USING "SMART" SUBSIDIES TO ACHIEVE EQUITABLE AND UNIVERSAL SANITATION

SUMMARY

Many poor households in sub-Saharan Africa and Asia require some sort of financial assistance to purchase a latrine. "Smart" subsidies for household sanitation hardware are an important tool offering promise in advancing the goals of equity and universal coverage in sanitation. Yet, many questions remain regarding optimal timing, targeting, combination with other interventions, pricing, delivery mechanisms, and how to overcome financial and non-financial barriers to use. This brief presents a practical overview of program elements that can impact the effectiveness of smart hardware subsidies in reaching poor and vulnerable households and highlights some recommendations for sanitation subsidy program developers or policymakers, including to identify, account for, and take active measures to ease the barriers in access to subsidies; understand and consider the trade-offs of targeting and subsidy sizing approaches; and to systematically collect and publish cost data.

WHY THIS MATTERS

Assessments of sanitation markets in sub-Saharan Africa and Asia have estimated that a majority of households may require some form of financial support to buy a latrine. Household subsidies can therefore be an important tool for increasing access to sanitation facilities and achieving equitable area-wide sanitation (AWS), but there are many factors that influence their effectiveness and sustainability.

Direct hardware provision was a popular instrument for promoting sanitation but went into decline in the early 2000s because it was expensive, the results were underwhelming, it failed to truly generate demand, it distorted local markets, and it undercut other approaches to increase demand and access. In recent years, however, the use of household toilet subsidies has undergone a resurgence, as they are recognized as a powerful tool to promote access to sanitation, so long as they are designed and implemented with care.

This review sought to improve understanding of new, "smart" subsidies and identify gaps in current knowledge so that implementers and governments can effectively incorporate subsidies into their sanitation toolkit. The review sought, specifically, to understand how smart subsidies and complementary programming can support poor and vulnerable households, not just in the short term, but sustainably over the long run.

How does this research connect to USAID's Global Water Strategy Action Research Initiative?

This research supports USAID's Global Water Strategy Objective 2 by adding to the knowledge base on how to effectively improve area-wide sanitation services. It explores program elements of smart household sanitation subsidy provision as an important tool for ensuring equitable and universal sanitation coverage.

Learn more | www.globalwaters.org/research

What are "smart" subsidies?

Smart subsidies attempt to overcome high implementation costs and distortionary effects on markets by narrowing eligibility criteria to a portion of poorer or vulnerable households in a community and improving targeting methods. This type of subsidy has moved away from directly supplying hardware, relying instead on mechanisms such as rebates and vouchers that require households to demonstrate demand.

This Learning Brief is based on research conducted by USAID WASHPaLS #2.

FINDINGS

#1. Subsidies can be effectively introduced alongside other sanitation programming approaches, but questions remain on timing.

One of the principal challenges in subsidy design is determining when and how to distribute them. Smart subsidies have often been implemented in concert with other sanitation programs, but evidence is mixed as to when they should be introduced. Subsidy provision may be based on open defecation-free (ODF) status, basic latrine access coverage level, or the program life cycle. Recent studies testing subsidies alongside community-led total sanitation (CLTS) and market-based sanitation (MBS) programs found a positive impact on uptake of improved latrines relative to implementing CLTS or MBS programs alone—at least in the short term. While market distortion is a risk, the review also found evidence that subsidies can stimulate local sanitation markets. That said, the current evidence base is centered in Asia and is limited to short-term outcomes.

#2. Vouchers and rebates are among the most common delivery mechanisms for smart hardware subsidies, but their strengths and weaknesses remain under-documented.

The literature suggests that both voucher and rebate programs are flexible, targeted means of delivering subsidies that empower households to participate in the local sanitation market, provided there is a local market in which latrines are manufactured and sold to customer households. These mechanisms also often allow for some choice in selecting latrine components. However, both can present indirect costs to households, such as additional travel expenses for redeeming vouchers and claiming rebates. Vouchers are more suitable than rebates in addressing financial constraints, as they do not require households to pre-finance the subsidy with their own cash, but often come with short validity periods that limit voucher redemption time. A key drawback of voucher and rebate systems is their high implementation cost, stemming from the need for extensive monitoring and skilled human resources for implementation.

What are rebates and vouchers?

Consumer rebates are a form of output-based aid, in which funds are given to households upon the construction of a latrine meeting certain criteria, i.e., *after* initial purchase.

Vouchers are (paper-based or electronic) coupons that households can exchange for a set of predefined sanitation products and services generally covering a portion of the cost of the toilet, thereby reducing required household expenditure upfront.

#3. Subsidy validity periods may strongly impact subsidy uptake and effectiveness but are often driven by programmatic operational considerations.

The literature suggests that the validity periods of subsidies have varied widely, ranging from on-the-spot to about 18 months. The choice of validity period has often been made to satisfy programmatic operational constraints rather than to optimize sanitation outcomes. Shorter windows may accelerate the achievement of ODF outcomes but disadvantage poor and vulnerable households. Recipients living in remote areas need to travel—in some cases long distances—to redeem vouchers or claim rebates and some households may miss the (sometimes very short) time window within which a voucher can be redeemed. At the same time, longer validity periods have shown mixed results in terms of redemption rates. Ultimately, the relative merits of different validity periods remain a matter of debate.

#4. While the question of "optimal" subsidy amount depends on context, even small subsidies can increase households' willingness to invest in improved latrines.

The cost of a latrine to the consumer, and therefore the subsidy amount, is very important; however, the relative impacts of different subsidy amounts remain understudied. Within the evidence that does exist, the lack of standardized metrics for reporting subsidy amounts (or the relative size of the subsidy vs. the full cost of the latrine) is a major limitation. In addition, available evidence does not explicitly or exclusively focus on vulnerable households, and offered product choices may not align with household preferences. Some studies show that small subsidies can still have a significant impact in terms of uptake; meanwhile, large subsidies can be costly and challenging to maintain at scale.

#5. Poverty and vulnerability are often used as criteria for targeting, but there isn't just one best targeting method.

One of the most challenging tasks facing implementers of subsidy programs is identifying who should receive the subsidies. The sanitation sector typically targets households based on a combination of: (a) latrine status, (b) poverty status, and/or (c) vulnerability status. By identifying households using an array of metrics, subsidy programs hope to reach populations experiencing diverse forms of disadvantage or vulnerability. However, the inherent flexibility of indicators of a household's level of poverty and vulnerability makes them liable to subjective—and even political—interpretations. Among often used methods, proxy means testing tends to perform better than community-based targeting in terms of targeting errors when poverty is measured in terms of per capita consumption, but community-based targeting can better consider local definitions and nuances of poverty and vulnerability. Either way, targeting costs can be substantial, particularly in the absence of a pre-established targeting system. Use of existing government-run poverty identification programs can be one of the more cost-effective options, but even when a national targeting system exists, it may result in inclusion and exclusion errors, highlighting a trade-off between accuracy and scalability.

Proxy means testing and community-based targeting

Proxy means testing is a method to target a specific population segment based on wealth-related household characteristics, information typically obtained through household surveys.

Community-based targeting refers to a process in which community stakeholders, possibly with external facilitation, collectively agree on and then apply a set of criteria to identify eligible households or individuals within the community.

#6. There is a lack of standardized and comprehensive reporting on the costs of smart subsidy programs.

While subsidy programs have shown to be effective at increasing access to basic sanitation among poor and vulnerable households, implementation costs can be substantial. However, few programs report cost data and none use a standardized metric, making it difficult to assess subsidy program cost effectiveness or weigh different subsidy delivery mechanisms or targeting methods. Ideally, having and using a coherent set of metrics for reporting the implementation costs of diverse subsidy programs would enable a systematic comparison of subsidy design elements.

#7. Poor households face a host of barriers that can limit their ability to take up a subsidy offer.

Financial barriers, including both affordability and liquidity, impede household uptake of sanitation subsidies, but so can a range of non-financial barriers. Households may be unable to undertake the construction of a latrine or its superstructure, may simply not understand how vouchers or rebates work, or may distrust the processes required to obtain the subsidy or the benefits promised. Distance and associated costs and time of travel to redeem a voucher or claim a rebate may form another barrier to taking up the subsidy, especially for poor households in remote areas. In addition, several studies have found that households have little motivation or ability to invest in a private latrine if they live in densely populated areas, rent their home, or do not own enough land. Non-financial barriers, which are often highly correlated and tend to be most common among poor and vulnerable households, are often overlooked because they primarily affect those least able to make them known. These barriers require concerted program action to identify, account for, and address.

SCALE AND SUSTAINABILITY

While the evidence suggests that smart subsidy programs can increase access to basic sanitation in the short term, the associated financial costs to the entity funding the subsidy program, e.g., local or national government, can be substantial and may present significant barriers to program initiation, continuation, and scale, especially if the long-term benefits of a program are uncertain.

By design, targeted subsidies are a one-time intervention seeking to reduce the immediate financial constraints that prevent households from purchasing a latrine. However, as important as immediate uptake is, the continued maintenance and usage of sanitation goods and services over the long term is critical. Even when households have used subsidies to construct improved latrines, they may face obstacles that hinder their long-term adoption and use. These barriers can stem from physical or environmental limitations, or cultural, social, and behavioral norms related to latrine usage. Left unaddressed, these barriers can undermine the long-term impact of subsidy programs. While it is impractical—if not impossible—to eliminate them all, subsidy programs working within an AWS context can deploy a variety of strategies to mitigate their effect and improve sustainability. These include:

- Ensuring sufficient follow-up with households to ensure correct toilet installation and minimum standards of usability and hygiene;
- Providing additional support to beneficiary households, particularly the most vulnerable, to support sustained maintenance, management, and use of sanitation facilities, and access to sanitation services; and
- Monitoring latrine usage and safe management over the long term, in addition to uptake.

Scale and sustainability can also be served by seeking to successively improve subsidy implementation approaches, for example through use of marketing waves and adaptive management approaches to address challenges of optimal subsidy amounts, redemption windows, mistrust or misunderstanding of the program, and affordability barriers.

RECOMMENDATIONS

While this review did not set out to expressly provide guidance to sanitation subsidy program developers or policymakers, it did highlight some recommendations for subsidy programs intending to operate at scale within an AWS context. These are provided below, understanding that they can and should be further informed by future research and evidence and by the implementation context in which they are applied.

1. **In designing and implementing voucher and rebate programs, implementers should identify, account for, and take active measures to ease the barriers experienced by the most poor and vulnerable households to access and use the offered subsidy.** Among others, programs could seek to extend redemption periods and/or time them to periods of liquidity (e.g., at harvest), reduce distances and required travel to access products and services (e.g., by utilizing market days or group sales and delivery); and use dissemination and marketing techniques to successfully increase trust and awareness. These approaches will be particularly important for the poorest and most vulnerable households, whose lack of resources, social connections, know-how, reliable access to transportation, and even control over their daily lives constrain their capacity to act.

2. **In determining the most viable targeting method, sanitation subsidy programs or policymakers should consider the use of existing national targeting systems** but seek to understand the potential targeting errors and the trade-off between accuracy and scalability. Policymakers should also consider other criteria, such as satisfaction (and community acceptability) of the targeting results and cost.

3. **To determine the size of subsidies in the context of AWS, policymakers should seek to understand the trade-offs among key policy criteria (e.g., sustainability, household affordability/willingness to pay/equity, scale of intended reach) of providing larger versus smaller subsidy amounts.** This could include designing a smaller-scale evaluation that tests how variations of subsidy amounts perform along these criteria before introducing the subsidy program at scale.

4. **To address the gap in evidence on subsidy program costs, smart subsidy programs and studies should systematically collect and publish cost data.** Proposed metrics could include the cost per qualified household achieving basic sanitation access, the total program cost per community achieving a benchmark level of basic sanitation access, and leverage—the amount of household investment in latrines per dollar spent on a subsidy program. Such data can help inform future sanitation policies and programs needing to determine the best possible use of limited available resources to reach area-wide, sustained sanitation outcomes.

WAY FORWARD

There are a number of areas of further research that would help implementers and governments better understand whether, when, where, and how to introduce a subsidy element to AWS programs. Future research could expand understanding of optimal timing of introducing subsidies by generating knowledge in the African context and examining longer-term impacts on uptake, equity, and universal achievement at community and higher levels. Moreover, it is crucial to consider the contextual factors surrounding the maturity of sanitation markets when introducing subsidies. Future research could also explore the most appropriate time frame, accounting for budget constraints and other factors affecting the length of validity periods. The scalability and cost-effectiveness of intensive follow-up and monitoring efforts to ensure high redemption rates also need further examination.

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The full Sanitation Subsidy Desk Review can be found here.

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