

HOW CONTAMINATED STREET JUICE IS BURDENING HOSPITALS



Experts warn that unwashed fruits often carry *Salmonella* and *E. coli*, the most common causes of diarrhoea and food poisoning

By Annabel Oyera

With the new year underway, many people are setting health goals such as eating better, drinking more fluids and making choices they believe will improve their wellbeing.

Along busy streets and trading centres, fresh-looking juice has become a popular symbol of these intentions, promising nourishment, refreshment, and a healthy alternative to fizzy drinks. But beneath the optimism of the new year and the sweetness of these colourful drinks lies a reality few consumers stop to question — the hygiene.

At first glance, the juice sold along the streets of Nakawa in Kampala looks refreshing. A mixture of lemon, carrots and ginger is poured into a glass or packed into plastic soda and water bottles, ready to quench thirst under the hot sun.

But behind the sweetness lies a hidden story of risk and questionable hygiene.

One vendor we spoke to, said she makes up to two 20lt jerrycans of juice a day and sometimes even supplies a nearby school.

On Mondays and Fridays, when

demand is highest, she prepares about 60 litres.

Her process begins with boiling six jerrycans of tap water, which she stores in two large plastic drums. However, a closer look at the containers shows they are far from clean. Instead of using a proper sieve, she filters the juice with a suspicious-looking piece of cloth. "A real sieve would delay my work," she says, as if reading my mind.

Once ready, the juice is poured into recycled soda and water bottles collected from customers. She washes and refills them for roadside sale and for supplies to nearby shops and garages.

Another juice seller who operates around Go Down in Makindye division, Kampala, says because she cannot afford a blender, she squeezes the juice by hand before mixing it with boiled water. She then takes her 10lt and 5lt jerrycans of juice to a neighbour with a freezer to chill before supplying to customers. She produces 10 to 15 litres daily, which she sells while walking on Katilima Road.

A visit to a small restaurant in Kalerwe, Kampala, reveals that the owner uses a blender, but the

IN NUMBERS

According to Kampala Capital City Authority health data extracted from the District Health Information System (DHIS2) for Kampala, the city recorded significant cases of sanitation-related diseases across both 2024 and 2025.

In the period January to March 2024 alone, health facilities reported six cholera cases, 11,245 cases of acute diarrhoea, 1,308 cases of persistent diarrhoea, 10,747 cases of typhoid fever and 243 cases of dysentery.

Between April and June 2025, cholera cases stood at six, acute diarrhoea at 7,948, persistent diarrhoea at 973, typhoid fever at 5,825, and dysentery at 178.

From October to December 2025, the figures showed two cholera cases, 5,121 acute diarrhoea cases, 590 persistent diarrhoea cases, 3,806 typhoid fever cases and 113 dysentery cases.

multitasking would raise anybody's eyebrows. She is cooking, serving customers, attending to her child, and making juice all at once, a recipe for cross contamination.

She assures me that she uses boiled water, but the dirty jerrycans were a turn-off. One could only hope the inside of the jerrycans was clean.

WHAT STUDIES SAY

In their study *Kampala: Health, Wellbeing and Nutrition*, Seruwagi

et al. (2025), found that unsafe water and poor sanitation are identified as major contributors to disease in Kampala. The authors emphasise that environmental contamination affects all foods and drinks prepared using unsafe water. This means that beverages made with untreated or polluted water can easily carry disease-causing organisms and pose a risk to public health.

The research suggests that when drinks such as juice are prepared

or handled under unhygienic conditions, they can become vehicles for disease transmission, especially in densely populated urban settings where access to clean water and sanitation is limited.

In another study titled *Food Safety Practices and Associated Factors Among Food Vendors Around Selected University Settings in Kampala, Uganda*, and published in the *International Journal of Environmental Health Research*, Galiwango et al. (2025) found that more than half of the vendors exhibited poor food and beverages safety practices.

They identified several factors that were responsible for these unsafe practices, including low levels of formal education, working in establishments that were not properly licensed and limited access to safe, clean water for food preparation and service.

Because unsafe food handling can lead to contamination of food and beverages with harmful microorganisms, these poor practices increase the risk that consumers may get foodborne illnesses.

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Galiwango and colleagues argue that improving food safety requires better education and training for food vendors, ensuring that food handlers are licensed and enforcing stricter food safety regulations to protect the health of students and other customers who rely on these food services.

EXPERTS WEIGH IN

Dr Herbert Luswata, the immediate past president of the Uganda Medical Association, explains that hygiene in juice making is especially crucial since several diseases, including typhoid, cholera, dysentery, are transmitted through the faecal-oral route, worm infestation and hepatitis A.

"Typhoid commonly presents with high fever, abdominal pain and constipation, while cholera causes abdominal pain and excessive diarrhoea that can easily result in an epidemic," he says.

Luswata emphasises that prevention is key, calling for strict inspection of all juice manufacturing companies and approval of bottled juice by the relevant regulatory body to protect public health.

He says the good news is that these diseases can be diagnosed and treated and advises that anyone who experiences such symptoms should promptly visit the nearest health facility.

Nutritionist Regina Nantege warns that unwashed fruits often carry *Salmonella* and *E. coli*, the most

HOW CLEAN IS THAT STREET JUICE?

common causes of diarrhoea and food poisoning.

"Contamination also comes from dirty hands and unsafe water, leading to outbreaks of dysentery, cholera and typhoid," she says.

On reuse of plastic soda or water bottles, Nantege says: "They are hard to clean properly, allowing germs to grow and cause illness. Over time, the plastic can also break down, releasing tiny particles and chemicals into the juice that may harm your health. It is much safer to use new, food-grade containers."

She cites a 2017 study by Sun and colleagues published in *Food Protection Trends*, which found that reused water bottles often still contain bacteria even after cleaning.

The nutritionist says factors such as bottle shape, frequency of reuse and the type of drink previously stored all affect contamination levels.

"Wash fruits thoroughly, use only safe treated water, maintain strict hand hygiene, keep equipment clean, and store juice in covered, hygienic containers. Also, serve juice fresh and avoid prolonged storage. If you cannot make your own juice, eat whole fruits instead to gain more fibre. If you must buy juice, choose a trusted packaged or fresh juice brand."

Nantege called on government authorities to act. "Just as weighing



A man picking plastic bottles from Nakivubo drainage channel after a downpour in Kampala. Experts say reused plastic bottles, sometimes used to store juice, are difficult to clean

scales are inspected for accuracy, food vendors should be inspected and certified for hygiene. The cost of surveillance would be recovered through reduced foodborne illness."

Another nutritionist Amina Rejoice described the situation as a major public health concern, noting that unhygienic juice preparation exposes consumers to a wide range of health

risks.

"If fruits are not washed properly, water used is unsafe, or if bottles are reused without proper cleaning, juice can easily get contaminated with bacteria," she says.

Rejoice says in her practice, she has encountered many patients who present with diarrhoea and later, after dietary assessment, admit to

consuming street juice.

"Usually, people don't even know it's the juice making them sick. They say they don't drink tap water and that they boil water at home, but when you ask about juice, they admit buying it from vendors."

Rejoice warns that bottles reused multiple times are unsafe. "You don't know who used the bottle before you; it could have been used by a TB patient. Many of these bottles are picked from dustbins and there is no way local vendors can sterilise them properly."

She adds that young people, especially university students, are among the most affected because they rely on cheap juice as a substitute for sodas.

Yet another nutritionist Jackie Immaculate Kirabo, lists symptoms of contamination as watery or bloody diarrhoea, nausea, vomiting, stomach pain, bloating, fever, fatigue, dehydration, and general weakness. "If untreated, severe dehydration and infection can become fatal," she says.

Kirabo advises that homemade juice is the safest because one can control hygiene. She shares guidelines for safe juice preparation at home: "Wash hands thoroughly, clean equipment, use fresh fruits, peel and chop with clean utensils, and store juice in clean containers in a refrigerator."