

Compiled by Sara Samovalov

Alerting American Families

Healthy Babies Bright Futures (HBBF)—a new alliance of scientists, nonprofit organizations and donors—has partnered with Virginia Tech to offer Lead in Water Action Kits to U.S. families so they can detect hazardous water in their homes. The kits are \$65 apiece, but families also have the option to pay what they can afford. Virginia Tech’s laboratory will analyze each of the kits’ three water samples for lead contamination. HBBF intends to investigate the data from the test kit results, contributing to knowledge about the threat of lead in tap water. WQP Associate Editor Sara Samovalov spoke with Charlotte Brody, executive director of HBBF, about the program.

SARA SAMOVALOV: *What spurred HBBF to make Lead in Water Action Kits available to families?*

CHARLOTTE BRODY: Healthy Babies Bright Futures is working to create and support initiatives that measurably reduce exposures to lead and other neurotoxic chemicals in the first 1,000 days of development. Our efforts are inspired and supported by science and data, and designed to help restore the chance for a full life to children who would otherwise face brain-diminishing exposures to toxic chemicals beginning *in utero*. Spurred by the attention that the tragedy in Flint, Mich., has brought to the problem of lead in drinking water, HBBF decided to make Lead in Water Action Kits available as one component of [its] work to reduce children’s exposure to neurotoxic chemicals.

SAMOVALOV: *Why are these kits so important?*

BRODY: Over the past 40 years ... science and data [have] resulted in lead being phased out of gasoline, removed from paint and restricted in water pipe and children’s toys. Children’s blood lead levels have dropped 90% as a result, and average IQ has risen as much as five points. But lead that lingers in homes, soil and drinking water remains a festering problem. The toxic metal continues to contaminate the blood of nearly every child tested. Although exposures are lower now than in the past,

lead-induced brain damage still accounts for an estimated 23 million IQ points lost among children under five.

Lead-contaminated tap water is a significant part of the problem. In 1994, the U.S. Environmental Protection Agency estimated that 14% to 20% of total lead exposure in the U.S. is from tap water. Infants who drink formula reconstituted with tap water face greater risks: Water can account for 40% to 60% of their total lead exposure.

SAMOVALOV: *What are the risks of lead in water for babies and children?*

BRODY: The Centers for Disease Control and Prevention (CDC) warns that, “Even low levels of lead in blood have been shown to affect IQ, the ability to pay attention and academic achievement.” This finding is especially troubling for African American families: CDC has also found that average blood lead levels in black non-Hispanic children ages 1 to 5 years in 2009 to 2012 were twice the average level of all other children.

SAMOVALOV: *How long will the kits be available?*

BRODY: The pay-what-you-can system is

working so far. Of the first 125 kits, 53% have been provided well below cost. But many people have also donated one or more kits at the full \$65 cost. So we hope that this crowd-sourcing success will continue to allow us to make kits available.



Charlotte Brody

SAMOVALOV: *How long does the process of testing for lead take, from shipping the sample bottle to receiving the analysis?*

BRODY: Virginia Tech is promising results within 30 days of families sending in their samples.

SAMOVALOV: *If the kit reveals that a person does have lead in his or her water, what*

actions should that person take? How will HBBF facilitate these actions?

BRODY: HBBF will be sending out a customized action plan based on the findings. The actions will range from flushing the water line to adding a filter to home plumbing upgrades to contacting your water utility, depending on the results. **WQP**

Charlotte Brody is executive director of Healthy Babies Bright Futures and a registered nurse. Brody can be reached at cbrody@hbbf.org.