

# PRELIMINARY REPORT

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Photo: Amelia Conrad, Emory University

## MEASURING URBAN SANITATION AND EMPOWERMENT (MUSE) PRELIMINARY FINDINGS: Women in Warangal, 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 703 adult women and 300 adult men in Warangal, India from August 12 to September 9, 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 Warangal, India with adult women.**

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BILL &  
MELINDA  
GATES  
foundation

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ATHENA  
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### KEY FINDINGS

- **92%** used a privately-owned sanitation facility and **38%** needed to collect water for sanitation purposes.
- The majority of respondents (**79%**) agreed that, in their communities, women are more often expected to assume most responsibilities related to maintenance of their family's sanitation facility.
- **19%** of respondents agreed that women in their community face the risk of being physically harmed by men or boys when going to sanitation locations.
- **33%** agreed that the sanitation-related needs and responsibilities of their households often make them miss out on other activities.
- Over half (**59%**) agreed or strongly agreed that women typically have to delay going to a sanitation location more often than men because of their responsibilities.

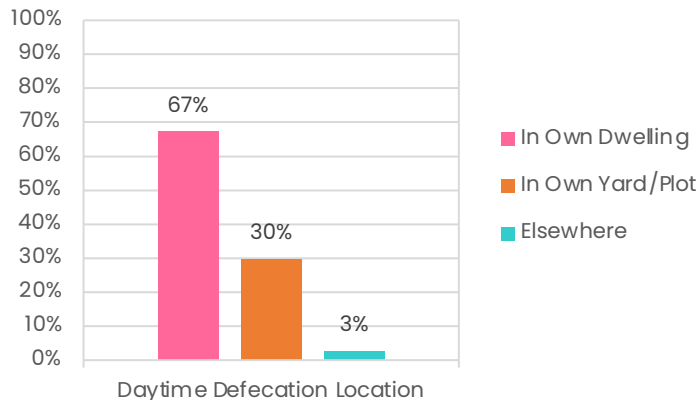
### PARTICIPANT DEMOGRAPHICS

- **35.2 years:** mean participant age
- **87.8%** married
- **90.5%** completed at least primary education
- **48.2%** employed outside the home
- **3.5 hours:** mean time spent outside home
- **3.9 people:** mean household size

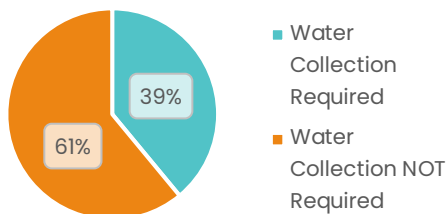
### WASH ACCESS AND PRACTICES

#### Sanitation

- **92%** used a privately-owned sanitation facility for daytime defecation needs.
- **67%** used a facility located in their dwelling (**Figure 1**).
- **76%** reported their sanitation facility to be lockable from the inside.
- **7%** had insufficient lighting inside their sanitation location.



**Figure 1.** Locations where women reported defecating during the daytime



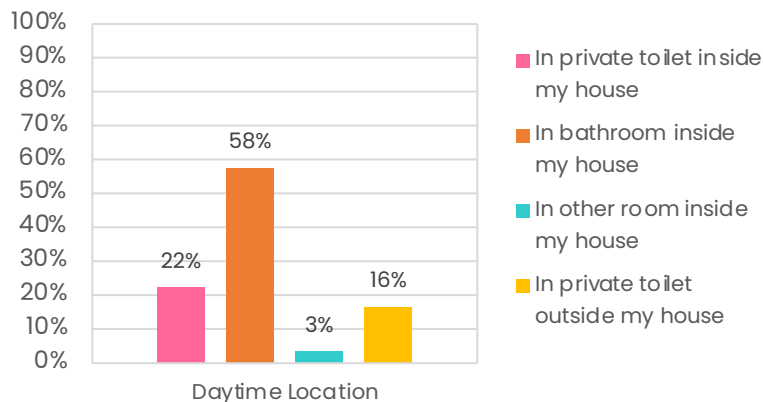
**Figure 2.** Proportion of women reporting they need to collect water for sanitation

#### Water

- **39%** needed to collect water for sanitation (**Figure 2**).
- Of those, **37%** had to pay for the water used for sanitation-related purposes.

#### Menstruation

- Among the **80%** of respondents who menstruate:
  - **80%** used single-use /disposable materials.
  - **23%** avoided engaging in income-generating activities while menstruating.
  - Most used a bathroom (**58%**) or toilet (**22%**) in their house for changing materials (**Figure 3**).



**Figure 3.** Locations where women reported changing menstrual materials

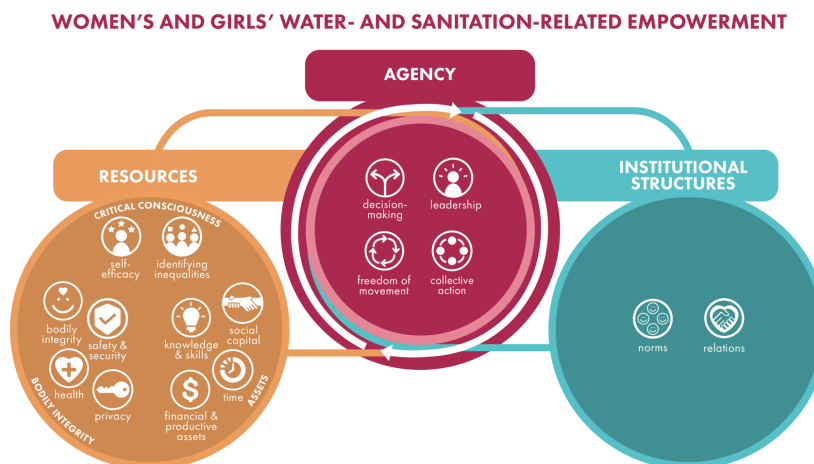
### IMPACT OF COVID-19

#### As a result of the coronavirus pandemic, including resulting lockdowns and restrictions:

- **59%** reported using a different location for sanitation
- **89%** reported difficulties purchasing sanitation-related items
- **86%** reported difficulties purchasing menstrual materials (among those who menstruate)
- **63%** reported spending more 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

81.2% respondents agreed that they would be welcome to participate in a discussion if their household was making a decision about sanitation-related issues. 39.7% of respondents agreed that others were likely to listen if they spoke up in a community meeting about sanitation issues.

#### Leadership

The majority of respondents (82.2%) reported feeling women are as capable as men to take on official leadership roles in sanitation initiatives.

#### Collective Action

Less than half of respondents (45.1%) agreed that they were confident members of their community will work with one another to achieve sanitation-related goals.

#### Freedom of Movement

The majority of respondents (92.9%) respondents reported that they could go to a sanitation location alone, without asking permission or requiring accompaniment. 72.0% of respondents 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 (79.0%) agreed that, in their communities, women are more often expected to assume most responsibilities related to maintenance of the sanitation location that their family uses. 72.0% of respondents agreed that it is appropriate for women to attend sanitation related meetings where men are present.

#### Relations

The majority of respondents (63%) reported their families would encourage participation in community initiatives to improve sanitation. 74.4% also reported feeling comfortable to report sanitation-related problems.

## 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 (85.2%) felt satisfied with their sanitation location.

### Health

16.2% of respondents reported using a sanitation location often or always that they believed might make them ill.

### Safety and Security

19.1% of respondents agreed that women in their community face the risk of being physically harmed by men or boys when going to sanitation locations. 6.0% personally felt unsafe in the place where they typically go for sanitation during the day in the past 30 days.

### Privacy

4.7% 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

54.2% of respondents 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. About half of respondents (49.5%) also reported that they have control over money they could use to pay for household latrine/toilet improvements or repairs.

### Time

About a third of respondents (33.4%) 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

46.2% 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

27.5% respondents reported that they have skills to contribute to sanitation-related projects in their community.

### Self-Efficacy

36.3% of respondents felt that they could change sanitation conditions in their community if they wanted to.

### Critical Consciousness – Identifying and Questioning Inequalities

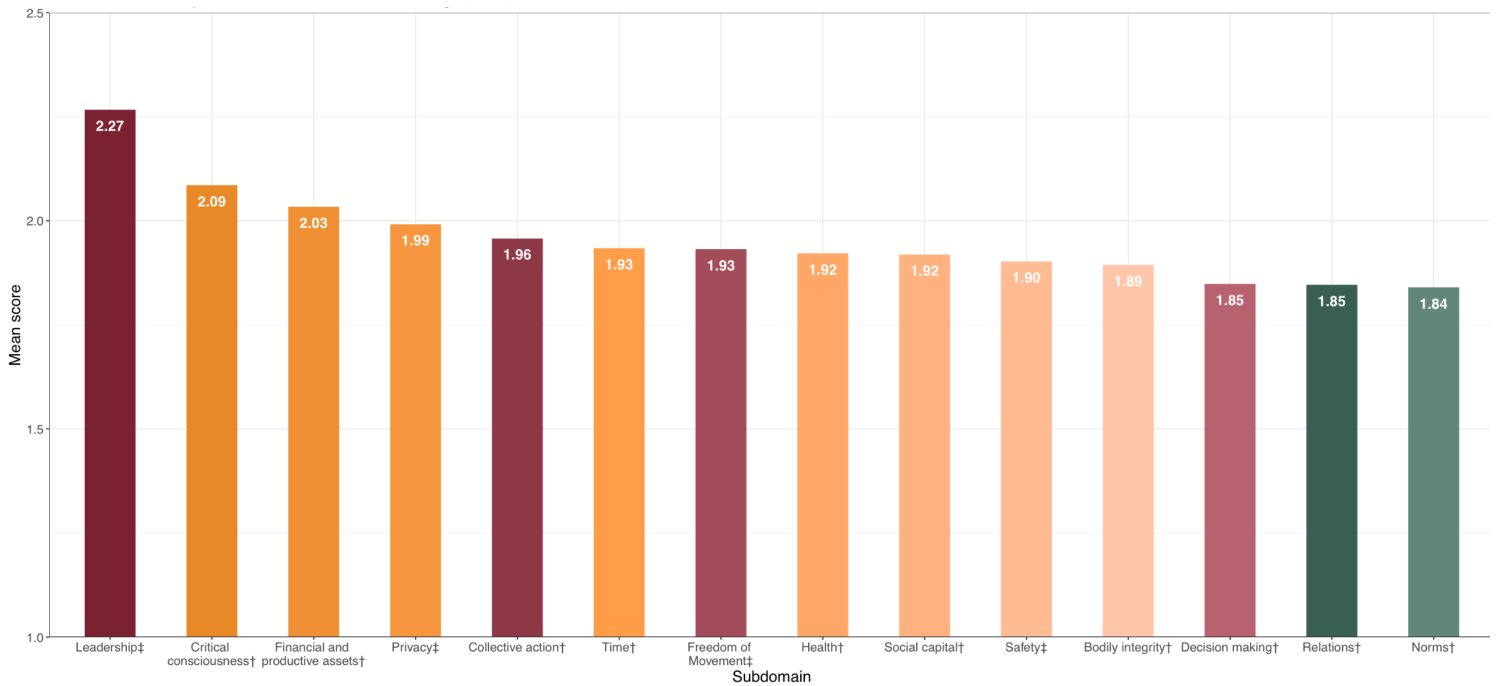
Over half of respondents (58.9%) agreed or strongly agreed that women typically have to delay going to a sanitation location more often than men because of their responsibilities.

## 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 (2.1). Notably, the Relations and Norms sub-domains had the lowest mean prioritization scores (**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).