

Black, Hispanics less likely to drink tap water, more likely to buy bottled

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Black and Hispanic U.S. adults are half as likely as whites to drink tap water and more than twice as likely to drink bottled water, according to a recent Penn State analysis.

The findings also support past research that indicates that minorities and more vulnerable populations have a higher distrust of tap water in America, and that those who do not drink tap water and instead consume bottled water are at greater risk of [health](#) issues and financial burdens.

A study led by Asher Rosinger, assistant professor of biobehavioral health and anthropology at Penn State, found that from 2011 to 2014 nearly 53 percent of Hispanic adults and 46 percent of black adults consumed bottled water on a given day compared to just over 26 percent of white adults.

At the same time, more than 61 percent of white adults consumed tap water on a given day, compared to 38 percent of black adults and just over 38 percent of Hispanic adults.

"These findings demonstrate that when there's distrust of tap water, this reduces usage of public water systems for drinking purposes. A lower trust in tap water manifests in dietary behaviors and results in shifting to bottled water for hydration as well as less healthy options like sugar-sweetened beverages," Rosinger said.

To reach the findings, researchers analyzed nationally representative

dietary data on 20,676 adults to examine differences in tap and bottled water consumption among Americans. Specifically, researchers used National Health and Nutrition Examination surveys from the U.S. Centers for Disease Control and Prevention. The *Public Health Nutrition* journal published the findings online in February.

"Relying on bottled water creates disproportionate economic burdens and serious health implications among low-income and minority populations," Rosinger said. "Bottled water costs 240 to 10,000 times more than tap and often does not provide adequate fluoride, which increases risk of dental caries, and bottled water can have higher bacterial counts than tap water. A constant worry that tap water is not clean can also increase psychosocial stress, while having to carry bottled water home from the grocery store in urban environments increases physical stress."

Rosinger noted that he was inspired to conduct the study following news of the Flint, Michigan, water crisis subsequent to the discovery that the local public water system was poisoned with lead.

"The Flint water crisis, which affected low-income, primarily black neighborhoods, is the most recent highly publicized failing of the public water system in America, which has led to more distrust," Rosinger said. "Such highly publicized events mean that the idea that U.S. tap water is unsafe is highly salient and people can overestimate the extent of the problems. These behaviors of relying on [bottled water](#) are rational in the context of uncertainty, but overall, U.S. [tap water](#) is the safest hydration option for most."

More information: Asher Y Rosinger et al. Disparities in plain, tap and bottled water consumption among US adults: National Health and Nutrition Examination Survey (NHANES) 2007–2014, *Public Health Nutrition* (2018). [DOI: 10.1017/S1368980017004050](https://doi.org/10.1017/S1368980017004050)

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