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# THE NEXT PANDEMIC AND THE CASE FOR SYNDEMICS THINKING

Neil Orford | July 10, 2020

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Three-plus months in, we increasingly understand that the coronavirus that caused the COVID-19 pandemic didn't spread randomly through Canadian society.

The worst and most concentrated tragedies occurred in long-term care facilities, while people living in lower income urban neighbourhoods, and especially those from racialized communities, experienced far higher infection rates than residents of more affluent areas, who were more likely to be working from home.

That contagious diseases tend to cluster is hardly a new observation; viruses travel along transportation networks, but the footprints of the resulting epidemics and pandemics are linked to political, social and economic factors.

While past outbreaks have led to advances in treatment innovations and public investment in infrastructure (water treatment, sanitary sewers, etc.), it's by no means clear that our society has sought to think about these events in a thoroughly holistic way, or to answer a fundamental question: why were some people more susceptible than others by virtue of their wealth, life circumstances or other social factors that don't seem directly linked to the biology of infection?

As we prepare for either the second wave or future pandemics, Canadians should be demanding that policy-makers tackle this problem.

One compelling perspective comes from a discipline known as "syndemics," and the "biosocial conception of health" – a school of thought promulgated by University of Connecticut medical anthropologist Merrill Singer and others.

The syndemics approach, Singer explains, accounts for how inequality and injustice contribute to "disease clustering," i.e., the social conditions that cause multiple diseases, both chronic and infectious, to cluster in vulnerable groups. As a 2017 paper in *The Lancet* explains, this analysis focuses closely on "the pathways through which diseases interact biologically in individuals and within populations, and thereby multiply their overall disease burden."

In the case of COVID-19, for example, we should ask whether the elevated incidence of other underlying diseases in certain communities – e.g. cardio-vascular or respiratory illnesses – amplified the impact of the pandemic among those groups. We should also be considering the role that public policy decisions and socio-economic conditions have played in producing those over-lapping disease clusters. It follows that if we want to properly prepare for future pandemics (or any other type of disease outbreaks), our governments and public health officials need to go far beyond updating emergency-

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preparedness regulations, stock-piling equipment and developing vaccination plans. They must also look upstream to figure out how to confront the pre-conditions that make certain groups far more vulnerable than others, even accounting for physiology and age.

Epidemiologists have tracked so-called social determinants of health for many years, documenting how factors like housing, proximity to transportation corridors or Indigenous background are strongly correlated to health outcomes such as respiratory ailments or diabetes. As University of Toronto medical anthropologist Madeleine Mant says, pandemics reveal “societal fault lines.” Syndemics analysis, however, is about going one step further, and looking at how these conditions, plus the policy choices that created them, interact in a crisis. In recent years, for example, medical anthropologists have identified the “complex dynamics” of violence, diabetes and depression and abuse among Mexican immigrant women in Chicago – the so-called VIDDA syndemic.

“VIDDA underscores the notion that diabetes is not an endpoint, nor is its overlap with depression the sole focus of the relationship as it is with co-morbidity,” observed Georgetown University global health expert Emily Mendenhall in a 2016 paper. “Rather, depression and diabetes comprise a biosocial feedback loop wherein they are contributors to and consequences of a stressful life.”

The COVID-19 outbreak poses tough, and as yet unanswered questions about whether the specific footprint of this pandemic actually indicates the presence of a syndemic that we’ve ignored for too long. Consider the case of the low-income, racialized communities that have experienced disproportionately high rates of infection. It’s clear that decades of under-investment in affordable housing have produced apartment-level over-crowding. What’s more, individuals working in those segments of the labour force deemed essential in the early stages of the pandemic lock-down, and who tended to be earning low wages, were likely living in cramped conditions and exposed to many more people (e.g., supermarket clerks or personal support workers). But what if many of the residents of these communities were also already immuno-compromised and dealing with underlying conditions, such as Type 2 diabetes or respiratory diseases caused by chronic exposure micro-particles?

The take-away is a common sense observation that lies at the heart of the syndemics outlook. Our world isn’t arranged in disciplinary or ministerial silos; everything, as the planners like to say, is connected to everything else. Therefore, to properly plan for future pandemics as well as other health crises, governments must adopt a far more interdisciplinary approach to public policy, as is being done in forward-looking places like Norway.

Another example is PREPARE, the European Union’s 2014 epidemic-pandemic-preparedness strategy that sets in motion of a rapid response to an outbreak, focusing on clinical research that begins as soon as the outbreak is identified. “When faced with a new infectious disease like COVID-19,” says Professor Peter Horby of the University of Oxford and a member of PREPARE’s Outbreak Mode Committee (OMC), “medical professionals and public health authorities confront many uncertainties. We need to know how it spreads, who is most at risk, how severe the disease is, and how patients are best diagnosed and treated.”

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It's very clear that these sorts of queries demand a syndemics approach, one which challenges policy-makers to truly recognize how festering social problems – inadequate housing, low wages, inadequately-staffed long-term care homes, etc. – give rise to concentrated clusters of disease and dysfunction that turns out to be a whole lot more deadly when highly infectious viruses are thrown into the mix. Education and historical awareness are also vital. “Understanding the past is critical,” says Mant, who points out that the long history of plagues and pandemics has much to tell us about what societies did and didn't do to address the inequities that fuel outbreaks.

Coming out of this crisis, many people will be wondering whether Canada can afford to properly invest in social infrastructure and confront exclusion as a means of improving everyone's health.

For the answer, we need only look at the devastating cost of the pandemic. The fiscal hangover related to emergency spending and the unprecedented economic contraction that awaits us will be measured in staggering deficits and bracing spending cuts for years to come.

Yet the advocates of the syndemics approach won't be asking how much these proactive measures cost. They will say, how can we afford to do otherwise?

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