

# **Managing Covid-19 in Alberta: the fallacy of “balancing lives and livelihoods”**

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*John R. Post Ph.D.*

*Population Biologist*

*Department of Biological Sciences*

*University of Calgary*

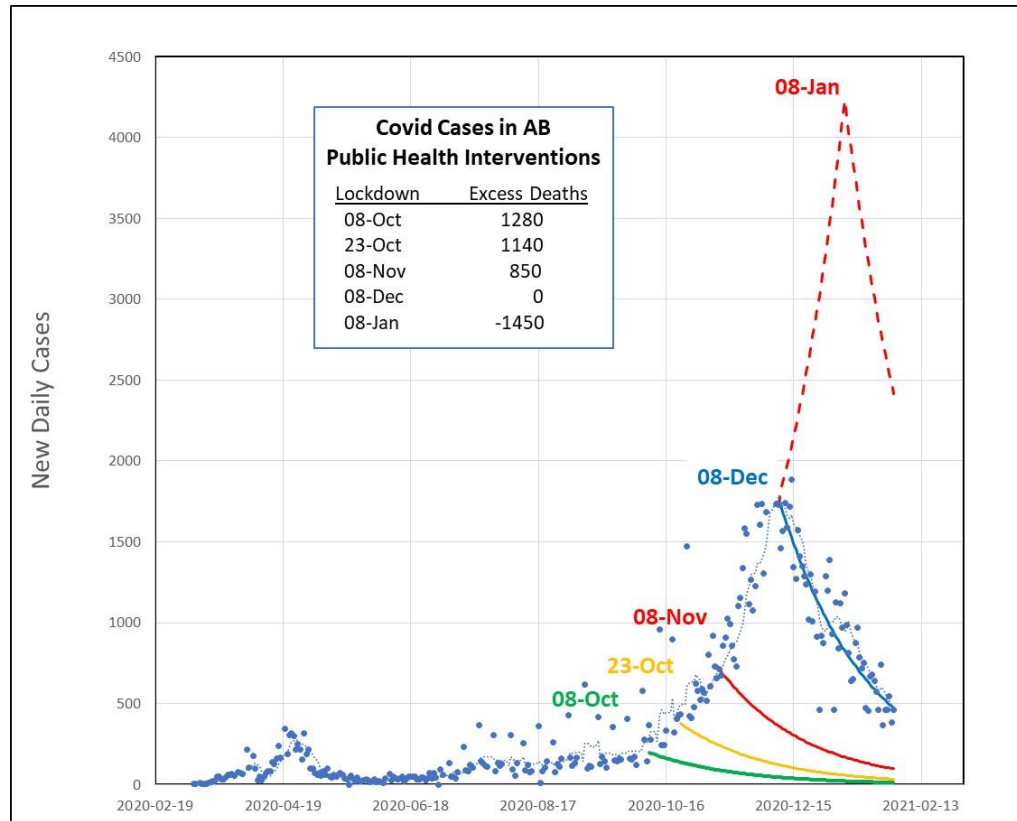
## **Abstract**

The stated approach to making policy decisions about public health restrictions in AB involves “balancing lives and livelihoods” – having no restrictions compromise lives, having restrictions compromise livelihoods. This is a false dichotomy and a reckless approach for developing policy in a pandemic. AB substantially delayed instituting public health policy despite exponential increases in daily cases and hospitalizations, and increasingly desperate pleas from health care professionals for public health restrictions to stem the tsunami of new cases, hospitalizations, ICU crowding and deaths. These delays resulted in many hundreds of unnecessary deaths. But what about livelihoods? Would earlier public health interventions have increased the pandemic’s devastation to livelihoods? Reality is just the opposite, by delaying action and allowing the pandemic to grow, the duration of restrictions need be extended by many weeks beyond what would have been necessary if earlier restriction had been enacted. So, our delays in enacting public health restrictions have also substantially increased the loss of livelihoods that the delay was intended to prevent. None of this should have been a surprise – the public health advice has consistently been to act early to bend the curve and save both lives and livelihoods. Ignoring established science and public health knowledge in AB has cost both lives and livelihoods.

## **Approach and Results**

Throughout the autumn, Alberta experienced exponential increases in daily covid-19 cases, hospitalizations, and deaths. Despite these observations, AB waited until Dec 8 to enact relatively strict public health policy. What would have been the outcome had we acted earlier? To answer this question, I used published AB daily case data and calculated the exponential rates of increase and decreases before and after the imposition of public health restrictions. I then asked what the daily case load would have been if interventions had been one month, 5 weeks or 2 months earlier, or if we had delayed the intervention a month later than we did. Figure 1 shows the daily case data (blue dots) throughout the pandemic in AB, the blue line the decline in response to our Dec 8 intervention, and predicted outcomes had we intervened 4, 6 or 8 weeks earlier (red, yellow and green lines). Since the death rate of Covid-19 cases in AB is approximately 1.32% we can calculate the number of deaths that would have resulted from these alternate intervention dates. Using this AB data, earlier public health interventions would have reduced daily cases, hospitalizations and lives in AB. Restrictions enacted 4, 6 or 8 weeks earlier would have saved an estimated 850, 1140 or 1280 deaths, respectively. The only good news is that by not delaying action for yet another month (red dashed line), we likely saved an additional 1450 deaths.

Figure 1



The relatively strict public health policy enacted on Dec 8 resulted in exponential declines in daily cases and hospitalizations with an approximately 3-week delay. These declines have led to development of a new reopening policy based on hospitalization rate thresholds of 600, 450, 300, and 150, triggering sequential relaxation of public health restrictions. Based on current data, we can forecast the timing of restriction easing given declines in hospitalizations that we have observed. Given these rates, we can expect these thresholds to be met on Jan 29 (we are already there), Feb 16, March 12 and April 23 respectively. These are optimistic predictions because easing restrictions will most likely result in an uptick in cases and hospitalizations. But if enhanced testing, complete contact tracing, and isolation are in place and effective, these dates may be realized. Had we acted with the early December restrictions one month earlier, we would never have exceeded 600 daily cases, and met other thresholds Dec 10, Jan 3 and Feb 14 respectively. If enacted 6 weeks earlier, we would not have exceeded 300 daily cases and would have been below 150 cases on Dec 18 – low enough to have enjoyed the Christmas season, and in compliance with the recently announced lowest restriction thresholds.

What about the economic and other costs of public health restrictions? Earlier policy enactment by 4 weeks would have resulted in a 5-week shorter shutdown, and 6 weeks earlier, shorter by almost 3 months. So, the costs of delaying our restrictions until early December, rather than a

month earlier have resulted in costs 38% higher. If we had acted 6 weeks earlier, the increased costs of the delayed decision were 240% higher.

### **Discussion**

Is it fair, in retrospect, and with the benefit of hindsight, to criticize AB leadership for their costly inaction in the autumn? Let's review what we knew in the autumn: (1) we saw exponential increases in daily cases, hospitalizations, and deaths in AB - this was clear as early as September when rates were increasing exponentially; (2) we saw this happening in AB, and around the world in other jurisdictions, in the first wave; (3) we know that viral infections grow this way; and (4) the AB medical community was getting increasingly vocal in their demands for public health restrictions at least 6 weeks before public health action was taken. All of this was known, yet the false "balancing lives and livelihoods" message drove the AB policy. The result was unnecessary deaths, unnecessarily long restrictions, and increased economic and other costs.

What does the future look like? Good news is that we have vaccines coming that will reduce deaths and infections over the next several months. Good news is that after 5 months with ineffective contact tracing, we now have tracing and isolating cases. But a big concern is if the new variants, with greater transmissibility, will take us back to where we were in the autumn. Given the AB public health policy of the autumn, and substantial unnecessary costs of both lives and livelihoods, we should do all that is necessary now to avoid getting back on the exponential growth curve of daily cases, hospitalization rates, and deaths that we saw in the autumn.

Again, the public health advice today, as it was in September, and indeed last spring, is to act early to proactively bend the curve sufficiently to keep daily cases low enough to permit effective testing, tracing, and isolation, until we all get immunized – this is the only solution to protect both lives and livelihoods – let's hope that we have learned the lesson!