

## A case for Planetary Health/GeoHealth

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the scale of these impacts, and their trajectory, are likely to drive the majority of the global burden of disease over the coming century [Whitmee et al., 2015]. The wheels are clearly already in motion, as we are increasingly encountering examples of the aforementioned environmental changes tangibly affecting our health: with consecutive “warmest”

to tackle intimidatingly complex problems. This emerging scientific field must be an applied science, and research must be designed in partnership with those decision makers whom we seek to assist, increasing genuine participation and the chances of policy uptake of science-based recommendations. This field aspires to inform policy at every scale from local to global, to provide the basis for natural resource managers to optimize human health and environmental stewardship objectives, and to educate a global public about implications of their decisions on Planetary Health/GeoHealth.

Creating what former Rockefeller Foundation President Judith Rodin described as “Public Health 2.0,” a “new operating system for health and the planet” [Rodin, 2015], will not be easy. Current constraints due to largely canalized research funding streams must be changed and the very intellectual structures of universities must be rethought, dismantling the divides between disciplines and fostering deeply integrated research and policy programs to tackle these complex questions and train the next generation of scientific as well as political leaders. The power unleashed by such a transdisciplinary approach and collaborative community is that we will be better equipped to handle the surprises that emerge as we begin

- Gettleman, J. (2017), Drought and war heighten threat of not just 1 famine, but 4, *The New York Times*, Published online March 27, 2017. [Available from [https://www.nytimes.com/2017/03/27/world/africa/famine-somalia-nigeria-south-sudan-yemen-water.html?\\_r=0](https://www.nytimes.com/2017/03/27/world/africa/famine-somalia-nigeria-south-sudan-yemen-water.html?_r=0), accessed 2017-03-31.]
- Hippocrates (400 Before Common Era), On airs, waters, and places. [Available from <http://classics.mit.edu/Hippocrates/airwatpl.html>, accessed 2017-04-05.]
- Khan, A. E., P. F. D. Scheelbeek, A. B. Shilpi, Q. Chan, S. K. Mojumder, A. Rahman, A. Haines, and P. Vineis (2014), Salinity in drinking water and the risk of (pre)eclampsia and gestational hypertension in coastal Bangladesh: A case-control study, *PLoS One* 9(9), e108715, doi:10.1371/journal.pone.0108715.
- Martier, M., R. S. DeFries, P. S. Kim, S. N. Koplitz, D. J. Jacob, L. J. Mickley, and S. S. Myers (2015), Fire emissions and regional air quality impacts from fires in oil palm, timber, and logging concessions in Indonesia, *Environ. Res. Lett.*, 10, 085005, doi:10.1088/1748-9326/10/8/085005.
- Myers, S. S., et al. (2014), Increasing CO<sub>2</sub> threatens human nutrition, *Nature*, 510(7503), 139–142, doi:10.1038/nature13179.
- National Oceanic and Atmospheric Administration (NOAA) (2013), Off