"Ah, why, ye Gods..."

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"Ah, why, ye Gods, should two and two make four?" asked Alexander Pope in Book 2 of his *Dunciad*. Sadly, it appears that many governments are starting to wonder the same thing about the simple mathematics of the COVID-19 pandemic; and, indeed, there are signs that they have decided among themselves that perhaps two and two need *not* make four unless it's convenient.

For a long time, Canada – and the Atlantic Provinces in particular – did rather well in acting as if the simple mathematical models that we teach in a first differential equations course–or even second-term calculus if there's time–meant what they say. If a person with a disease has a certain probability of passing it on, and a certain probability of dying from it, we can construct an approximate model of the outcome. And, even though we know reality to be more complicated, it should be clear to us that unless one parameter has the value zero, lowering either one will save lives. Back in 2020, faced with a few deaths per million per week, and with frighteningly little control over the case fatality rate, we worked hard to keep transmission rates low. We wore masks, we isolated (by law), and most of us got vaccinated when we could. Our governments made us partners in the process by sharing data and encouraging us to get tested frequently. And, as a result, Canadian death rates were, for the most part, enviably low.

Now, to check that a class has understood the lesson, we sometimes ask them to work the same problem with new parameters. The Omicron variant, in conjunction with widespread vaccination, has decreased the case fatality rate significantly. But it's far, far more transmissible. Case counts at the beginning of this year were five times as high as at the peak of early waves; and death rates were comparable to those earlier waves. Unlike other waves, this one has not ended, though it has dropped: we are still seeing about five COVID-related deaths per million per week–in the middle of summer. This is about five times what we were seeing in the summers of 2020 and 2021, and COVID-19 has so far been seasonal. Clearly the same precautions are still needed – or thousands more may die this winter.

But what have the reactions of our various governments been? Testing has been scaled back, information is becoming harder to get, and in most places there's no longer an isolation mandate or mask mandate. Which is a polite way of saying that it's now completely legal, if you have COVID-19, to go into a crowded public place and knowingly spread it to others; and even responsible people have an increased chance of passing the virus on unwittingly.

Will the governments bring back the rules that saved so many lives in recent years? It doesn't look likely. However, it was recently announced that Saint Francis Xavier University will be requiring masks in the fall, when their students reconvene on campus from all over the country and the world. Perhaps those of us who work at other universities can encourage our employers to do the same? If not, we had better have our materials in place for online teaching when the next big wave hits.