The climate crisis, in the backdrop of persistent social inequalities, is the defining issue of our time. Climate change has and will continue to impact the health and well-being of every community. Yet, not all communities are impacted equally. Historically underserved communities stand to lose the most from the climate crisis. Beyond the direct health effects of climate change, such as heat-related illness, injury and disease in the aftermath of a climate disaster, there are a number of indirect health effects, including population displacement, poor air quality, food and water insecurity, and disruptive economic consequences. Drawing the connection between a changing climate and how these changes amplify existing health inequalities in historically marginalized communities will be a first step towards identifying pathways to resilience. As a nation, we can only achieve resilience if we first care for and prioritize the needs of our most vulnerable communities. By simultaneously addressing the root causes of health inequality and climate injustice, the climate crisis has the potential to dramatically improve public health and transform our most vulnerable communities into thriving and resilient ecosystems.

Dr. Jennifer Runkle is a trained environmental epidemiologist who serves as a research scientist at NC State’s North Carolina Institute for Climate Studies (NCICS) and the Cooperative Institute for Satellite Earth System Studies (CISESS) within the academic arm of NOAA's National Centers for Environmental Information. She is a co-lead of a new NOAA center tackling climate, health, and equity in the Carolinas. Her research seeks to understand the ways in which climate change impacts human health, particularly for the socially and economically vulnerable. She is focused on using science to rapidly understand how, when, and where public health interventions may best be leveraged to eliminate environmental-health inequalities in frontline communities.