Unsafe sanitation contributes to an enormous public health crisis, particularly in India, which possesses the world’s highest number of people practicing open defecation.1 Despite toilet building efforts of government and NGO programs, millions of toilets still go unused across India because they fail to meet the needs of users.2

Human Centered Design and Sanitation

Human centered design is an iterative process that places the user at the center of design.3 During a semester-long study abroad program in India, I utilized human centered design principles to understand the features of a desirable toilet across 10 villages in a rural area of Rajasthan, India.

Findings

- 78% of interview respondents reported not using their toilets due to design-related reasons, such as a lack of water connection and adequate size.
- Apparent difference in quality between toilets constructed by household versus government.
- Desire for toilet with water connection, large pits, and other characteristics for comfort.

Methods

1. Individual interviews (n=40) with community leaders, village residents, NGO workers, and government officials
2. Group interviews (n=8) with women’s self-help groups, community leaders, and village members
3. Household observations (n=36) to understand toilet history, usage, and design type

Conclusion

This study showed that ownership over the toilet construction process was a vital factor for usage, as 94% of household-constructed toilets were utilized post-construction. Governments and NGOs can ensure better sanitation outcomes by including users in the decision-making process through incorporating human-centered design principles into their programs.

References