

The Boston University Superfund Research Program (BU SRP) studies fetal and neonatal exposures to high-priority environmental chemicals and responds to concerns of Massachusetts residents regarding issues of health and the environment.

Who are we? Internationally recognized scientists committed to generating the science foundation for supporting policy decision-making. We are located at BU and at the Woods Hole Oceanographic Institute. To our knowledge, the Superfund Research Program is the ONLY federally-funded research program that responds directly to community needs with relevant environmental health science, engagement and communication.

What kind of research do we do? We do population health (epidemiology), laboratory-based molecular biology and wildlife studies. We focus on the effects of ubiquitous environmental chemicals on health after birth. The work involves both basic science and translational intervention.

Where do we do our work? Although we focus on communities around New Bedford Harbor and on Cape Cod, we also spend considerable time working in multiple communities around Massachusetts.

What do our studies show? Among other significant adverse health outcomes, we have linked elevated risk of birth defects, cancer, and risky adolescent behavior, including taking drugs, to prenatal exposure to PCE, a common contaminant in drinking water throughout Massachusetts. We have also identified common environmental chemicals that likely contribute to the obesity epidemic and accelerate bone aging, particularly in women. We have identified chemicals that increase the risk of aggressive breast cancers and have defined the molecular mechanisms through which this happens.

Where are the wildlife that we study and what have we learned? We have shown that the genetic makeup of an entire population of fish has changed as a consequence of the enormous levels of PCBs in New Bedford Harbor (NBH). These changes are permanent and are passed on through several generations. We view these fish as a sentinel species that may presage analogous changes in humans.

Who uses our data? We share our results, models and analyses with regulatory and health authorities, the National Institutes of Health (NIH), impacted communities and the scientific community at large. We have a strict open-access policy. The data have been used to guide changes in government policy.

How do we communicate and empower communities? We have designated sections of our program that engage and educate communities and to respond to their health concerns. For example, we are working with the NBH community so that its constituents can understand their health in relation to their environment. We help them interpret the data that we collect. In the past we have supported the Health Directors in Eastham and Framingham, and communities around NBH, Chelsea and Boston in response to contamination in drinking water, air and soils as well as on health and environmental justice issues.

How are we funded? The National Institute of Environmental Health Sciences, a part of the NIH, has funded the Superfund Research Program since 1986 under the Superfund Amendments and Reauthorization Act (SARA). The BU SRP has been in existence since 1995.



<http://www.niehs.nih.gov/research/supported/centers/srp/>

www.busrp.org

David Sherr, Director BU SRP, dsherr@bu.edu, (617) 638-6464