Editorial

How to understand the results of the climate change summit: Conference of Parties21 (COP21) Paris 2015

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In Paris on 13 December 2015, the Parties (state signatories) to the United Nations Framework Convention on Climate Change (UNFCCC) reached an agreement to guide future global climate change policy and actions. No country dissented – a tribute to the advocates, scientists, and investors who made up most of the 40 000 attendees at COP21. Reaching a global agreement, even a weak one, drew them together. They can now move forward assured that the world sees climate change as everyone's problem and a global priority. How each party acts in the future will be 'nationally determined', a requirement that makes it hard to imagine that the global agreement will have revolutionary consequences.

I attended COP21 at Le Bourget, the old airport north of Paris, the landing site in 1927 for Charles Lindbergh's historic solo transatlantic flight. (The Secretariat of the UNFCCC kindly accredited me as a media representative for the Journal of Public Health Policy even though the Secretariat's staff was at first stymied by my application. Ours was the first scholarly/academic journal to be so accredited.)

The science and practice of public health are well-suited to understanding global warming and its effects. Yet the causes of global warming remain unusual forms of environmental pollution. Over the last three centuries, since the industrial revolution, human economic activity has discharged a group of chemicals called 'greenhouse gases' into the environment. Human activities, anywhere on earth, release these pollutants into the atmosphere. The gases, principally carbon dioxide, mix in the atmosphere, capturing heat and raising temperatures on the earth's surface. Where they were released plays no role in how they cause the earth to warm, producing dangerous changes in climate. The effects

of climate change are independent of the source of greenhouse gases. Coal-fired power plants in China, for example, contribute to melting glaciers in Greenland and to higher sea levels that may submerge atolls in the South Pacific.

As any source of greenhouse gases, usually the burning of carbon fuels, can contribute to global warming, all sources become targets for efforts to prevent further warming, called mitigation. Global warming may affect populations distant from the source of greenhouse gases. Thus, in many parts of the world, adaptation is needed to cope with weather and protect people from the consequences of climate change.

Did the COP21 move the world closer to coping with global warming caused by human economic activity? Almost all of the parties to the UNFCCC came to Paris ready to promise voluntary actions to abate global warming, each choosing actions compatible with its own interests. In addition to the 150 heads of state who appeared for the Opening General Session, most countries dispatched environment ministers to COP21, but not all. Notably, Saudi Arabia did not. Instead, His Excellency Ali Al-Naimi, Minister of Petroleum & Mineral Resources, Kingdom of Saudi Arabia headed the delegation.

Because the Conference operated by consensus, toward the end, the parties made many compromises to assure that there would be an agreement. No state wanted to be blamed if consensus were not reached. Although many threatened, no country wanted to wield its implicit veto. Parties accepted language and policies where the exact meaning and consequences were left unclear. Would the target for global warming be set to peak at 2°C above the temperatures in the pre-industrial era? Or would additional wishful words that were added at the last moment signal a need to lower acceptable warming to a 1.5°C peak, or even lower? The strongest advocates went along with weak aspirational language because it invited them to keep up pressure to 'decarbonize' and push the use of renewables.

Most of the 40 000 attendees had no official role in the parties' deliberations and negotiations, but the swarm of advocates, experts, and observers invited by France, the host country, set the tone for COP21. Many groups held productive parallel conferences in Paris. Health Care Without Harm, for example, convened health system leaders from around the world, eager to be seen as important and constructive players at COP21. At a session on Environmental Justice, I watched leaders and



advocates of that movement reposition themselves: those who had originally organized in their developed countries to protect poor populations who commonly sustained the greatest damage from pollution, aligned themselves at COP21 with the poor and developing countries most likely to suffer from global warming.

Attendees were young and enthusiastically engaged. They hoped their presence would be a force to keep the parties honest and assure that countries would live up to their voluntary promises. Although I did not encounter them, I suspect that a few climate change doubters or deniers had come to Le Bourget. If so, they did not affect the tone of COP21 that was set by people who believed global warming was very real and a threat to the planet.

If we in public health are to follow and assess progress on climate change, what are the critical elements of the agreement? How will they help save the planet and how should we track them?

- The parties' plans (Intended Nationally Determined Contributions) will guide national efforts to mitigate global warming. The plans will go into effect in 2020
- In 2018, the parties will meet again to assess progress and perhaps to adjust national commitments. Starting in 2023, countries will reevaluate their commitments every 5 years, to adjust to global changes
- All countries will use the same transparent system of measuring, reporting, and verification of emissions. Greenhouse gas emissions will be measured by 'good practice methodologies accepted by the Intergovernmental Panel on Climate Change'.
- Developed countries will provide financial and technical support to developing countries to help them adapt to climate change. The agreement sets a 2020 goal of US\$100 billion per year in financial support from developed countries. (The agreement explicitly rules out liability and compensation while directing countries to create a process to help with losses and damage caused when adaptation efforts are insufficient.)

The Paris agreement will encourage new technologies for mitigation and adaptation. Government and private investment in research is likely to grow. And because the Paris agreement seems to require major changes in the nature of human economic activity, we can expect investment by the same people and institutions that have shaped economic activity up

to now. The same kind of private corporations that have done well in the past will make strategic investments in the new, post-carbon combustion, economic environment.

As Piketty has described, modern economies concentrate wealth, creating a small class of very rich and empowered, and a much larger number of people with little money or power.¹

No country is being urged under the Paris agreement to make policies and investments to limit climate change in such a way as to also mitigate deleterious 'social determinants of health'.^{2,3} If human economic activity has helped the rich to get richer while leaving large numbers in poverty, that trend is likely to continue. It will not be altered by the Paris agreements.^{1,4} Poorer health will continue to afflict those with less income and wealth. Power will likely remain in the hands of a small minority (or an even smaller, richer one) unless we in public health work to direct climate change interventions to create healthier and more egalitarian societies. Changes in human economic activity that are driven by the Paris agreement are surely an opportunity to redistribute wealth and power, and reduce health disparities, as I suggested recently.^{4,5}

References

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