

The Virgin Islands Consortium

VI Department of Health and CDC Study Finds High Risk of Waterborne Illness From Cistern Water

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Nine of 10 houses in the Virgin Islands rely on cistern water as the main residential water supply, a study conducted by the Virgin Islands Department of Health (VIDOH) and the Centers for Disease Control and Prevention found.

Eighty percent of water samples taken directly from those cisterns tested positive for E. coli contamination. And more than half of samples of the kitchen tap water – water sourced by cisterns and drawn through kitchen faucets – tested positive for E. Coli, as well, according to the study.

In July and August of this year, the health department, supported by the Centers for Disease Control (CDC) and other local partners, visited 400 households across St. Croix, St. Thomas and St. John to study the water quality of household cisterns to better understand potential risks of waterborne illnesses.

The findings:

- Ninety percent (90%) of houses in the territory rely on rainwater collected in catchment systems such as cisterns as the main residential water supply.
- Eighty percent (80%) of cistern water taken directly from the cistern hatch tested positive for E.coli.
- Fifty-eight percent (58%) of tap water taken from kitchen taps tested positive for E.coli contamination.

E.coli – or *Escherichia coli* – are bacteria found in the environment, foods, and intestines of people and animals. Most strains of the bacteria are harmless, but others can make you sick. Some kinds of E.coli can cause diarrhea, while others cause urinary tract infections, respiratory illness and pneumonia, and other illnesses, according to the CDC.

“... Water contaminated with E.coli should not be used for consumption; which includes drinking, cooking or brushing teeth. Furthermore, properly maintained water treatment systems, like those with multi-stage filters and/ or ultraviolet (UV) light, can provide water that is safe for consumption,” said a D.O.H. written statement regarding the water study.

Past D.O.H. studies found that 18% of Virgin Islands' households drink their cistern water directly. The department is working with the CDC to identify additional recommendations for homeowners to improve cistern water quality based on data from the study.

During and after storms or emergencies, cistern water may not be safe to drink.

The Dept. of Health advised that when safe water is questionable, use bottled water for drinking, cooking, and brushing teeth. If you do not have bottled water in an emergency situation, boil for more than 1 minute or disinfect your cistern water a gallon or less at a time. Use 1/8 teaspoon bleach each gallon of cistern water.