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CASE STUDIES IN GENDER INTEGRATION:

Sanitation Product and Service Delivery in Kenya

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INTRODUCTION

Thomas, Sanitation's Toilet Servicing Representative, collects the waste from Sanitation's container-based "bluebox" toilet in the Karagita community. Photo: © Eric Wilburn, Sanitation

Gender matters across the sanitation value chain. It influences user behaviors and levels of participation and performance in the sanitation sector, as well as uptake of sanitation product and service design. To fully understand the role gender plays in sanitation, it is important to look beyond just biological (i.e., sex) differences and consider how cultural practices, beliefs, and norms related to gender and sanitation affect men and women.

Lack of awareness about gender differences and inequalities can create barriers to effective sanitation programming. Effectively integrating a gender lens in sanitation programming, on the other hand, can reveal important differences and inequalities. It can also support more tailored approaches to ensuring sanitation outcomes are achieved for all and that gender inequalities are not perpetuated.

The interplay of gender and sanitation is bidirectional: sanitation programs can be leveraged to improve gender equality and promote women's empowerment, and gender inequality can be addressed as a way of improving sanitation outcomes. These do not need to be in conflict with one another, and can in fact lead to improved outcomes in both dimensions. However, gender integration must be intentional in order for this synergic effect to occur.

This case study in gender and sanitation is part of the Bill & Melinda Gates Foundation's Gender Equality Toolbox, which includes a series of case studies and other resources for supporting Program Officers in applying a gender lens to

their investments. Note that not all of these case studies are foundation-funded programs and a program's inclusion in this series does not indicate an endorsement by the foundation.

The case studies are intended to offer readers an opportunity to unpack and understand the role of gender differences in driving sanitation outcomes, how programs identify and seek to address these differences, and whether they also promote gender equality and women's empowerment. The cases are *not* meant to be perfect examples of how gender differences are identified and managed, but are meant as a learning tool intended to:

1. Provide insight into specific areas where gender differences exist along the sanitation value chain.
2. Showcase real programs that have intentionally worked to integrate a gender lens into their delivery, whether from the outset or as a course correction.
3. Examine challenges and emerging lessons about integrating gender across programming and policy.

Each of the three sanitation sector cases focuses on different parts of the value chain to illustrate the many ways that gender impacts sanitation outcomes for men and women.

This case summarizes one program's exploration of the role of gender in product and service design and execution in Kenya (Figure 1).

Figure 1: Sanitation value chain



OVERVIEW

A "bluebox" toilet, serviced by Sanivation, is installed in the homes of the urban poor in Naivasha, Kenya. Sanivation's aim is to increase the amount of human waste that is safely managed in Kenya, improving the health and environment of local communities. Photo: © Sanivation

This case provides an example of a social enterprise that worked to change its sanitation product and service delivery to account for gender differences and barriers to access. In Kenya, 95% of human waste is not disposed of safely. Communities lack safely managed sanitation systems, whether regularly emptied and treated septic tanks, pit latrines, or centralized sewerage systems. The water, sanitation and hygiene (WASH) sector estimates that it would cost \$4.8 billion for Kenya to have adequate sewerage. Sanivation, a social enterprise across East Africa, identified this as a market failure and aimed to design cost-effective and non-sewered sanitation options for urban and peri-urban communities. Though the Sanivation team conducted consumer research upfront to understand the current state of the problem and community needs, limited attention was paid to gender inequalities and gender dynamics that may influence uptake and use. As Sanivation implemented its work in Kenya, the role of gender in sanitation use became evident. This case explores how Sanivation adjusted its consumer research, sales, and product maintenance processes to begin to account for these gender inequalities.

Program description

Sanivation's model integrates sanitation services along the entire value chain, from in-home services to resource treatment and value recovery (making and selling waste-derived charcoal briquettes). The company's theory of change anticipates that this approach will improve sanitation outcomes, address health and environmental concerns, and generate sufficient revenue to cover costs, improving the sustainability of the service. The enterprise installs container-based toilets in homes free of charge and collects a monthly fee to service the toilets. These in-home, container-based toilets, called BlueBox, serve as an alternative to in-home and shared pit latrines in communities that lack access to a centralized sewerage system.¹

The rapid iteration process for product and service development is designed to help Sanivation to react quickly to problems as they arise. For example, the consumer research team noticed an increasing frequency in missed monthly payments for utility servicing. Once families missed one payment, they were rarely able to make up the difference the next month. The team revisited its original pricing structure and decreased monthly fees from 600 Kenyan Shillings (KSH) to 200KSH to be more in line with national averages on percentage of income spent on WASH services. After adjusting its price, the team saw an immediate reduction in default rates and improved consistency in cash flow, enabling Sanivation to better plan future investments and growth.

This household-based model has been operational in Naivasha, Kenya, since 2015 and in Kakuma, Kenya, since 2016.² To date, Sanivation has serviced 150 households, treated 10 tons of fecal sludge, and sold 50 tons of byproduct charcoal briquettes.^{3,4} The Sanivation team aims to serve 1 million people with improved sanitation services throughout East Africa by 2022 and regularly tracks the number of households' waste that is safely managed.⁵

Sanivation is testing several prototypes for products and services across its two sites in Naivasha and Kakuma. The company anticipates expanding its services by brokering public-private partnerships to engage entire communities as preferred or government-service providers.⁶ The current model relies on direct sales to households, but the Sanivation leadership team is in discussion with the government to explore the opportunity to expand through the public-private partnership model.



For more information about Sanivation, visit the program's website: www.sanivation.com

Understanding customers and use

The BlueBox customer base is assumed to include all members of the household. In 2016, Sanivation conducted a household-level survey to understand customer and household demographics, product use patterns, product satisfaction levels, subscription drivers, and payment preferences. Data collected about individual household members included sex, age, education level, and employment status. Surveys were conducted with one respondent from each of 57 households, with both men and women as respondents. Surveyed households included some of the most vulnerable groups in society: 20% of household members were senior citizens, 41% of the households included at least one child, and just under 10% were disabled.^{7,8}

The majority of survey respondents reported being content with Sanivation's product and service, with 72% of respondents noting they were very satisfied with the service. Men and women described common challenges and preferences in using Sanivation's BlueBox. The survey found that households' primary stated reason for subscribing to BlueBox was "safety of having a toilet in home" (one-third of all respondents), followed by "convenience" at 18%. More specifically, both men and women mentioned that going to the latrine when it's raining or the middle of the night is uncomfortable and a nuisance. Lack of space for a permanent toilet was commonly mentioned as a reason for subscribing.

The survey also identified some important challenges. The survey found that the majority but not all members of households used the BlueBox, with 12% of women and 15% of men reporting non-use.⁹ The survey also flagged practical challenges with payment, material and design preferences, and issues with urine smell.

At the same time, staff noticed that acquisition of new customers and users was starting to slow, and customer retention declined. Inconsistency in volume of waste pick up suggested inconsistent use patterns within the household from week to week.

The survey did not, however, include open questions, making it challenging for the team to uncover preferences or dynamics outside the boundaries of the targeted survey. Including only one member per household in the survey limited exploration of relevant power dynamics and gender differences within the household.

Gender-related barriers and opportunities

To better understand the drivers behind the above findings, the Sanivation team decided to conduct additional qualitative research to unpack preferences and use patterns among different members of the household. The interviews focused on gender differences among customers and users, as well as the particular barriers that women and girls face related to menstruation. The following results were reported:

Menstruation concerns: Sanivation's servicing staff, who collect BlueBox waste each week, noticed that many women were still choosing to use public pit latrines instead of in-home toilets during menstruation. During interviews, the team found that women were embarrassed by anybody else, including their family members and Sanivation servicing staff, seeing their period blood. Roughly 15% of women interviewed expressed concerns about men servicing toilets, with menstrual waste as a contributing factor. Additionally, where the toilets were placed within the household and privacy concerns were noted as drivers for using public pit latrines during menstruation.¹⁰ This is important because more than 90% of all women surveyed also reported feeling unsafe using the public pit latrines at night.



A child showing off his child-friendly bluebox toilet in Naivasha, Kenya. Photo: © Sanivation

Christophe Okuria empties a pit latrine manually in the Korogocho slum in Nairobi, Kenya.
Photo: © Bill & Melinda Gates Foundation/Frederic Courbet



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Gender dynamics and marketing: Through the qualitative interviews, household gender dynamics with important implications for marketing strategies began to emerge. In Naivasha, women said they were embarrassed and intimidated to talk with their husbands about sanitation. Women also reported that when sales and servicing staff were present, they felt more comfortable speaking with their husbands about sanitation. Women also reported being more likely to open up about their sanitation needs and preferences with female sales and servicing agents.

Norms around masculinity and stigma: The interviews also revealed insights about men's usage patterns that appeared to be driven by norms around masculinity and pressures to conform. Men noted using toilets only to defecate, not to urinate, and expressed less of a need or interest in having a toilet in the home.¹¹ Many men felt that the toilet represents emasculating characteristics like weakness, fear, and illness. One man interviewed said, "If I used BlueBox, my friends might think, 'What's wrong with him that he can't squat?'" Husbands and religious leaders have gone so far as to condemn the presence of waste in the house and encourage men to refuse Sanivation's services.

Some men cancelled or refused to sign up for the service despite the salient needs of others in their families. During the interviews, Sanivation found cases of men requiring their wives to return the toilet after it was installed and being used. In one case, a woman who was healing from birth complications had to travel with her infant and 1-year-old child to the community pit latrines each time she needed to use the toilet, putting herself and her children at risk of health complications. While her husband was working away from home, she was introduced to Sanivation's container and service model and signed up for a toilet (\$2 fee) and three months of servicing. When her husband returned, he refused to have the toilet in the home, calling it unsanitary. Sanivation was asked to remove the container. The woman was devastated. "She came to us crying after her husband made the decision and neglected to consider her needs," Sanivation staff said.¹²

Programming to address barriers and promote opportunities

In an effort to address these gender differences, and specifically barriers for women to access toilets, the Sanivation team adjusted its sales and approach to customer service and community engagement.

Female client service manager: As a first step, Sanivation created a client service manager position based in the community to engage with women users directly and ensure that women's needs were identified and addressed. The staff intentionally hired a woman for this role, in response to some of the intra-household dynamics and to ensure women could comfortably and safely use the in-home facilities even during their menstrual cycles. By tracking BlueBox use through toilet servicing and waste collection, Sanivation staff found that they could identify households where women do not appear to be using the toilets consistently, and the client service manager could follow up with those households directly. The client service manager oversees about 100 clients.

Training updates: Sanivation updated its training module for servicing staff to raise awareness about gender differences and sensitivities around engagement among male servicing agents.¹³ Part of this includes having them coach women during installation about how to use the toilet during menstruation and ensure that their privacy concerns are addressed at the outset. The training also includes tactics for cleaning the toilets and maintaining them between servicing.

Public awareness campaign: Sanivation sought to address misperceptions among men about the value of investing in sanitation, specifically in in-home facilities. To do this, Sanivation created a campaign to engage men and religious leaders to combat misperceptions about in-home toilet facilities and waste.¹⁴ The organization is building partnerships with the health sector to engage men at the household level with sanitation messaging.¹⁵ This effort will include public awareness campaigns and community-based conversations to underscore the importance of in-home toilets for women, girls, and other underrepresented groups that have expressed a need or preference for in-home toilets.¹⁶ Sanivation already has a supportive relationship with the public health department, which has helped to advertise BlueBox to households via clinics and other public venues.¹⁷

School services: Sanivation is exploring opportunities to provide products and services to schools, including opportunities to better understand and accommodate the needs of menstruating girls.

Internal alignment: Sanivation continues its efforts to address gender barriers and promote equal opportunities within the organization. Sanivation's staff is small, but its leaders aim to have an equal number of male and female employees across all levels and roles. When disparities arise, the team seeks to understand the causes. For example, staff surveys found that local women on Sanivation staff do not know how to drive tuk tuk vehicles, so all waste collectors/drivers are men. On the other hand, Sanivation found that female staff members have greater attention to detail and make higher-quality repurposed fuel products.

Sanivation created a campaign to engage men and religious leaders to combat misperceptions about in-home toilet facilities and waste.

Measurement and evaluation

Each quarter, Sanivation tracks revenue, gross margins, client growth rates, retention rates, cost breakdown, adjusted sales projections, and client satisfaction. The team also tracks safety incidents as part of its servicing process.

The customer survey collected information on sex, income level, and employment status of household respondents, but the data are not tracked on an ongoing basis. To capture its social impact, Sanivation measures the following metrics:

- **Well-being:** People with improved sanitation services, measured at the household level; number of men and women employed by Sanivation.
- **Health:** Tons of infectious waste safely treated and transformed; percentage reduction in diarrheal diseases.
- **Environment:** Tons of briquettes sold; trees saved for every ton of briquettes sold.

While Sanivation is not systematically measuring changes in agency among women or shifts in decision-making power between men and women in the household, they continue to use qualitative interviews, feedback from servicing staff, and customer manager insights continue to be the key channels for Sanivation to surface gender differences.



A mother and child in Mwea Village, Kenya.
Photo: © Bill & Melinda Gates Foundation

Sanivation continues its efforts to address gender barriers and promote equal opportunities within the organization.

Conclusion

Through its survey, qualitative interviews, and monitoring patterns in weekly servicing and waste collection, Sanivation uncovered unexpected insights about gender differences in in-home toilet use. By creating a new community-based client

service manager position, improving its training, and mounting a public service campaign, Sanivation worked to target these barriers to women's access and use, to expand the use of in-home latrines, and to improve sanitation outcomes for all.

Use the discussion questions below to guide your analysis of this case study on gender and sanitation. Consider what seems to have been done well, and what might have been done differently to improve how gender was identified and addressed in product and service design and execution:

- 1. What gender differences and gender-based barriers to the product and service did Sanivation identify? What additional information would help better explain gender dynamics at the household level?**
- 2. How did Sanivation identify this information? Was this an effective method for data collection? What changes might have improved collection and analysis of information on gender difference?**
- 3. Which gender-based barriers do you think the program addressed well? Which ones were not addressed or might have seen more success if addressed differently?**

END NOTES

1. Sanivation, Sanivation Household Survey Report, 2016.
2. Sanivation, *Sanitation as a Service*, April 2017, unpublished internal document.
3. Note: Briquettes are blocks of compressed charcoal or coal dust used as fuel.
4. Note: The urban community-based service model projects a market size of \$67 million per year in Kenya. Sanivation also partners with institutions such as multilaterals, NGOs, and governments to provide sanitation services to refugee camps and estimates the market size could be as large as \$30 million. The affordable fuel produced during this process produces three hours of heat and burns longer than coal, the current energy alternative. The charcoal briquette produces less smoke and saves 88 trees for every ton of fuel sold. To break even, the team estimates they will need to sell 4.4 tons of briquettes per day, which is a significant increase over the 50 tons sold over the past year.
5. Sanivation, "Sanivation as a Service," sanivation.com (accessed May 16, 2017).
6. Sanivation, *Sanitation as a Service*, April 2017, unpublished internal document.
7. Sanivation, Toilet Product Market Fit Analysis, 2016 (internal PPT document).
8. Sanivation adolescent girls focus group learnings
9. Note: Non-users refers to members of households that subscribe to Sanivation's service but that explicitly noted they do not use the product.
10. Sanivation, Sanivation Household Survey Report, 2016.
11. Sanivation, Sanivation Household Survey Report, 2016.; Emily Woods (CTO & Co-Founder, Sanivation), interview with FSG, April 14, 2017.
12. Emily Woods, interview with FSG, April 14, 2017.
13. Effie Otila (Toilet Service, Sanivation), interview with FSG, May 9, 2017.
14. Elise Guinee Cooper (Design, Sanivation), interview with FSG, May 9, 2017; Emily Woods, CFO, Sanivation, Interview with FSG, May 2, 2017; Jane Mugo, Sanivation Sales Team Lead, Interview with FSG, May 9, 2017.
15. Andrew Foote (CEO and Co-Founder, Sanivation), May 2, 2017.; Emily Woods, interview with FSG, April 14, 2017.
16. Jane Mugo (Toilet Sales Leader, Sanivation), interview with FSG, May 10, 2017.
17. Emily Woods, interview with FSG, April 14, 2017.