

**38th WEDC International Conference, Loughborough University, UK, 2015**

**WATER, SANITATION AND HYGIENE SERVICES BEYOND 2015:  
IMPROVING ACCESS AND SUSTAINABILITY**

**Undoing inequity: water, sanitation and hygiene  
programmes that deliver for all in Uganda and Zambia –  
an early indication of trends**

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**REFEREED PAPER 2191**

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*This research aims to understand and address the barriers that disabled, older and chronically ill people face when accessing WASH in Zambia and Uganda. A mid-term review was conducted to assess how the approach impacted on the lives of the target group. A process review was carried out to understand how the approach was developed and implemented. Findings demonstrate that the inclusive WASH approach has improved vulnerable people's WASH access, though barriers still exist. The approach may have had a positive impact on stigma and discrimination, dignity and self-esteem of vulnerable individuals, but older people continue to face disproportionate levels of discrimination due to decreased mobility and ill health. Vulnerable people's participation in the intervention is lower than expected, though activities to improve this have been identified. This paper captures findings from both reviews, analyses emerging trends and makes recommendations for practitioners attempting to reduce inequalities in WASH access.*

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## **Introduction and background**

There is growing evidence that persons with disabilities, chronically ill and older people are amongst the most disadvantaged groups in low to middle income countries (de Alburquerque, 2014). Invariably these people lack basic services, such as water, sanitation and hygiene (WASH), which negatively impacts on their health, economic status and ability to participate in society (Groce et al 2011). The draft Strategic Development Goals currently include a goal on reducing inequalities and improving access to WASH for all. This marks the recognition that progress on the Millennium Development Goals has been inequitable, with the poorest often experiencing minimal benefits from improvements in WASH (UNICEF, 2010). At the Sanitation Water for All High Level Meetings in 2014, 26 of the 43 countries present made 46 commitments related to inequalities, designed to achieve universal WASH access by 2030 (Brocklehurst, n.d.). These countries requested more guidance and examples of 'best' practice on how to achieve these.

## **Aims and research questions**

The aim of the Undoing Inequity research is to understand and address the barriers that persons with disabilities, chronically ill and older people (collectively referred to as 'vulnerable' people in this paper) face when attempting to use standard WASH facilities in low and middle income countries. The research questions are:

1. What are the problems and opportunities currently experienced by vulnerable people and their households in accessing and using WASH facilities?
2. What solutions and approaches improve access to WASH *for all* within a community WASH intervention?
3. What are the benefits of improved access to WASH for vulnerable individuals and their families?
4. What are the additional programme costs to undertake an inclusive WASH approach?
5. What tools can be used to support WASH programming that reduces intra-household disadvantage, and measures the impact of an inclusive approach to WASH?

The first to fourth research questions are answered under *Findings*; the fifth research question is not covered in this paper. This paper details findings from the mid-term and process review (Danquah, 2014, 2015; Wapling, 2014). The mid-term review sample size is small so results can only indicate a trend or direction.

### Research methodology

A pre-intervention baseline survey gathered quantitative and qualitative data in 175 vulnerable households and 175 non vulnerable households in thirteen sub-counties in Amuria and Katakwi Districts in Uganda and the Mwanza West ward in Zambia's Monze District. Analysis of the findings led to the development, implementation and monitoring of the inclusive WASH approach in these areas where WaterAid partners are working. Mid-term and process reviews were conducted following the completion of the implementation in 2014. An endline study is planned for 2016.

### Who is involved

WaterAid, WEDC and Leonard Cheshire Disability Inclusive Development Centre collaborated on this research. The Institute of Economic and Social Research in Zambia and the Appropriate Technology Centre in Uganda are the research partners. In Zambia the NGO Development Aid from People to People (DAPP) and the local government implemented the inclusive WASH intervention. In Amuria and Katakwi districts in Uganda the work was carried out by WaterAid's partner NGOs, the Church of Uganda Teso Diocese's Planning and Development Office and Wera Development Association, as well as the District Local Governments.

### The inclusive WASH approach

To be inclusive, a WASH approach was designed to respond to the varying needs and requirements of people and the local context. One of the key features of the Undoing Inequity research was to learn what an inclusive WASH approach looks like, its effectiveness and whether such an approach is realistic and scalable. In both countries the inclusive WASH approach involved mobilising communities to include everyone in activities; provided information in different formats (visual, audio and demonstrations) so all could access, and encouraging representation of vulnerable people on water user committees. Water technologies (new and rehabilitated) were designed to reduce physical barriers (Photo 1). Community Led Total Sanitation (CLTS) approaches integrated a barrier analysis (Wilbur et al, 2013) to raise awareness of differing access requirements. Low-tech accessible latrine designs promoted included handrails for support and raised toilet seats (static and moveable) (eg Photo 2). Subsidies for cement to make raised toilet seats were provided to vulnerable people in Zambia. No subsidy was offered in Uganda. Accessible and private school latrines were installed alongside standard, gender segregated latrines (Photo 2). Menstrual hygiene management facilities adjoined the girls' latrine block. Accessibility audits were carried out on waterpoints on a small scale, involving people with disabilities and older people in the surrounding catchment area.



Photo 1. Accessible waterpoint



Photo 2. Moveable wooden toilet seat

### Mid-term review survey design

The mid-term review aimed to answer research questions 2, 3 and 5. Data was collected from 60 households (30 non vulnerable and 30 vulnerable households) in Amuria and Katakwi districts (Uganda) and 60 households in the Mwansa West Ward (Zambia). The sample size was not designed to assess statistically significant differences. These households and individuals were selected from the verified list of vulnerable/non vulnerable households at baseline. The nine data collection tools developed and administered at baseline were refined and redeveloped for the mid-term review to simplify and add questions on menstrual hygiene management, safety and security. These tools will be re-administered at endline to allow for comparison.

### Process review design

The process review aimed to answer the second and fourth research questions by assessing the 1) collaborative process of developing and implementing the inclusive WASH approach; 2) capacity development mechanisms and the impact of staff skills, understanding, awareness and attitudes; 3) extent to which WaterAid and partner staff understand and own the inclusive WASH approach and 4) challenges related to costing. Grey literature was analysed and 17 key informant interviews with WaterAid staff in the UK, Uganda, Zambia; partner staff in Uganda and Zambia and WEDC were conducted.



Photo 3. Accessible school toilet

## Findings

### Water access

In Uganda, 75% of households using new waterpoints at mid-term included a vulnerable member; in Zambia the figure was 59%. This shows that the inclusive intervention improved access to water for people living in households with a vulnerable person. At baseline, vulnerable people reported challenges when collecting water. These included distance to the water source, slippery, steep or uneven surfaces on the way to or at the waterpoint, heavy handpump handles that are out of reach, and a lack of water container resting stand near the handpump. At the mid-term fewer vulnerable people reported difficulties collecting water. In Uganda this dropped from 70% to 55%; in Zambia it reduced from 50% to 44%. Vulnerable people, particularly older and physically disabled people identified remaining barriers, which were distance to the waterpoint and the ability to carry filled water containers. In Uganda one rainwater harvesting jar was installed at a physically disabled person's home. Feedback from the individual was overwhelmingly positive as it reduced distance to the waterpoint and time spent collecting water. Arguably it is unrealistic to think that distances to boreholes in rural areas, where settlements are scattered, can be reduced for everyone through WASH programmes. However promoting rainwater harvesting jars more consistently may have a positive impact, particularly on older persons and people with physical impairments. Simple technologies designed for people using mobility devices, or with poor balance or limited strength to transport water easily should also be promoted (Jones and Wilbur, 2014).

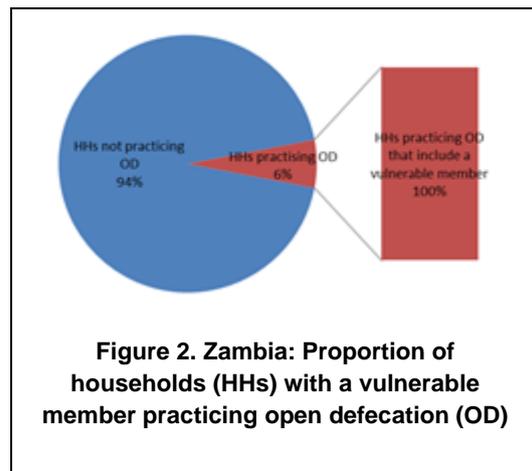
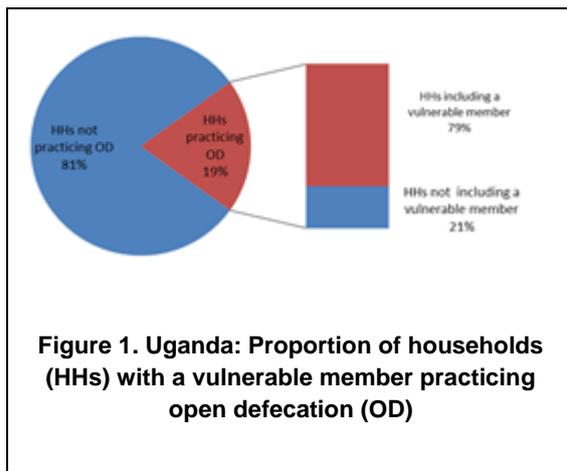
### Sanitation access

**Rates of open defecation** dropped considerably in Zambia (from 24% to 3%). In Uganda it reduced by 5% (from 25% to 20%). Analysis of the households continuing to defecate in the open shows that the majority include a vulnerable household member (Figures 1 and 2). Reasons for defecating in the open, and an analysis of how each stage of the CLTS process was implemented by each partner in the two countries will be investigated at the endline study.

**Uptake of support structures**, such as handrails to assist the user to balance inside the toilet, and static or movable toilet seats was low in both countries. In Zambia, only three such latrines were designed; in Uganda only two. This is surprising as subsidies were provided to vulnerable people in Zambia. Also 50% of vulnerable people in Uganda, and 25% in Zambia stated that they received information on sanitation and hygiene in different formats. This indicates that accessible information was available. Focus group

discussions (FGDs) in Zambia revealed that older people continue to experience difficulty accessing the toilet, especially at night as they find it hard to find the toilet and maintaining balance, so the need is there.

The process review highlighted that **staff faced challenges with transferring principles, such as rights, inclusion, vulnerability and disability into practice**. Awareness of the terms amongst WaterAid staff is consistent but confidence to pass that knowledge to partner staff was less so. Key principles and concepts were not defined in local languages, and reference materials were not available for the early stages of implementation. Throughout the project WaterAid and partner staff called for more information on accessible and simple WASH designs. A compendium of such options was developed through the project but was not finalised until December 2014 (Jones and Wilbur, 2014). Staff may have been waiting for this to really promote accessible designs.

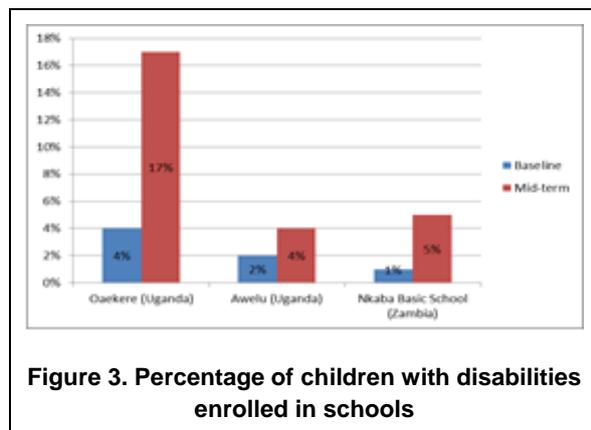


### Hygiene access

**Vulnerable people’s ability to bathe more frequently** increased between the baseline and mid-term. The increase in vulnerable people reported bathing every day at mid-term was 31% in Zambia and 15% in Uganda. In both countries there was a slight decrease in vulnerable individuals’ level of satisfaction with the regularity of bathing. This may be a result of increased expectations. Interestingly, one older woman with a visual impairment in Zambia explained, “People never used to eat with me because I was dirty and smelling. Now everyone eats together as I am no longer dirty”. This indicates that **improving access to WASH can increase a vulnerable person’s self-esteem and social interactions**.

### School WASH

Comparative data from baseline and mid-term is available in three schools in Uganda and one in Zambia. **Enrolment of children with and without disabilities increased** in three of four schools after the inclusive WASH intervention (see Figure 2). This increase may create challenges for teachers if they feel unable to teach children with differing impairments. To understand attribution of increased enrolment rates to the project intervention, the geographic location of where children live will be gathered at endline to ascertain if their households were in the project catchment area. Children with disabilities and their parents will also be interviewed to understand why parents enrolled them in these schools.



Interviews with teachers indicate that **children with disabilities face less challenges accessing school WASH following the intervention**, and non-disabled children’s attitudes to children with disabilities were more positive due to increased awareness in the schools. One teacher reported that “children help each other, for example, provide guidance; hold those with epilepsy when they get attacked [have a seizure]”.

## Stigma and discrimination

**In both countries, disability was considered contagious and a curse.** Findings indicate that this belief is being challenged in Uganda. At baseline, 19% of vulnerable people reported being told not to touch or handle water because some community members thought them unclean or that their condition was contagious. At mid-term this reduced to 1%. Although this is not a direct comparison, the finding is notable. In an in depth interview in Uganda, being born with a disability was no longer viewed as a curse, or a spiritual issue. Findings from Zambia are less conclusive. One FGD indicated that negative spiritual beliefs associated with disability and ageing remain unchanged. The second FGD demonstrated a greater level of understanding of the cause of disability and limitations of older age. **Across both countries, older people continue to be especially excluded in the community and household** due to decreased mobility and ill health. WaterAid and partner staff in both countries described how their learning from, and involvement in the project has changed their attitudes and views of disabled people. One staff member described how this has transformed his and his family's engagement with a relative who is disabled.

## Participation and empowerment

The participation of vulnerable people in the planning and design of waterpoints was lower than expected. In Uganda only 0.06% vulnerable person reported being consulted, and in Zambia it was 29%. The process review revealed that accessibility audits on waterpoints were carried out in both countries on a small scale (WEDC and WaterAid, 2014). The locations where these were carried out may not have been covered in the mid-term review. The audit team consisted of partner staff, vulnerable and non-vulnerable men, women, girls and boys in the surrounding catchment area. The effects were remarkable; the process helped challenge attitudes and highlighted the need for practical and immediate change. They gave vulnerable people an opportunity to express their challenges and demonstrate they had valuable insights to contribute to discussions. Subsequent innovations such as installing water jerrycan resting points at the waterpoint, making the surface of the access ramp rougher to guard against slippage and the reduction in the ramp's gradient helped to improve the design. In Uganda 50% of vulnerable individuals took part in local community meetings, but this dropped to 5% in Zambia. Though all staff on this project benefited from in depth mentoring and coaching, partners in Uganda took part in facilitation training focused on inclusion, which was not available to DAPP in Zambia. The difference in levels of participation across the two countries may be a result of less staff confidence and knowledge in this area. Community's responses to awareness-raising and sensitisation of inclusion and rights can be unpredictable, and people can raise demanding questions. It takes a high level of confidence in one's own knowledge for practitioners to respond to these. This comes with experience, guidance and support, but initially it is very difficult. Time and support to develop such skills must fully resourced when attempting to develop new approaches.

## Cost

Assessing the additional costs of an inclusive WASH approach has been difficult as a cost-benefit analysis was not conducted due to resource constraints. Without establishing the value of outcomes, related costs will always be viewed as 'additional'; this reinforces the idea that inclusion is optional rather than integral (Wapling, 2014). This project has generated valuable learning from attempting to measure costs: seemingly straightforward costing of inputs to build a household latrine is highly complex as it includes an assessment of raw materials and valuing people's time. The latter is value based and therefore much harder to measure consistently. Process monitoring tools measured the additional time partner staff took to ensure activities were inclusive. Tasks included identifying and talking to vulnerable people, transporting people with mobility issues to meetings, and facilitating the participation of vulnerable people when they are not used to being asked questions or making contributions. Partner staff in both countries confirmed that inclusive activities did not take a lot of additional time. With experience the time required may reduce and become the norm. Furthermore most tasks did not require extra staff.

## Conclusions and recommendations

Several recommendations for WaterAid and other practitioners to take forward the inclusive WASH approach emerge from an analysis of the findings.

- **Continue to improve the inclusive WASH approach whilst encouraging scale up inside WaterAid and the WASH sector.** The findings indicate that the inclusive WASH approach can have positive impacts on the lives of vulnerable people. The emphasis on inclusion has increased access to WASH for

vulnerable people, though some barriers remain. Findings indicate that the inclusive WASH approach may have had a positive impact on stigma and discrimination, levels of social interaction, dignity and self-esteem of vulnerable individuals. The promotion of inclusive WASH designs within the community and at schools, awareness raising activities, including conducting accessibility audits may have contributed to this.

- **Address barriers to accessing WASH throughout the total life cycle.** Findings exposed that older people face persistent challenges to accessing WASH, and they experience high levels of discrimination in the community and their households due to decreased mobility and ill health. To address barriers to accessing water, rainwater harvesting jars should be included in all rural water supply schemes and targeted to people with mobility issues. Simple technologies that are designed to enable people with mobility issues to transport water more easily should be also be promoted. Simple designs to make latrines more accessible should also be promoted in accessible ways through a variety of channels, including demonstrations, sanitation campaigns at public places and through community mobilisation activities.
- **Fully resource the scale up of the inclusive WASH approach.** The cost of inclusive WASH is often highlighted as a barrier to its implementation and scale up. This research demonstrates carrying out activities in an inclusive way does not take a lot of additional staff. However investment is required to support implementers to gain the required knowledge and confidence to carry out activities effectively.
- **Bridge the gap between the WASH, education sectors and social inclusion sectors.** The increased school enrolment of children with and without disabilities following the implementation of inclusive school WASH is remarkable. The potential challenge this may bring to teachers suggests a need for the WASH sector to align more closely with inclusive education.

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