

## Conducting research on environmental epidemiology with Indigenous Peoples

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At least 370 million people from all inhabited continents define themselves as Indigenous Peoples (IPs). Though IPs make up around 5% of the global population, they account for more than 15% of the extreme poor. Moreover, environmental degradation threatens their survival, as IPs typically meet their daily needs directly from the local environment. Moreover, IPs also have deep cultural and spiritual connections with their lands.

IPs increasingly find themselves affected by global environmental change, both through the increase of local threats such as expanding agriculture and extractive industries (mining, logging...), but also through global threats such as climate change. This poses a risk for IPs' health that adds on the already existing differences in health status between Indigenous and non-Indigenous peoples. However, IPs should not only be seen as victims of environmental degradation, but also as potential agents of change. Research shows that the formal incorporation of IPs, their knowledge systems, and their many locally attuned management systems into environmental management can be an effective way to reduce environmental degradation, and consequently to reduce its health impacts. In this symposium, we highlight the importance of conducting environmental health research with IPs, as a way both to address environmental injustice and to better incorporate IPs perspectives in addressing global environmental problems. The symposium will start with an introductory talk (25 min) reviewing the current state of knowledge on i) the exposure and vulnerability of IPs to pollution risks, ii) the environmental, health and cultural impacts of pollution upon IPs and their territories, and iii) IPs' contributions to control and abate pollution from local to global scales. Following this, we will present different approaches to conduct research with IPs including participatory research, qualitative methods, and new technologies for exposure assessment in remote settings (3 presentations, 20 min each).

The theme of the symposium leads to discussion on the future of Environmental Epidemiology. In a context of global environmental change, it is of uttermost importance that research on Environmental Epidemiology includes evidence from a wide range of populations, and specially from populations living in close contact with their local environments, as they tend to be more impacted by environmental changes. The global approach also requires the inclusion of different views and perspectives, such as the ones that can be provided by Indigenous knowledge, to come with novel solutions to overcome the daunting environmental challenges ahead.