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**SUSTAINABLE WATER AND SANITATION SERVICES  
FOR ALL IN A FAST CHANGING WORLD**

## **Hygiene promotion in emergencies: a fortuitous comparison — the case of Bentiu IDP camps, Unity state, South Sudan**

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*In this paper, we argue for including a full hygiene promotion intervention as an early part of emergency response. In an internally displaced persons (IDP) camp in Bentiu, Republic of South Sudan, it has proven to be a strong complement to the construction of water, sanitation and hygiene (WASH) facilities and WASH non-food item (NFI) distribution. Comparison between two camps with and without hygiene promotion intervention was made possible by the difficulty in recruiting hygiene promoters in one of the two camps. Results show that places where hygiene promotion activities were regularly performed achieved better results in terms of adopting new hygiene practices and better use of the WASH facilities and NFI.*

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### **Background**

The fighting that erupted in Juba, the capital of the Republic of South Sudan, on 15 December 2013 quickly spread to other states of the country. More than 700,000 people were displaced by the conflict and were unable to meet their basic needs, leading to a major humanitarian crisis.

In Bentiu, Unity state, two separate IDP camps have been established named Camp 1 and Camp 2. The population of Camp 1 was initially 8,000 but rapidly decreased to 5,000 as the primarily Dinka occupants left as their security improved. The Nuer population in Camp 2 was initially 1,200 and gradually rose to 2,000 over the course of the reporting period.

Concern is an international humanitarian organisation dedicated to tackling poverty and suffering in the world's poorest countries. Concern's WASH intervention started in early January 2014 in both Camps and was composed of the same activities (distribution of WASH NFI : Soap, jerrycans, buckets, hygiene materials according to Sphere standards; construction of latrines, safe water distribution, and hygiene promotion). The plan for hygiene promotion was to recruit hygiene promoters in each camp and train them to give health messages and promote behavior change. Five hygiene promoters were recruited in camp 2 but we were unable to recruit promoters in camp 1. This was due to the fact that those who were more literate and educated left the camp first. Additionally, those who remained felt their stay would be short and therefore were reluctant to take on a hygiene promoter's role despite it being a paid position.

### **Hygiene promotion intervention**

Due to the unplanned nature of the camps only basic WASH facilities were available before Concern's intervention. The initial situation was similar in both camps with widespread open defecation, limited access to clean water and no waste management. An assessment was made through both a rapid qualitative survey and discussions with community representatives and the hygiene promotion team. Results showed very little knowledge regarding what causes diarrheal diseases (20 % only were able to name 2 ways of contamination or more) and low level of hygiene practices (for example, less than 15% reported hand washing with soap ), which is consistent with the national data available for South Sudan (GRSS, 2011).

In camp 2 five hygiene promoters were recruited in order to achieve the Sphere standard of one hygiene promoter per 500 people. A three day training was given on the basics of the F-diagram and PHAST-like tools. The hygiene promoters were responsible for activities such as: highlighting the problem of diarrheal disease and how to prevent it, promotion of hand washing stations, a hygiene promotion play performed in front of people queuing on the WASH NFI distribution days. Additionally, the hygiene promoters were responsible for special events such as the environmental cleanup day, handwashing demonstration, organization of competition with rewards for the cleanest compound, and sanitation caretakers' recruitment. The caretakers were in charge of the daily cleaning of the latrine blocks and the maintenance of the hand washing stations nearby.

A garbage pit was dug out in camp 1 and 2 for each household to bring their own waste.

## Methodology

The early stages of an emergency response rarely allow time and resources to conduct a full baseline survey on hygiene knowledge, attitude and practices (KAP). However Concern did conduct an initial survey (random sampling, 60 respondents) investigating IDPs' knowledge and habits with regards to hygiene and sanitation practices. We observed that there was clearly a discrepancy between what people were saying about their practices and what they were actually practicing. We therefore decided not to use a survey to compare differences between camps but to use direct observation. Direct observation was made through a trans-Camp walk to assess the number of functioning handwashing stations (buckets with a tap, put on some kind of platform, filled with water, with soap present and signs of use nearby), the cleanliness of the compounds (free from organic and non-organic waste) and hygienic use of the latrines provided (lids on top of the holes, no fecal matter on the floor).

The trans-camp walk assessment was performed during three consecutive days, each morning at the same time, two weeks following the beginning of the intervention. The walk was from one extremity of the main path to the other (see figure below). Additionally, observations were also made on four sub-paths, as far as they could be seen from the main path. For both camps, the walk took five minutes and the length was similar – estimated around 200 meters. Data were collected using a checklist. In addition the number of diarrhea cases was collected weekly from the two health clinics set up for the IDPs outside Camp 1 and 2, managed by national staff from the Ministry of Health.

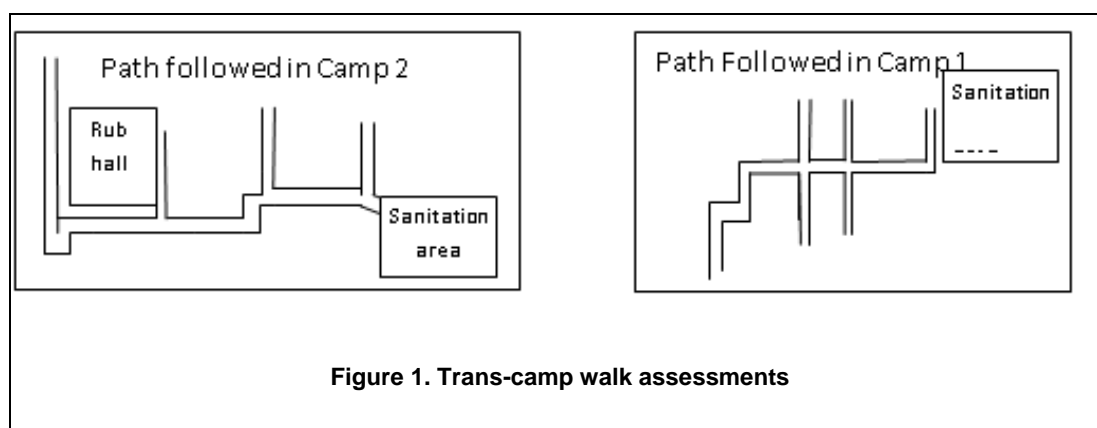


Figure 1. Trans-camp walk assessments

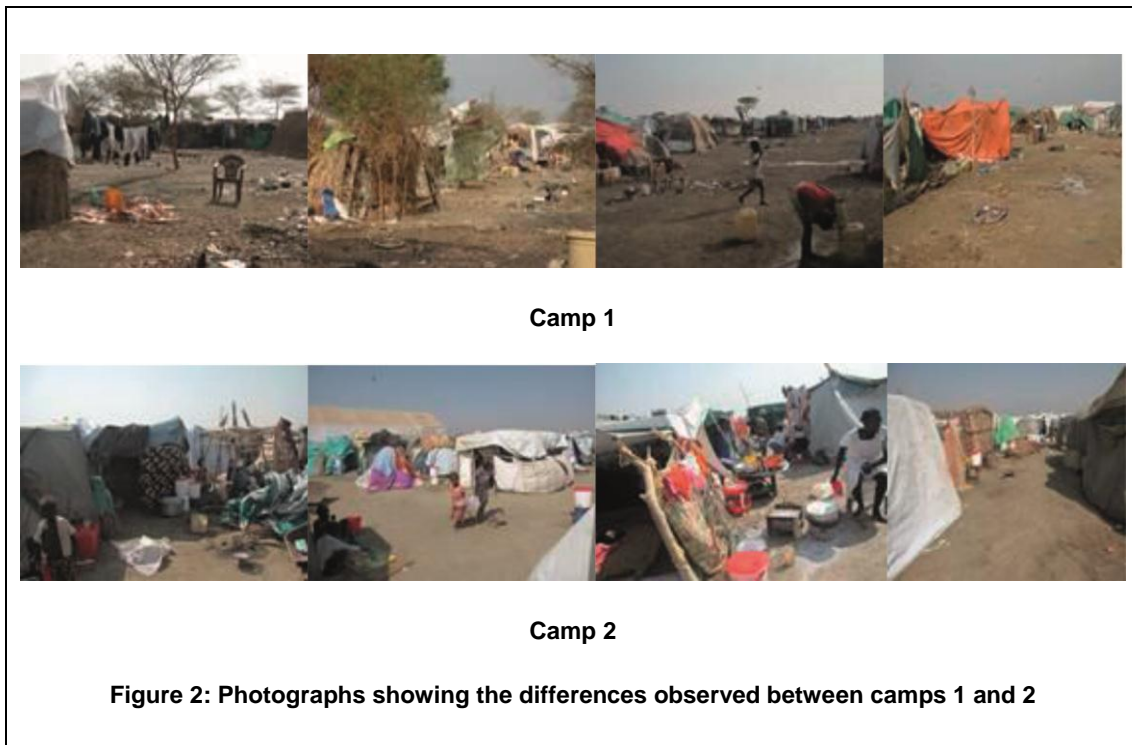
## Results

- No difference was found in the proportion of cases of diarrheal disease according to the data provided by the two clinics. We found only two to three cases of diarrhea reported per week for each camp and this number did not change over the course of the data collection period. However, the two health clinics were run by unpaid IDPs who were health workers. They had limited support or supplies and therefore the quality of the data was poor. It is believed that this data did not represent the health status of the population of the two camps although no other indicators of the reality of the situation were then available.
- 6 to 12 functioning handwashing stations found during each Trans-camp walk in Camp 2 compared to none in Camp 1.

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- 1 to 2 people observed practicing handwashing with soap in Camp 2 during each Trans-camp walk compared to none in Camp 1.
- The front yards of 22 to 36 dwellings were free from organic and non-organic waste in Camp 2 compared to less than 5 in Camp 1.
- In Camp 2 all toilets were free from faeces and holes were covered with lids compared to Camp 1 where faeces were present on the floor of half of the new latrines and only 2 holes were covered.

Pictures are shown below and others are available upon request.



The general cleanliness of Camp 2 compared to Camp 1 was reported in the inter-agency coordination meeting minutes (entirely independent of Concern).

A follow-up to assess the long term sustainability of the behaviour change could not be performed due to the worsening security situation (Bentiu was retaken in April 2014).

### Main limitations

The main limitation relates to the methodology used. We had to rely on observation rather than on quantitative data. However, observation is often superior to quantitative data collection due to a social desirability bias associated with the latter, meaning respondents tend to answer questions in a manner that will be viewed favorably by others (Danquah, 2010).

The main path and sub-paths were different in the two camps with some variations in terms of shelters' density per meter, configuration and level of observability, which introduces a bias in the comparison. We could not find any specific reference to potential cultural distinctions between the two ethnic groups regarding hygiene and sanitation habits, although we acknowledge that such differences may exist. A qualitative study on attitudes towards health and medicine found that *“Overall, it was notable that different tribes nonetheless had similar beliefs about medicine and health”* (Reach, 2013). None of the people that had been working in the Republic of South Sudan for a long time and none of the hygiene promoters mentioned such differences. The dynamics within the two Camps were clearly different with a slow and steady decrease in the population in Camp 1. For those in Camp 2, being there for a longer time might have increased the wish to “invest” in hygiene behaviours. For instance, an interviewer in Camp 1 reported *“why should I take care of this, I’m going to leave in two days”*. Camp 2 was also smaller than camp 1 (2,000 versus 5,000 residents) and this may also have made it easier to keep Camp 2 clean.

## Discussion

During emergency response the focus is often on getting WASH infrastructure in place and NFIs distributed and hygiene promotion is given a low priority (Bastable, 2013). However, we have shown that even in challenging emergency settings, hygiene promotion can bring positive results such as adopting positive hygiene behaviours and promoting the correct use of the WASH items provided. Despite some weaknesses in our methodology we believe that the difference in hygiene in the two camps was derived from the presence of motivated and well trained hygiene promoters who had good supervision. Indeed, all the improved hygiene behaviours observed in camp 2 derived directly from the training sessions and actual activities put in place by Concern with the team of hygiene promoters. For instance, following the campaign for the installment of the hand washing stations, many IDP's used the buckets provided to implement hand washing facilities in front of their households. However, apart from looking at diarrhea cases at the clinic level we did not look for a difference in the health of the populations in the two camps as a result of the hygiene interventions. This would have required a quantitative survey that was not possible during the short implementation period that this paper is based on. However, we know from many other studies that hygiene promotion has led to reduction in diarrhoeal disease (Cairncross, 2010).

Having found that hygiene promotion was such an important complement to WASH NFI distribution, if a scenario like Camp 1 happens again in the future, we would recommend that humanitarian organizations recruit staff from outside the camp population to perform hygiene promotion campaigns in support of the WASH NFI distribution within the camps.

However, to achieve such results, hygiene promotion must be creative. After initial training, promoters need to be ready to expand on the usual activities of informing people of the main oral-fecal transmission pathways and ways to prevent it. Although this is necessary for increasing knowledge about the links between diarrheal diseases and hygiene practices, in order to obtain effective behaviour change, a second set of activities are needed. These activities aim to trigger people's desire to embed this new knowledge within their daily life by initiating an emotional response. This will include communicating about the burden of diarrheal diseases within the camps and increasing the perceived susceptibility and perceived-severity of disease, and organising community meetings with women to stress that nurturing should include making sure their children wash their hands with soap (for example, "a good mother checks that her children wash their hands after defecation and before eating").

All these determinants have been well documented by behaviour researchers (Core groups, 2011) but are often thought to be too complicated to be applicable in emergency contexts. We believe they can be applied two to three weeks after the beginning of an emergency intervention. The first week is required for the initial assessment and identification/recruitment and training of the hygiene promoters. During the second week communication regarding oral fecal pathways of transmission and how to prevent them can commence, with concurrent activities aimed at triggering a positive emotional response to adopting new behaviours that can be developed in the third week.

From our experience in South Sudanese camps, these achievements can only be made possible if staff members are dedicated full-time to the Hygiene promotion activities and are not involved in other components of the WASH intervention (such as monitoring the water quality, which is also a priority but should be performed by other staff).

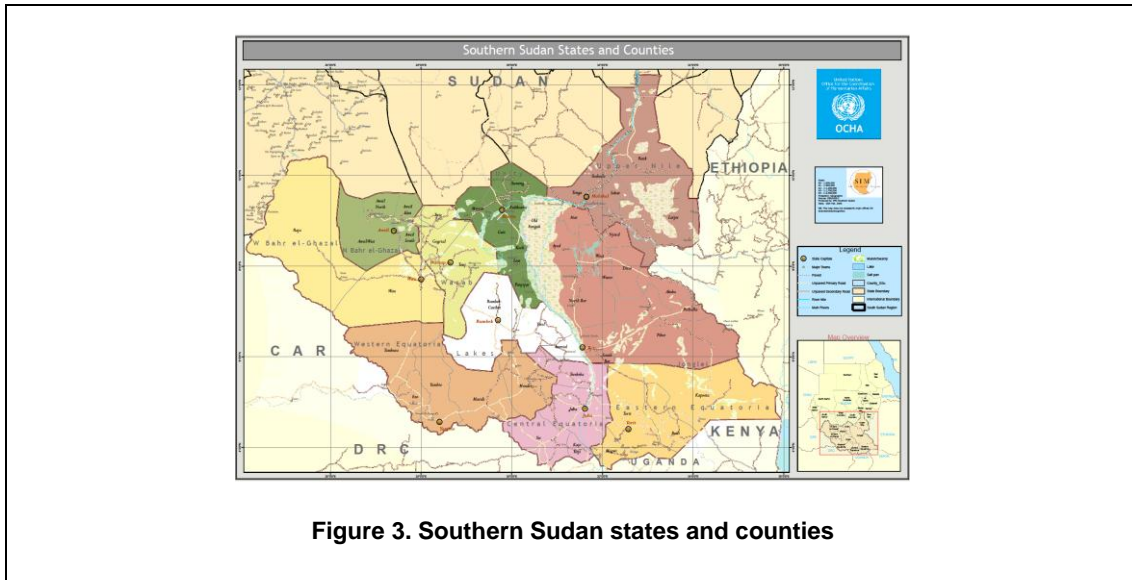
Too often, hygiene promotion relies on uninspired community volunteers. Hygiene promoters need to be motivated and dynamic. Unless a strong sense of community pre-exists the crisis, emergency situations tend to generate more individualism or family-centered reflexes among the IDPs. In the particular context of the Republic of South Sudan, we found that paying hygiene promoters was more successful than relying on the community representatives to assign volunteers.

Competition with rewards is often seen as an artificial short term solution to trigger changes. Although it does not have the same long lasting effect as a non-incentive driven adoption of new behavior it does produce immediate effects that might change people's representation towards what should be the good attitudes and practices in their communities. This, in turn, can lead to a change of social norms within the group and further adoptions of the promoted behaviour (if a significant percentage of people wash their hands with soap after going to the latrines, it becomes more difficult not to do it).

Many interventions during an emergency (e.g. paying staff, distributing free soap) are not conducive to a longer term sustainable approach to hygiene promotion. However, we believe that these interventions are required initially due to the higher risk of spread of infectious diseases in a camp setting. As soon as

possible, a more development focused approach should be adopted to ensure that the behavior change is maintained by the IDPs when they return home.

Our overall recommendation is to recruit and train hygiene promoters from the outset of an emergency situation.



**Figure 3. Southern Sudan states and counties**

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