Intelligence MEMOS

From: Soumi Eachempati, Ed Devlin and Rosalie Wyonch

To: Canadian Healthcare Watchers

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Re: **INFORMATION TECHNOLOGY IS CENTRAL TO MANAGING A PANDEMIC THAT IS BECOMING ENDEMIC**

Canada, along with the rest of the world, is at a crucial crossroads. Even as the latest lockdowns start to ease and Omicron appears to be cresting, it's clear that COVID has become an endemic entity.

The next phase will create even more challenges that need proactive management to minimize societal damage. And that means better data collection and curation.

High quality data allows us to develop effective public health measures that are timely, targeted and temporary. Future policies need to balance public health objectives against the unintended costs of uncompromising restrictions.

Since COVID-19 emerged, national policy responses have substantially varied, even as new tools have been added to public health policy playbooks. Overall, Canada has done relatively well, achieving lower mortality rates than many peer countries: 80.85 per 100,000 population. This is better than the UK (223.8), US (250.8), and France (181.8), but is worse than in some other countries like Australia (8.5 as of last week). In other pandemic-related metrics, Canada has also fared well. Currently, the rate of fully vaccinated individuals in Canada is one of the world's highest at 77 percent.

Creating timely, accurate and granular data is essential to developing effective policy responses. After Omicron, more variants will predictably appear and possibly cause different patterns of disease. Global holes in vaccine rollouts from limited supply and personal refusal will likely lead to further resistance and mutations.

Additionally, understanding how decreasing antibody levels from vaccinations interact with potential future variants is critical to developing public safety measures. Timely and accurate data will be key to create effective responses that balance our public safety and economic health.

Information technology can ease the implementation of necessary new rules to reduce the burden on the public. A pandemic weary public creates resistance to rules as seen by mass protests in Belgium and Netherlands. Compliance with mask wearing and public health guidelines may diminish or become more problematic to enforce. In the US, legal challenges to the Biden administration's mandates for safety have arisen in 28 states. One pre-holiday survey, showed 45 percent of Canadians and 50 percent of Americans were not planning to socially distance at holiday gatherings. The more robust the data decision that makers can reference, the easier it will be to specifically target populations that require mask, vaccine and social distancing measures. In turn, this should help with public acceptance of new measures.

Minimization of COVID-19 cases has obvious direct and indirect benefits. With fewer ICU beds occupied by COVID-19 patients, hospitals have more capacity to manage non-COVID emergencies and perform more elective surgeries and non-urgent care. Burnout among health care workers can begin to be managed. Outside the healthcare system, fewer COVID-19 cases lowers the likelihood of workplace and school closures or new restrictions on gatherings affecting the hospitality and service sectors.

Since the global financial crisis of 2008, central banks have famously implemented a "risk management approach" to monetary policy, understanding that when interest rates cannot go lower, there is an asymmetry to the risks facing the economy. The pandemic has revealed similar asymmetries in healthcare policies and a similar "risk management approach" should be the guiding policy. Canada needs to monitor the globe for epicenters of the next pandemic to understand the magnitude of each subsequent threat. An overreaching shutdown approach could pose as much economic damage as an underappreciated new variant. A *laissez-faire* approach to policy could create more room for new strains to do severe damage. Future solutions based on granular data about characteristics of any new variant improve our understanding of COVID in terms of traffic trends and susceptibility to illness.

Investing in solutions that incorporate data will justify the cost and provide insurance against more pandemic-influenced damage. Understanding of collateral damage from mental health deterioration, other health adversities such as delayed surgeries, and inferior care of emergencies, will lead to smart proactive solutions. Pre-emptive solutions utilizing sophisticated contact tracing techniques, more real-time testing, and mitigation of clustered outbreaks will minimize economic damage. Full public appreciation of the societal impact of the pandemic using barometers such as excess deaths should further guide utilization of resources.

As COVID-19 becomes endemic, policy based on high quality data and new innovations must adapt to both minimize bad health outcomes and prevent the economic disruptions caused by previous waves of the pandemic.

Soumi Eachempati is the CEO of Cleared4 Inc. and a former Professor of Surgery and Public Health at Weill Cornell Medical College, Ed Devlin is the Founder of Devlin Capital, a Senior Fellow at the C.D. Howe Institute and a Board Member of Cleared4 Inc. Rosalie Wyonch is a Senior Policy Analyst at the C.D. Howe Institute.

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