

Do Experts Talk Toilets Differently than Everyone Else?

Summer 2022

By Gloria Odenyo
Contributions from Kimberly Worsham

One-Page Summary

Short answer: Yes.

What We Found

1. There is growing global curiosity about toilets.
2. The definition of sanitation depends on location...and doesn't always include toilets.
3. Regions talk about toilets at different frequencies.
4. Countries talk about toilets differently.
5. The general public rarely searches technical terms used by WASH experts.
6. Toilet searches sometimes spike, but not for long.

"People are interested in knowing more about toilets. But do they know where to search?"

"Sanitation refers to toilets and trash. But do people know that?"

"Latrine was not commonly searched in studied countries."

What It Means

1. The WASH sector should leverage growing toilet searches to build awareness.
2. WASH experts should remember that sanitation means different things to people.
3. High-Income countries need to label WASH sector leader.

"There is a missed opportunity to engage the public and sustain their interest sanitation."

"The WASH sector may not be sustaining public interest when there's a need."

"Issues related to sanitation vary greatly based on location."

Do Experts Talk Toilets Differently than Everyone Else?

Summer 2022

By Gloria Odenyo
Contributions from Kimberly Worsham

Short answer: Yes

- *There is a large disconnect between how people working in the water, sanitation, and hygiene (WASH) sector and the general public talks about sanitation.*
- *This disconnect makes it hard for the WASH sector to boost interest in their work.*
- *It also means that the public doesn't really know that much about toilets, or how to learn more.*

Background

FLUSH's 2022 Summer Intern Gloria used Google Analytics to analyze and compare trends for search terms related to sanitation and toilets. Then, she reviewed how those results differ from how the WASH sector talks. This research shed light on how experts could better communicate its importance to the general public.

How We Looked Into This

Through this research, Gloria asked:

- How does the public look into toilets?
- Do toilet searches differ by place?

Gloria created an initial wordlist about toilets, including *toilets, porta potty, washrooms, restrooms, public toilets, latrines, and sanitation*. She then expanded the list by using keyword tools - such as Google Trends, Keyword Planner, and online third-party keyword search sites - to find other related search terms.

She focused her searches on the United States (US), Ghana, India, Uganda, the United Kingdom (UK), and South Africa (So Africa). She determined each keyword's monthly search volumes and relative interest over time through these searches. Each location had different associated keywords, which she then added to the list and compared.

Figure 1: Where in the world we looked at toilet-related keywords



Next, she used Google Trends to dig deeper for each keyword. Google Trends adjusts search volumes by place and time through popularity, with 100 representing peak popularity, 50 representing a term being half as popular, and so on.

Lastly, Gloria dug to find related keywords by location and examine possible causes for spikes. She also looked at technical terms used by WASH experts and organizations and their popularity.

What We Found

2

1. There is growing global curiosity about toilets.

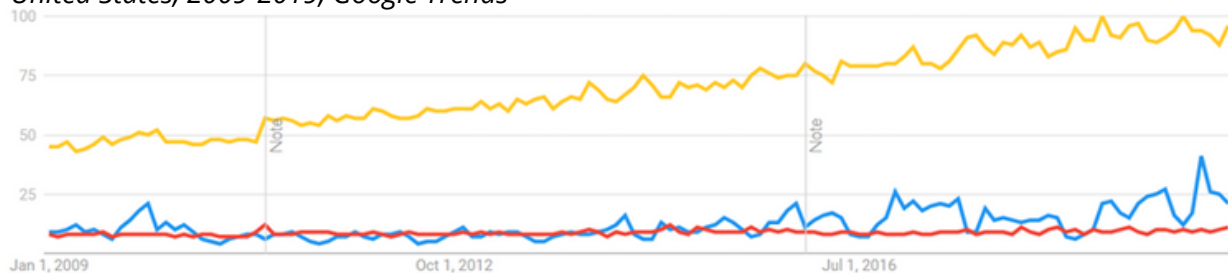
Aside from periodic spikes in Google Searches, there has been a consistent increase in search volume and interest in the searches for *toilet*. For example, Figure 2 shows that, on Google Trends, search popularity for *toilet* doubled from 2009 to 2019. **This implies that people are more interested in knowing more about toilets. But do they know where to go beyond searching for toilets?**

Figure 2: Interest over time for "toilet" google searches, United States, 2009-2019, Google Trends



Separately, some trends are more popular than others. In the US, the search term *sanitation department* had a relative interest score on Google Trends of 100. In contrast, *water and sanitation* had 30, showing that *water and sanitation* has less than one-third of the interest of people wanting to know more about their public sanitation service providers.

Figure 3: Interest over time for "toilet" (orange), "sanitation" (red), "climate change" (blue), in the United States, 2009-2019, Google Trends



For comparison, while *toilet* had a relative interest score of 100 for the US, the term *climate change* had an average interest score of 29, while *sanitation's* score was lower at 21. Just as a reminder, interest terms reflect the search volume of a term compared to the total number of searches over time, so lower scores show that the term is not extremely popular then.

Figure 3 shows that the interest in sanitation has remained relatively constant over the past few years, while *toilet* has increased consistently. The plot also compares *toilet* with *climate change*, which had increasing interest over the past years, but at a slower rate.

***Toilet* may be more popular than sanitation because it is a simpler term, but we were surprised that it was more popular than the hot topic climate change!**

Climate change is closely linked to water and sanitation. Firstly, it increases sewage runoff after heavy rain and diminishes water sources during droughts. Secondly, unmanaged sewage contributes to emitting greenhouse gasses.

What We Found

3

2. The definition of sanitation depends on location...and doesn't always include toilets.

Sanitation refers to toilets and trash. But do people really know that? The most common *sanitation* Google Searches in the US include keywords related to trash almost exclusively, such as *disinfectant*, *landfill*, and *sanitation department*. There wasn't a toilet in sight.

Specific *sanitation* searches vary by US state. For example, in New York City Department of Sanitation (DSNY) is the world's largest sanitation department. The top *sanitation* Google Searches in New York were related to jobs in the DSNY, removing trash and clearing roads after storms, and accidents. Similarly, Minnesota had the highest *sanitation* searches related to Republic Services, a large trash company, and other trash and recycling removal services providers.

When looking at other countries, sanitation and toilet have different popularity. In Figure 4, *sanitation* is more common than *toilet* in Ghana and Uganda. Conversely, other country search for *sanitation* far less than *toilet*.

Figure 4: Search Volume of Sanitation Compared to Toilet, Google Trends

Country	Sanitation vs Toilet Searches
Ghana	190%
Uganda	120%
So Africa	10%
USA	9%
India	5%
UK	0.5%

3.Regions talk about toilets at different frequencies.

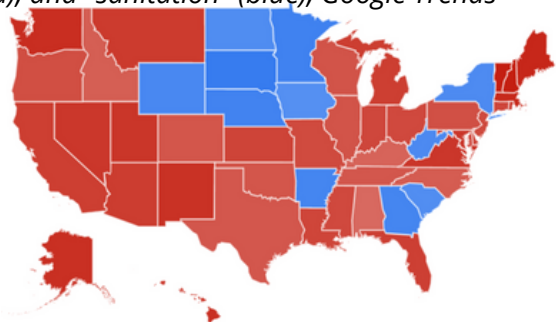
Figure 5: Average monthly search volume per 10,000 people, Google Trends

Keywords	UK	India	So Africa	USA	Ghana	Uganda
toilet	53.63	3.20	3.00	10.98	0.31	0.10
sanitation	0.28	0.16	0.31	0.98	0.59	0.12
climate change	6.56	1.59	1.81	5.46	0.56	0.20
porta potty	0.26	0.03	1.97	3.28	1.11	0.18
public toilets	19.67	0.96	0.15	1.81	0.10	0.01
restrooms	0.96	0.11	0.10	8.98	0.10	0.01

Figure 5 shows the average monthly search volume per 10,000 people. **It's clear from the data that different countries search for sanitation-related terms with different frequencies.** For example, the UK's searches for *toilet* was 520 times more frequent than in Uganda. Meanwhile, So Africa searches used *porta potty* 65 times more than in India. All places but Ghana use *toilet* most often.

The frequency of *sanitation* searches also differs by US states. In Figure 6, the state map shows search popularity of the words *sanitation* and *climate change*. The color intensity represents the percentage of searches, with darker colors meaning more searched. **There are several states where sanitation is more popular than climate change, such as Wisconsin, Georgia, and West Virginia.**

Figure 6: Search popularity for "climate change" (red), and "sanitation" (blue), Google Trends



What We Found

4. Countries talk about toilets differently.

Figure 7: Total monthly search volume for keywords, Google Trends

Keywords	USA	Ghana	UK	Uganda	India	South Africa
toilet	368,000	1,000	368,000	480	450,000	18,000
porta potties	110,000	3,600	18,100	880	3,600	12,000
sanitation	33,100	1,900	1,900	590	22,200	1,900
latrine	18,100	260	3,600	110	33,100	880
water closet	14,800	590	1,600	70	14,800	590
biodigester toilet	90	720	30	50	210	30

When we looked into different keywords used related to toilets specifically, we found that countries differ based on the words that dominated their searches. See Figure 7 for details about the more popular terms in each countries.

For example, in Ghana, *porta-potties* had more Google Searches than *toilets*. Additionally, *biodigester toilet* had almost as many monthly searches as *toilet*, which showed that this could be a popular type of toilet in Ghana.

Terms for the same toilet types also differ geographically. For example, the US uses *porta-potties* for portable festival toilets, typically with blue liquid. Meanwhile, the UK uses *portaloo*, and India uses *porta toilets* with similar frequency to refer to the same thing.

Relative to the keyword toilet, latrine (a communal trench or deep hole in the ground used as a toilet) was not commonly searched in these countries.

The average search volume of *latrine* was only 5% as popular as *toilet* in the US and So Africa. Meanwhile, in the UK, it was only 1% as popular, and 7% as popular in India. Meanwhile, Uganda and Ghana used *latrine* more frequently, 23% and 26% of the frequency of *toilet*, respectively.

Also, the *biodigester toilet* (a toilet that breaks down waste and produces energy in the process) was searched 10% as often as *toilet* in Uganda. Meanwhile, in the US and UK, it accounted for 0.3% of the search frequency compared to *toilet* searches.

What does this all tell us? **Knowing toilet-specific terms the public uses to understand sanitation is important.**

This means that talking to community members about in Ghana about *water closets* doesn't make sense, but talking about *porta-potties* may. We also need to learn what the public means when they use these different terms, as it may differ based on location.

What We Found

5. The general public rarely searches technical terms used by WASH experts.

WASH experts need to be careful about what words they use to describe their work to the public. If not, the risk is losing interest entirely because people "won't get it".

For example, many expert WASH papers and media blasts can use the term *fecal sludge management* (the collection, treatment, and disposal of toilet waste). However, in the US, *fecal sludge management* was searched less than 500 times monthly. With this search term, the top related search being *what is fecal sludge management?* **The curiosity about fecal sludge management is generally low, and people don't know what it means, even though this term is commonly used in WASH materials.**

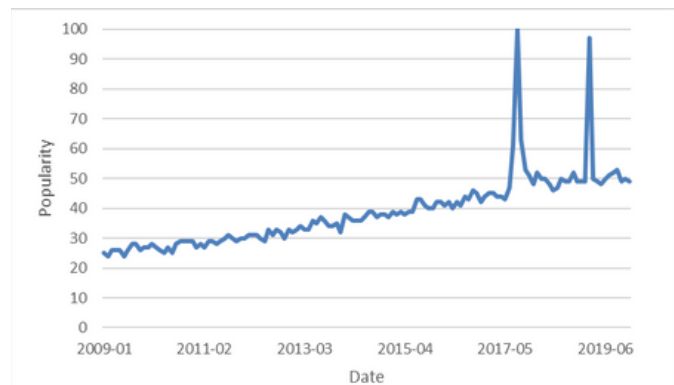
The *sanitation value chain* is another term frequently used by WASH experts. Sanitation value chain describes what happens after we flush - from transportation in sewers to screening and disinfecting in wastewater treatment plants to releasing treated water. This term is even less searched than *fecal sludge management* in the US; *sanitation value chain* was searched less than 100 times monthly on average.

Also, the term *WASH* was searched less than 500 times monthly. **This shows that the search term *wash* (not case sensitive on Google) is not an effective selling term for the sector to the public.** In some locations, *wash* could even refer to different services, such as *carwashes, bathing, or laundry care.*

6. Toilet searches sometimes spike, but not for long.

We saw some spikes in Google Searches for *toilet* over time, as seen in Figure 8. Spikes in *toilet* Google Searches could come from the pandemic, popular ads, or even skits on SNL. For example, *toilet* searches in the US had an 18% increase during the week that the SNL skit "A New Toilet" dropped on May 7, 2022, before decreasing again.

Figure 8: Interest over time for "toilet" google searches, worldwide, 2009-2019, Google Trends



World Toilet Day (November 19th) also resulted in a high volume of *toilet*-related searches sustained throughout November. Still, the spikes in *toilet* searches often only last a couple of weeks at a time and are not sustained.

We also observed spikes in *toilet* interest during early COVID-19 in 2020. Compared to January 2020, in February 2020, the *toilet* interest increased five-fold. This interest sustained until May 2020, when the average decreased nearly the same interest rate as before COVID-19. **There was a lost opportunity to gain sustained interest in sanitation and toilets during the initial COVID-19 pandemic with an interested audience.**

What This All Means

1) The WASH sector should leverage growing toilet searches to build awareness.

While there is some interest in sector-specific days, like World Toilet Day, it is unclear if the WASH sector sustains the public's interest in sanitation during those times. Many organizations target their campaigns for World Toilet Day to technical members and funders of the WASH sector, rather than the general public. As a result, **there is a missed opportunity to engage the public and get them more interested in mobilizing for improved sanitation.**

The WASH sector takes time to create public-facing messaging, from ideation to completion and release. However, the public needs timely responses; without quick responses, people lose interest in a topic. For example, the spikes in toilet searches happened briefly and randomly, which means **the WASH sector may not be sustaining interest when the public wants to learn more.** This is similar to how public health officials did not release timely [public messaging on preventing and treating COVID-19 during the pandemic, causing confusion and apathy.](#)

The WASH sector should communicate with the public more frequently through timely press releases, simple social media posts, or graphics. Simpler public content with less technical terms can showcase interesting and important WASH topics, such as toilets' carbon emissions and pollution. **Also, we need to prioritize communicating with the public beyond academic discussions.**

2) WASH experts should remember that sanitation means different things to people.

According to Google Searches, **issues related to sanitation vary greatly based on location.** This is reflected even in how their governments delegate services and tasks to sanitation-related ministries and departments. For example, while the DSNY focuses on trash and roads, So Africa has a Ministry of Water and Sanitation that works on water, toilets, and trash removal. Thus, many sanitation Google Searches in So Africa are related to water access and sanitation. At the same time, US-based searches do not always include those topics.

Similarly, many low-income countries have ministries of water and sanitation - such as Ethiopia, Tanzania, and Malawi. These ministries provide clean and safe water for the public and manage water supplies. This isn't the case in higher-income countries, where government agencies often focus on sanitation as an environmental protection issue.

Even in the WASH sector, people vary around what they mean when referring to sanitation. Some experts use sanitation to refer solely to toilets and related waste. In contrast, others use it to refer to both toilets and trash. There are still more variations within the terms waste and solid waste within the WASH sector. The lack of a common way of referring to sanitation issues in the WASH sector makes it increasingly difficult to communicate these issues to the public in a coherent way.

What This All Means

3) High-Income countries need to label WASH sector leader.

High-income countries have historically not put much effort into WASH-related matters, but that should change. However, to start championing sanitation in high-income countries, one key thing needs to be addressed – **what government agency would lead the WASH charge?** This connects to the previous point and is worth further exploration.

For example, the US does not have a government-labeled WASH agency – the responsibilities for WASH-related work are spread across agencies. For example, the Environmental Protection Agency works on sanitation as an environmental issue, such as water pollution from trash dumping, carbon emissions from landfills (trash), and regulating wastewater plants (toilets). In contrast, the Center for Disease Control works on the public health implication of poor wastewater treatment, such as broken toilet systems leaking waste into water supplies. Neither of them looks at WASH the way we do in other countries.

The fragmented WASH work means that not everyone knows about WASH, and it can be confusing about who is responsible for sanitation. For example, in New York, interest in the sanitation department is high, which could be help bolster a new WASH sector to communicate issues with the public.

Similarly, the United Kingdom has a non-ministerial government department, The Water Services Regulation Authority (Ofwat). Ofwat's goal is to regulate water

distributors and sewerage companies such as Thames Water, a private water distributor, and water prices. Ofwat also works with the governmental ministry called the Environment Agency, which focuses on water quality by regulating sewer and other wastewater systems.

These countries - and many others - see water as an environmental issue.

However, there's a blind spot with this focus; high-income countries assume everyone can access water and sanitation services through piped systems like sewers and water lines.

To them, the primary issue is optimal environmental management. However, means that the countries don't prioritize efforts to improve access issues in their own countries. For example, over two million people in the US still lack access to running water and toilets, while up to 1.4 million lack access to safe sanitation in the UK.

While relevant, this mindset neglects to look at WASH from the access point of view in the way that low- and middle-income countries with Departments of Water and Sanitation do. These departments focus on initiatives to increase access to safe water, develop infrastructure to promote sanitation practices, and end open defecation.

This shifted focus makes it difficult in the US and UK to build awareness of sanitation issues compared to So Africa. It is also trickier to fundraise for providing basic sanitation for those without in high-income countries.

References

- DigDeep (2019) "Closing the Water Access Gap in the US" http://uswateralliance.org/sites/uswateralliance.org/files/Closing%20the%20Water%20Access%20Gap%20in%20the%20United%20States_DIGITAL.pdf
- FLUSH (2020) "What is sanitation?" <https://www.flushwash.org/post/what-is-sanitation>
- Google Trends (2022) <https://trends.google.com/trends/?geo=US>
- Gov.UK (2022) "Environmental Agency" <https://www.gov.uk/government/organisations/environment-agency>
- Johnson et al. (2022) "Whole-system analysis reveals high greenhouse-gas emissions from citywide sanitation in Kampala, Uganda". *Commun Earth Environ* 3, 80 (2022). <https://doi.org/10.1038/s43247-022-00413-w>
- NYC Department of Sanitation (DSNY) (2022) "About DSNY" <https://www1.nyc.gov/assets/dsny/site/about>
- Republic Services (2022) "Minnesota" <https://www.republicservices.com/locations/minnesota>
- Sauer et al. (2021) "A Failure to Communicate? How Public Messaging Has Strained the COVID-19 Response in the United States." *Health Secur.* 2021 Jan-Feb;19(1) doi: 10.1089/hs.2020.0190.
- SEMRUSH (2022) "Keyword Planner Tool" <https://www.semrush.com/>
- World Bank (2022) "People using at least basic sanitation services - UK" <https://data.worldbank.org/indicator/SH.STA.BASS.ZS?locations=GB>

Next Research?

We think analyzing how other regions talk about WASH-related topics would be great. We then want to see how it relates to their awareness and access to plumbing and good WASH infrastructure. This includes looking at different regions/states even in the countries we already reviewed.

We need to study how specific regions talk about toilets online when starting new projects with outreach and behavior change.

Lastly, we want to look at large WASH initiatives to communicate with the public, such as campaigns during the peak of COVID-19 in 2020 and World Toilet Day. We can then analyze their successes and shortcomings to learn how to improve future communication between the WASH sector and the public.

About FLUSH

FLUSH creates sanitation superheroes.

We support water and sanitation service providers to build trusting relationships and buy-in with customers and increase investments. We do this by

1. clarifying audience engagement goals,
2. generating market-responsive data,
3. developing compelling stories for audiences, and
4. designing and implementing practical marketing strategies.

Through this work, FLUSH's unique approach creates fun, uplifting, and locally-tailored educational, and awareness-building events and experiences to build buzz, spark curiosity, and destigmatize sanitation conversations.

More information available on our website at www.flushwash.org