

## Should Canada Go For Zero?

Global Best Practices, TANZANC Democracies & Lessons For Canada

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## **Summary**

Living with COVID in the world is a reality. Living with COVID in our communities is a choice—quite possibly not the right choice.

Zero COVID community transmission does not mean elimination: it means successfully stopping all local infections and eradicating the occasional new cases—whether from external infection or hidden local reservoirs—until vaccines are widely available.

The TANZANC (Taiwan, Australia, New Zealand, Atlantic & Northern Canada) democracies demonstrate that free societies can achieve zero COVID transmission, with superior economic and societal results and enhanced resilience to future COVID waves.

TANZANC jurisdictions, with a total population of 58 M, had 38 new COVID cases on December 10. Canada, population 38 M, had 6,739. The previous week, Australia had 0 locally acquired COVID cases. Canada had 45 thousand. COVID-related restrictions are tighter in Canada than in Australia, New Zealand, or Taiwan. All TANZANC national economies project better 2020 economic performance than Canada's.

Canada already has a successful zero COVID policy across Atlantic and Northern Canada, comprising 45% of its territory and 7% of its population (2.6 M people). During the 2<sup>nd</sup> wave, these jurisdictions have kept COVID infection rates 20 times lower than the rest of Canada.

Canada is relatively well positioned to achieve zero COVID transmission. We are surrounded by ocean on 3 sides with a comparatively small population, engaged citizenry, strong institutions, a federal system of government, mid-sized cities similar to Sydney or Melbourne, and several domestic examples of zero COVID success.

Canada's situation is essentially the same as Australia's—with the addition of one major land border. By vaccinating the 200 thousand truckers that regularly cross the border and fully implementing other proven measures, Canada can seal off the U.S.-Canada border to the COVID virus while allowing essential trade to continue unimpeded.

Achieving zero transmission is feasible in Canada. Indeed, Canada may have inadvertently thrown away its shot to get to zero once already this summer.

With rising COVID cases and hospitalizations, difficult decisions have to be made. If the wrong decisions are made, we will face potential shutdowns again in 3 months. The time is right to determine whether going for zero is a superior strategy for Canada. We cannot afford to throw away our shot a second time.

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Global Canada (<a href="https://global-canada.org">https://global-canada.org</a>) is a non-governmental organization committed to enhancing Canada's global impact and identifying global best practices that assist Canada's own challenges.

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This paper is designed as a living document that will be regularly updated to incorporate new information and feedback. For questions, feedback, or to obtain the latest version of the paper please contact us at: <a href="mailto:contact@global-canada.org">contact@global-canada.org</a>

## Identifying the Candidates: Democracies Achieving Zero COVID Transmission

At least 8 jurisdictions with a population of 1,671 M (232 M excluding mainland China) have zero local COVID transmission. Many have sustained zero COVID transmission for several months. The evidence suggests that achieving zero COVID transmission is not a one-off exception or a temporary fluke: it is a credible, sustainable policy alternative.

Every success provides valuable lessons. Vietnam, for example, built on its experience with SARS and is seen as an <u>"exemplar"</u> for its effective testing, tracing and containment policies. However, full democracies are particularly relevant when determining if the policies to achieve zero COVID transmission can be applied to Canada.

# 8 Jurisdictions With 1,671 M People Have Achieved Zero COVID Transmission

Jurisdiction*	Population (M)	Level of Democracy**
Atlantic & Northern Canada***	3	Free
Australia***	26	Free
Mainland China	1,439	Not Free
New Zealand***	5	Free
Singapore	6	Partly Free
Taiwan***	24	Free
Thailand	70	Partly Free
Vietnam	98	Not Free
Total	1,671	
Total (less mainland China)	232	

<sup>\*</sup> With a population of at least 1 million; \*\* As rated by Freedom House, 2019; \*\*\* TANZANC jurisdiction Source: Our World in Data; health authorities for each jurisdiction; Freedom House; World Bank

Fully half of the 8 successful jurisdictions are consolidated democracies. There is an urban myth that only authoritarian regimes can take the tough decisions necessary to defeat COVID. The evidence shows this is not true.

There are plenty of authoritarian regimes that are flailing in their COVID response. Democracies are constitutionally empowered to take the necessary tough measures. When the actions are clearly explained, the public is generally supportive: Victoria State Premier Daniel Andrew's 60-70% support throughout Melbourne's 110-day lockdown is the most recent example<sup>ii</sup>. The distinguishing characteristics of jurisdictions achieving zero COVID transmission appear to be competence and lack of complacency, not the nature of the regime.

Three filters were used to identify the relevant democratic jurisdictions:

- Success in sustaining zero local transmission of COVID
- Internationally recognized as consolidated democracies. (i.e. ranked as "Free" by Freedom House
- With a contiguous population of at least 1 million

The 4 jurisdictions that emerged from this 3-part filter were:

- 1. Taiwan: population 24 million;
- 2. Australia: population 26 million;
- 3. New Zealand: population 5 million;
- 4. Atlantic and Northern Canada (New Brunswick, Nova Scotia, Newfoundland and Labrador, Prince Edward Island, Yukon, Northwest Territories, and Nunavut): population 3 million.

TANZANC is an acronym denoting these 4 jurisdictions: Taiwan, Australia, New Zealand, Atlantic & Northern Canada. Each jurisdiction provides important insights. Together they represent the beginning of a model for democracies to achieve zero COVID transmission in their communities.

## **Success Through Aggressive Suppression**

Most countries today aim to flatten the COVID curve to a manageable number of cases before relieving the pressure, with further interventions if numbers get too high. Some refer to this as the "hammer and dance"iii.

The TANZANC model is more "hammer and tap", with initial tough pounding (the hammer) followed by ongoing pressure (the tapping) until there is zero local transmission of COVID. The Australian government calls this approach "aggressive suppression" iv.

An aggressive suppression strategy does not necessarily involve full lockdowns. Taiwan reached zero-transmission and New South Wales addressed a recent COVID outbreak without full lockdowns. Aggressive suppression does not differ from the hammer and dance in how to get to a low level, but in what to do once a low level is achieved.

With the TANZANC model, there is no minimum acceptable level of local transmission. Societal and economic easing is possible only to the extent that the effective reproduction number remains below 1 and local transmission continues to move to zero.

The TANZANC model requires tough measures for longer in exchange for greater economic and societal freedom (as well as superior resistance to future waves) once zero COVID transmission is achieved.

Zero COVID community transmission is not elimination: it is successfully stopping all local infections and decisively eradicating the occasional new case—whether from external infection or hidden local reservoirs—until vaccines are widely available.

Zero COVID allows people to get on with their lives and fosters strong public support for quick action when infections do arise. It allows societies regain control over the virus, rather than being controlled by the virus.

## The TANZANC Model: An Emergent Strategy

The TANZANC model is an emergent strategy—not anticipated in advance but arising from lessons demonstrated through actual experience across the 4 jurisdictions.

### Taiwan: Early, Sustained Success

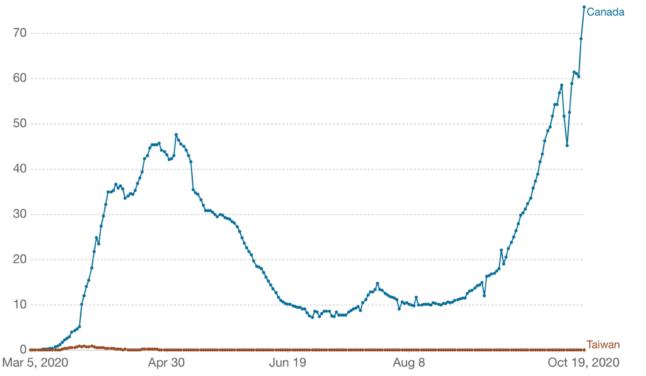
Taiwan put rigorous controls in place at the end of January. Through effective use of masks, quarantines, and other targeted interventions, Taiwan achieved zero community transmission of COVID without lockdowns by May and has sustained this for over 6 months since.

Taiwan demonstrated that a liberal democracy can get to zero COVID transmission and prevent sustained re-infection.

## Daily new confirmed COVID-19 cases per million people

Our World in Data

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Source: European CDC - Situation Update Worldwide - Last updated 19 October, 10:35 (London time)

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#### New Zealand: Quick Resolution of New Outbreaks

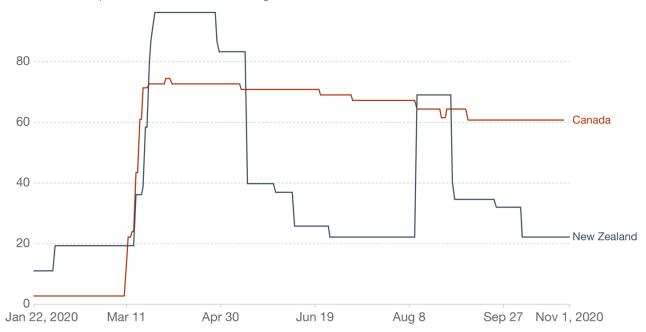
New Zealand successfully implemented an aggressive zero COVID strategy early on, going over 100 days without local COVID transmissions.

Faced with a major outbreak in August, New Zealand reacted swiftly and decisively. With zero COVID quickly restored, it was able to reduce its policy response stringency back to well below Canada's within 3 weeks.

## COVID-19: Government Response Stringency Index



This is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). If policies vary at the subnational level, the index is shown as the response level of the strictest sub-region.



Source: Hale, Webster, Petherick, Phillips, and Kira (2020). Oxford COVID-19 Government Response Tracker – Last updated 3 November, 01:01 (London time)

Note: This index simply records the number and strictness of government policies, and should not be interpreted as 'scoring' the appropriateness or effectiveness of a country's response.

OurWorldInData.org/coronavirus • CC BY

With strong border controls and improved community testing, New Zealand has prevented any new major outbreaks in the 2 months since then.

New Zealand demonstrated that, after achieving zero local transmission, democracies can quickly and successfully address major new outbreaks.

#### Australia: Sub-National Success and the Power of Federations

Australia's initial strategy focused on reducing cases to a manageable level. However, by the end of April, Australia had cut daily cases from a peak of over 450 to less than 20, with zero local transmission in most states. Australia was also inspired to be more ambitious by New Zealand's success in getting to zero.

Responding to this new reality, Australia revised its strategic goal in July to "no community transmission of COVID-19."

Australia successfully kept a major outbreak contained within Victoria State, with peak levels of over 600 daily cases. In the rest of Australia, with 75% of the population, daily cases never exceeded 30, averaging less than one 1 case per million inhabitants.<sup>7</sup>



Australia demonstrated that zero-transmission can be achieved and sustained at a state level within a federation. Australia also demonstrated that major new outbreaks can be successfully contained sub-nationally within a democracy.

Australia's successful zero COVID strategy has resulted in an accelerated social opening and economic recovery.

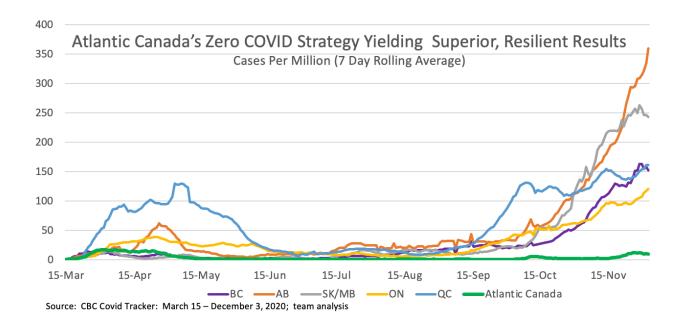
#### Atlantic & Northern Canada: Distinctive Success in a North American Context

Like Australia's zero-transmission policy, Atlantic Canada's bubble was a response to experience rather than an incoming strategy. With the oldest population in Canada, Atlantic provinces were vulnerable to a COVID outbreak. However, they successfully leveraged their strong civic sense, comparatively small urban centres, and relatively isolated location. New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador each eliminated local transmissions before forming a larger bubble in July to assist mobility and preserve hard-won gains.

For the first two months since beginning of second wave in early September, Atlantic Canada successfully maintained close to zero local transmissions with less than one case per million inhabitants. After successfully addressing a flare-up of cases in early October, Atlantic Canada faced a second flare-up in late November. In response to rising cases (although still a fraction of the rest of Canada) the Atlantic provinces suspended the regional bubble.

In fact, "bubble" is probably the wrong metaphor. What the Atlantic provinces have is more tough and resilient. "Shield" is perhaps more appropriate. Each province built a shield in the spring to protect its citizens. In July, the shields were linked in a regional shield wall. When conditions are right in a few weeks, the Atlantic shield wall is likely to be reformed.

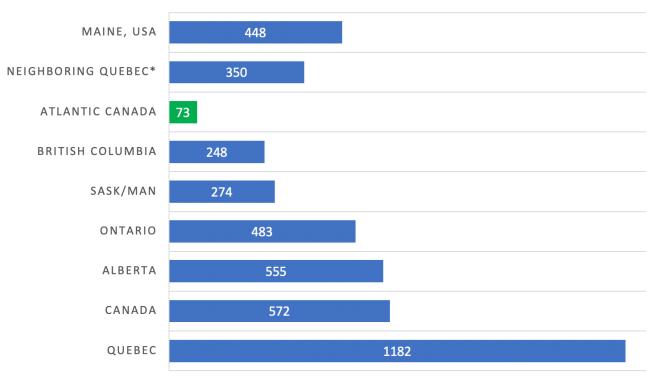
Atlantic Canada's success in dealing with the second wave is far superior to all other regions. Since the beginning of the second wave, Atlantic Canada's COVID case performance has been 25 times lower than the rest of Canada. It is the only region whose peak in the second wave is lower than in the first wave.



Atlantic Canada also significantly outperforms contiguous territories that share its relative isolation and small population, but do not have a zero-transmission policy. Its infection rate since March is 5 times lower than neighboring parts of Quebec and 6.5 times lower than Maine.

## Atlantic Canada Outperforms Neighbors As Well As Other Provinces

Total cases per 100 K population March 1 to Oct. 27, 2020



<sup>\*</sup> Bas-St.Laurent, Cote-Nord, and Gaspesie-lles-de-la-Madeleine (total population 0.4 M)
Source: Institut national de santé publique du Québec; New York Times, COVID in the USA Case Count, October 27, 2020

Atlantic Canada's superior performance has become particularly clear during the COVID second wave. From September 1 to October 29, Atlantic Canada had only 9 cases of COVID per 100 thousand population. This is 15 times better than neighboring parts of Quebec and 30 times better than Maine. It is almost 10 times better than the best performing U.S. State, Vermont, which shares favourable characteristics (small population, relatively isolated, good governance) and almost 20 times better than the next best province, B.C.

## Atlantic Canada Is Most Resilient Province/State In Withstanding Second Wave





<sup>\*</sup> Bas-St.Laurent, Cote-Nord, and Gaspesie-Iles-de-la-Madeleine (total population 0.4 M)
Source: Institut national de santé publique du Québec; New York Times, COVID in the USA Case Count, October 30, 2020

Protected by its shield, Atlantic Canada is preparing for the future. New Brunswick is providing free flu vaccines to 100% of its population. To administer it, they have organized mass vaccination events on weekends. They are using these events as a dry run for the mass vaccinations that will be needed when the COVID vaccine arrives<sup>vi</sup>.

While Atlantic Canada has the lowest COVID rate of any province or state, Northern Canada has also sustained very low COVID rates. Northern Canada's extremely low rate is partly a result of its natural isolation, but also very much due to carefully crafted policies.

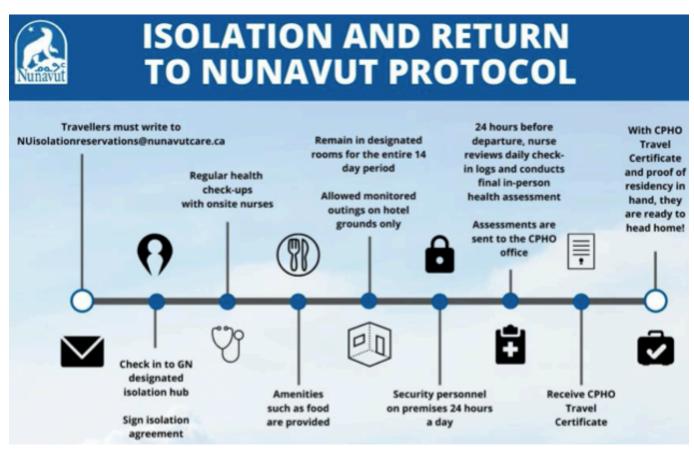
Northern Canadian communities are particularly vulnerable to infectious disease due to inadequate and crowded housing, limited health facilities, and high levels of pre-existing conditions. Northern Canadian governments knew it would be very difficult to resolve COVID outbreaks, especially in remote communities where even getting a test result could take a week. They placed great emphasis on blocking COVID from entering their territory, and on ensuring that any infections that did get in were limited to cities which had the hospitals to handle them.

The Yukon has not imposed travel restrictions, but all visitors must self-isolate for 14 days unless they are residents of British Columbia, Northwest Territories or Nunavut. Non-Yukon residents must complete their self-isolation in Whitehorse.

The Northwest Territory limits non-essential travel into and within the territory. All arrivals, resident or non-resident, must self-isolate in Yellowknife, Inuvik, Hay River or Fort Smith for 14 days before being allowed elsewhere in the territory.

The Nunavut government took the strictest approach. Mindful of the ravages of respiratory disease in their community—Inuit are nearly 300 times more likely to get tuberculosis than other Canadians<sup>vii</sup>—they took as their anti-COVID moto: "Decisive in our approach, cautious in our choices."

Decisive they have been. Almost all travel to Nunavut by non-residents is banned. Travel between mines (with flown-in workers) and the community has been cut-off. All residents returning to Nunavut must quarantine for 14 days in "southern isolation hubs": hotels located outside of Nunavut in Winnipeg, Yellowknife, Ottawa or Edmonton. The government covers the cost. As in Australia, security ensures that the quarantine is respected. Through this unique approach, residents complete their quarantine before even entering Nunavut.



Source: Government of Nunavut

As noted above, Atlantic Canada's COVID case count of 73 per 100 thousand people is a fraction of the Canadian average. Yet, Yukon had only 43 cases per 100 thousand, and the Northwest Territories had a mere 22.

Nunavut did even better. Until November 6, when it recorded its first case, it was one of the few places in the world that had zero cases of COVID community infection since the beginning of the pandemic.

# Northern Canada: World Class Border Management In a Canadian Setting



Since its first case, Nunavut has acted quickly and decisively to address its COVID outbreak. As of December 11, active cases were down 50% from its November peak. Nunavut is continuing with a smart, proactive and rigorous approach, reflecting the needs of its community.

Source: CBC COVID Tracker

In keeping with Nunavut's creative approach, across Canada indigenous leaders have been developing innovative, effective strategies to protect their people against COVID.

Atlantic & Northern Canada demonstrated that a zero COVID transmission policy:

- Can be achieved and sustained within Canada;
- Delivers superior results compared to North American peers;
- Promises superior resilience in the face of future COVID waves;
- Is optimized by empowering sub-national governments to refine their approaches to reflect their community's particular circumstances;

• Can include highly effective, world-class border controls and quarantine protocols within a Canadian context.

In conclusion, the collective experience across all TANZANC jurisdictions provides a strong demonstration that it is possible for democracies with the right characteristics and policies to:

- Get to zero COVID transmission;
- Block or eliminate new infections; and
- In federal systems, achieve and lock-in success at a state/provincial/territorial level.

The questions then become: what are these characteristics and policies and how closely do they apply to Canada's situation?

### **Intrinsic Characteristics and Essential Policies**

TANZANC democracies share a number of intrinsic characteristics:

- Controllable borders: islands in 3 cases and, in the 4<sup>th</sup> case, located at the end of the country;
- Relatively small population: the largest so far being Taiwan (23 M) and Australia (26 M);
- Mid-size urban centres: with maximum city populations so far being 5 M (Sydney, Melbourne) to 7 M (Taipei-Keelung metropolitan area);
- An engaged citizenry;
- Effective public institutions;
- In the case of Australia and Atlantic & Northern Canada: a federal system that allows gains to be captured and breakouts to be contained at the sub-national level.

Although present in some cases, two characteristics do not appear essential for the TANZANC model to succeed:

- Small size: although New Zealand and Taiwan are relatively small, Australia is the 6<sup>th</sup> largest country in the world, while the territory covered by Atlantic & Northern Canada would make it the 7<sup>th</sup> largest if it were a separate country.
- Small urban centres: while some TANZANC jurisdictions have small urban centres (e.g. New Zealand, Atlantic & Northern Canada) zero COVID transmission has been successfully achieved in urban centres of 5-7 M.

TANZANC democracies also share a number of essential policies, that are rigorously implemented:

- Disciplined border screening and quarantining of entrants;
- Internal barriers as necessary to preserve state/provincial/territorial gains, together with subnational bubbles to consolidate and reinforce these gains;
- Excellent testing and contact tracing;
- Well-conceived, consistently applied social distancing and risk reduction measures, including for schools;
- Quick, decisive reactions to outbreaks—a zero tolerance policy to new infections;
- Intense, transparent communication with citizens;
- Successful engagement of citizens and key communities to obtain their support and their active, creative participation;

• Clear political commitment to take the tough decisions and sustain the necessary policies until local COVID transmission is zero.

Many of these policies were significantly refined and strengthened as a result of experience. For example, New Zealand increased ongoing testing and Australia significantly enhanced quarantine measures in reaction to early challenges.

Together, these intrinsic characteristics and essential policies have allowed the TANZANC jurisdictions to achieve and sustain zero COVID transmission.

## **Applicability to Canada**

#### Canada:

- Possesses many of the intrinsic characteristics of TANZANC jurisdictions;
- Has adopted many of the essential policies, and has privileged relationships with key TANZANC members that could facilitate adoption of missing best practices;
- Is already successfully applying a zero COVID policy across 45% of its territory with 7% of its population (2.6 million people);
- Even with Canada's present high level of COVID, is in a similar situation to Victoria State in Australia before its recent successful push to zero COVID transmission

Each of these points is examined in turn.

#### Intrinsic Characteristics

Controllable borders: Unlike Australia, New Zealand, and Taiwan, Canada is not an island. However, it is surrounded by ocean on 3 sides. Canada has only one country on its 4<sup>th</sup> side, with whom, by mutual consent, it has closed borders to all but essential traffic.

With the largest two-way trading relationship in the world, even essential traffic is considerable. Key protocols are in place to manage the flow during closure, but policies and/or implementation might need to be strengthened. Fortunately, effective management of the U.S. border has always been an existential issue for Canada, particularly following 9/11. As a result, there is world-class capability at every level of the Federal government that can be focused on this issue.

- Relatively small population: Canada's total population is larger than any TANZANC jurisdiction. However, the ability to achieve success in federations depends less on national population and more on state/provincial population and the size of major cities. New South Wales (8 M) and Victoria State (7 M) are larger than or comparable to all Canadian provinces except Ontario (14 M). Sydney and Melbourne (both 5 M) are comparable in size to Canada's largest cities.
- **Engaged citizenry:** Canada is a high-trust society with an engaged citizenry. The strong majority of Canadians support provincial and Federal government actions against COVID. Although there have been some anti-mask and anti-regulation protests, the COVID response has not yet become generally polarized or politicized.

Despite economic challenges, 72% of Canadians prioritize "preventing the spread of coronavirus" over "preventing the economic fallout and job losses"ix.

- **Effective public institutions:** Canada has strong institutions, which rank a high 13<sup>th</sup> place out of 141 in the World Economic Forum Competitiveness Index: between Australia (17) and New Zealand (3)<sup>x</sup>. During the crisis, institutions have held up reasonably well, albeit with major challenge in some provincial ministries of health and massive failures in long-term care in Ontario and Quebec.
- A federal system that allows gains to be captured and breakouts to be contained at a subnational level: Despite some shortcomings and failures in the public policy response to COVID, Canada's federal system has proven flexible and effective during the pandemic. There has been reasonable cooperation between provinces and with the Federal government, while allowing each province to take the actions best suited to their situation. The federal system has permitted Atlantic & Northern Canada to consolidate COVID gains by implementing almost unheard-of temporary barriers to inter-provincial movement.

In summary, Canada's intrinsic characteristics appear reasonably well aligned with TANZANC criteria.

Canada is probably better positioned than either the European Union or the United States. Many European Union countries contain multiple national borders, larger populations, and/or centralized systems of government that limit effective subnational actions. United States has a larger population, weaker institutions, a deeply divided citizenry, and a highly polarized political class engrossed in a deeply divisive election. Canada is one of the western countries best positioned to apply the TANZANC model.

#### **Essential Policies**

Canada has, after some initial hesitation, adopted a full suite of necessary COVID policies and protocols.

Some policies, such as testing, tracing, and the enforcement of quarantine, may need to be strengthened to go for zero. However, as both New Zealand and Australia have close, long-term institutional relationships with Canada, public authorities should be able to access the most relevant TANZANC best practices relatively easily. In addition to existing best practices, ongoing new developments in policies and tools (such as quick diagnostic testing and sewage testing) could further increase the likelihood of Canada successfully applying the TANZANC model.

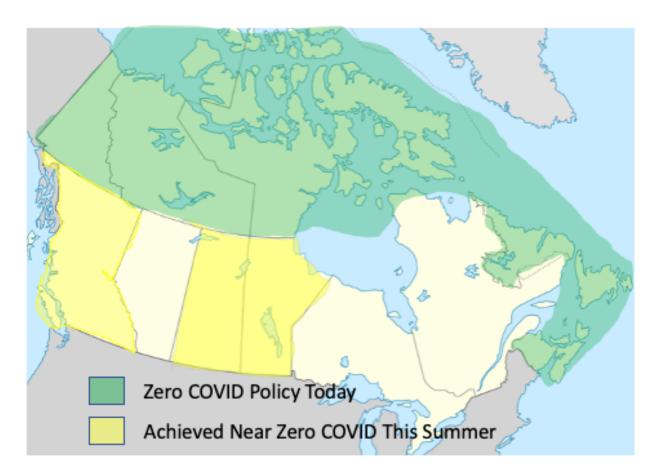
As a rich, well organized country, Canada appears fiscally and institutionally capable of applying all necessary TANZANC policies if there is the political will.

Although some policies, such as more effective border control, require Federal action, the vast majority of best practices can be implemented at the provincial level.

#### Present and Previous Success

Canada's ability to implement a zero COVID transmission strategy is not just theoretical. Today, it is successfully applying a zero COVID policy across more than 45% of its territory with 7% of its population (2.6 million people): the 4 provinces of Atlantic Canada, Northern Canada, plus many indigenous communities across the country.

Three other provinces with a further 23% of Canada's territory and 20% of its population (7.7 million people) achieved near zero COVID transmission this summer. B.C. reached less than 2 cases per million, Saskatchewan less than 1, while Manitoba achieved 0 new cases. However, unlike Atlantic Canada, they did not lock zero COVID transmission in.

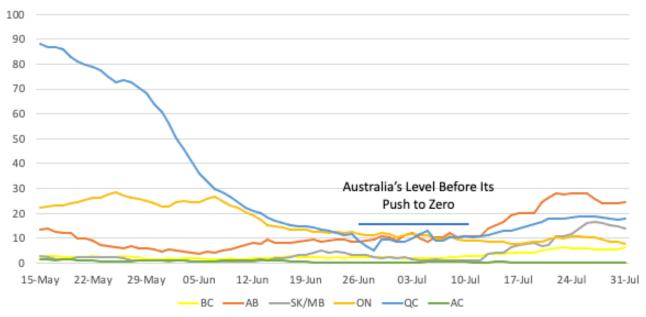


Canada as a country had a shot of getting to zero COVID transmission this summer. Seven provinces and all of northern Canada, representing more than a quarter of Canada's population and over two-thirds of its land mass, were at or near zero COVID transmission. Each of the 3 other provinces (Ontario, Quebec and Alberta) were well below Australia's level this spring, when it started its successful push towards zero local transmission.

We threw away our shot without debating, and perhaps without even realizing, the opportunity. However, our performance this summer demonstrated that getting within range of zero transmission is possible.

## Canada Had a Shot of Getting to Zero This Summer





### A Viable Path to Zero From Present Levels

Today, Canada is far from its situation this summer. Canada is in the midst of a second wave, with higher recorded cases in many regions than at the peak of the first wave. Is it possible to apply the TANZANC model in such a context? The recent Victoria State example suggests it is.

Australia's second most populous state (population 7 M, including Melbourne 5 M), experienced a major second wave due to COVID spreading from a quarantine facility and

ineffective initial follow-up. It reached peak daily cases in early August of over 75 per million, similar to Ontario today. Within six weeks, Victoria State had reduced daily cases by 90%. By early November, it had gone almost 2 weeks with zero local COVID transmission.

Other provinces currently have cases per million that are considerably higher than Ontario's. However, they are already taking action. Manitoba's new lockdowns taking effect November 12 will almost certainly drive its COVID infection rate below Ontario's today. The question is, will Manitoba then release constraints and allow the rate to go back up again or will it continue driving cases down to zero local transmission and sustained success?

In conclusion, although broader adoption of the TANZANC model is not a certainty, Canada has a number of elements in its favour:

- 1. Strong intrinsic characteristics;
- 2. Many of the right polices and a strong ability to access best practices from successful TANZANC jurisdictions;
- 3. Success already in Atlantic & Northern Canada;
- 4. A demonstrated ability this summer to achieve near zero-transmission in Saskatchewan, Manitoba and B.C. and very low levels in Ontario, Quebec and Alberta;
- **5.** A situation today that, although challenging, is similar to that successfully addressed by Victoria State.

## **Comparing the Benefits and Costs of Going for Zero**

Feasibility does not necessarily mean desirability. Deciding whether the TANZANC model is right for Canada, or for certain provinces, requires a full cost-benefit assessment across a range of scenarios.

Based on the experience of the 4 TANZANC jurisdictions, the benefits of zero local transmission include:

- Renewed sense of personal and collective control;
- Improved health outcomes;
- Reduced pressure on health institutions and schools;
- Increased social freedom;
- Increased economic freedom and a more sustained recovery;
- More equity. Women, young people, senior citizens, people with pre-existing conditions, new immigrants, indigenous, racialized and economically disadvantaged communities have all been disproportionately affected by the societal, economic and/or health impact of community COVID transmission;
- Superior resilience to future COVID waves.

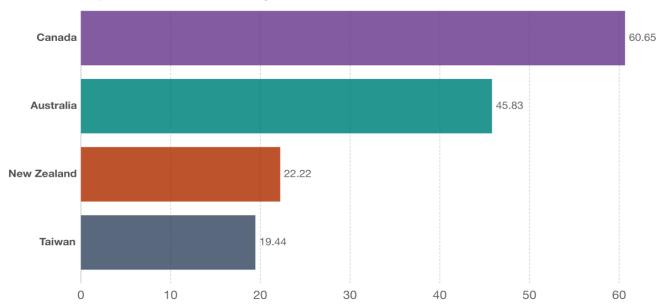
The advantages of achieving zero COVID transmissions are significant. TANZANC jurisdictions, with a total population of 58 M, had 17 new COVID cases on November 10. Canada, population 38 M, had 4,302. The previous week, Canada had almost 30 thousand cases: Australia had 65, of which only 6 were locally acquired. Across the Atlantic Canada bubble, only 14 schools had COVID cases since September, compared with over 1,400 schools in neighboring Quebec.

COVID social and economic constraints are significantly more relaxed than Canada's in Taiwan, New Zealand, and Australia, as indicated by Oxford University's Government Response Stringency Index.

## COVID-19: Government Response Stringency Index, Oct 28, 2020



This is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). If policies vary at the subnational level, the index is shown as the response level of the strictest sub-region.



Source: Hale, Webster, Petherick, Phillips, and Kira (2020). Oxford COVID-19 Government Response Tracker – Last updated 1 November, 12:30 (London time)

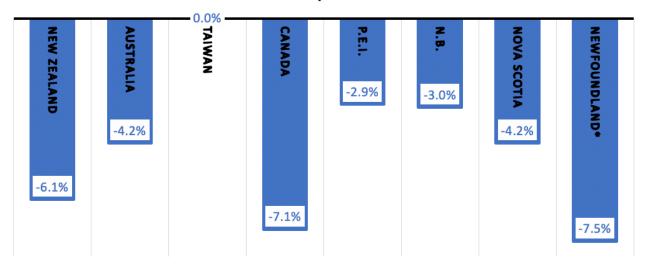
Note: This index simply records the number and strictness of government policies, and should not be interpreted as 'scoring' the appropriateness or effectiveness of a country's response.

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Schools and universities are teaching in person. Permitted social gatherings are larger. Bars and restaurants are open, with social distancing restrictions that vary by jurisdiction. Entertainment and sports industries are able to host significant events (Western Australia's Optus Stadium is "limited" to 30,633 spectators for sports events, 35,000 for concerts)<sup>xi</sup>.

Far from sacrificing their economies to get to zero, all TANZANC jurisdictions (except for oil-price hit Newfoundland) project better 2020 economic performance than Canada.

## TANZANC Economies Have Been Hurt Less Than Canada's Latest GDP Projections for 2020



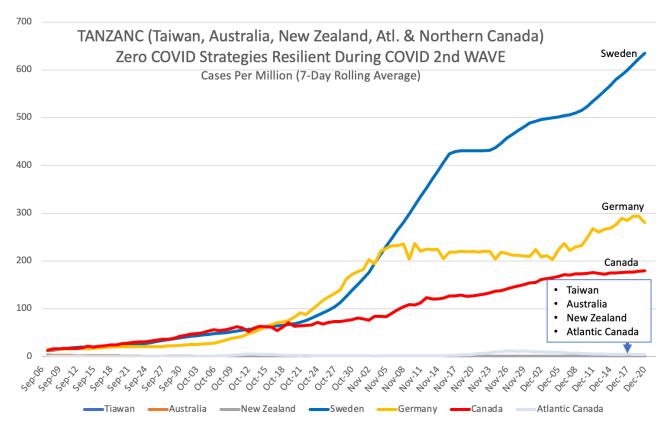
<sup>\*</sup> Decline exacerbated by global collapse in oil prices
Source: IMF World Economic Outlook, October 2020; TD Forecasts, September 19, 2020

This is in keeping with recent scholarly analysis that "countries that have managed to protect their population's health in the pandemic have generally also protected their economy too."xii

One of the greatest unexpected benefits is superior resilience to future COVID waves.

There was an initial belief that any success in reaching zero COVID would be short-lived due to inevitable new infections, such as the major outbreaks in New Zealand and Victoria State this summer. However, experience has proven that TANZANC jurisdictions are highly resilient to new COVID infections. New Zealand eliminated its outbreak quickly, and Victoria State is now virtually COVID free. Taiwan has avoided major outbreaks and both Atlantic & Northern Canada are dealing much more successfully with Canada's second wave than any other region.

The resilience of TANZANC jurisdictions in the face of new COVID waves is a huge benefit. They are well-positioned compared to most western countries which are facing lockdowns with the second COVID wave and confronting a very difficult winter with potential third and fourth waves ahead.



Source: This World In Data; CBC COVID Tracker: September 1 to December 21, 2020

In summary, the benefits of the TANZANC model are considerable. There appears to be no net economic cost, but rather an economic benefit. The societal benefits are large, and particularly beneficial to the most vulnerable. The enhanced resilience to future COVID waves provides greater control in the months ahead, while everyone waits for vaccines whose timing and efficacy are both uncertain.

To make the right decision, the benefits of achieving zero-transmission would have to be compared to the economic and societal costs of getting there. Would getting to zero require a Victoria State-like full lockdowns? Could a series of more strategic and refined interventions achieve the same result over time?

Canada is in a good position to consider an innovative, targeted approach. It could potentially leverage improved insights on where and how COVID spreads in Canadian society to achieve zero community transmission without the massive disruption of full lockdowns. A clear, well-articulated roadmap, laying out the necessary actions and expected benefits, would be highly beneficial to assessing a zero-transmission strategy.

The costs and benefits of a zero COVID strategy would then have to be compared to the range of likely scenarios if Canada continues with its present strategy. What is a realistic range of time until a safe, effective vaccine is widely available? Is the present approach sustainable until then and, if so, with what economic and societal costs? Especially if the broad availability of an effective vaccine is delayed until the second half of 2021, what are the risks of "COVID fatigue" leading to a major decline in compliance and new major lockdowns.

Once the benefits and costs of a zero COVID transmission strategy are modelled and compared with the costs and risks of the present strategy, Canadian leaders will be in an informed position to make the right choice.

## Canada Needs a Strategic Analysis and Debate on a Zero COVID Transmission Strategy

Australia did not adopt its strategy of zero COVID commission automatically or overnight. There was a sustained, vigorous policy debate. In April, a study from Australia's 8 top research universities "Roadmap to Recovery" rejected the herd-immunity option and suggested the options of elimination or controlled adaption. These options morphed into a strategy of "aggressive suppression" and the goal of "zero community transmission" (the TANZANC model) by July. There have been important strategic refinements since with the highly-regarded Grattan Institute Report: "Go For Zero" in September and the Australian Government's October 23<sup>rd</sup> "Framework For National Reopening". Each of these documents triggered fulsome debates.

Where are the discussions on our COVID grand strategy in Canada? Recent debates in Parliament have focused on the speed of approval for quick diagnostics and on Parliament's right to review contracts with suppliers. There is little real debate on Canada's overall strategy.

We threw away our shot to get to zero COVID once already this summer. It was a major missed opportunity. Arguably, for provinces such as Saskatchewan and Manitoba who were virtually at zero, the cost of locking in their success, as Australian states and as Atlantic Canada chose to do, would have been much less than the price they are paying now to fight an increasingly difficult second wave.

Why there was no debate is not clear. It is ironic how much time and energy were spent debating the Swedish Model—with its decidedly mixed results—while a much more successful approach was being modelled here in Canada with virtually no comment at all. Perhaps Canadian authorities and academics simply believed that getting to zero local transmission was not possible. Perhaps the "hammer and dance" approach, with its apparent success in European countries like Germany and here in B.C., seemed the only relevant choice. Perhaps it was the neighborhood effect: Australia was challenged to be creative by New Zealand's zero-COVID success; we were comforted in our complacency by America's COVID failures.

Whatever the reasons then, the situation is very different now. The TANZANC model of zero-transmission has proven to be a successful and sustainable strategy in several jurisdictions, including in Canada. The "hammer and dance" strategy is faltering across most of Europe. Every province in Canada, except for Atlantic Canada, is in difficulty.

#### The TANZANC Model and its Relevance to Canada

As we consider difficult policy choices over the next few months, we must consider alternatives to the increasingly questionable "hammer and dance" strategy. There should be a rigorous cost-benefit analysis and debate around a zero-transmission strategy for Canada.

### One or More Provinces Could Lead

While a zero-transmission policy is applicable across Canada, it may be more attractive in some regions than others. Both Australia and Atlantic Canada demonstrate that a provincial-level roll-out is possible.

Ontario certainly has the deep technical expertise and institutional capacity to adopt a TANZANC strategy.

B.C. has controllable borders and strong support for the government's COVID response. It would be well positioned to implement a zero-transmission strategy. With an historically relatively low infection level, B.C. did not have a great imperative to change its strategy until recently, but the situation has changed significantly in recent weeks.

The Alberta/Manitoba/Saskatchewan prairie region has the incentive to change with some of the highest case numbers per capita and two of the three provinces presently in lockdown. The three provinces could form a successful "prairie bubble/shield".

Quebec has the second largest city in Canada and busy borders with both Ontario and the United States. However, it has a great incentive to adopt a zero-transmission strategy due to high infection rates, a fragile healthcare and long-term care system, and the highest proportion of senior citizens outside Atlantic Canada.

A further advantage is that Quebec is next to the Atlantic bubble: one of its borders is therefore already protected and there could be a natural transformation of the Atlantic bubble into an "Eastern Canadian" bubble.

Quebec also has the political leadership to successfully implement a zero COVID transmission policy. Premier Legault demonstrated clear, decisive leadership this spring. His government has the confidence of its citizens. Quebec has a track-record of public policy leadership, in health and in other areas.

If they chose to, Quebec and a number of other provinces are well positioned to lead Canada and the western world in demonstrating the broader success of a zero COVID transmission strategy.

### Conclusion: We Have a Choice

Tough decisions will be necessary across Canada over the next few weeks. Canadians will doubtless be asked to make significant additional sacrifices. It is critical that these decisions and sacrifices are made with the right strategy in mind.

The TANZANC strategy of aggressive suppression is a viable option for Canada. Given the critical challenges to our present approach, the TANZANC model should be assessed and debated.

It may be that a cost-benefit analysis demonstrates that the TANZANC model is not a better strategy. If, however, the TANZANC model is right for Canada, or for certain provinces, we should act on it now. We cannot afford to throw away our shot a second time.

The conclusion from this report is that Canada has a choice. Living with COVID in the world is reality. Living with COVID in our communities is a choice.

Is it the right choice?

#### The TANZANC Model and its Relevance to Canada

i https://ourworldindata.org/covid-exemplar-vietnam

<sup>&</sup>quot;Support ranged from 70% when tougher measure were announced in early August to 62% in September. <a href="https://www.theguardian.com/australia-news/2020/aug/12/essential-poll-victorians-overwhelmingly-support-harsh-restrictions-to-curb-covid-second-wave">https://www.news.com.au/national/victoria/politics/a-third-of-victorian-voters-still-backing-daniel-andrews-despite-controversial-management-of-covid19-crisis/news-story/89edc5f97f158f07f4a7c9d4a9ac8b19</a>

https://medium.com/@tomaspueyo/coronavirus-the-hammer-and-the-dance-be9337092b56
https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-statement-on-strategic-direction

v https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-statement-onstrategic-direction

vi Team interview with Dr. John Tobin of New Brunswick, November 5, 2020.

vii "The place in North America with No Cases". BBC; <a href="https://www.bbc.com/news/world-us-canada-54405736">https://www.bbc.com/news/world-us-canada-54405736</a>

<sup>&</sup>quot;Nunavut's Path", Government of Nunavut, https://www.gov.nu.ca/health/information/nunavuts-path

ix https://leger360.com/wp-content/uploads/2020/10/Legers-Weekly-Survey-October-13th-2020.pdf

<sup>\*</sup> https://www.weforum.org/reports/how-to-end-a-decade-of-lost-productivity-growth

xi https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/covid-19-coronavirus-wa-roadmap

xii https://ourworldindata.org/covid-health-economy