

Can participatory behaviour change methods help limit the spread of cholera?

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Participatory Health and Sanitation Transformation (PHAST) is a behaviour change methodology designed to engage participants at every stage of the process of improving health, hygiene and sanitation behaviours. This Practice Note evaluates the early results of a Comic Relief-funded project that utilised PHAST in two neighbourhoods in Lusaka, and its integration into the response to cholera outbreaks in the city in 2016 and 2017-2018.

Context

Most of the residents of Lusaka live in a peri-urban area (known in Zambia as a PUA). Kanyama is one of the largest PUAs, with an estimated population of 370,000. Many households do not have the space to build their own latrine; sanitation facilities are commonly shared between families on a plot and environmental sanitation is poor. High water tables, frequent flooding and poorly located pit latrines in Kanyama lead to contamination of the groundwater that many rely on for their drinking water. This is one of the major contributors to Lusaka's frequent cholera epidemics, the most recent of which lasted from December 2017 to June 2018. Chazanga, another PUA, has a smaller population of around 86,000 and also suffers from overcrowding and poor sanitation.

Tackling sanitation and hygiene using participatory approaches

Changing hygiene and sanitation-related behaviour is a key aspect of integrated WASH programming and contributes to the prevention of disease and improving health impacts. Beginning in 2013, WSUP and Lusaka Water and Sewerage Company trained 15 members of two Neighbourhood Health Committees (one in each PUA) to lead communities through activities responding to their most pressing hygiene and sanitation issues and to undertake door-to-door messaging campaigns (Box 1).

While adaptable to different contexts, PHAST campaigns tend to follow a seven-step process*, each with associated activities that guide participants to identify WASH issues and how to improve them.

In Kanyama, PHAST was initially implemented by WSUP, LWSC and the Ministry of Health (MoH) in zones 10 and 11 of Mwanga Nkumbula Ward, Old Kanyama. It was then extended to the rest of the community (a total of 10 operational areas) including schools and markets. Chlorine and soap were distributed in Kanyama and Chazanga by the MoH.

A 2016 evaluation of the programme's first phase resulted in several adjustments:

1. The timeframe for each intervention was increased from 3 to 6 months to ensure time for follow-up visits and support
2. Households were re-visited to reinforce previous training
3. More vulnerable areas in each PUA were targeted
4. PHAST visual tools were used

Box 1: Hygiene and sanitation messaging in Kanyama and Chazanga

- Handwashing with soap
- Safe handwashing methods
- Critical times to wash hands
- Safe water storage and treatment methods and practices
- Safe solid waste management practices
- Safe food handling and management practices
- Safe toilet usage and maintenance practices
- Access to and use of pit emptying services provided by Kanyama and Chazanga Water Trusts (community-based organisations delegated by LWSC to provide water services and FSM)

* Problem identification; problem analysis; planning for solutions; selecting options; planning for new facilities and behaviour change; planning for monitoring and evaluations; participatory evaluation (WHO 2000)

Results

From the project's inception in 2013 to its end in October 2018, hygiene messaging reached at least 70,000 residents in Kanyama and Chazanga. A follow-up survey in late 2018 found that:

- 93% of respondents confirmed that health was an important benefit of having a clean toilet
- 95% knew that handwashing killed germs
- 53% treated their drinking water, from 31% in 2014
- 56% had a handwashing station, from 40% in 2014
- Responses to the training differed according to gender: women understood hygiene to primarily mean a handwashing station with soap close to a toilet, but men more commonly cited the financial requirement to buy soap and pay for water
- Demand for the pit emptying services provided by Kanyama and Chazanga Water Trusts increased from 2013, when only 15% of Kanyama residents and 24% of Chazanga residents reported having emptied their pit latrine

Cholera in Kanyama and Chazanga

The 2016 cholera outbreak saw 47 cases in Kanyama; there were 1,078 cases in Kanyama and 120 cases in Chazanga during the 2017-18 outbreak. The MoH, LWSC and Lusaka City Council coordinated the response to the 2017-18 epidemic, putting in place numerous preventative measures including providing tanks of chlorinated water and improving water quality monitoring and testing.

By the time of the more serious outbreak in 2017, the PHAST campaign had reached thousands of residents in both PUAs (more than 40,000 people in Chazanga and just under 30,000 in Kanyama). Given the number of strategies and actors working to contain the outbreak,

we cannot draw any clear relationship between this project's campaign messaging and the disease's spread. However, employees of LWSC, NHCs and Environmental Health Technologists (EHTs) hold the view that the hygiene messaging contributed to the control of the outbreak in Kanyama and Chazanga.

Although both PUAs were affected by cholera, EHTs reported that the zones in Kanyama that had been covered particularly intensely by PHAST-trained NHCs experienced fewer cases during the 2017-18 outbreak, citing the effectiveness of the messaging on handwashing with soap. LWSC utilised these NHCs during the outbreak, and the pit emptying services provided by LWSC through the two Water Trusts saw an uptake in demand: for example, around 25% of all the pits emptied by Kanyama Water Trust since 2013 were emptied during the 2017-18 outbreak.



Image: Jane Sakala, Chazanga resident and Water Trust pit emptying client

Conclusion

Although firm conclusions cannot be drawn, there is anecdotal evidence that PHAST can be helpful in limiting the spread of cholera. The PHAST methodology is a Ministry of Health-recognised behaviour tool and it intends to deploy it in future if funding is available.

However, sustainability is the critical challenge for hygiene promotion activities and the following issues will need to be addressed if the PHAST campaign results are to be maintained:

- PUA residents struggle to access or afford clean water to wash their hands and keep their toilets clean
- Residents still consider Water Trusts' pit emptying services to be expensive
- More than three-quarters of households would not prioritise a flush toilet over school fees and food
- Communities in Kanyama and Chazanga will require repeated sensitisation campaigns if messaging is to be retained, particularly as new residents move into the PUAs

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