Abstract
This commentary addresses some of the diverse questions of current interest with regard to the health effects of air pollution, including exposure-response relationships, toxicity of inhaled particles and risks to health, multipollutant mixtures, traffic-related pollution, accountability research, and issues with susceptibility and vulnerability. It considers the challenges posed to researchers as they attempt to provide useful evidence for policy-makers relevant to these issues. This commentary accompanies papers giving the results from the ESCALA project, a multi-city study in Latin America that has an overall goal of providing policy-relevant results. While progress has been made in improving air quality, driven by epidemiological evidence that air pollution is adversely affecting public health, the research questions have become more subtle and challenging as levels of air pollution dropped. More research is still needed, but also novel methods and approaches to address these new questions.

Keywords
Air pollutants; health effects; environmental exposure; risk assessment; epidemiology; research challenge; research methodology; public health