

Nurturing Care Groups contribute to delivering transformative WASH at scale

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Abstract

Delivering transformative WASH at scale is challenging, in part because delivering behavior-change interventions at the necessary frequency, fidelity, and coverage levels is difficult. Further complicating the issue, behaviors may be individual, influenced by social norms, or require collective action. The Nurturing Care Group (NCG) approach is a model where 10-12 women chosen by groups of 10-15 neighboring households each meet with health promoters, and then relay messages back to their neighbors every two weeks.

World Vision conducted a controlled before-and-after trial in two districts of Ghana from June 2019 to December 2020. The NCG program promoted a variety of key WASH behaviors, including household water treatment and storage, toilet construction and use, hand hygiene, menstrual hygiene management (MHM) knowledge and stigma, and animal feces management.

Detectable *E. coli* in drinking water decreased from 32.1% to 8% at intervention sites, compared to a 1.8 percentage point (PP) drop at control sites, and several related water storage behaviors also improved. Access to basic handwashing showed a 51 PP increase, with minimal change in the control group despite the onset of COVID-19. Animal feces management recorded a 22 PP increase in “animal enclosure during the day beyond the reach of household drinking water.” Several measures of stigma related to MHM decreased by about 75%. Finally, a net increase of 7 PP was recorded for basic sanitation, which is significant considering the slow pace of sanitation progress in Ghana and the lack of project supply-side or market-based interventions.

This study demonstrated that NCGs can effectively deliver high frequency behavior-change messaging at scale and build social capital—and intentionally leverage that into collective action.

Background

Significant gaps exist between the rates of progress for water, sanitation, and hygiene (WASH) services and those needed to reach the Sustainable Development Goal targets. For example, access to basic drinking water, basic sanitation, and basic hygiene services need to increase by four times, two times, and five times current rates of progress, respectively.ⁱ A recent study found that in rural areas of Ghana, only 2% of households had drinking water that was low risk; 8% had basic or safely managed sanitation; and only 3% had a basic handwashing service.ⁱⁱ

Many proposed solutions for increasing the presence of these services require a significant

behavioral component. There have been strong calls for more frequent and intense behavior-change efforts as part of a new paradigm of transformational WASH services.ⁱⁱⁱ

NCGs are proposed as one potential solution for delivering more intensive behavior-change interventions with high levels of community coverage. NCGs consist of a health promoter (often a nongovernmental organization staff member or government community health worker [CHW]) meeting with 10-12 women (called “leader mothers”) chosen by groups of 10-15 neighboring households every two weeks. These leader mothers then relay the messages

back to their neighbors using lessons designed to reach illiterate populations, using images on flip charts, songs, games, and stories. Such an approach allows behavioral interventions to be delivered with high frequency and near-comprehensive community coverage.

World Vision conducted a pilot of the NCG approach to understand its potential impact on a range of commonly promoted WASH behaviors. We implemented the program from September 2019 to December 2020 in 41 communities in two districts of Ghana (in Savelugu and Sekyere East), while 20 nearby communities were selected as a comparison area.

Methodology

This study took place in two World Vision Area Programs (APs) in the Northern (Savelugu Nanton) and Southern (Sekyere East) regions of Ghana, chosen for the different ecological zones and cultural practices represented there.

We used a controlled before-and-after trial design, collecting data from intervention and comparison areas before and after implementation. Study participants were caregivers of children under 5, primarily mothers, and were selected from those enrolled in the NCG pilot project or those in the comparison areas who would have been eligible to be selected. Comparison areas were selected from within the two World Vision APs (which are relatively homogeneous areas selected for the purpose of implementing programs to address common needs) but in areas where NCGs were not being implemented.

In total, 1,508 surveys were collected (324 from intervention areas and 430 from comparison areas at both baseline and endline). World Vision assessed knowledge and self-reported behavior, directly observed outcomes where possible, and tested microbiological household water quality. Our analysis

consisted primarily of descriptive statistics and ordinary least squares linear regression using a difference-in-differences approach.

Key Findings

Drinking Water Quality

Household drinking water quality increased significantly—households with detectible E. coli at baseline reduced by about three-quarters. This decrease from 32% to 8% was associated with higher rates of household water treatment (+32 PP) and improvements in several key observed behaviors, including storage containers covered with a lid (+28 PP), using a dipper to collect water (+26 PP), and drinking water kept beyond the reach of animals (+21 PP). Access to a basic water source did not significantly change for intervention households during the study.

Hygiene and Sanitation

Households with no place for handwashing decreased from 21% to 4% and those using a mobile handwashing station decreased from 71% to 61%, with a corresponding increase in those with a permanent facility in their yard or plot from 2% to 32%. Water availability increased from 69% to 96% and soap availability from 34% to 84%, while there was little change in the comparison group. The presence of basic sanitation increased 16% in the intervention group compared to 9% in the comparison group, but this is still a meaningful increase given the lack of supply-side interventions and the low cost of demand-side interventions. Several measures of food hygiene also increased between 14 and 30 PP.

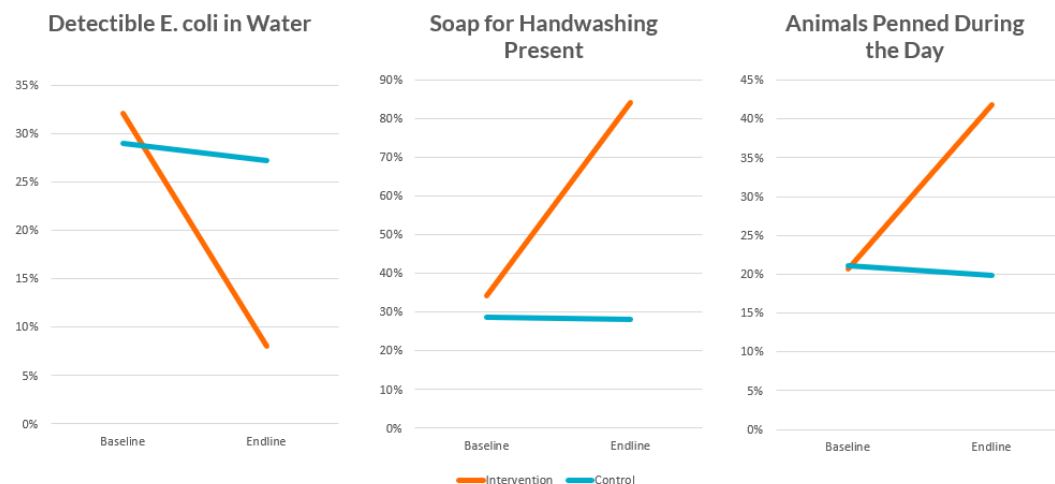


Figure 1: Key Behavior-Change Results

Menstrual Hygiene and Animal Feces

For behaviors affected by social norms or driven by collective action, substantial impacts were also achieved. We observed a 22 PP increase in the “use of animal enclosures during the day, where animals are kept beyond the reach of household drinking water.” Animal feces was also more likely to be used for composting (+16 PP) and less likely to be thrown elsewhere outside the courtyard (-22 PP).

Stigma significantly affects the acceptability of women who are menstruating performing regular activities. Several measures of stigma related to MHM decreased by about 75%, including being able to cook food and eat with others. Women were also significantly more likely to bury menstrual waste (+16 PP) and less likely to dispose of it in the open (-14 PP).

Recommendations

Use Formative Research to Ensure Contextual Relevance of Lessons

NCGs successfully promoted change in several types of key WASH behaviors. The lessons used in this pilot project were developed from publicly available materials and information, with input from the World Vision Ghana WASH team. When adapting NCGs to other locations, the contextual relevance of lessons should be reviewed. Additional formative research should

be conducted to inform lesson designs, particularly when behaviors have been difficult to change or when there are strong cultural or contextual influences on the behavior.

Consider Supplementing NCGs with Market-Based Approaches

While access to basic sanitation did increase somewhat, it is likely that further gains could be realized through assessing the supply of accessible sanitation products in the market and financing options available and filling necessary gaps with supplementary activities, partnering with other organizations, and/or advocating for government support to facilitate greater gains.

Conclusion

Nurturing Care Groups are a promising approach for driving changes in a wide variety of key WASH behaviors at scale. This study saw significant shifts in both individual, habitual behaviors and behaviors influenced by social norms or requiring collective action.

Future studies can include more in-depth formative research to drive change in challenging behaviors and supplementary interventions such as market-based approaches to increase the magnitude of impacts achieved as NCGs are scaled to other countries.

References

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