NCD and Poverty Research Network

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

HealthBridge

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INFORMATION AND OPPORTUNITIES

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

*** New Dates: Walk21** *2020 in Seoul, South Korea has been* ***postponed*** *to 26-28 May 2021.*

*** COP Week**, *originally scheduled for 9-13 November 2020 in the Hague, was cancelled and negotiations pushed back a year. However, a* ***series of webinars on key tobacco control issues*** *— including the impact of COVID-19 on the FCTC — were organized by ASH, the FCA, and Corporate Accountability.*

*** The Union** *has also posted a series of FAQs and* ***webinars about COVID-10 and lung health****. Check them out here.*

*** The WCTOH's Inaugural Leadership Summit on Tobacco Control** *will be held as a virtual event on 6-7 May 2021. Registration will open in January 2021. Keynote addresses will be made by Michael Bloomberg, founder of Bloomberg Philanthropies, and Stephen Donnelly, Ireland's Minister of Health. The* ***18th WCTOH*** *has been postponed to 8-10 March 2022, in Dublin Ireland.*

*** SEATCA** *launched its latest ASEAN Tobacco Industry Interference Indices on 20 November 2020. It has also just issued new infographics for FCTC Article 6 Guidelines.*

*** 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.*

The Newest NCD Risk Factor: Air Pollution

COVID-19 has wreaked havoc on the lives and livelihoods of people around the world in 2020. Mounting evidence shows that chronic exposure to air pollution increases COVID-19-related infection and mortality levels. Case studies in Italy, China, Spain, and the United States are just a few among many. While worldwide restrictions on mobility and social gatherings have had negative economic and mental health implications for many, they have also encouraged us to connect with people nearby and around the planet without traveling. This, in turn, has reduced toxic emissions into the atmosphere.

Studies on COVID-linked decreases in atmospheric pollution have proliferated over recent months, pointing to mortality reductions and other health benefits. While the direct link between COVID lockdowns and air pollution reduction is complicated, for many of us the result is simple: the air in our cities is finally breathable. Monuments and mountains are reappearing out of the thick smog. Some studies have even reported declines in asthma-related hospitalizations and the need for asthma medication.

Unfortunately, these positive changes in air pollution may only be temporary—unless governments around the world use the opportunity to #BuildBackBetter by determining how to make them long-term. Already, we are seeing instances in some regions in which the second wave of COVID infections is worsening air pollution. In northern India, for example, restrictions on migrant workers' mobility has delayed the agricultural burn season into the winter months, when the resulting acrid smoky haze dissipates much more slowly.

In this issue of the newsletter, we discuss the serious implications of air pollution on human health. Air pollution has recently been recognized as the fifth major risk factor for NCDs, along with tobacco use, unhealthy diet, lack of physical activity, and alcohol consumption. We also talk about how to #BuildBackBetter, so that cleaner air ceases to be a luxury and becomes a natural part of life.

The first photograph was taken in November last year. The second was taken on March 30, 2020. Credit: CNN

Namsan – the iconic mountain in Seoul, Korea – is blurry in thick ultra-fine dust (right), compared to the clear day (left). © Soojung Do / Greenpeace

Listen to Debra Efroymson talk about Redefining Prosperity: Addressing Covid-19, the Climate Crisis, Inequality & Injustice .

How Bad Is Air Pollution for Us, and What are Its Major Causes?

There are two main types of air pollution: outdoor and indoor. Outdoor, or ambient, air pollution is caused by transport, home heating and cooling systems, power generation, industry, and municipal waste management practices. Indoor air pollution typically results from open fires or simple stoves used in the homes of roughly 3 billion people that are fuelled by kerosene, biomass (wood, animal dung and crop waste), and coal.

According to the WHO, ninety percent of the world's population breathes air that exceeds WHO safe pollutant guidelines. A combination of outdoor and household air pollution "kills an estimated seven million people worldwide every year"—about a quarter of whom are children under the age of five who suffer from pneumonia caused by particulate matter (soot) inhaled from household air pollution. More than 90% of premature deaths caused by air pollution are in low- and middle-income countries. The harmful effects of air pollution can be seen at two levels. The pollutants found in many industrial or transport emissions play a direct role in worsening the climate crisis, which then has downstream environmental consequences. At the same time, air pollution contributes to many NCDs—including stroke, heart disease, chronic obstructive pulmonary disease, lung and bladder cancer, and acute respiratory infections. Pollution affects our health even when the pollution is at very low concentrations. The ideal is thus not simply to reduce air pollution, but to get it as low as possible.

A combination of individual action and supportive environments is necessary for people to live healthy lifestyles and to avoid NCDs. People, especially those living in poverty, do not have the option to opt out of breathing dirty air. Their poverty and lack of alternatives cause them to use dirty fuels in the home, while the poorest urban neighbourhoods are often located near highways or in industrial areas. Government measures are thus critical and, by reducing air pollution levels, these same governments can reduce their citizens' burden of disease, both long- and short-term.

Highlights from WHO's fact sheets on outdoor and indoor air pollution

Controlling air pollution and minimizing the harm that it causes often receives lower priority than ensuring manufacturing and transportation jobs and revenues. Evidence shows, however, that air pollution can be reduced everywhere through a combination of policies and enhanced investments to support cleaner transport, energy-efficient homes, power generation, industry, better municipal waste management, and better agricultural practices. Successes to date include:

- **Industry: use clean technologies that reduce industrial smokestack emissions and capture methane gas emissions;**
- **Energy: ensure access to affordable clean household energy solutions for cooking, heating and lighting;**
- **Transport: prioritize rapid urban transit, walking and cycling networks as well as rail interurban freight and passenger travel;**
- **Urban planning: make cities and their buildings more green and compact;**
- **Power generation: increase the use of renewable combustion-free power sources (like solar, wind or hydropower);**
- **Municipal and agricultural waste management: reduce, separate, recycle/reuse waste, as well as improve methods of biological waste management**

Air Pollution and Poverty

According to the United Nations Environment Programme (UNEP), the world's poorest are most exposed to air pollution regardless of where they live. The wealthy, even those who reside in a poor country, live and work in places with more trees and less traffic. The burden of illness from air pollution thus falls on those who can least afford the financial and health losses from air pollution-related disease.

Higher rates of air pollution in low-income countries are due, in part, to weak or unenforced laws. Vehicles are typically older and emit more pollutants, and there are more coal power stations. The poorest of those who live in the big cities of low-income countries also tend to reside in cramped informal settlements, often near rubbish dumps. In Nairobi, Kenya, the eastern suburb of Dandora is located next to a huge smouldering dumpsite; schools, churches, clinics, shops, and homes are all filled with hazardous smoke from burning garbage. People living in nearby places like Canaan are downwind of the dump site; they too face daily exposure to toxic fumes that affects their overall well-being and health.

Garbage burning in Mexico, Credit: Ted Christian; Smoking jeepneys in Manila, Credit: Timotraveling; Air pollution from indoor fires, Credit: Engineering for Change/Flickr

The poor also suffer the most from indoor pollution. A study published by the WHO in 2000 shows that approximately half the world's population—and up to 90% of rural households in low-income countries—still rely on unprocessed biomass fuels (wood, dung and crop residues) for cooking, heating, and lighting. These fuels are typically burnt indoors in open fires or poorly functioning stoves that generate high levels of air pollution. Many of the substances in biomass smoke can damage human health, including particles, carbon monoxide, nitrous oxides, sulphur oxides, formaldehyde, and polycyclic organic matter. The smallest particles are the most dangerous, as they can penetrate deep into the lungs. Women and their young children face the greatest risks due to their higher levels of exposure. Even newly and unborn children suffer from air pollution: the State of Global Air 2020 report reveals that air pollution caused the premature death of nearly half a million babies in their first month of life, many of whom were born premature and/or underweight.

Although the proportion of global energy generated by biomass fuels stood at only about 13% in 2000, their use is actually increasing among the poor. Poverty remains one of the main barriers to the adoption of cleaner fuels and the reduction of indoor air pollution.

Global Responses to Air Pollution

In 2015 and 2016, WHO Member States adopted a resolution and road map for an enhanced global response to the adverse health effects of air pollution, based on the organization's guidelines, assessments, evidence, and tools. WHO is developing a Clean Household Energy Solutions Toolkit (CHEST) that provides countries with the necessary tools to create or evaluate policies that expand clean household energy access and use. CHEST tools include modules on needs assessment, guidance on standards and testing for household energy devices, monitoring and evaluation, and materials to empower the health sector to tackle household air pollution. WHO also co-sponsored the Pan European Programme on Transport Health and Environment (PEP), which has built a model of regional, Member State, and multisectoral cooperation to assess and mitigate air pollution in the transport sector.

In 2018, the WHO released a series of country-based publications that outlines opportunities for households to transition to cleaner indoor energy sources. Its most recent publication on air pollution (September 2020) focuses on protection measures that individuals can take to reduce their exposure to air pollution. Critically, however, this latest report recognizes that "these measures [personal interventions] are the least desirable choice in the hierarchy of interventions — the most preferred being public policies aiming at reducing emissions." Breathing clean air is a human right, and responsibility for clean air ultimately lies with governments and must not be delegated to individuals who have very limited options to decrease their exposure to pollution. Moreover, making individuals responsible for reducing their exposure to air pollution ignores issues related to poverty, equity, and capability. In September 2020, WHO launched a series of short videos on the link between air pollution and health.

Air Pollution and Human Rights

The United Nations Environment Programme has declared that "Clean air is a human right, and a necessary pre-condition for addressing climate change as well as achieving many Sustainable Development Goals. Air pollution does not only damage human health, it also hampers the economy in many ways."

Breathe Life, a campaign led by the Climate and Clean Air Coalition, WHO, the World Bank, and UNEP, is running initiatives in 70 cities that benefit more than 486 million citizens. The campaign also offers numerous webinars in various languages, online events, publications, and other resources.

Indoor Air Pollution and Tobacco Control

Another major cause of indoor air pollution that long masqueraded as a problem caused by individuals is smoking. For decades, efforts to reduce smoking were focused on individual behaviour change. When those programs made little progress, the importance of policy change finally became clear. Just as tobacco control laws and policies protect people from the negative health effects of secondhand smoke — a kind of air pollution — so too are laws and policies needed to protect people from other forms of air pollution. And, as with tobacco control, GO-NGO partnership will likely be essential for achieving significant and lasting change.

#BuildBackBetter: Reducing Air Pollution into the Future

Many cities have experienced dramatic, albeit temporary, improvements in air quality during the COVID-19 pandemic as more people worked from home. Many schools and businesses were closed. Those improvements have been disappearing as people's lives return to "normal" — the normal of traffic congestion and air pollution.

In earlier issues of this newsletter, we discussed the importance of efforts to #BuildBackBetter, to ensure that temporary improvements achieved during COVID-19 become long-term trends in air pollution control:

- *Revise urban planning/zoning to create dense, compact cities and thus reduce the need to travel long distances to meet daily needs (including shopping, schooling, and employment)*
- *Enact policies that enable more children to go to schools close to home, and that make it safe for them to walk or cycle to school*
- *Promote working from home, for those who are in a position to do so*
- *Prioritize and budget for high quality public transport as well as walking and cycling networks*
- *Put in place pop-up bicycle lanes or convert spaces for cars and car parking into spaces for walking or outdoor recreation.*

Want to know more about #BuildBackBetter, the global strategy that seeks to reduce risk in the wake of future disasters and shocks? The idea emerged as part of the 2004 Indian Ocean Tsunami relief effort. It was then described officially in the UN Sendai Framework for Disaster Reduction, signed in March 2015 and adopted by the UN Assembly in June 2015. #BuildBackBetter (BBB) is predicated on improving land use, spatial planning, and construction standards. It has since expanded to encompass building greater resiliency into recovery efforts by systematically addressing the root causes of vulnerability. The United Nations Office for Disaster Risk Reduction released an environment-specific guidance note in 2010, and broader BBB guidelines in 2017. The scope of #BuildBackBetter continues to broaden, and now includes the ideas of green recovery and COVID-19 recovery.

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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