Safety of Children’s Water Supply at Home and School

Safe drinking water is a necessity for all children. In recent years, the safety of the water supply has come into question in several communities. The C.S. Mott Children’s Hospital National Poll on Children’s Health asked a national sample of parents of children age 2-18 years about their perceptions of the safety of the water supply at home and school.

Most parents (79%) report the source of tap water at home is a city water system; 13% use well water, 5% are on a rural water system, and 3% are not sure. Parents rate the taste of their tap water as excellent (22%), good (44%), fair (25%), or poor (9%).

Three quarters of parents (76%) say their home tap water is safe to drink, while 13% say their tap water is not safe to drink without a filter, and 11% are unsure. Most parents (72%) report that their home tap water has been tested to determine if it is safe to drink, while 28% of parents report their home tap water has not been tested for safety. One third of parents believe the city or county would notify them if there was a problem with their home water supply, while 16% say they would know by the taste and smell of the water.

Comparing parents in households earning over $100,000 with those earning under $50,000 per year, higher-income parents are more likely than lower-income parents to say their home tap water is safe (84% vs 68%) and that their home tap water has been tested (80% vs 62%). In contrast, lower-income parents are more likely to rate the taste of their home tap water as fair or poor (46% vs 26%).

When children are at school or preschool, 68% of parents believe it is safe for them to use the drinking fountain, while 5% of parents say the drinking fountains are unsafe, and 27% are unsure. Higher-income parents are more likely than lower-income parents to believe the drinking fountains at school are safe for their child (75% vs 62%). The majority of parents (84%) say their child has access to bottled water at school, either provided by the school (25%) and/or sent from home (64%).

Overall, 60% of parents believe that both home tap water and school drinking fountains are safe for their child. Higher-income parents (68%) are more likely than lower-income parents (52%) to say their child’s water supply is safe at both home and school.
Data Source & Methods

This report presents findings from a nationally representative household survey conducted exclusively by Ipsos Public Affairs, LLC (Ipsos) for C.S. Mott Children's Hospital. The survey was administered in August 2019 to a randomly selected, stratified group of adults who were parents of at least one child age 0-18 years living in their household (n=2,004). Adults were selected from Ipsos’s web-enabled KnowledgePanel® that closely resembles the U.S. population. The sample was subsequently weighted to reflect population figures from the Census Bureau. The survey completion rate was 60% among panel members contacted to participate. This report is based on responses from 1,940 parents who had at least one child age 2-18 years. The margin of error for results presented in this report is ±1 to 6 percentage points.

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Implications

Water is essential for children to survive and thrive. Water helps regulate children’s body temperature, is key to their digestive system, and aids their immune systems.

Unfortunately, not all US children have access to safe drinking water. Only 76% of parents in this Mott Poll said their home tap water is safe to drink; this level was consistent regardless of whether the home water source was a city water system, a rural water system, or a residential well.

In these Mott Poll results, household income was strongly associated with the perception of the safety of home tap water. Higher-income parents were substantially more likely than lower-income parents to say their home tap water is tested and is safe. This may occur because lower-priced housing stock tends to have older pipes or fixtures that contain lead or copper that corrodes into the water. Poorer communities may be more affected by industrial pollution or runoff from pesticides or fertilizer. Finally, poorer communities often have limited funding for upgrades to the water treatment system.

One in ten parents in this Mott Poll were unsure about the safety of their home tap water. State and federal regulations establish specific requirements for water testing, but in many cases, parents may not have thought to look for this information. Even when parents seek out information about water safety, parents may not know where test results are posted or may not understand the technical language used in water testing reports.

Some parents said they would know if the water was unsafe by its taste and smell. However, this is not a suitable way to assess water safety. Some contaminants, such as lead, have no taste or color or odor. In contrast, water discolored by iron may be perceived as unsafe, when this is an aesthetic issue rather than a sign of unsafe water.

One third of parents assumed the city or county would notify them if there was a problem with their home water supply. However, communities have different approaches to reporting the results of water testing; some may send results to all households in the community, while others may post results on a government website for interested residents. Given the importance of water to a child’s health, parents may want to take a more proactive approach to finding out about the safety of their tap water by paying particular attention to information sent from their community’s water testing agency or visiting their local government website. Families relying on residential well water may want to seek specific information on testing of the groundwater in their area.

Parents may have questions about the need for a home water filter. In homes where the water has tested as unsafe, such as lead contamination from home plumbing, a filter attached to the faucet may be sufficient to remove the contaminant. In cases where home tap water meets water quality standards, parents may use a water filter to improve taste. Some home treatment systems remove elements from water that improve public health and safety. Parents should think carefully about their needs and goals, and perhaps review water testing results for their home tap water, because options, costs, and effectiveness of home water treatment systems vary widely.

The issue of safe drinking water at school has received increased attention, yet many parents remain unsure about the safety of drinking fountains at their child’s school. Currently, it is recommended that schools test their drinking water for lead to confirm it is safe for students, but there are no universal requirements to do so. In the absence of testing, bottled water can be a solution. In this Mott Poll, access to bottled water at school was common, with 84% of parents reporting that their child has bottled water provided by the school or sent by the parent. Parents may want to inquire about their school’s current testing policy, and send bottled water with their child if they are not confident that safe water will be available.