Additional observations related to the "Elephant in the Room" – from Government of Canada COVID-19 daily epidemiology updates. Time to act!

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This comment follows up on previous observations made in relation to the COVID-19 vaccine and death statistics since the start of the general public vaccination in Canada in Spring 2021 that were made by analyzing Open Canada Vital Statistics Death (CVSD) database [1]. Here we make additional observations related to the same "Elephant in the Room" (safety and efficacy of Vaccines). This time these are made from another Open Canada data source: "COVID-19 epidemiology updates" , which are published at https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html [2], the cached copies of which can be retrieved using "WayBackMachine" Internet Archive (https://web.archive.org/) and which are now also archived at https://github.com/open-canada/vitals/upload/main/docs/COVID-19%20epidemiology%20updates.

The slide in Appendix A summarizes the main observation. The way statistics is reported in "COVID-19 epidemiology updates" exposes the algorithmic bias that is introduced in calculating the statistics related to the percentage of unvaccinated COVID-19 deaths vs. that of vaccinated COVID-19 deaths (pages 20-22, Figure 5, Tables 2-3 in the PDF versions of the report).

As shown in Figure 1 below, and as can be validated using the Vital Statistics App (https://open-canada.github.io/Apps/vitals), the majority (over 75%) of all deaths that happened in the analyzed period (which is from December 14, 2020, when the first vaccine doze was administered, to the date when the report is published) happened right after Christmas 2020, when there were practically no (statistically speaking, insignificant number of) fully-vaccinated people. More specifically:

> There were 0 fully-vaccinated as of January 4, less than 1% as of February 18, less than 2 % as of April 6, less than 3% as of April 30, and less than 10% as of June 10, 2021, after which the full-vaccination quickly reached 78% by November, and staying the same approximately the same (+/- 2%) since then.

In other words, whether deliberately or undeliberately, a significant positive bias (or "advantage") for fully-vaccinated has been embedded directly in the way the proportion of fully-vaccinated deaths has been computed and reported to the public.

Having access to the past archived "COVID-19 epidemiology updates" however allows one to reverse-engineer and remove this bias from computation. To do this, it is simply sufficient to subtract the numbers (of vaccinated and unvaccinated COVID-19 deaths) reported in two consecutive reports. The difference between those numbers will be the true observed number of deaths observed between the dates of the two reports, which can then be used to compute

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the true (bias-removed) proportions of unvaccinated COVID deaths vs. vaccinated COVID deaths in the considered period. The following example illustrates the described technique to compute the true ratio of fully-vaccinated cases to unvaccinated cases in last months.

Consider two reports one month apart: as of January 15, 2022 and as of December 04, 2021 (see below)

Characteristics and severe outcomes associated unvaccinated, partially vaccinated and fully vaccinated confirmed cases reported to PHAC, as of January 15, 2022

Status	Cases
Unvaccinated	771,095
Cases not yet protected	44,494
Partially vaccinated	61,209
Fully vaccinated	581,635

Characteristics and severe outcomes associated unvaccinated, partially vaccinated and fully vaccinated confirmed cases reported to PHAC, as of December 04, 2021

Status	Cases
Unvaccinated	709,123
Cases not yet protected	43,114
Partially vaccinated	52,116
Fully vaccinated	88,742

By subtracting the numbers in two tables, one obtains that between December 04, 2021 and January 15, 2022, there were 492,893 cases among fully vaccinated, 61,971 cases among the unvaccinated, and 9.093 cases among partially vaccinated. That is, the number of COVID cases among fully-vaccinated in the past month is almost an order of magnitude (x10) larger than among unvaccinated and partially-vaccinated (87% vs. 11% and 2%). Taking into account that the average vaccination rates in the same time period are fully vaccinated 77%, unvaccinated 27% and partially vaccinated 5%, fully-vaccinated people are more likely to be infected with COVID compared to unvaccinated.

Conclusion:

The data from the Government of Canada's "COVID-19 epidemiology updates" do not support the claims about COVID-19 vaccines, as having over 90% efficacy, claimed by the vendors. In contrast, they provide evidence that COVID-19 vaccines, which as known, were approved under Emergency Use Authorization and did not go through the same lengthy testing protocol as all previous vaccines, may have a negative impact on a person's immunity towards the COVID-19 infection. Whether this is true only for a particular variant of the infection, or only for a particular portion of the Canadian population needs to be further investigated. In the meantime, the following recommendations are made.

Recommendations:

- Start reporting deaths by vaccination status statistics in [2] without the embedded bias, as described in this paper, and as done with reporting of side effects [3]
- Reconsider all policies that require mandatory vaccination, based on the new data that has become available in the past several months and the new data reporting metrics

References

[1] "Some observations from Canadian Vital Statistics Death (CVSD) Database related to the 'Elephant in the Room'" (D.Gorodnichy, R.Kulik, S.Matwin). Submission to The Lancet Journal. 2022/01/16, https://open-canada.github.io/vitals/comment.pdf

[2] 'Cases following vaccination', COVID-19 Daily Epidemiology Update, Public Health Agency of Canada, https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html

[3] 'Reported side effects following COVID-19 vaccination in Canada', Canadian COVID-19 vaccination safety report, Public Health Agency of Canada, https://health-infobase.canada.ca/covid-19/vaccine-safety/
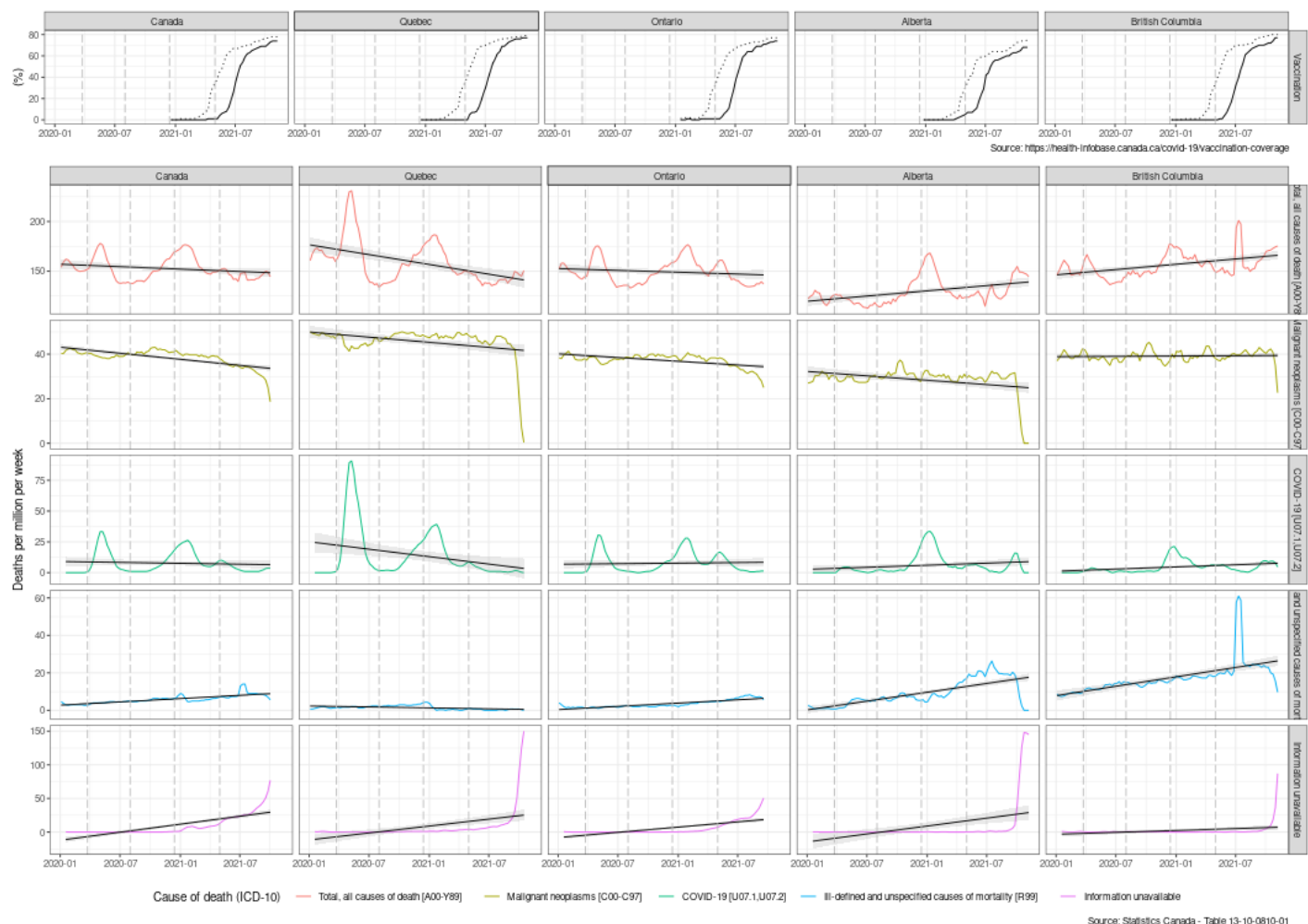
Figure 1: Vaccination and weekly death rates by cause in Canada and during the pandemic and vaccination.

Coloured time-series lines show CVSD statistics (deaths per million per week) at the national level and in four most populated provinces for the total number of deaths, cancer (the leading cause of death), "COVID deaths", as well for two unexplained causes (Ill-defined and unspecified causes [R99] and the number of unreported causes [Information unavailable]). In the top graph, solid lines show full vaccination rate, dash lines show the rate of vaccination with at least one dose. Vertical lines mark four distinct periods observed: early pandemic pre-vaccination (varying policies across provinces), late pandemic pre-vaccination phase (consistent policies across policies), early (high-risk population) vaccination, late (general public) vaccination. The use of different scales for each cause category is noted.

Multiple anomalies (or more exactly, "new normals") since the start of pandemic and later since the vaccination are observed, and several observations that contradict the official Government of Canada narrative are made. This include the absence of excess in total number of deaths over the entire period; rather small number of COVID deaths – compared to the very large (x1000) number of COVID cases that have been reported, especially in the "first wave"(which practically did happen in Alberta and British Columbia, which, as known, had different policies at the start of pandemic); decrease in all non-covid causes; and sharp increase in the number of unexplained deaths, since April, which when the vaccination has been extended to younger (low-risk) population.

Reverse-engineering algorithmic bias.
Case Study: Vaccinated vs. Non-vaccinated deaths

https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html

Recall: There were no fully-vaccinated before January, <1% before March, <3% before May, and … most* (50-75%), deaths happened exactly then.

Try it yourself:
- Open link above, write down numbers in red boxes and compare them a week later!
- Or, compare these numbers in past reports since November (archived here).

Observe:
These numbers monotonically change (one down, one up) every week - according to math behind them…

*computed using Vitals App Calculator

Table 2. Characteristics and severe outcomes associated unvaccinated, partially vaccinated and fully vaccinated confirmed cases reported to PHAC, as of December 18, 2021

		Unvaccinated (n=727,925)	Cases not yet protected (n=43,471)	Partially vaccinated (n=53,171)	Fully vaccinated (n=122,843)	Total cases (n=947,410)
Gender*	Male	371,897 (78.5%)	20,959 (4.4%)	24,980 (5.3%)	56,197 (11.9%)	474,033 (100%)
	Female	354,365 (75.2%)	22,454 (4.8%)	28,113 (6.0%)	66,344 (14.1%)	471,276 (100%)
Hospitalizations		40,788 (79.5%)	3,062 (6.0%)	3,374 (6.6%)	4,099 (8.0%)	51,323 (100%)
Deaths		8,013 (75.6%)	759 (7.2%)	744 (7.0%)	1,077 (10.2%)	10,593 (100%)

Source: Detailed case information received by PHAC from provinces and territories, since December 14, 2020

As of today, February 4, 2022 : Total cases (n=1,458,433)
Fully vaccinated 2,032 (16.8%), +3% since last week, +8% since November