OTTAWA

How prepared was Canada?

Paul Wells: Last year, Canada's Chief Public Health Officer wrote a paper on how to plan for a major outbreak. It didn't imagine anything as menacing as this coronavirus.

By Paul Wells
May 11, 2020

Tam takes part in a press conference on Parliament Hill during the COVID-19 pandemic on May 8, 2020 (CP/Sean Kilpatrick)

It's a peculiarity of this crazy time that, during a contagious disease outbreak that has become the sole focus of nearly every Canadian journalist, the federal government's chief public health officer could publish an article about handling contagious disease outbreaks and nobody would notice.

Theresa Tam is the Chief Public Health Officer of Canada and a fixture of the near-daily federal government briefings on the coronavirus pandemic. On March 31 she published a paper in *Healthcare Management Forum*, the official journal of the Canadian College of Health Leaders. Its title: "Preparing for uncertainty during public health emergencies: What Canadian health leaders can do now to optimize future emergency response."

It's not journalistic malpractice that led to Tam's paper being overlooked. There's been a lot going on. Nobody I know subscribes to *Healthcare Management Forum*. And on a quick scan, there's nothing scandalous or overtly provocative in Tam's paper.

the budgets they want from distracted politicians. But if all you were looking for was controversy, that would be pretty weak beer.

Tam has been a focus of heated criticism for seeming to be overly reluctant to criticize China or the World Health Organization, and for arguing against personal face masks before those became popular. I think in many ways those controversies have been unfair to Tam. Nothing she's said has been way offside the international scientific consensus on such matters. This virus is new, scientists are still learning its quirks, and after-the-fact criticism based on "common sense" is a lot easier than briefing a nervous nation every day.

Still, Tam's paper is a fascinating look into the thinking of a leading public-health official in a moment of crisis. Or rather, just before. Despite its appearance two weeks after the implementation of a near-total global lockdown, Tam's paper was substantially finished long before the COVID-19 outbreak was known to have begun. Her footnotes show the date when online documents were accessed; in almost every case it was in November. The first public reports of an outbreak in Wuhan, China were at the end of December.

READ MORE: *The doomed 30-year battle to stop a pandemic*

And in an exchange of emails, Laurie Wilson, the managing editor of *Healthcare Management Forum*, confirmed my hunch. "We started planning this edition in January of 2019 and secured Dr. Tam's participation at that time. Since we are a peer-reviewed journal, it takes time for the articles to go through that rigorous review process, so we often secure authors a year in advance to give both them and our reviewers enough time to be thorough." Wilson and her colleagues were in fact planning to devote an entire issue to managing public-health crises in July. When COVID-19 happened they moved it up to the end of March.

"As such," Wilson told me, "the majority of Dr. Tam's article was indeed written last year."

So here's an article written when the catastrophe it describes was still hypothetical, but that became public when its arguments could be tested against terrible reality. What's it say?

Mostly Tam's goal was to warn health administrators to be ready for surprise. "There will be many unknowns at the start" of any outbreak, she writes. So being prepared "is about applying the approaches that we have learned from previous events," while being prepared to drop anything that doesn't work, or to do a lot more of what does.

A new virus would be full of surprises, Tam wrote, not yet knowing the new virus was upon us. So "outbreak response must run parallel with a rapid gathering of international evidence," which meant "the level of uncertainty is dynamic and the response will need to be adjusted as and when we know more."

In the early days of an outbreak, how could public officials possibly proceed, given all the uncertainty? They would just have to make some assumptions, Tam wrote. A new virus would be assumed to spread the way seasonal flu does. Safeguards that work against flu would be the first ones responders would use against a new outbreak. They'd have a set of principles for dealing with patients, spacing beds in a ward, handling infection control, and so on.

Some of the assumptions and principles would probably prove wrong. But they could be adjusted "if reality proves to be different from the planning assumption." The alternative, after all, was to be paralyzed with indecision in the early days. Which is no alternative at all.

uncertainty and/or risk aversion can lead to overcompensation during a response," she wrote. Starting too big could lead to "inappropriate use of limited resources" and "responder burnout."

So on the eve of the worst public-health threat Canada had faced in a century, Canada's chief public health officer was arguing for a restrained reaction to a new virus.

If we deny ourselves the dubious benefit of hindsight—the knowledge that this year's outbreak would be the worst in a century—it's actually not all that surprising that Tam would be warning ahead of time against overreacting. The SARS crisis of 2003, during which Toronto played host to one of the fiercest outbreaks outside Asia, was the formative experience for a generation of Canadian public-health officials. It was boot camp for the modern cohort of Canadian epidemic fighters. And it killed 44 people over five months.

The 2019 coronavirus has killed more than 44 Canadians on each of 36 days so far in 2020, sometimes nearly five times as many as the entire SARS outbreak in one day. But again, when Tam was writing her paper, she didn't know that.

And since 2003, scares have been fairly frequent—and never really all that bad. The 2009 outbreak of a novel H1N1 flu virus, beginning in Mexico, wasn't as deadly for Canada as SARS. Nor was Ebola in 2013, nor Zika in 2016. In a 2018 paper for the journal *Canada Communicable Disease Report*, published online by the Public Health Agency of Canada, Tam described Canada's institutional response to each of those alerts.

SARS led to the creation of the public-health agency itself, and the formation of a federal-provincial network of officials, so different governments would never again be shocked by having to collaborate in an emergency. That network has the ability to form a "Special Advisory Committee" to coordinate medical disaster response among jurisdictions. Special Advisory Committees were struck for the 2009 influenza, the 2013 Ebola outbreak—and in 2016 to fight the sudden surge in opioid-related overdose deaths.

That 2016 use of the emergency-response system was surprising. Overdoses aren't an infectious disease, but they were certainly a crisis. Health Canada says more than 14,000 Canadians have been killed by overdoses since 2016, far more than by COVID-19 in 2020.

READ MORE: *Footprints of the coronavirus: How it came to Canada and went around the world*

In Tam's telling, adjusting federal-provincial responses to the opioid crisis was an encouraging development. "Adaptable responses are agile," she writes in the more recent paper. "Such systems can quickly establish new inter-sectoral connections to meet immediate specific response needs." The "urgency" of the opioid crisis "ultimately established a timely surveillance and reporting network."

I'm afraid this depends on what you mean by words like "agile," "quickly" and "timely." The Trudeau government had been in office for a year, and overdose deaths had been climbing throughout, before it convened federal and provincial officials for a two-day summit on the opioid crisis. Six more months passed before a senior health department official was assigned to coordinate federal activity on the file.

In the year following the 2016 opioid summit, 26 informal overdose-prevention sites opened in storefronts and tents across the country. Each of those sites operated in violation of federal law, though sympathetic local police rarely enforced the law against them. They sprung up because community activists got fed up with waiting for

collecting the data.

I need to emphasize that this cumbersome response wasn't a result of federal apathy. Quite the contrary. The government was going all out. Rules were bent, old habits thrown out the window. Saving lives from opioids was Trudeau's highest public-health priority for four years. But vast health bureaucracies simply don't ever corner well.

So the lessons Tam describes had all been learned in crises that, in the event, were not a fraction as menacing as the current coronavirus outbreak has proved to be. One of the lessons she took away was that it's important not to get too excited too early, for fear of burning out the system. And her preferred example of the system's agility was a response to the opioid crisis that, for people dealing with its human cost, felt agonizingly slow.

None of this could have looked, in November of 2019, like evidence of a failure to prepare. Indeed, as Tam notes in the March paper, Canada "was ranked 5th in the world in the Global Health Security index, addressing global health security and capabilities."

I found it useful to check the Global Health Security Index. It's run by Johns Hopkins University and the *Economist* magazine's Intelligence Unit. Its goal is to measure whether 195 countries around the world are living up to their obligations under the World Health Organization's mandate for pandemic preparedness. (The WHO, like Dr. Tam, gets a bad rap: it's imperfect and chronically due for reform, but there is simply no single country and no other organization that's in a position to tell 195 countries how to protect people against disease. And even if the response is flawed, the solution is not to stop trying.)

The GHS Index measures countries on their ability to prevent disease; to detect and report it when it breaks through; to respond quickly; to run the sort of health system that can handle a surge of badly ill patients; and to work well with other countries.

It's true that the Index, published only last year for the first time, ranks Canada fifth out of 195 countries. It's also true that the country that ranked highest was the United States, which has been, by far, the country hardest hit by COVID-19. This suggests the limitations of a ranking system in the absence of a specific context.

Breaking down Canada's performance under the Index, we see areas of great strength but also unnerving weakness.

Canada's laboratory system and epidemiology workforce are reckoned to be best-in-class, scoring 100 in the Index. Its commitment to sharing genetic data and even specimens with other countries is high. But Canada's public health system, already stretched to the limit even in ordinary times, gets low marks, 50 or lower out of 100, on capacity; access; and infection control practices.

And on the key measure of "Exercising Response Plans"—carrying out dress rehearsals so that every player in the system would know how to get a hold of resources and share them across the system—Canada scored a zero. "There is insufficient public evidence that Canada has in the past year has undergone an exercise to identify a list of gaps and best practices," the Index's country page for Canada says.

So taken together, Tam's paper and the examples it raises suggest a country that was in shaky position to respond to an emergency that turned out to be far bigger than anticipated.

MORE BY PAUL WELLS: