

Twitter Thread by ■■ Bill Comeau Crush the Curve ■■



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@Billius27

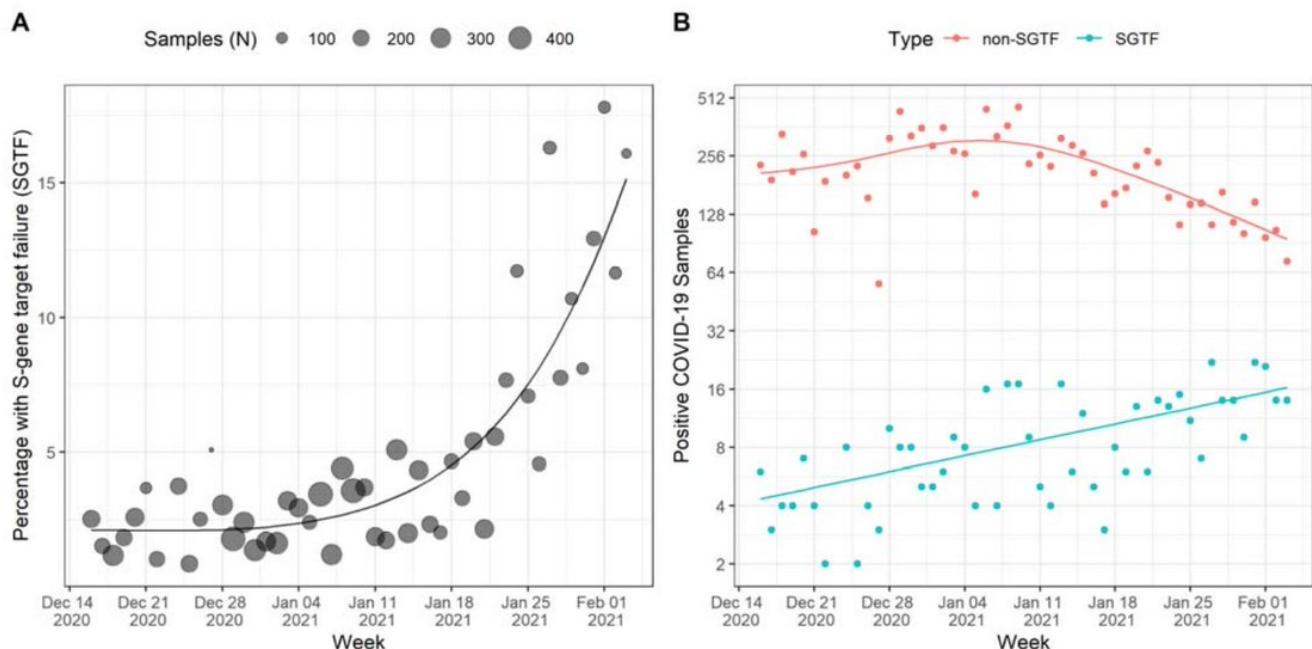


■■ on the Toronto area SGTF (S-Gene Target Failure) study to detect B117 (UK variant). It looked at 11,485 positive tests over Dec 16 to Feb 3 and found 448 had SGTF* (3.9%). These charts show the growth.

<https://t.co/5L8tF0MwDv>

Figures and Tables

Figure 1. Panel A. Percentage of Samples with S-gene target failure (SGTF) since December 16, 2020. Over the most recent 3-weeks, a 1.8-fold increase per week was estimated. Estimated date of 50% prevalence was February 20th. **Panel B.** Daily Counts of SGTF versus non-SGTF Samples. Current estimated reproduction number for SGTF ($R_e=1.17$) and non-SGTF ($R_e=0.82$) samples are divergent (relative $R_e = 1.44$).



2. Note: Not every SGTF is B117 but almost all were confirmed with WGS (whole genomic sequencing). R_t for the SGTF was 1.17, non-SGTF were .82 meaning SGTF had an R_t 44% higher. This means that B117 is growing quickly (80% per week in recent weeks) and is projected to overtake

3. the old variants around Feb 20th in the Toronto area. Because the R_t (reproduction number) was only .82 without B117, we know the lockdown was working well in Toronto. It's only because the variant was a small share that infections and cases fell. If it had reached 100%,

4. then every infection would have infected 1.17 more infections and we would have had exponential growth EVEN IN LOCKDOWN where we have seen cases plummet.

5. This data is for the Toronto area. The projections have uncertainty - Feb 20 is approximate but once B117 becomes increasingly dominant over the next 6 weeks, current lockdown efforts would be hard-pressed to stop R from moving above 1, meaning an exponential growth in cases.

6. That's why many experts and public health professionals are sounding the alarm now, knowing that every relaxation of lockdown restrictions today increases the chances that B117 sends R well above 1 and creates a significant new wave.

7. This is just one of many reasons why I believe that we should be heading in the opposite direction: increasing restrictions instead of reopening to a framework that allows indoor gatherings and higher R_t .

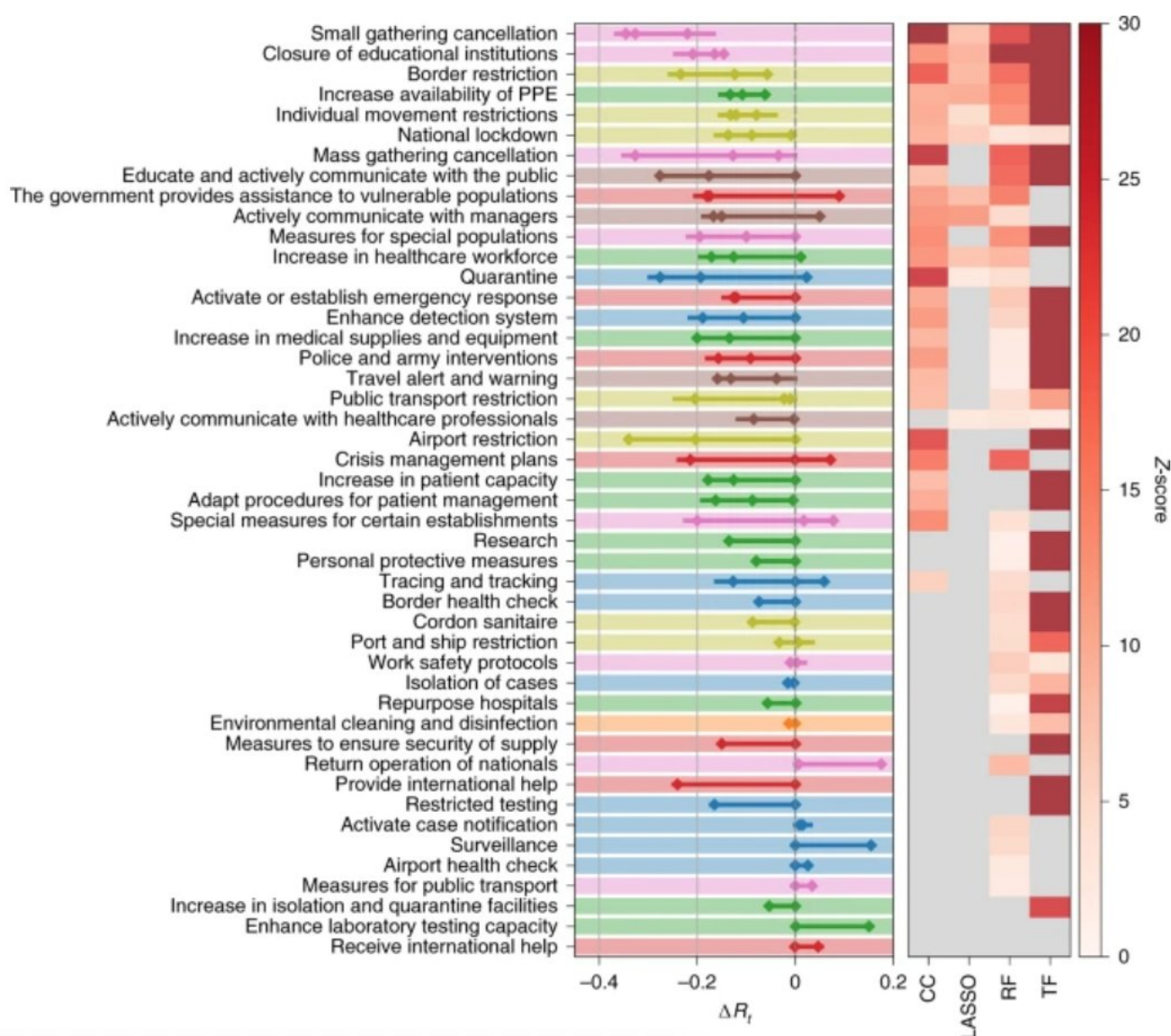
8. This isn't a choice between public health and business health. Businesses are suffering now. But if we do this wrong now, the impact on businesses will be much more severe longer term than if we do it right. And the impact on the population at risk of dying (mostly 60+) will

9. be much greater now than later after millions of more vaccines arrive over coming months. There really is no other option. We need to build our defenses asap starting with a reappraisal of pending reopening plans in Ontario's regions.

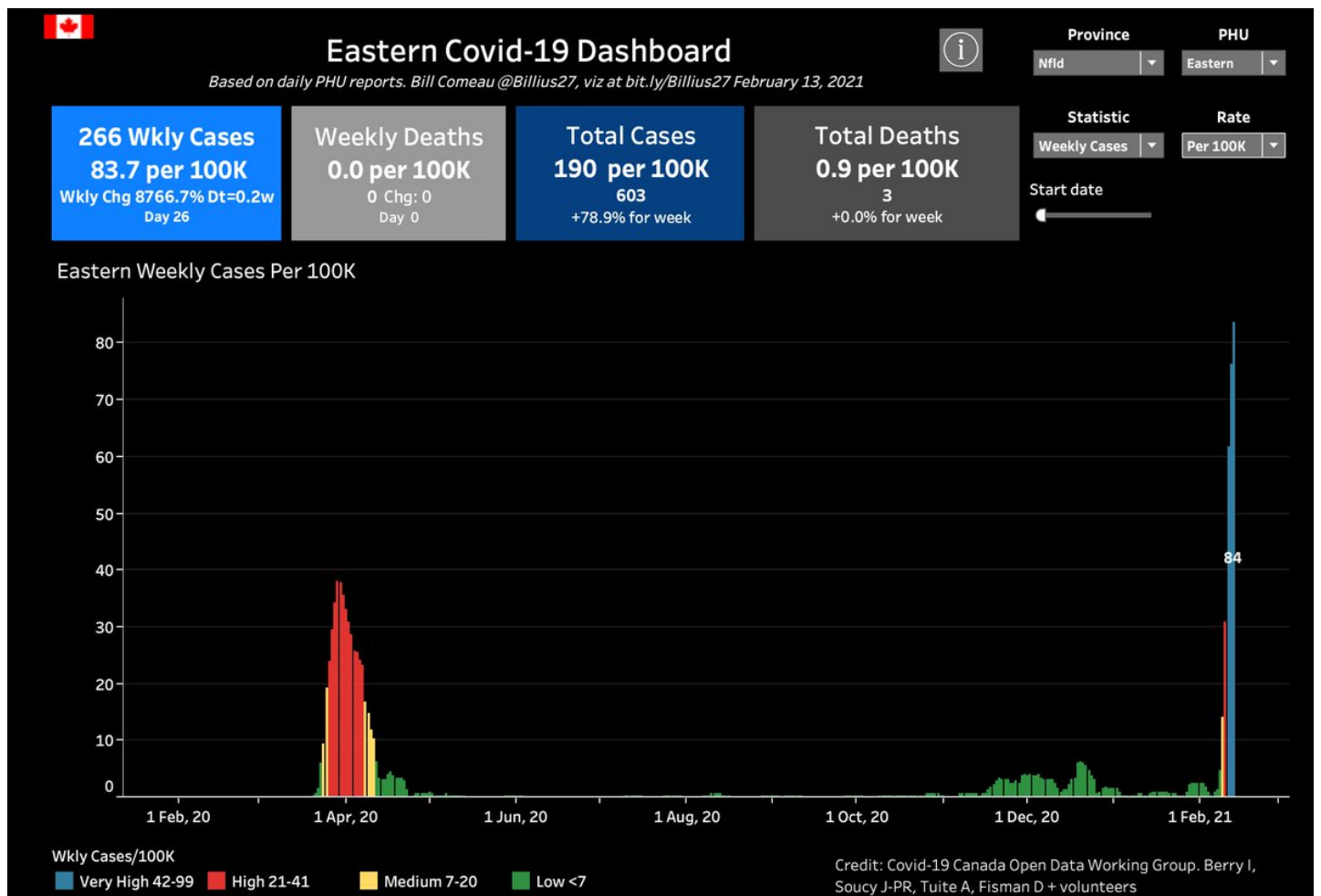
10. There is room for respectful scientific and public debate on the restrictions but the goal is simple: reduce R_t now and unite as a province.

<https://t.co/cT0tuXxVgB>

Fig. 1: Change in R_t (ΔR_t) for 46 NPIs at L2, as quantified by CC analysis, LASSO and TF regression.



11. Some find reassurance in the current low rate of cases in some regions and hope that B117 won't impact them, that they are safe. We have seen from Roberta Place, North Bay and most recently eastern Newfoundland, that B117 can change complacency overnight.



12. So as much as this study was about the Toronto area, it applies to everywhere. We need to base our decisions based on
 1) likely future risks, not the past and 2) the #precautionaryprinciple
 /end