

NCD and Poverty Research Network

Exploring the multi-dimensional relationships between non-communicable diseases and poverty



2020 — Issue 17 page 1

INFORMATION AND OPPORTUNITIES

As we put this newsletter together, more and more planned events are being cancelled, postponed to a later date, or changed to an online format. Please check the links for scheduling updates to the following events:

- ** [73rd World Health Assembly](#) 17–21 May 2020, Geneva, Switzerland
- ** [13th Asia Pacific Association for the Control of Tobacco \(APACT\)](#) September 2–4 2020, Bangkok, Thailand
- ** [Walk21](#) 22–25 September 2020, Seoul, South Korea
- ** [The 51st World Conference on Lung Health](#) will take place virtually 20-21 October 2020. In the meantime, The Union offers a [Webinar series on COVID-19 and Lung Health](#)
- ** [Geneva Health Forum](#) 16–18 November 2020, Geneva, Switzerland

** The [South East Asia Regional NCD Alliance](#) was recently launched during the Global NCD Alliance Forum 2020 in Sharjah, UAE. It will help to coordinate national and regional efforts to address NCDs in Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives, Malaysia, Myanmar, Nepal, Sri Lanka, Thailand, and Timor Leste).

** The NCD Alliance has put together a [resource page](#) with links to information and tools relevant to COVID-19 and NCDs

** For other updates and upcoming events related to NCDs, please see the NCD Alliance news and events sites: <http://www.ncdalliance.org/news-events>.

COVID-19, NCDs, and Poverty: An Overview

Global attention is currently on the COVID-19 pandemic. The disease's rapid spread around the world, its ability to overwhelm health systems, its lethality, and its impact on everyday social interactions have dominated news headlines for months. However, the variety of links between the disease and NCDs has not yet garnered sufficient attention. The media has, of course, actively reported that having a pre-existing NCD (such as asthma, diabetes, or heart disease) greatly increases one's risk of becoming seriously ill with COVID-19. Much less attention, at least until very recently, is being given to other links, such as the elevated risk of infection and severe complication that smokers and possibly vapers face, or how widespread lockdowns and strict physical distancing regulations may exacerbate pre-existing physical (and mental) health issues. Enforced restrictions on mobility further hinder people's ability to engage in healthy eating (reduced access to fresh foods) and physical activity. The potential role of [air pollution](#) on COVID-19 death rates is also being examined.

This pandemic's long-term economic consequences will be particularly devastating for the vulnerable among us: the poor in wealthier countries and lower-income nations. As Tijjani Muhammad-Bande, President of the 74th session of the United Nations General Assembly, [recently noted](#) "COVID-19 is a reminder that humanity is only as safe as its most vulnerable groups."

The news is not all bad. We are already seeing reports that fewer people on the streets has contributed to [cleaner air](#) and a dramatic [reduction in traffic crashes](#) worldwide. Innovative approaches to transport, street markets, and community gardens are also emerging, while renewed emphasis is being placed on cycling and other forms of active transportation.

In this issue of our newsletter, we look at some of the rapidly evolving research that addresses relationships between COVID-19, NCDs, and poverty. We would also like to extend our thoughts to all of you—please stay safe. Our thoughts too are with all those who have been directly affected by the pandemic.



The media has paid much less attention to the variety of connections between COVID-19, NCDs, and poverty.

Smoking and COVID-19 Risk

The mantra over recent months has been to “flatten the curve” of COVID-19 cases, but it is incredibly difficult to determine coronavirus infection rates with any accuracy. In most countries, too few people are being tested; this means that there is no true grasp of the number of people who have been infected or have yet to be infected. As health systems are being overwhelmed and have less capacity to treat those who come in with especially serious illnesses, it is possible that otherwise preventable deaths will continue to increase. Much of what will be learned about the virus and the illness it causes will take time.

That said, it is becoming clearer who has faced the brunt of the disease’s impacts. The elderly and those with pre-existing health conditions fall most obviously into that group (although the statistics increasingly show that being young and healthy has been no guarantee of safety). Some NCDs seem to have put people most at risk, as shown in “the first big analysis of more than 44,000 cases from China.” [This study](#) found that “deaths were at least five times more common among confirmed cases with diabetes, high blood pressure or heart or breathing problems.”

Another important risk factor for disease susceptibility and severity that was late in gaining public attention—despite the increasing number of [reports](#) and [studies](#) on the topic—is tobacco use. Smoking and possibly vaping are especially problematic. In addition to the lung damage that they cause, the [WHO notes](#) that “smokers are more likely to develop severe disease with COVID-19, compared to non-smokers.” Furthermore, [the act of smoking](#) “involves repetitive hand-to-face movements” that facilitate transmission of the virus. The following is a quick summary of the evidentiary link between smoking and COVID-19.

☞ [Smoking status along with gender](#) and age has been used to explain, at least in part, the higher death rates from COVID-19 seen in Italy [compared](#) to South Korea or China. The three countries have similar overall smoking rates (24% in Italy and about 27% in both South Korea and China). But Italy has a relatively elderly population (23% over the age of 65) and similar smoking rates across the sexes: 28% among men and 20% among women. South Korea’s and China’s [demographics are younger](#) (about 15% and 12% are over the age of 65, respectively), and the sex-distribution of their smoking rates shows a distinct difference: about 36% for men but less than 7% for women [in South Korea](#), and more than 48% of men versus less than 2% of women [in China](#). In China, the initial reported death rate from COVID-19 has been 4.7% in men and 2.8% in women, suggesting that smoking may have been a factor. In South Korea, more women than men have been infected with SARS-CoV-2 (the virus that causes COVID-19), and here too their much lower smoking rates might have reduced death rates.

☞ The reason for higher death rates among smokers is clear: smoking harms lung health and causes a number of underlying respiratory problems. Smoking also harms the immune system and its ability to fight infections. [Research has shown](#) that, along with pre-existing NCDs, smoking has been a key risk factor during the MERS-CoV outbreak that began in 2012: smokers had higher mortality rates than non-smokers. A [systematic review from China](#) about COVID-19 found a higher need for ICU support and for mechanical ventilation, as well as a higher mortality rate, among smokers. [Specifically](#), smokers were 1.4 times more likely to have severe symptoms of COVID-19 and approximately 2.4 times more likely to be admitted to an ICU, need mechanical ventilation or die compared to non-smokers.

☞ [How does smoking increase the risk of COVID-19?](#) Both smoking and vaping destroy the tiny, hair-like follicles in the lungs called cilia that help to trap and remove viruses and debris. They are one of the main defense systems against infection and without them, smokers become somewhat defenseless against SARS-CoV-2.

NCD and Poverty Research Network

Exploring the multi-dimensional relationships between non-communicable diseases and poverty



2020 — Issue 17 page 3

COVID-19, Poverty, Hunger, Malnutrition, and NCDs

The COVID-19 pandemic has some stark implications for people with pre-existing NCDs, especially if they also live in poverty. For one, they face an even higher risk of death when they cannot get treatment. Newspapers in Bangladesh have reported that hospitals are seeing far fewer patients than normal due to a) fear of contracting the virus, b) lack of transportation to reach a hospital, and c) fear of being turned away or even arrested, fined, or otherwise punished for being on the streets. Lockdowns may be an essential public health measure in times of crisis, but they do pose problems. People living in poverty often live in cramped conditions where it is simply not possible to maintain sufficient space from others. Vulnerable people, such as [day labourers](#), [migrant workers](#), or [garment factory workers](#), often subsist from paycheque to paycheque; for them, lockdowns mean complete loss of employment and thus of livelihood.

The International Labour Organization [estimates](#) that half of the global workforce risks losing its livelihood due to COVID-19. In comparison, roughly 22 million people became unemployed during the 2008-9 financial crisis. [According to](#) Guy Rider, the Director General of the ILO, "This is no [just] longer a global health crisis. It is also a major labor market and economic crisis that is having a huge impact on people." In addition to the unemployed are the millions of people who continue to work but earn so little that they remain in poverty, even as they risk their health.

The rapid shift to e-commerce as a method of physical distancing is posing another unforeseen challenge to traditional economies: online shopping for food competes with, and in some places like Vietnam, seems to be poised to displace traditional markets. This of course negatively affects vendors' business, eliminates jobs and income for some of the most vulnerable, and significantly reduces the availability of fresh food for marginal members of society. HealthBridge Vietnam is currently designing a project to better understand the impacts of COVID-19 on the food-related livelihoods and consumer behaviours of Hanoi's urban poor.



Just as parents are losing jobs or at least some of their income due to COVID-19, school closures mean that many children will go hungry. [UNESCO reports](#) that more than one hundred countries have mandated nationwide school closures, affecting 861.7 million children. Others have implemented localized closures. Every single school day, "half of the world's school students in low- and middle-income countries eat a free or subsidised meal. For these 310 million children and their families, school meals are a lifeline, providing nutritious food that children would not get at home." Nor is this limited to low- and middle-income countries. [In the USA](#), over 11 million children—1 in 7—live in households that do not have enough food. Many of those children rely on school meals as their major source of nutrition.

The importance of school meals is well illustrated in [India](#), where about 100 million children receive a free lunch every school day. The impact of those meals has been significant: 100% decline in protein deficiency, 30% decline in calorie deficiency, and 10% decline in iron deficiency. Internationally, school meals mean that households can reduce their food expenditure, using that money for other basic needs. During times of crisis, school meals are also a safety net, preventing children from experiencing even more severe hunger. The indeterminate loss of school meals due to COVID-19 may be devastating for children's nutritional (and educational) for years to come, increasing their risk of future [NCDs](#).

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NCD and Poverty Research Network

Exploring the multi-dimensional relationships between non-communicable diseases and poverty



2020 — Issue 17 page 4

Will Official Responses to COVID-19 Exacerbate NCDs and Poverty?

As community after community, country after country, moved into “lockdown” mode, closing non-essential businesses and services and restricting mobility, people have struggled to cope. Some of the many negative consequences of lockdown include [hunger](#) (especially in cities where children rely on schools for one or two meals a day, where families rely on now-banned street vendors, and where markets have been shuttered), [poverty](#) (many of those who cannot work from home are now unemployed), [hampered education](#), and [domestic violence](#) (for children and spouses in already violent homes), and [social isolation](#).

Many people get their physical exercise in gyms, at outside facilities, or in public parks. Gyms have been closed in most cities, and more and more localities are strictly enforcing the closure of parks and other outdoor spaces. Yet research has shown repeatedly that sedentary lifestyles are associated with an increased risk of many NCDs as well as decreased immune health. Recent studies point to obesity being a [pre-existing condition](#) associated with death from COVID-19. It is not only adults whose lack of physical activity potentially increases risk: public health scientists are predicting that COVID-19-related school and park closures could worsen [childhood obesity rates](#). Young, inactive people living with NCDs such as [diabetes](#) also face increased risk of SARS-CoV-2 infection and higher rates of morbidity and mortality. Recognizing the harms caused by a complete lack of physical activity, officials in some places are specifying that people may walk, hike, bike, or otherwise exercise outdoors, as long as they maintain physical distance and do not use the equipment. The combined, long-term impacts of the significant global increase in physical inactivity and sedentary lifestyles associated with official responses to COVID-19 and the disease itself are now being investigated as a [“Tale of Two Pandemics.”](#)



Attempts to mitigate the spread of SARS-CoV-2 have also led to major declines in public transport availability, leaving the poor stranded and unable to get to work, to shop, or to go to medical appointments. Overly zealous police in Bangladesh and India have been seen [using physical force](#) against people as they attempt to move about on bicycles and on foot. Even those with essential jobs are being caught up in the tension between public health measures and over regulation. The situation is particularly dire in India, where the Prime Minister announced a nationwide lockdown with only four hours notice. Thousands of migrant workers were left stranded, [forced to walk](#) hundreds of kilometers to reach home. Some people have reported being afraid to go out for food, for fear of being beaten by the police. Those desperate to get themselves or a sick family member to the hospital may pay even higher than normal amounts to find transport. In Vietnam, women, children and seniors who have traditionally relied on public transportation such as buses, taxis, and motorbike taxis to go to school, markets, or to work are especially vulnerable. They face significantly reduced transportation options, increased prices, and the danger of infection passing between drivers and passengers.

Are official responses to COVID-19 creating a tale of two pandemics?

NCD and Poverty Research Network

Exploring the multi-dimensional relationships between non-communicable diseases and poverty



2020 — Issue 17 page 5

Learning from Experience: COVID-19 Opportunities

It is easy to be discouraged in the face of a global pandemic. Having to maintain “physical distancing” is a further challenge, as we are less able to engage in the regular, day-to-day personal interactions that both keep our spirits up and make our communities thrive. But the pandemic has also offered some opportunities to envision a different world, one in which we do not drive as much, in which we walk more and cycle when possible, and in which we make room for people on streets. COVID-19 offers us a glimpse into a better future, in which the old “normal” is replaced by something better. One redeeming quality of any catastrophe is its ability to teach us something. There are lessons that we can learn from COVID-19 to help us move forward to what we hope are brighter times: Build Back Better.

Air pollution: *With vastly less travel by airplane and car, and with many factories closed, the air is much cleaner in cities that previously had unacceptably high rates of air pollution. This has led [some scientists to suggest](#) that the number of premature deaths that are being avoided due to cleaner air could outnumber the deaths from COVID-19. The air pollution declines are significant. Nitrogen dioxide in eastern and central China is now 10-30% lower than normal, while rates in Milan and other parts of northern Italy have declined by about 40%. Similar findings are appearing elsewhere. This is no surprise, as “Road traffic accounts for about 80% of nitrogen oxide emissions in the UK ... For the average diesel car, each kilometre not driven avoids 52 milligrammes of the pollutant entering the air.”*

Transportation and physical activity: *Fear of—or more limited—public transit has led to more walking and cycling; this could mean an increase in physical activity for some people. This may be the case in China: as life slowly returns to normal, [cycling rates have increased](#). In Bogota, Colombia, municipal officials added 76 kilometres of temporary bike lanes to its bike network by converting some of transit lanes into cycling lanes. Other cities and countries are also seeing a [surge in cycling](#). Vietnamese cities like Hanoi and Hoi An are likewise exploring the development of more resilient and equitable transportation options, especially to mitigate the impacts of the pandemic on the mobility of vulnerable people. Increasing the use of individual sustainable mobility through rentable bicycles, for example, could help people get to their essential daily destinations—schools, markets, or workplaces—easier and more safely.*

Local food production: *In many cities around the world, food markets have remained open because they are the main food supply for urban residents, especially those in low income areas, and provide livelihoods for local vendors and small farmers. Especially in the midst of the COVID-19 pandemic, local farmers markets fulfill [essential health and economic needs](#). In fact, as the Project for Public Spaces notes, “The physical aspects of farmers markets may actually make them safer than grocery stores, given their adaptability to shifting public health contexts.” The Vietnamese experience has shown that people prefer to do “quick shopping” at street and outdoor markets rather than go to supermarkets where they are required to wash their hands and have their temperatures checked before entering the store. New markets layouts require that shoppers and vendors maintain their distance to prevent virus transmission, but sociability and communication remain intact, as does access to fresh, healthy foods. In other localities, support is growing increasingly loud to make [community gardens an essential service](#) — and success has been achieved on this front in Ontario (Canada).*



NCD and Poverty Research Network

Exploring the multi-dimensional relationships between non-communicable diseases and poverty



2020 – Issue 17 page 6

Some Final Thoughts

What messages will we need to convey to government and the public once this pandemic is over?

One of those messages needs to be about the importance of having a healthy population in order to best cope with future pandemics. People with pre-existing conditions are more susceptible to the virus, and have had more severe complications. For many people, those pre-existing conditions are an NCD. We need healthier populations if we are to address future pandemics, as well as other disasters that are both man-made and natural and that may be more likely than another pandemic.

Of course, to have healthier populations we need physical activity, healthy eating, clean air, and tobacco control. The spaces and places in our community that offer these opportunities will become even more important in the future. And, as the pandemic has made very clear, there simply are not enough of these spaces in most cities.

As governments start to lift the strictest physical distancing rules, as people start to return to work, as public transit starts to operate again and as parks, restaurants, and shops are opened, measures to keep distance between people will continue. Now is the perfect time to start to envisage what our communities could look like, how they could be better restructured to keep the present crisis at bay and to mitigate the effects of the next one.

What does a healthy community look like to you?



NCD AND POVERTY RESEARCH NETWORK

The NCD and Poverty Research Network is a virtual network of researchers, advocates, and other individuals interested in exploring the links between non-communicable diseases and poverty.

Initiated in 2009 as the Tobacco and Poverty Network, the network includes members from countries throughout Asia, Africa, and the Americas. In 2013, its focus expanded to include non-communicable diseases.

The purpose of the network is to provide a collegial forum through which researchers, advocates, and others working in NCD prevention and control can share research results, ideas, experiences, challenges, and solutions for exploring and addressing issues related to NCDs and poverty.

The network is moderated by HealthBridge. Network members may distribute information to the network by sending an email to Lori Jones, ljones@healthbridge.ca

We look forward to your contributions and feedback!

ANNOUNCEMENTS

Do you have any announcements that you would like to share with the network? Let us know by sending an email to Lori Jones ljones@healthbridge.ca



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