

“One Health, Persistent Organic Pollutants and the Arctic”

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The One Health concept is based on understanding how human, wildlife and ecosystem/planetary health are interconnected and the Arctic has long served as an early warning system in this regard. Persistent organic pollutants will be used to illustrate this, for example, the early discovery of PCBs in the Arctic in the 1970s, and subsequent studies of PCBs in wildlife and humans in the Canadian Arctic in the 1980s. The very high levels found in top predators and some indigenous populations in what was supposed to be a pristine environment was devastating news. Indigenous peoples' traditional foods, crucial for their health, society and culture were now highly contaminated. These and other findings led the eight Arctic countries to call for an assessment of the Arctic environment. A report on POPs, other contaminants and human health in the Arctic environment was presented by the Arctic Monitoring and Assessment Programme in 1998. The science presented led to new understanding of pathways and processes for POPs into and within the Arctic, including biomagnification in food webs and humans, and effects of exposure. It illustrated succinctly how interconnected the Arctic was to the rest of the world, and was a driving factor in development of regional and global POPs regulation, such as the Stockholm Convention. Further protection of the Arctic from new chemicals is thus crucial to protecting humans, wildlife and ecosystems globally.