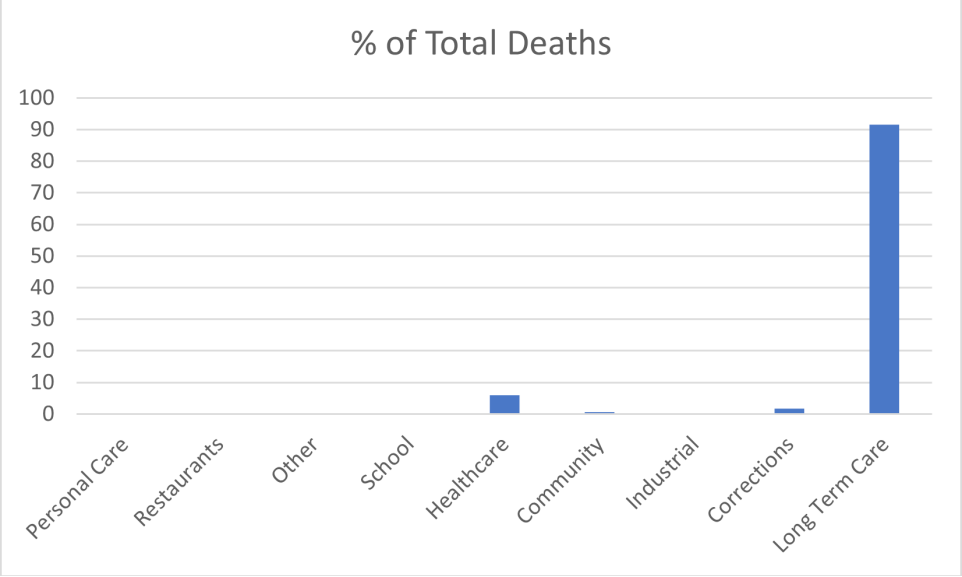

Figure 2: Percentage of total COVID-19 deaths attributed to exposure in various venues. Data are from PHAC.[1] See above text for descriptions of venues.

Deaths attributed to COVID-19 exposure in restaurants is so small one would need enhanced resolution to see the bar. Fewer than 1/4000 COVID-19 deaths can be attributed to exposure in a restaurant. The explanation for the differences between Figures 1 and 2 are related to the much different mortality by age. It is not so much the venue that is responsible; rather it is the age distribution of people in the venue. Furthermore, transmission from asymptomatic people has been shown to be rare[2], and symptomatic people are not patronizing restaurants.

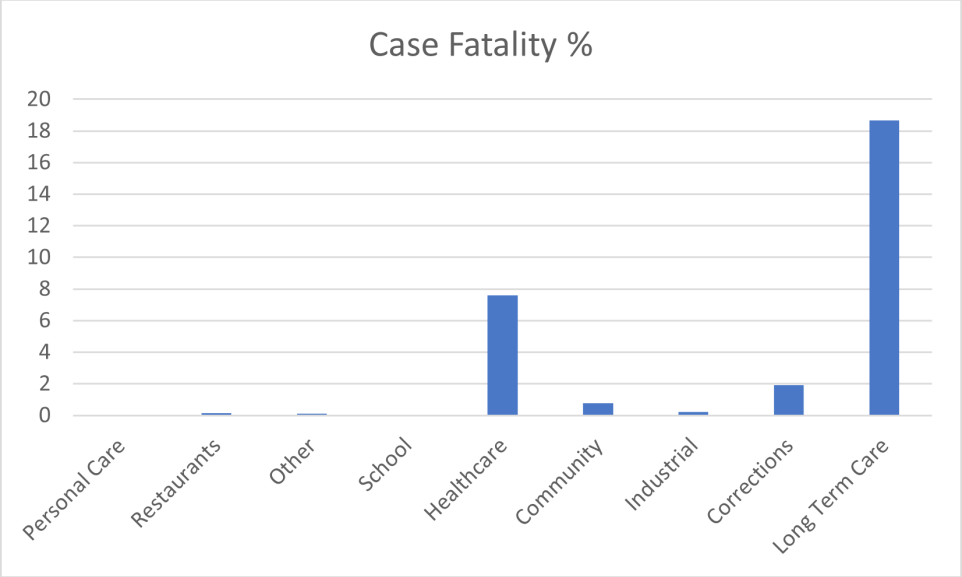

Figure 3: Case fatality rates for COVID-19 cases attributed to exposures in different venues. Data are from PHAC.[1] Case fatality rates computed as deaths divided by cases. See above text for description of venues.

In Figure 3, the bar for restaurants is visible as a tiny sliver. The case fatality rate for long term care facilities is over 18%. The case fatality rate for restaurants is less than 1/700. In summary, fewer than 2% of all COVID-19 cases could be attributed to exposure from a restaurant and fewer than 1/700 of those cases would die from COVID-19 leading to restaurants being responsible for less than 1/4000 of COVID-19 deaths. Expert Hodge may assert that limiting restaurant services was and is justified, but the data show restaurant lockdowns are a solution in search of a problem.

In point 8, expert Hodge asserts that 4.8% of people with COVID-19 will require hospital-based care. This is very dependent on the age of the people in the population. As the epidemic progresses, the average age of the population susceptible to infection declines. As this average age declines, the percentage of people with COVID-19 who require hospitalization will also decline. The extrapolation of early prevalence data to future results have led to predictions which were catastrophically wrong. The quoted percentage of deaths is based on COVID-19 tests, but these tests are not performed on people in a uniform manner. People without symptoms do not get tested at the same rate that people with symptoms get tested. The prevalence of COVID-19 in the population getting tested will be higher than the general population, so one cannot extrapolate past percentages of hospitalizations and deaths to

future cases. This error led many so-called experts to make wild predictions about deaths that were too high by a factor of 10 or more.

In point 10, expert Hodge makes assertions about variants of concern (VOC) that have not turned out to be true in other locations. These variants of concern have become an increasing percentage of new cases in locations such as Florida and Texas which have shown decreasing hospitalizations and deaths over time as the prevalence of VOC has increased.

In point 11, expert Hodge correctly stated, "The number of cases and hospitalizations in Ontario have increased significantly over the past few weeks." As warned in my expert statement, Ontario was entering a "plateau of death" due to restricting spread of the virus among young and healthy people. Ontario has seen an increase in cases, hospitalizations, and deaths over the past few weeks, because past restrictive policies prevented herd immunity from developing among young and healthy people. The COVID death curve for Canada is looking more like that of France rather than the desirable declining curve which results from herd immunity. In contrast, locations such as Texas and Florida have seen cases, hospitalization, and deaths decline to very low values, because policies permitted herd immunity from occurring.

In point 12, expert Hodge throws out the figure of 4.8% as the future case fatality rate in Canada. As mentioned above, it is a logical error to assume that past percentages of hospitalizations and deaths will continue as the pandemic progresses. These percentages are very dependent on the average age of the people who become new cases. Although deaths will move in the same direction as active cases, the case fatality rate is very sensitive to the age of people being exposed.

In point 15, expert Hodge states, "younger Canadians experienced higher rates of excess mortality, corresponding to higher rates of infection among younger people." Higher excess deaths among younger people in the United States in 2020 have been due to the predictable consequences of lockdowns on deaths of despair including suicides and drug overdoses. It is likely that a careful examination of Canadian excess deaths in younger people would show a similar trend.

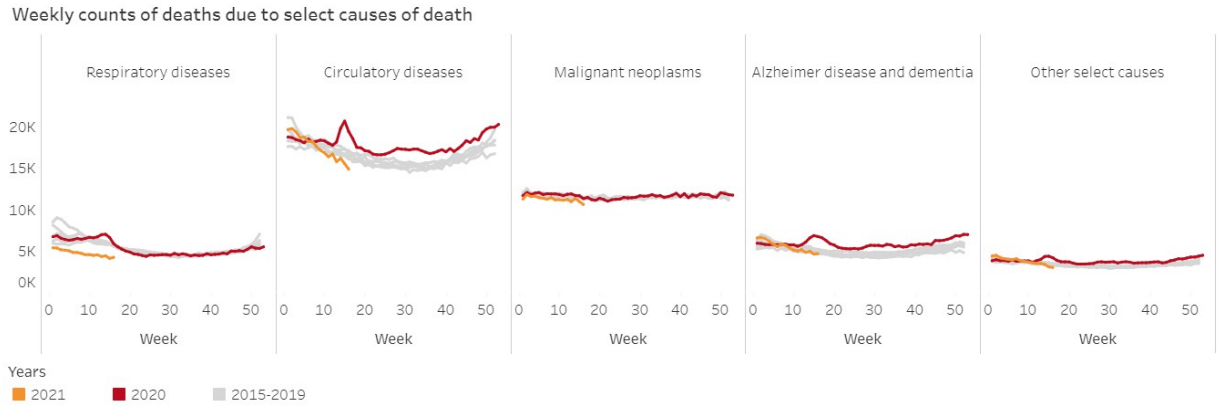

Figure 4: U.S. excess deaths. Data are from the CDC.[3]

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. There has been no excess of deaths from respiratory causes except during April of

2020. Total deaths are currently below normal, yet the CDC is non-stop fear mongering about stepping outside without a mask.

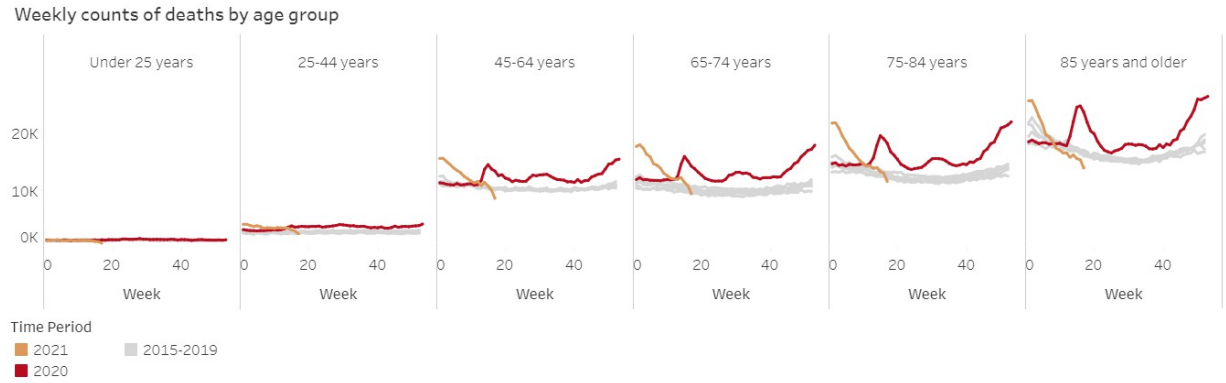

Figure 5: U.S. weekly deaths by age group. Data are from the CDC.[3]

Figure 5 shows excess deaths that conform to COVID-19 outbreaks in people of age 45 and over. However, there was nothing unusual about deaths for age 25 and under during 2020. There is a slight increase in deaths for the age group of 25-44 years during 2020, but the CDC has attributed this increase to the opioid epidemic.[4] Even the CDC admits that the COVID virus did not cause people to use opioids; rather the lockdowns were the cause. Expert Hodge admits higher mortality from drug overdoses, but this was attributed to COVID-19 rather than the consequence of the lockdown reaction to COVID-19. The closing of restaurants that the expert advocates is the cause, in some cases, of the increase in drug overdoses.

In point 18, expert Hodge gives a misleading description of the data on asymptomatic and presymptomatic transmission. Asymptomatic cases are people who never develop symptoms. There are no reported transmissions from asymptomatic cases.[5] Patients who eventually develop symptoms appear to be more infectious during the 3 days following infection but prior to symptoms. Expert Hodge asserts that, “Public health measures therefore need to apply to people who do not exhibit COVID-19 symptoms in order to be effective.” If nobody in a room is infected, then none of the masking or social distancing measures are benefiting anyone. The authors of the study concluded, “In conclusion, our study suggests that asymptomatic cases are unlikely to contribute substantially to the spread of SARS-CoV-2. COVID-19 cases should be detected and managed early to quarantine close contacts immediately and prevent presymptomatic transmissions.”[5] When spread of virus overwhelms contact tracing, one must rely on herd immunity to stop the pandemic.

In point 19, expert Hodge asserts, “the scientific consensus is that the variants spread more easily” There is no scientific consensus that the variants spread more easily. This is based on very limited studies. The data from Florida and Texas say otherwise.

In point 22, expert Hodge cites World Health Organization (WHO) policy. The WHO has been wrong about pretty much everything related to COVID-19. Frequently, the WHO has been on both sides of an issue. The factual data, on the other hand, show that transmission in restaurants is a very low percentage of total transmission and an even lower percentage of total deaths. Most of the transmission to the public outside of hospitals, prisons, and nursing homes occurs in households.[1] When restaurants

are closed, people spend more time in their home which increases the average risk of becoming infected.

In point 20, expert Hodge asserts that lockdowns are necessary to avoid an overwhelming of the health care system. There is absolutely no evidence that lockdowns in general and closing restaurants in particular have decreased the number of deaths from COVID-19. The people advocating for lockdown are unable to explain why cases, hospitalizations, and deaths continue to decline in Texas and Florida after the economy was completely opened up. Nobody apologized after calling Governor Abbott a Neanderthal. Lockdown advocates have been seldom right, but never in doubt.

In point 23, expert Hodge claims that lockdowns are evidence based. Where is the evidence? As is often the case, when an expert claims a policy is evidence based, what is meant is there is no evidence, whatsoever, supporting the policy.

In point 24, expert Hodge justifies COVID lockdown on the basis of fire safety. Fire safety has little or nothing in common with infection control. The policies restricting capacity of restaurants and whether restaurants could be open were made up in the absence of any actual data showing restaurants to be a primary driver of virus transmission. The data in Canada say otherwise.

In point 25, expert Hodge asserts that, “From an epidemiologic perspective, restaurants pose distinct transmission risks as gathering spaces and as workplaces.” The expert keeps repeating that restriction of restaurant capacity or closing of restaurants is an effective method of controlling transmission of COVID-19. There is absolutely no evidence supporting these assertions. The so-called evidence justifying the repetition of this canard is based on questionnaires early on during the pandemic. However, actual contact tracing has led to actual epidemiologic data. As shown above, the PHAC’s own data[1] denies that restaurants pose a special risk for COVID-19.

In point 26, expert Hodge is fantasizing about possible hypotheses to explain why restaurants pose a special risk for COVID-19. Again, there is no evidence, whatsoever, to support the statement by the expert. The PHAC’s own data[1] show that restaurants are responsible for fewer than 2% of total COVID cases and fewer than 1/4000 COVID deaths.

In point 27, expert Hodge seems to be asserting that any contact between humans should be banned as it represents a possible risk of COVID transmission.

In point 28, expert Hodge engages in an egregious use of statistics. The peak of virus transmission occurred from about November, 2020 to January, 2021. This is typical for respiratory viruses. Claiming that restaurant restriction was the cause of lower events during summer months than a period including November has no merit. The transmission rate was higher in November everywhere on the planet irrespective of whether restaurants were open or not. Table 2 is very misleading. The 2nd time period is the time that cases were rising. The 3rd time period includes, in some locations, the period where cases declined to near zero. These rises and declines occurred irrespective of lockdown policy. The expert does not have any evidence that the increased number of cases in the 2nd time period were occurring in restaurants.

In point 29, expert Hodge creates a strawman argument. Expert Hodge suggests that the only reasonable alternative is contact tracing. Expert Hodge has completely ignored all of the reasonable

alternatives discussed by plaintiff experts. Expert Hodge knocks down the strawman contact tracing alternative and implies that all reasonable alternatives to lockdown have been knocked down as well.

In point 30, expert Hodge again asserts that restaurants are the primary drivers of COVID transmission, but the evidence[1] says otherwise. Again, restaurants were responsible for fewer than 2% of total COVID cases and fewer than 1/4000 COVID deaths. The actual data speak for themselves.

Conclusion

Expert Hodge presents the official public health dogma that has been catastrophically wrong about COVID-19. These so-called experts never let actual data interfere with their pet theories and models. They have been seldom right, but they are never in doubt about their rightness.

There is absolutely no scientific data supporting the lockdowns of restaurants. Zero, zip, nada. The lockdown policies were made up based on how so-called experts thought the virus should behave. It is one thing to make the best decisions with limited information to combat a crisis, but it is irresponsible to ignore the actual data when that data is screaming at you to open the economy up. None of the lockdown advocates can explain the data in Texas. I explained the data in Texas in great detail in my original affidavit. Expert Hodge has not even bothered to discuss the arguments put forward by plaintiff experts or the data supporting these arguments.

References:

1. Canada COVID-19 Weekly Epidemiology Report 14 March to 20 March 2021 (Week 11)
2. https://wwwnc.cdc.gov/eid/article/27/4/20-4576_article
3. https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm
4. https://www.cdc.gov/media/releases/2020/p0318-data-show-changes-overdose-deaths.html
5. https://wwwnc.cdc.gov/eid/article/27/4/20-4576_article