All children deserve and need a safe and healthy environment to grow and develop. They need clean air to breathe and safe water to drink, nutritious food to eat, and healthy places in which to live, learn, and play. Early exposure to harmful agents can lead to acute and chronic adverse outcomes. Infants and children are especially vulnerable to environmental exposures because they breathe, eat and drink more, in proportion to their body size, than do adults, and because their bodies and brains are still developing.

Children’s environmental health indicators (CEHIs) are measures that can be used to assess environmental hazards, environmental exposures, and their resulting health outcomes in children. Below are some key CEHIs for Michigan:

- **Safe drinking water**: 25% of public water utilities had drinking water violations (2018). National Average: 34%.
- **Air quality**: 1.5 million children under age 18 live in counties with unhealthy ozone pollution (2019).
- **Warming temperatures**: 2.7 degrees F warmer in 2018 than in 1970. National Average: 2.5 degrees F warmer.
- **Toxic chemical releases**: 92.7 million pounds of toxic chemicals were disposed of or released (2017). United States: 3.9 billion pounds.
- **Neuro-developmental disorders**: 10.2% of children age 3-17 have ADHD or ADD (2017). Nationwide: 8.8%.
- **Asthma**: 8.3% of children under age 18 have asthma (2017). Nationwide: 7.5%.
- **Pediatric cancer**: 184.8 cases of pediatric cancer per 1 million population (2005-2015). Nationwide: 181.0 cases per 1 million.
- **Blood lead levels**: 1.7% of tested children under age 6 have elevated blood lead levels (2016). Nationwide: 2.1%.

There are 2.2 million children in Michigan and nearly 20% live in poverty. Poverty is an important social determinant of health; poverty hurts children and their families. Children of color and young children are disproportionately poor and experience a host of issues that lead to adverse health outcomes.
Lead contaminated drinking water has been a high visibility issue in Michigan and across the country these past few years. Another emerging issue affecting the safety of drinking water is per- and polyfluoroalkyl substances (PFAS). PFAS is a group of highly toxic persistent chemicals and a significant public health concern. A 2019 study found that Michigan has the most PFAS contaminated water sites in the country. The state identified PFAS in water through statewide drinking water and surface water testing and testing at sites of environmental contamination. The state has responded rapidly and strongly via the Michigan PFAS Action Response Team (MPART), a multi-agency collaboration that is acting to protect Michigan’s drinking water. Actions implemented to reduce exposure include the provisioning of alternative water sources and filters. In addition, groups are providing targeted outreach to low income areas and communities of color. The River Network is connecting Hispanic and Latino groups with environmental groups in the southwestern part of Michigan around water issues including PFAS contamination. The organization is engaging Latino and Hispanic communities in tackling the problem and finding solutions towards clean and safe water for all.

Children are our future—society has a moral obligation to protect them. Exposure to environmental hazards can and must be prevented. Prevention requires strong environmental regulations and fully funded and supportive public and environmental health programs and a robust workforce.

For references and for more information, visit www.cehn.org/states/michigan

A Blueprint for Protecting Children’s Environmental Health: An Urgent Call to Action

www.cehn.org/blueprint

The Children’s Environmental Health Network set out to identify a set of CEHIs that can be used to provide an understanding of children’s environmental health at the state level. Through this process, CEHN found that robust, valid, and regularly updated state level data—that are comparable across most states—were not readily accessible. States need adequate funding and capacity to collect and make accessible reliable CEHI data in order to set goals and track progress towards improving children’s health.