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Sustainable Total Sanitation in Nigeria - implementation, learning, research and influence on practice and policy - formal research component

Submission date
23/09/2014

Recruitment status
No longer recruiting

Registration date
06/10/2014

Overall study status
Completed

Last Edited
07/06/2023

Condition category
Infections and Infestations

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol
Background and study aims
The main aim of the STS Nigeria project is to eradicate open defecation and improve hygiene practices in households in rural and semi-urban Nigerian communities. By improving sanitation, the program aims to improve the well-being of households in treated communities. WaterAid Nigeria (WANG) is undertaking this project through the Local Government Areas (LGAs) as well as Non-Governmental Organisations (NGOs), in three Nigerian states: Jigawa, Ekiti and Enugu. This study aims to encourage people to use private sanitation solutions and to supply better quality private sanitation solutions that meet the local needs at a more affordable price in rural communities. In order to achieve this, we are implementing two different but closely connected methods: Community-Led Total Sanitation (CLTS), which is a community mobilization intervention, and Sanitation Marketing (SanMark), which targets suppliers of sanitation materials.

Who can participate?
All household members living in participating states of Nigeria.

What does the study involve?
CLTS will be implemented randomly in selected communities in each of the states. Communities and their households can voluntarily participate in the CLTS. SanMark will be implemented randomly in selected suppliers in each of the states. These suppliers will be approached by SanMark consultants and they can choose to participate voluntarily. Data will be collected from communities, households, businesses and facilitators of the interventions at the start of the study. Body measurements from children aged 6 or under and their mothers will be collected as part of the household survey as well as information about their health. Data collection will take place over a period of 18 months.

What are the possible benefits and risks of participating?
It is expected that participants will benefit from improved sanitation practices, and hence

improved well-being. It is expected that businesses that participate in the SanMark intervention will benefit from introducing new products and improving their performance. We do not expect risks related to participation in the study.

Where is the study run from?
Households of two Nigerian states: Ekiti and Enugu

When is the study starting and how long is it expected to run for?
Initial information will be collected in October 2014. Program implementation is expected to start right after data collection is finished in each local government authorities in each of the two states. Final data collection is expected to start in October 2017. The study is expected to end on 30/06/2018.

Who is funding the study?
WaterAid, UK

Who is the main contact?
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Additional identifiers

Protocol serial number
N/A

Study information

Scientific Title
The effectiveness of the Sustainable Total Sanitation program in Nigeria: a cluster randomized trial on demand creation

Acronym
STS Nigeria

Study objectives
It is hypothesized that community-Led total Sanitation (CLTS) will decrease open defecation, and by doing so can increase the adoption and sustained use of improved sanitation practices, by households in rural and semi-urban Nigerian communities. Households in villages more exposed to Sanitation Marketing will increase the adoption and sustained use of improved sanitation practices relative to villages less exposed to Sanitation Marketing. In turn, eliminating open defecation and the use of improved sanitation in combination with improved hygiene practices, such as hand washing with soap, can result in changes in a number of additional outcomes, including health and productivity. The null hypothesis is that there will be no difference in sanitation practices and outcomes between the treatment and the control group. A second hypothesis is that businesses that participate in Sanitation Marketing will improve their product range, specifically with respect to affordable materials and products for sanitation relative to control businesses. The effectiveness of CLTS will be established by an RCT, the impact of the SanMark intervention on households and communities will not be established through an RCT.

Ethics approval required
Old ethics approval format

Ethics approval(s)
UCL Research Ethics Committee, Graduate School Office; 16/05/2014; ref: 2168/009

Study design
Randomised controlled trial (RCT)

Primary study design
Interventional

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Communitiy intervention (CLTS) to improve households' sanitation uptake and practices. Supplier level intervention (SanMark) to improve sanitation supply and demand.

Interventions
Communities are randomly allocated to intervention and control groups.

CLTS aims at changing social norms, decreasing open defecation and increasing the demand for sanitation. It promotes a collective sense of disgust and shame about open defecation (making evident that open shit goes to open mouth), and community pressure to change social norms and trigger change in defecation and hygiene behaviour of each of its members. CLTS improves the understanding that so long as a small number of people in the community continues to open defecate all community members are at risk of contracting sanitation related diseases. This understanding is expected to lead to community members coming up with a coordinated solution to end open defecation at the community level. The households living in randomly selected control communities will only benefit from CLTS after this study finishes.

Sanitation Marketing works with private sector business and focuses on the 4Ps of the marketing mix product, place, promotion and price to connect people to sanitation products they desire. The idea is that a supply of suitable products and services are ready and accessible before or at the time of stimulating demand through promotional activities fostered by the SanMark intervention. This allows households within each community to afford a toilet or upgrade their existing facilities, increasing the probability of communities to build improved latrines rather than unimproved latrines - that they will maintain and use over time. SanMark uses social and commercial marketing techniques to persuade individual households to invest in and use a latrine, by highlighting the private benefits and aspirational drivers. Sanitation Marketing can also benefit the businesses that sell the new sanitation product. Businesses in the control group will benefit after this study finishes, when they will be formally approached to engage in Sanitation Marketing. However, there could be spillover effects to control businesses and these businesses could benefit from imitating treated businesses.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
1. Percentage of households that own toilet
2. Percentage of households that own an improved toilet
3. Percentage of households that use a toilet
4. Percentage of households that use an improved toilet
5. Percentage of households that practices open defecation
6. Percentage of women that practice handwashing at critical times
7. Percentage of suppliers that take up the new sanitation product
8. Percentage of suppliers that conduct marketing activities for their products
9. Percentage of individuals that wash their hands after defecating

Key secondary outcome(s))
1. Percentage of children 0-24 months who are stunted (height for age z-score less than -2)
2. Percentage of children 0-24 months who are wasted (weight for height z-score less than -2)
3. Percentage of children 0-24 months who suffer from underweight (weight for age z-score less than -2)
4. Percentage of children 24-60 months who are stunted (height for age z-score less than -2)

5. Percentage of children 24-60 months who are wasted (weight for height z-score less than -2)
6. Percentage of children 24-60 months who suffer from underweight (weight for age z-score less than -2)
7. Percentage of children under 6 year of age that have reported diarrhea in the last 7 days.
8. Percentage of household members that have reported diarrhea in the last 4 weeks.
9. Percentage of household members that have reported any sanitation related diseases (Malaria, Thyphoid Fever, Cholera, Trachoma, intestinal worms, guinea worm) in the last 4 weeks.
10. Percentage of women that feel unsecure/uncomfortable about their place for defecation
11. Amount of savings
12. Amount of debt
13. Hours worked for pay

Completion date
30/06/2018

Eligibility

Key inclusion criteria
All households members

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Child

Sex
All

Key exclusion criteria
None

Date of first enrolment
01/10/2014

Date of final enrolment
31/12/2017

Locations

Countries of recruitment
United Kingdom

England

Nigeria

Study participating centre
Institute for Fiscal Studies
London
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Sponsor information

Organisation
WaterAid

ROR
https://ror.org/02at6q094

Funder(s)

Funder type
Charity

Funder Name
WaterAid (UK)

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated and/or analysed during the current study during this study will be included in the subsequent results publication.

IPD sharing plan summary
Other

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Funder report results		06/05/2018	01/09/2021	No	No