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Positive Effects of Sanitation Subsidies Reach Poor and Vulnerable Households

Ghana



TRANSFORMING EVALUATIONS INTO ACTION

Evaluation evidence is informing the Government of Ghana's new sanitation subsidy policy and influencing programming. An impact evaluation showed that targeted subsidies for toilet construction can result in better outcomes, as well as provided lessons on the trade-offs between different targeting methods to identify eligible households.

CONTEXT

Growing evidence suggests that the world's poorest and most vulnerable households do not benefit from sanitation programs—including behavior change-focused sanitation programs like community-led total sanitation—as much as their wealthier, less vulnerable counterparts. Poorer households are more likely to construct lower-quality, low-durability toilets and thus revert to open defecation when the programs end and their latrines fail or fill. To reverse this trend, some studies in Asia point to targeted subsidies as a way to achieve positive effects on sanitation outcomes at the household level (with significant community spillover effects), but the evidence base on subsidies' effectiveness in Africa is smaller.

The Ghanaian government's recent pro-poor policy provided an opportunity to study the effect of targeted subsidies on household sanitation outcomes after communities are declared open-defecation free. A research partnership between the U.S. Agency for International Development's (USAID) Water, Sanitation, and Hygiene Partnerships and Learning for Sustainability (WASHPaLS) project, UNICEF Ghana, and the Tatale and Kpandai District Assemblies in the country's Northern Region theorized that if targeted subsidies were provided to the poorest households, they would help increase toilet coverage, quality, and use within the households, as well as encourage the rest of the community to construct and use toilets.

EVALUATION METHODOLOGY

To test this theory, the research team conducted an [impact evaluation](#) in rural communities in Ghana that utilized a cluster randomized controlled trial.¹ The research team randomly selected 109 communities in two districts of the Northern Region that had been declared open-defecation free from 2016 to 2018 to participate in the trial. Of these, 59 were randomly assigned to the treatment (subsidy) group and 50 to the control (no subsidy) group. The team identified households in both communities that met criteria of being “poor and vulnerable” to be eligible to receive subsidies in the form of vouchers.² In treatment communities, 14 percent of households (441 households) were classified as voucher-eligible. All voucher-eligible households in the treatment group redeemed their vouchers, which were used to select one of three toilet substructure types, installed by local artisans; the household was responsible for digging the pit and constructing the shelter. Both at baseline and endline, the research team surveyed all households in study communities (5,615 at baseline; 5,863 at endline) to document sanitation behaviors of both voucher-eligible and non-eligible households. To analyze the effect of the subsidy program on sanitation outcomes, the team compared the change over time in treatment areas compared to control areas.

EVALUATION FINDINGS

Across study communities, sanitation conditions deteriorated from baseline to endline, with increased rates of open defecation and lower levels of toilet coverage. However, the impact evaluation showed a clear benefit to using targeted subsidies to improve sanitation outcomes and sustainability among voucher eligible households. The voucher-eligible households in treatment communities saw positive impacts despite the overall decline in sanitation conditions in the community. Most of the toilets these households (co-)owned and used had durable substructures (due to the vouchers) and full superstructures (paid for by the household or other community members). In voucher-eligible households, open defecation declined from 25 percent at baseline to 18 percent at endline in the treatment communities. However, in control communities, as a result of reduced ownership of functional toilets primarily due to toilet collapse (substructure, superstructure, or both), open defecation by voucher-eligible households increased from 28 percent at baseline to 68 percent at endline.

Across the treatment communities, the targeted subsidy program also produced some positive spillover effects: non-eligible households benefited through sharing of subsidized toilets if a voucher-eligible household lived in the same compound. Additionally, while open defecation increased as a whole across all formerly open-defecation-free communities from baseline to endline (due to the increase in open defecation among non-eligible households), it increased less in the treatment communities.

ACTION BASED ON EVIDENCE FROM THE FINDINGS

The evidence from the impact evaluation shifted policy in water, sanitation, hygiene and community-led total sanitation programming in the region. Motivated by the findings, the sanitation sector of the Ghanaian government is increasingly utilizing targeted subsidies for latrines as one of its key financing mechanisms for on-site sanitation. The government is also considering the lessons learned from the evaluation (listed in the section below) on the need to refine targeting strategies to best reach the poor and vulnerable and achieve equity.

¹ All impact evaluations in the Evidence to Action briefs follow USAID standards as defined in ADS 201.3.6.4. For more information, see the [USAID Evaluation Policy](#) and the full [WASHPaLS Impact Evaluation](#).

² Thirteen percent of households in control communities (324 households) were classified as voucher-eligible and did not receive vouchers. These households were classified for study comparison purposes only.



USAID/Ghana’s Enhancing Water, Sanitation, and Hygiene project used the impact evaluation’s conclusions and recommendations to make provisions for pro-poor latrine subsidies with clear targeting strategies to benefit project communities, keeping in mind the need for more resilient latrines in difficult terrains and the need for equity. The research also helped USAID/Liberia’s design team revise their underlying assumptions about sanitation markets in Liberia and the aspirations of different market segments to improve programming design.

LESSONS LEARNED

- **Sanitation interventions cannot function independently.** Community-led total sanitation approaches can change sanitation behaviors, but the construction of non-durable latrines built exclusively from local materials compromises the sustainability of the behavior change. The availability of high-durability sanitation components requires a functioning sanitation value chain. However, sanitation value chains are typically weak or nascent in many countries and require additional support. Market-based sanitation activities, governance improvements, and targeted subsidies are all options that can be combined to address the limitations of any single approach.
- **Meeting countries where they are at can increase uptake.** The WASHPaLS research team first determined a general research question: *What is the impact of targeted subsidies on sanitation outcomes?* The team then had to select an appropriate country in which to implement a study to answer the research question. They chose Ghana because it had recently enacted a sanitation subsidy policy that provided useful context for the research. By partnering closely with the Ghanaian government from the beginning, the study provided fit-for-purpose learning that directly informed the government’s work. The research team personally presented research results to Ghana’s Ministry of Sanitation and Water Resources and shared the study results widely, holding national learning workshops to discuss results with local implementing partners, nongovernmental organizations, contractors, and the Ghanaian government. The team also encouraged uptake of results by offering technical assistance to those who wanted to include these lessons in their programming.
- **Community consultation is a valid, but costly, targeting method.** Future sanitation programs should first consider utilizing existing poverty or social support systems to target eligible households, then test these approaches to determine their accuracy. If these systems are not available or deemed too inaccurate, then community consultation is a valid approach. As recommended by the Guidelines for Targeting the Poor and Vulnerable for Basic Sanitation Services in Ghana (also referred to as the “Pro-Poor Guidelines”), the research team interviewed community members to designate households meeting their local definition of poverty. Such households were significantly more vulnerable than the rest of the population. This method was expensive—it cost nearly as much to administer the program as the subsidy itself. However, the research team found targeting households by using Ghana’s existing social support program, Livelihood Empowerment Against Poverty, would be far cheaper as an identification method but would result in the identification of ineligible households (while leaving out some eligible households), resulting in higher program costs overall (\$4,500 per community compared to \$2,000 per community using the community consultation method). Beyond higher program costs, over-identification of households means a number of households that could afford sanitation infrastructure would receive subsidies, creating a detrimental impact on the local market and other households’ willingness to pay.³

³ The following provides further analysis of the process used to identify households for eligibility to receive subsidies 1) [The Impacts of Targeted Pro-Poor Sanitation Subsidies within Open Defecation Free Communities in Northern Ghana](#); 2) [Identifying Households Eligible for a Targeted Sanitation Subsidy in Rural Ghana - Technical Brief](#); 3) [Identifying Households Eligible for a Targeted Sanitation Subsidy in Rural Ghana - Policy Brief](#).

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