

PRELIMINARY REPORT

2022



Photo: Amelia Conrad, Emory University

MEASURING URBAN SANITATION AND EMPOWERMENT (MUSE) PRELIMINARY FINDINGS: Women in Narsapur, India

BACKGROUND AND METHODS

Background: Women's and girls' roles in household water, sanitation, and hygiene (WASH) are well-documented. Yet, there are limited data on how WASH conditions, programs, and policies impact women's empowerment, or how women's empowerment impacts WASH.

Aim: The aim of the MUSE project is to create and validate measures of sanitation-related empowerment in urban settings. Data generated can be used to inform Citywide Inclusive Sanitation (CWIS) programming.

Methods: The Administrative Staff College of India (ASCI) and Athena Infonomics, in partnership with Emory University, surveyed 720 adult women in Narsapur, India from September 30 to November 25, 2021. Surveys were conducted in zones selected in collaboration with Athena Infonomics. The survey included 16 scales and five indices to assess the three domains of empowerment: Resources, Agency, and Institutional Structures and their associated subdomains, adapted from van Eerdewijk (2017) (Figure 4). The survey also included questions on population demographics, WASH facility access and practices, and relevant WASH experiences related to the COVID-19 pandemic and lockdown. Further validation of scales in other locations is ongoing.

This report presents preliminary findings from the data collected in Narsapur, India.

FUNDER

BILL & MELINDA GATES foundation

PARTNERS

ATHENA INFONOMICS



RESEARCH TEAM

EMORY

ROLLINS SCHOOL OF PUBLIC HEALTH

Bethany Caruso, PhD, MPH
Sheela Sinharoy PhD, MPH
Amelia Conrad, MDP
Madeline Patrick, MPH
Thea Mink, MPH
Rinchen Doma, MPH
Mary Ellen Grap, MPH
Derun Xia

Hubert Dept of Global Health & Gangarosa
Dept. of Environmental Health
Emory University

KEY FINDINGS

- **78%** of respondents reported using a sanitation facility in their own dwelling and **45%** needed to collect water for sanitation.
- The majority of respondents (**83%**) agreed that it is women more often than men who are expected to maintain the cleanliness of their family sanitation facility.
- **38%** of respondents agreed or strongly agreed that others were likely to listen if they spoke up in a community meeting about sanitation issues.
- **26%** reported that they feel comfortable reporting sanitation-related problems to service providers when they arise.
- **More than half (52%)** reported that they would need to ask permission before spending household money on small sanitation-related expenses, such as soap, etc.
- The majority of respondents (**77%**) agreed that women typically have to delay going to a sanitation location more often than men because of their responsibilities.

PARTICIPANT DEMOGRAPHICS

- **33.5 years:** average participant age
- **81.3%** married
- **3.7 people:** average that live in household
- **83.5%** completed at least primary education
- **33.2%** employed outside the home
- **2.6 hours:** average time spent outside home

WASH ACCESS AND PRACTICES

Sanitation

- Almost all respondents (**96%**) used a privately-owned sanitation facility for daytime defecation needs.
- The majority (**78%**) used a facility located in their own dwelling (**Figure 1**).
- **93%** reported their sanitation facility was lockable from the inside.
- **5%** had insufficient lighting inside their sanitation facility.

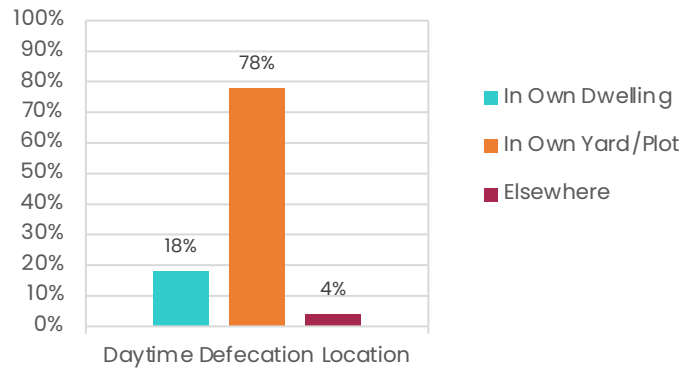


Figure 1. Locations where women reported defecating during the daytime

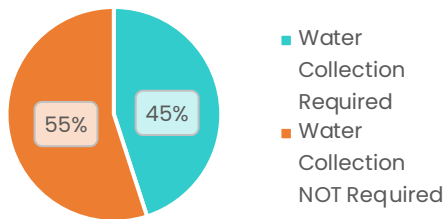


Figure 2. Proportion of women reporting they need to collect water for sanitation

Water

- **45%** needed to collect water for sanitation-related purposes, such as flushing the toilet (**Figure 2**).
- Of those, **52%** had to pay for the water used for sanitation-related purposes.

Menstruation

Among the **65%** of respondents who menstruate:

- **72%** used single-use /disposable materials.
- **25%** avoided engaging in income-generating activities during their periods.
- Most used a toilet (**47%**) outside the house or a bathroom (**38%**) in their house for changing materials (**Figure 3**).

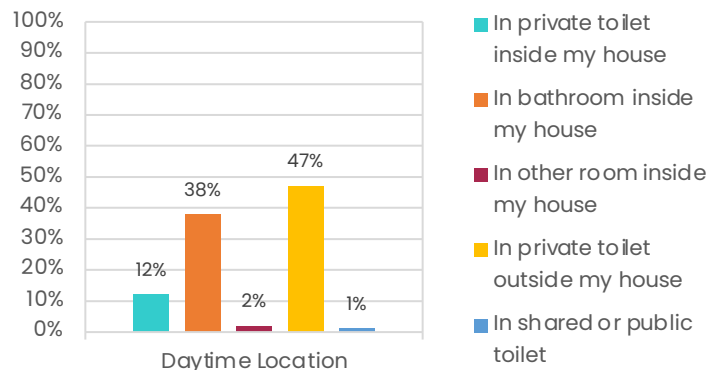


Figure 3. Locations where women reported changing menstrual materials

IMPACT OF COVID-19

As a result of the coronavirus pandemic or resulting lockdowns or restrictions:

- **77%** reported using different location for sanitation.
- **89%** reported difficulties purchasing sanitation-related items.
- **88%** reported difficulties purchasing menstrual materials among those who experience menstruation.
- **66%** reported spending increased time cleaning sanitation location.

EMPOWERMENT DOMAINS

Empowerment, as defined for this study, is composed of 3 domains: Agency, Resources, and Institutional Structures (Figure 4). The MUSE survey includes 16 scales and 5 indices for sub-domains of empowerment within these 3 domains. Below, we present example findings for individual items from each domain.

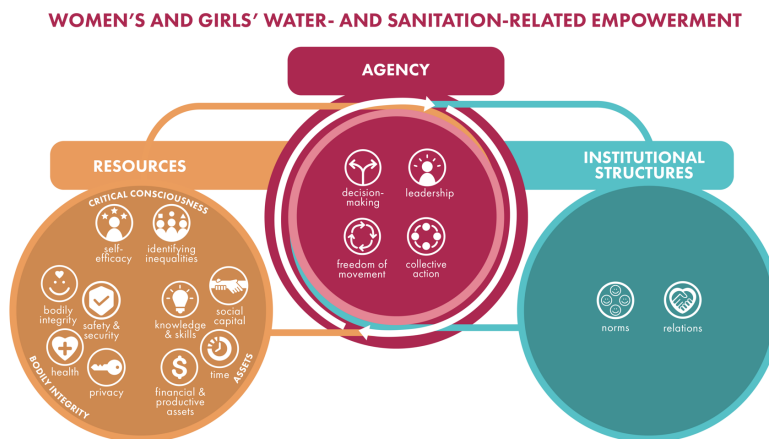


Figure 4. Conceptual Model of Empowerment adapted from van Eerdewijk, et al. 2017.

AGENCY

Agency involves Decision-Making, Leadership, Collective Action, and Freedom of Movement.

Decision-Making

81.8% of respondents agreed or strongly agreed that they would be welcome to participate in a discussion if their household was making a decision about sanitation-related issues. At the community level, 38.1% of respondents agreed or strongly agreed that others were likely to listen if they spoke up in a community meeting about sanitation issues.

Leadership

The majority of respondents (80.6%) agreed or strongly agreed that women are as capable as men to take on official leadership roles in sanitation initiatives.

Collective Action

43.2% agreed or strongly agreed that they were confident members of their community will work with one another to achieve sanitation-related goals.

Freedom of Movement

97.1% of respondents reported that they could go to a sanitation location alone, without asking permission or requiring accompaniment. 70.0% reported that they could go to a community meeting or training outside of their neighborhood alone, without asking permission or requiring accompaniment.

INSTITUTIONAL STRUCTURES

Institutional Structures include the subdomains of Norms and Relations.

Norms

The majority of respondents (83.3%) agreed that, in their communities, it is women more often than men who are expected to assume most responsibilities related to maintaining the cleanliness of the sanitation facility that their family uses. 80.6% agreed that it is appropriate for women to attend sanitation related meetings where men are present.

Relations

66.0% of respondents reported that their family would encourage or help them to participate in a community initiative to improve sanitation. The majority of respondents (75.4%) reported that their interactions with local leaders or authorities about sanitation-related issues are generally free of conflict, and 26.0% reported that they feel comfortable reporting sanitation-related problems to service providers when they arise.

RESOURCES

Resources includes the subdomains of Bodily Integrity, Critical Consciousness, Financial and Productive Assets, Time, Social Capital, Knowledge and Skills and Health, Privacy, and Safety.

Bodily Integrity

The majority of respondents (88.8%) reported often or always felt satisfied with the sanitation location they used most often.

Health

10.4% of respondents reported using a sanitation location often or always that they believed might make them ill.

Safety and Security

9.6% of respondents agreed or strongly agreed that women in their community face the risk of being physically harmed by men or boys when going to sanitation locations. 4.2% personally felt unsafe in the place where they typically go for sanitation during the day in the past 30 days.

Privacy

2.5% of respondents reported that they often or always had to use a sanitation location that was not private enough while at home in the past 30 days.

Financial and Productive Assets

Over half of respondents (52.4%) reported that they would need to ask permission before spending household money on small sanitation-related expenses, such as soap, or pay-per-use latrines. 56.5% reported that they have control over money they could use to pay for household latrine/toilet improvements or repairs.

Time

Over a quarter of respondents (26.1%) agreed or strongly agreed that the sanitation-related needs and responsibilities of their household often make them miss out on other activities they would like to do.

Social Capital

47.8% of respondents reported that they have someone in their household who would help with chores, such as cooking or providing childcare, so that they could tend to their own sanitation needs.

Knowledge and Skills

20.6% of respondents reported that they have skills, like budgeting, organization, or mobilizing, to contribute to sanitation-related projects in their community.

Self-Efficacy

38.2% of respondents felt that they could change sanitation conditions in their community if they wanted to.

Critical Consciousness – Identifying and Questioning Inequalities

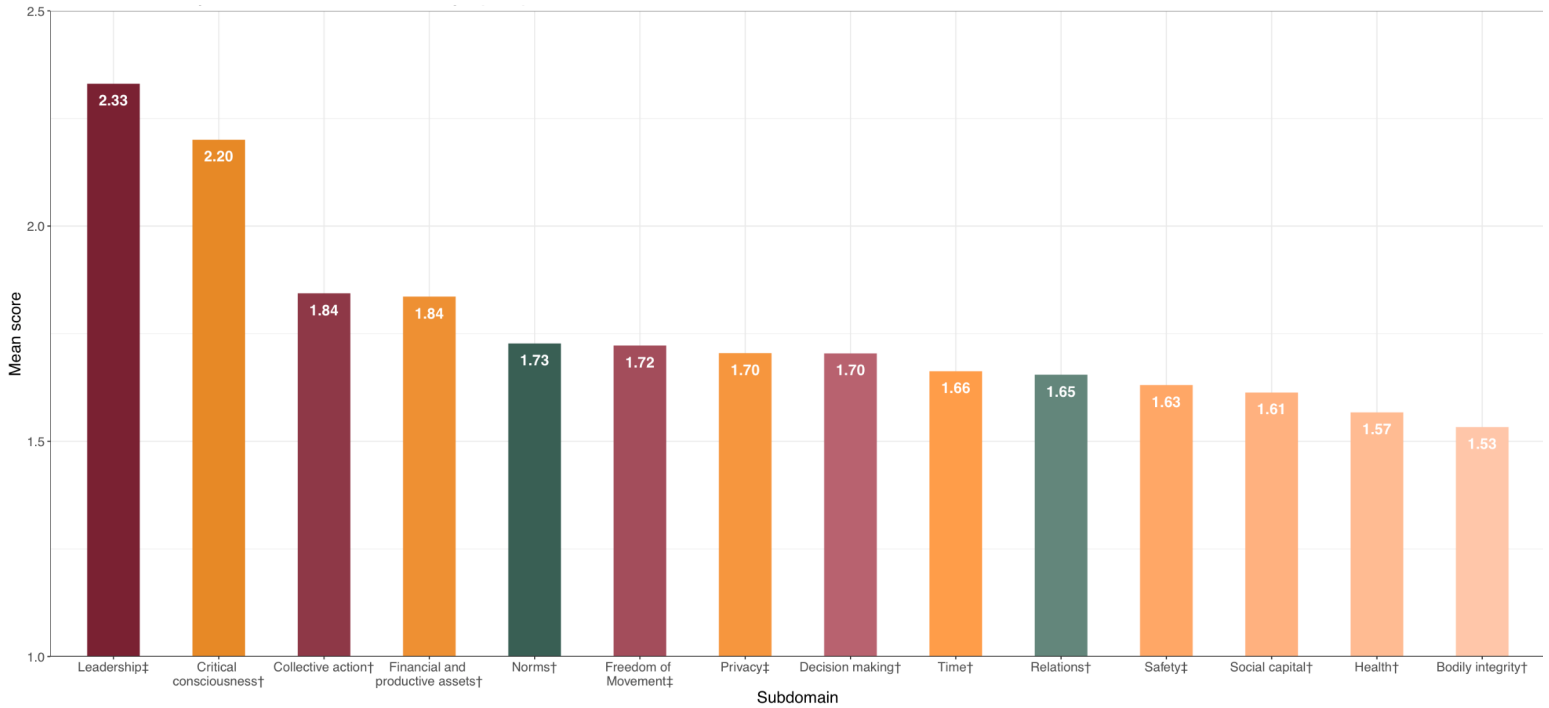
The majority of respondents (76.5%) agreed or strongly agreed that women typically have to delay going to a sanitation location more often than men because of their responsibilities.

PRIORITIZATION OF EMPOWERMENT SUB-DOMAINS

To learn how participants prioritized the empowerment sub-domains, participants were asked about the degree to which each empowerment sub-domain was a concern or a problem to them.

For each sub-domain prioritization question, participants responded to scores ranging from 1 to 4. Higher scores indicate a greater priority. The prioritization scores were then averaged across participants.

The two highest mean prioritization scores were: Leadership (2.3) and Critical Consciousness (2.2) (**Figure 5**).



† Indicates degree to which subdomain is a concern

‡ Indicates degree to which subdomain is a problem

The scores range from 1 to 4:

(1) Not concerned at all (2) A little concerned (3) Moderately concerned (4) Extremely concerned

(1) Not a problem (2) A very small problem (3) A medium sized problem (4) A big problem

Figure 5. Participants’ prioritization of empowerment sub-domains

REFERENCES

van Eerdewijk, A. H. J. M., Franz Wong, Chloe Vaast, Julie Newton, Marcelo Tyszler, and Amy Pennington. "White paper: A conceptual model on women and girls’ empowerment." (2017).