

Research Paper

Locked out of water: a reflection on WaSH access in US prisons

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ABSTRACT

The United Nations global minimum standards for prisons are termed the 'Nelson Mandela Rules' and are based on the humane treatment of incarcerated people. Of the approximately 11.5 million people incarcerated worldwide, over two million are located in the United States (US). Mass incarceration is maintained by political, economic, and societal structures of inequality and discrimination. The lens of safely managed sanitation provides a window into the treatment and lived realities of people who are incarcerated. This article synthesizes the existing literature and builds on this foundational knowledge with accounts from people who have experienced living in the US prison system. Throughout the literature and across these lived accounts we find a severe lack of privacy, emotional distress, consistent Human Rights violations, and evidence of those in positions of power in prisons using control over water and sanitation to enact excessive punishment. Denying these fundamental rights restricts people's health and well-being, and contributes to further dehumanization and trauma, which is detrimental to the individual and to wider society. We find that one route toward revealing the extent of discrimination against incarcerated people, and beginning to make impactful, person-centered change, is focusing on full, safe, and dignified access to WaSH services.

Key words: discrimination, human rights, incarceration, involuntarily displaced populations, prisons, WaSH equity

HIGHLIGHTS

- Politically engaged analysis of water and sanitation services in prison settings.
- Novel insights from lived experiences and autoethnographic knowledge.
- WaSH services are used as a means of control in contexts of high power asymmetries.
- A Human Rights perspective and person-centered approaches can help resist dehumanization.
- US WaSH organizations can use their position to advocate for prison reform at home.

INTRODUCTION

'It is said that no one truly knows a nation until one has been inside its jails'. [Nelson Mandela]

Principles of the fair and humane treatment of incarcerated people underpin global minimum standards for prisons, established by the United Nations (UN) in 2015 (Fathi 2015). These are known as the 'Nelson Mandela Rules'. They are designed to ensure the safety and dignity of people living in incarceration, centered on their inherent value as human beings. Access to basic Water, Sanitation, and Hygiene (WaSH) services is a fundamental part of these minimum standards, particularly 24-h access to potable drinking water and dignified access to sanitation and hygiene facilities (UNODC 2015).

National governments have the autonomy to decide how to run their prison systems. Despite the clear guidance of the Nelson Mandela Rules, there are many cases of inadequate and inhumane conditions. For example, in 2023 in the United Kingdom (UK), it was found that almost 7,000 cells across 50 prisons did not have toilets. Incarcerated people were instead provided with a bucket in case toilets could not be accessed 'in time' (Pidd 2023). Further, a research body examining conditions of prisons in Europe found that although European Prison Rules prescribe special treatment for women's sanitary

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needs, in practice they are often not remembered or respected (Maculan *et al.* 2013). In France, incarcerated people suffering from mental illness have been frequently found to be moved to isolated hospital wards without any toilet facilities, instead being provided only with a bucket (Pont 2012).

Such conditions fall short of the UN agreed minimum standards and amount to Human Rights violations. A Human Rights perspective makes plain that governments are obliged to provide essential services to people who are incarcerated (Roaf & Winkler 2024). In addition, the UN has expressed concern over the practice of deliberately limiting access to water and sanitation in incarcerated environments, calling this an ‘excessive form of punishment’ (de Albuquerque 2014). The Mandela Rules explicitly state that the reduction of drinking water as a disciplinary sanction amounts to torture or other cruel treatment (UN 2015).

In terms of scale, around 11.5 million people worldwide are residing in prisons (Penal Reform International 2023), with over two million located in the United States (US), as shown in Figure 1 (Kang-Brown *et al.* 2021). While the US is the richest country in the world, it contains immense income and social inequity; the richest 1% earns 100 times more than the poorest 20% (Institute for Policy Studies 2024). It also has the largest prison population in the world, with 0.7% of the nation’s population being incarcerated. These two statistics are not unrelated, as the Special Rapporteur on extreme poverty concludes: ‘Punishing and imprisoning the poor is the distinctively American response to poverty in the twenty-first century ... Mass incarceration is used to make social problems temporarily invisible and to create the mirage of something having been done’ (Alston 2018, p. 18). The term ‘mass incarceration’ has been coined to express the scale of the legislative, infrastructural, and economic frameworks that surround and maintain the US prison system (Sawyer & Wagner 2024).

The American criminal justice standards reflect some of the Nelson Mandela Rules, which, for water and sanitation, state that a prison facility should ‘allow unrestricted access for prisoners to potable drinking water and to adequate, clean, reasonably private, and functioning toilets and washbasins’ (ABA 2011, p. 99). They also explicitly state that correctional authorities should not restrict or withhold water from incarcerated people. Reporting from facilities is limited, although a recent report from the Federal Bureau of Prisons reviews general facility infrastructures, which are often lacking hot water, but does not express the ways in which individuals are able to access water and the sanitation infrastructures (Federal Bureau of Prisons 2020).

Despite limited official reporting, investigative journalism and research on prison conditions reveals substantial impeachments upon the rights, dignity, health and well-being of people who are incarcerated. Severe dehydration and drinking water supplies contaminated with lead, heavy metals, arsenic, radon, and bacteria are not uncommon (Nargi 2024). Drought conditions have been known to cause water shutoffs, resulting in people being denied showers and drinking water, and there is at least one reported case of a person dying from dehydration (Roller *et al.* 2023). Wang (2022) writes that environmental health conditions in prisons are below basic standards of livability, citing the fact that they are often built on industrial disposal sites and landfills containing tire, coal mining, and other potentially hazardous wastes.

Access to clean water and safely managed sanitation is foundational to maintaining healthy environments and lifestyles. Recently, it has become widely accepted that High-Income Countries (HICs) have problems with universally accessible WaSH services. This access gap is being researched in the US, focusing on non-incarcerated environments, including racialized and geographical inequities (Deitz & Meehan 2019; Wutich *et al.* 2022). However, prisons are critical and often overlooked contexts requiring substantial improvements to basic services (Roller *et al.* 2023). Further, excluding people who are incarcerated is a political decision and is indicative of wider societal and political discrimination. As emphasized by Wang (in Nargi 2024, np), ‘No one really was thinking about incarcerated people when they envisioned safe water for the people of the United States’.

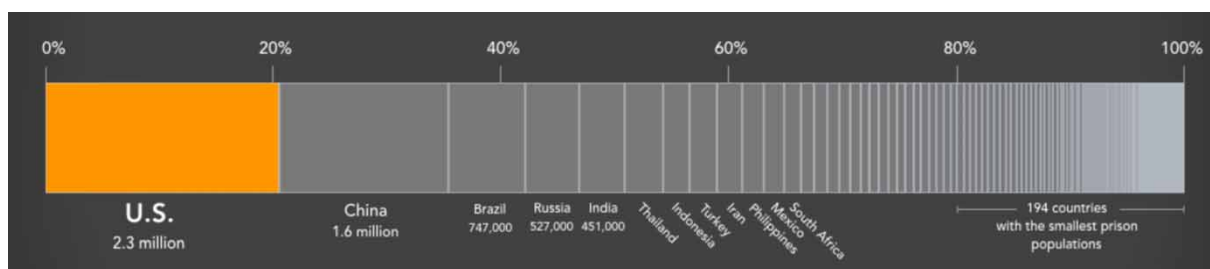


Figure 1 | Proportion of incarcerated people worldwide, by country (Wagner & Bertram 2020).

This article focuses on sanitation access while also including water and hygiene as inseparable services. First, we synthesize existing knowledge on global sanitation access in prisons, and then build on this limited body of literature by learning from accounts of lived experiences. The qualitative data we drew from was collected by the first author, an independent individual who was previously incarcerated and is now an activist on prison reform. These stories provide a window into the real-life impacts of WaSH in prisons, a starting point for resonating with people who are incarcerated and initiating dialogue about discrimination, Human Rights, and the need for person-centered changes.

LITERATURE REVIEW: SANITATION IN PRISONS

This section overviews the global academic literature, with an emphasis on studies conducted in US settings. Subsequent sections detail our methodology, results, discussion, and conclusions outlining the implications of this study for the worlds of research and practice.

Academic studies on sanitation in prisons are sparse. Behnke *et al.* (2018) is one of the first published articles in the WaSH literature acknowledging the global problem of access to sanitation services in incarcerated environments. In this article, incarcerated people are included in the broader term ‘*involuntarily displaced populations*’. In addition, a 2019 review of environmental health conditions noted sanitation concerns involving overcrowding, broken toilets, and shared handwashing products (Guo *et al.* 2019). Many studies similarly find prison overcrowding restricts access to safely managed sanitation (Baillargeon *et al.* 2004; Fahrurroji 2020; Aluko *et al.* 2022).

Other articles have continued to reveal strong links between poor sanitation facilities, disease outbreaks, and other physical health impacts. Diseases identified to have a higher prevalence in incarcerated populations compared with non-incarcerated populations include malaria, ringworm, and diarrhea in certain prisons in Nigeria (Okareh *et al.* 2018) and intestinal parasitic infections in certain prisons in Ethiopia and Kenya (Rop *et al.* 2016; Mardu *et al.* 2019). Baillargeon *et al.* (2004, p. e92) found that, in Texas, people who were incarcerated had an increased risk of contracting methicillin-resistant *Staphylococcus aureus* (MRSA) infection because of ‘*overcrowding, poor hygiene and high rates of diseases causing immunosuppression*’. Therefore, although small, the existing body of research agrees that incarcerated populations are at a greater risk of physical health problems (deriving from poor environmental health conditions) than non-incarcerated populations in a given context.

The relationship between safe sanitation, crowded living conditions, and health is fundamental to the WaSH field and strongly applies to prisons as involuntarily shared spaces. Venis (2023) details historic colonial practices of providing water and sanitation to certain areas and not others in order to maintain political power. In the context of prisons, an early journal article set out the ‘Principles of Sanitation and Hygiene for a Correctional Institution’ in the US. Although steeped in outdated social views, King (1935) emphasizes that safe sanitation is essential for preventing disease outbreaks and ill health. Even earlier prison reformers in the late 18th century were reportedly appalled at the state of health and hygiene in US prisons (Porter 1995). Sanitation has always been a political tool and decision, particularly in places of high power asymmetries and, as such, it is severely inadequate to explore the problem from an apolitical perspective.

Further, emotional well-being is a key component of health that has not been widely included in the existing literature. It has long been established that prison environments have adverse effects on mental health (Nurse *et al.* 2003; Wright *et al.* 2014). Few studies have explored the connections between sanitation, environmental health, and mental health (Cox & Marland 2018). However, the COVID-19 pandemic heightened awareness of these linkages. In the US, the pandemic was found to induce severe anxiety and stress in people who were incarcerated, which were compounded by their awareness of health vulnerabilities and ‘unhygienic, overcrowded living conditions’ (Johnson *et al.* 2021).

Therefore, the global literature presents strong correlations between sanitation services, environmental conditions, and physical health. An aspect missing from much of the existing literature is the political structures involved in prison institutions and how these *create* inadequate service provision and *perpetuate* sanitation-related problems such as ‘overcrowding’. The mental health literature more openly confronts political narratives; for example, Cox & Marland (2018, pp. 107–108) write on ‘*institutional] attempts to blame mental illness not on the regime itself but on the unfitness of the convicts to undergo it*’.

METHODOLOGY

Research approach

WaSH is becoming an increasingly transdisciplinary field that recognizes the important political and social dynamics of engineered systems. Bringing together research approaches and methodologies from different fields is recognized as a critical

tool for working on complex, real-world problems (Bernstein 2015). Workman *et al.* (2021, p. 412) discuss the benefits of integrating anthropological approaches, arguing that ‘Scholars must begin to extend the edges of the WASH paradigm’s structure, asking important questions about how we might imagine different WASH futures’.

The premise of our methodology is that, to understand the problems of safe sanitation in prisons deeply, we must start from the lived experiences of people who have been incarcerated. This is one of the most apt ways to reveal service inadequacies and their impacts. We also apply a Human Rights framing, drawing from existing research that shows how holding up the lens of sanitation magnifies political power asymmetries in a given context (Langford *et al.* 2017; Heller *et al.* 2020). In their recent paper, Roaf & Winkler (2024) set out how to invoke the rights to water and sanitation rights in HICs, such as through civil society mobilization. The data and insights from our research support higher-level work on advocacy and prison reform in the US.

Research methods

In this study, we take a mixed-methods approach, drawing from the following: existing academic and gray literature, primary insights from the first author’s autoethnographic knowledge, and supportive Key Informant Interviews (KIIs). Autoethnography (AE) is a novel method for investigating sanitation in prisons. It originates in anthropology but is growing in popularity across disciplines (Chang 2016). Le Roux (2017) writes about the rigor of AE, suggesting the following five criteria: subjectivity, self-reflexivity, resonance, credibility, and contribution. Our research fulfills these criteria, as the researchers are continually self-reflective on their role in the research, and their relationship to it, as described in the subsequent positionality statements. We make a novel, formative contribution to knowledge in this limited field, supporting prison reform efforts, as ‘Autoethnography teaches, informs and inspires’ (Le Roux 2017, p. 204).

Supporting the AE knowledge is an additional dataset of KIIs. The primary author conducted three semi-structured interviews with personal contacts who have previously lived or worked in incarcerated environments in the US. These recounts of different experiences increase the AE criteria of resonance and credibility, but do not stand alone as a full dataset as they are small in number. However, we emphasize their relevance and contribution to this study from its novel perspective of documenting lived experiences. Interviews were analyzed thematically, using the following categories: lived experience (settings), toilet access, toilet privacy, plumbing, water access, disease, officer contributions, and emotions. This enabled the processes of grouping types of experiences and identifying recurring stories.

Positionality and authorship contributions

The primary author (Jesse) is justice-impacted, having spent 19 years in prison. Since his release in 2021, he started the Second Chancer Foundation to facilitate mentor relationships with incarcerated people so they, too, can succeed upon release. He is also an advocate, speaking nationwide about ways to better serve communities and public safety by reforming our criminal legal system. In this article, he intends to highlight the conditions of confinement and the challenges around readapting to society after living in such conditions.

The primary author conducted KIIs and personal communications with contacts from the prison system. As such, no research institutions were involved in this research’s data collection or analysis aspects. The other authors had no contact with research participants, and the informal nature of these communications (not audio recorded, not associated with an institution) made honest and open reflections possible. The identities of the interviewees were fully anonymized from the other authors, and they all gave informed consent to share personal experiences and for these to be used to inform this article in an anonymous manner.

The secondary author (Ruth) is a researcher at the University of Leeds in the UK. Prior to this study, she had little knowledge of the US prison system or the nature of sanitation services in it. Her limited prior knowledge was derived from media and documentary representations of US prisons, which may have influenced her initial picture of these environments. In the writing of this article, she defers to the other authors for specific knowledge of the context, the research problem, and lived experiences of it. Her role was to assist in reviewing the literature and contributing to the article’s writing.

The final author (Kim) is a WaSH consultant and owner of a water communications company – FLUSH – in the US that works to highlight important stories of water and sanitation not often discussed by seasoned professionals. Her experience with WaSH stories while living in US cities on the East and West coasts has shown her firsthand the lack of sanitation services provided to those involuntarily displaced. Previously, she worked in the New York City government on a workforce development program, where she engaged with formerly incarcerated people over 3 years and acquired some knowledge

of the US prison system. She also supported education programs in the city around water stewardship and sanitation access and legal activism groups. Through this work, she was trained on the country's institutional racism and classism. In the writing of this article, she aims to support the primary author by sharing WaSH information and contextualizing it for the context of US prisons, highlighting the Human Rights violations experienced in institutions. Her role was to review the article's content, analyze the anonymized KII reports, and write the results from the analysis.

RESULTS

The four lived experiences for this research comprise that of the primary author AE and three KIIs, one female and two males, all of whom shared consistent challenges with reliable sanitation access in different US prisons. The incarcerations were across four of the country's top 15 most populated states: Virginia, New York, Texas, and California. All recorded accounts included living in prison cells, all but one had experience living in dormitory-styled prison systems, and one reported relevant experience in transport buses.

All experiences reported having access to toilets but that privacy was not permitted when using toilets; this was the most common complaint about toilet access, with accounts for feeling 'exposed' while relieving oneself. Feelings of exposure caused them to feel awkward, not human, and vulnerable to prison staff and cellmates. One shared that privacy depended on proximity to cellmates or the type of cell they were in. Two shared that when incarcerated people tried to create privacy, by using sheets or other means, correctional officers would remove the divider and potentially punish them.

In principle, there is supposed to be no obstruction of officers' view of cells and dormitories. In practice, this is not always possible, and the reality it creates is that bathroom use is witnessed by other roommates and prison staff. The lack of a private and secure environment to use the toilet had severe effects on some incarcerated people, as one described:

'I remember folks in the county jail who had a hard time with privacy. There was one guy who was constipated because he couldn't bring himself to have a bowel movement with other people around. One night, I walked into the bathroom and saw him sitting on a toilet all by himself, with his shirt pulled up over his head – he was trying to pretend that he was somewhere else without people nearby'. (Interview no. 4)

Similarly, the female respondent expressed how the lack of privacy when using the toilet caused her to feel highly exposed and dehumanized. In addition to the standard witnessing of bathroom use, she experienced the further gendered layer of having to use facilities in the presence of male prison officers. A woman's sanitary needs are incredibly personal and often vulnerable, especially in environments of high power asymmetries. She recalled:

'I remember feeling like I wasn't even a person, a woman, at that point. I felt as if I were just a caged animal to be observed, like in a zoo'. (Interview no. 2)

Several also shared that incarcerated people would try to create auditory and olfactory privacy by using 'courtesy flushes', some people found those not using the practice rude and would occasionally retaliate against the toilet user. When toilets were not functioning, this restricted the ability to do so, as recounted:

'Because there was no way for us to 'courtesy flush' when the toilets were broken, we started screaming and singing whenever we made a bowel movement'. (Interview no. 4)

Another common concern was the toilet plumbing. While several accounts indicated that the toilet flushes were powerful and could flush most things down with occasional clogs, one mentioned having leaky toilets with poor or no flushing abilities. Some incarcerated people were trained plumbers to address toilet problems, but service was not always provided.

'I remember my first year in the state prison system I was 17 years old when my toilet stopped working completely. I told the officer, and he claimed he would get the plumber to come fix it. After a couple hours of waiting I called out to the officer again. He kept giving me excuses and told me to pour water from my sink into the toilet to try to flush it that way. I went two

days without a properly working toilet before an officer finally called for the plumber after I threatened to file a grievance'. (Interview no. 2)

Additionally, correctional officers have the power to interfere with plumbing and there were times recalled when they deliberately prohibited incarcerated people from accessing WaSH services. Key informants recounted several experiences of correctional officers locking the plumbing system to prevent flooding during lockdowns, and prohibiting access to water for flushing toilets and drinking water for incarcerated people. One account even mentioned that officers would punish specific incarcerated people by turning off water supply to a cell, and other incarcerated people would pass cups of water so the person locked in their cell could drink, wash their hands, and manually flush the toilet.

Another shared that in transport buses the only toilet available for long distances (around 10 h) would be a hole in one of the bus's seats, without any separation from the others in the bus; if people knew they would be put in a bus for transport, they would withhold from eating or drinking to avoid using the bus toilet hole as much as possible. Rules around bathroom access on journeys vary from state to state. In Virginia, there may be a stop at a waypoint on very long journeys, but bathroom access is not guaranteed or clarified to incarcerated people.

Drinking water access often was not reliable or clean. Some cells had sinks, but boiled water was not accessible when needed, either for hot drinks or for additional treatment when water quality was visibly poor. One experience mentioned having heard about well water being used that could come out of the faucet with a brown hue and that prisoners talked about the water causing acne and indigestion. Some accounts mentioned other water-related diseases in prisons, such as food poisoning and COVID-19, but others did not recall explicit accounts of the disease due to WaSH services. The authors surmise there are risks of increased health problems from sharing toilet cleaning supplies, having toilets in living spaces, and the previously mentioned withholding from using toilets due to privacy issues. Emotional health was noted as compromised by the WaSH systems available to incarcerated people, with accounts recalling feelings of it being 'occasionally miserable', embarrassing, humiliating, awkward, unsafe, and unsanitary.

These experiences reveal some of the realities of living in an incarcerated environment with unreliable and insecure access to sanitation and other WaSH services. This has clear implications for people's well-being, safety, sense of dignity, and potential effects on physical health. In the following section, we discuss the connections between these stories and their implications, using a Human Rights perspective.

DISCUSSION

The experiences described previously share multiple commonalities and themes, which we discuss in this section. These themes are directly relevant to the UN minimum prison standards (UNODC 2015), the American criminal justice standards (ABA 2011), and the Special Rapporteur's report on Human Rights and WaSH services (de Albuquerque 2014). Following our discussion, we conclude by proposing the potential benefits of utilizing a Human Rights-based approach in this context to support person-centered changes and confront political discrimination.

A major theme recurring throughout the literature and lived experiences is the lack of privacy when using sanitation facilities. Accounts clearly show how this impacts people who are incarcerated, eliciting feelings of being 'observed, like in a zoo'. The lack of dignity deriving from no guaranteed privacy restricts safely managed access, according to UN principles, and undoubtedly affects people's emotional well-being. The policy of no obstruction gives officers a basis for removal of privacy covers and extra punishment for constructing them. The experiences in our research show the severe risks to mental health, as well as the gendered dimensions of this for women when they have no privacy from male officers. While physical health effects were discussed less, the act of restricting or holding in urination and defecation is detrimental to physical health (Panchang *et al.* 2022). Further, the risk of disease spread increases substantially when basic sanitary needs are restricted, and when environments are unable to be kept clean.

In addition, we find evidence that those in positions of power in prisons use access to water and sanitation as opportunities to punish and hurt prisoners, such as correctional officers who shut off water to cells. While this often occurred in static prison settings such as cells, we suggest that there is equal, if not even greater, potential for this to take place in transient settings such as on buses. The fact that this power is held by officers creates the opportunity for widespread abuse by some officers, a practice we suggest is often overlooked and sometimes tacitly accepted by institutions. This issue was apparent in the historic literature, as well as the Human Rights literature, and is explicitly defined as torturous or cruel treatment in

the Nelson Mandela Rules; **withholding WaSH is not part of a prison sentence**. Prisons in the US allowing this tactic are violating national and international minimum standards.

The Human Right to sanitation necessitates a safe and secure environment that ‘provides privacy and ensures dignity’ (UN 2015). We find that incarcerated environments are hostile to fulfilling people’s Human Rights, as part of the process of dehumanization. The right to water and sanitation was established in 2010 by the UN resolution 64/292 and recognized by many countries, but the US abstained (Goldburg 2010). While the federal government did not affirm the resolution, states can incorporate the concept into their laws and policies, creating different experiences with access across the nation. For example, California became the first state in the country to include the right to water in its legislation in 2012 (Water Boards 2023). Although not statistically significant, the accounts from our study may reflect this, as the experience of the formerly incarcerated differed based on location. The person incarcerated in California reported a better account of WaSH access than the others in different states; the former incarcerated person in Texas reported particularly major challenges.

Overall, the accounts of sanitation services in incarcerated environments reveal a lack of privacy, dignity, and institutional accountability for prison officers. The impacts of insecure access were described as both physical and emotional, and those with power in the prison environment were able to deny access if they so desired. This is one way in which people who are incarcerated are denied their Human Rights to basic services, contributing to further dehumanization and trauma. This is detrimental not only to the individual but also to society as those individuals recidivate at a higher rate than those who heal from their trauma or, at least, are not further traumatized during their period of incarceration.

CONCLUSIONS

This research contributes to and expands existing published knowledge on WaSH services in prisons, particularly in the US context. Based on the literature and lived accounts, we find that access to sanitation services in US prisons is inadequate due to unreliable access, uncertain quality, a lack of institutional accountability, the omission of privacy, and the implications for personal dignity. Many of the experiences we record detail violations against international water and sanitation Human Rights, standards the US federal government does not yet recognize.

While the federal government has mirrored some of the language from the Nelson Mandela Rules in its minimum standards for prisons, lived experiences contest that these are being upheld. One of the benefits of a Human Rights-based approach is that it highlights the inhumane treatment being meted out in prisons. It is not only that minimum standards are not being met, but also that this has significant impact on the daily lives of the incarcerated people, and their potential for re-integrating back into wider society. The inadequate provision of services, as well as deliberate withholding, shows a prison culture that is not focused on re-integration but on retribution. Conversely, a Human Rights-based approach centers on the inherent dignity and humanity of incarcerated people.

We use sanitation as a lens into the wider political discrimination faced by people who are incarcerated. This article demonstrates that reforming access to basic WaSH services in prisons is impossible without wider institutional reform and restructuring. This restructuring can benefit greatly by integrating rights-based and person-centered approaches that make prisons work for the rehabilitation of people. With this research, we also make a case for further research exploring sanitation in prisons and other settings with involuntarily displaced people to engage politically because, in contexts with high power asymmetries, sanitation is, starker than ever, a political decision and means of control.

While prison reform is a major structural task, there are steps individuals and WaSH organizations can take to support people who are incarcerated. Focusing on something as simple as person-first language can have a profound impact. It is harder to dehumanize and deny basic access to a person than it is to a number or an object. Further, US WaSH organizations can look to advocate to their supporters on improving access to services in prisons, highlighting that it is as much a part of fulfilling Human Rights and Sustainable Development Goals as any of their international work.

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DATA AVAILABILITY STATEMENT

Data cannot be made publicly available; readers should contact the corresponding author for details.

CONFLICT OF INTEREST

There are no conflicts of interests to declare.

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