HEALTH

A Toilet, but No Proper Plumbing: A Reality in 500,000 U.S. Homes

By SABRINA TAVERNISE SEPT. 26, 2016

TYLER, Ala. — The hard clay soil in this rural Southern county has twice cursed Dorothy Rudolph. It is good for growing cotton and cucumbers, the crops she worked as a child and hated. And it is bad for burying things — in particular, septic tanks.

So Ms. Rudolph, 64, did what many people around here do. She ran a plastic pipe from her toilet under her yard and into the woods behind her house. Paying to put in a septic tank would cost around \$6,000 — a little more than half of her family's annual income.

"It was a whole lot of money," she said. "It still is."

Here in Lowndes County, part of a strip of mostly poor, majority-black counties that cuts through the rural center of Alabama, less than half of the population is on a municipal sewer line. While that is not a hardship for more affluent communities — about one in five American homes are not on city sewer lines — the legacy of rural poverty has left its imprint here: Many people have failing septic tanks and are too poor to fix them. Others, like Ms. Rudolph, have nothing at all.

That is not so uncommon. Nearly half a million households in the United States lack the basic dignity of hot and cold running water, a bathtub or shower, or a working flush toilet, according to the Census Bureau. The absence has implications for public health in the very population that is the most vulnerable. Crumbling infrastructure has been a theme of this country's reinvigorated public conversation about race — for instance, a botched fix for old pipes in Flint, Mich., that contaminated the city's drinking water with lead. But in poor, rural places like Lowndes County, there has never been much infrastructure to begin with.

"We didn't have anything — no running water, no inside bathrooms," said John Jackson, a former mayor of White Hall, a town of about 800 in Lowndes that is more than 90 percent black and did not have running water until the early 1980s. "Those were things we were struggling for."

There is no formal count of residents without proper plumbing in Lowndes, but Kevin White, an environmental engineering professor at the University of South Alabama, said that a survey that he did in a neighboring county years ago found that about 35 percent of homes had septic systems that were failing, with raw sewage on the ground. Another 15 percent had nothing.

"The bottom line is, I can't afford a septic system," said Cheryl Ball, a former cook who had a heart attack several years ago and receives disability payments. She lives in a grassy field on which only three of seven homes have septic tanks. Most banks now require proof that a home has proper sewage disposal before lending, but Ms. Ball paid cash for her mobile home — \$4,000.

This area, known as the Black Belt (so called more for its soil, than its demographics), is haunted by its history of white violence toward African-Americans and a deep, biting poverty. Lowndes is one of the poorest counties in the country, and its rural population, whose trailers and small houses dot the lush green landscape, often cannot afford the thousands of dollars it costs to put in a tank. Municipalities, with low tax bases, cannot afford extensive sewer lines.

Ms. Rudolph, a retired seamstress, and her husband, a carpenter, live in a tiny, white clapboard house that he built after he, his parents and his siblings fled their home on land owned by a white man who forbade the family to vote. She remembers, as a young girl in the 1950s, not having electricity. They obtained running water in the early 1990s, she said, and used an outhouse until the mid-1990s.

So their white toilet with a fuzzy green cover was a marker of progress. A plastic pipe carries its contents outside and empties into a wooded area not far

from the house. There is no visible pooling of sewage, but there are other problems.

"The smell gets so bad," said Ms. Rudolph, sitting on her porch guarding her chicken coop against a marauding fox. When it rains, she wages war with her toilet. One recent downpour brought its contents gurgling up to the rim.

"I was sitting there looking at it and got me a plunger," she said. "It took me some plunging to get it clear. I was scared it was going to come back and go on the floor. Horrible."

She added, "There's nothing we can do."

The problem is prickly for the state. Parrish Pugh, an official with the Alabama Department of Public Health, agrees that money plays a part.

"That's where the rubber hits the road," he said.

But Alabama law forbids the use of "insanitary sewage collection," and the responsibility for that rests squarely with the homeowner," Mr. Pugh said. Resisting is not only illegal, but could have health consequences: Raw sewage can taint drinking water and cause health problems.

"My parents had a pipe that ran into the woods, and that's good enough for me," Mr. Pugh said, explaining a common argument. "But we didn't know as much about disease back then. People are more educated nowadays. They are more concerned."

The state health department begs, cajoles, and eventually cites people who have problems and do not fix them. In the early 2000s, the authorities even tried arresting people. That prompted a public outcry and the practice soon stopped, but one person spent a weekend in jail and others were left with criminal records.

The department cited about 700 people in the 12 months that ended in March, often because someone complained.

The clay soil makes the problem worse.

"Rural wastewater is usually managed with a septic tank and a drain field, which slowly infiltrates the wastewater into the ground," Professor White said.

"Well, it won't go into the ground here. Period."

He added: "There are some options that may be available, but it's going to cost thousands of dollars, and most people here can't afford it. The answer, quite frankly, is not out there yet."

Experts and advocates have tried to find one. Grants from the state and federal governments to study the problem have come and gone, as have academics wielding surveys. There was even talk of self-composting toilets.

"It's like we're going in circles," said Perman Hardy, a cook in Tyler who even did a urinalysis for a study of health effects. For years, her sewage backed up every time it rained. In December, she spent all the money she had saved for Christmas presents on a new septic tank.

Some change is happening. The town of White Hall recently received funding to connect about 50 homes to sewer lines, the first in its history. Town officials are thrilled: City sewer lines are critical to attract businesses that would bring jobs. But the pace is glacial.

Eli Seaborn, 73, a White Hall councilman, said progress would be slow, like the pace of civil rights gains, where legal discrimination is gone but lingers in other forms. Similar patience is required for sewage, he added.

"Time is going to be the only thing that solves this problem," he said. "It took more than 50 years for it to happen. But hopefully, it won't take more than 50 years to fix it."

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