ANNEXES- Impact Evaluation of Water, Sanitation, and Hygiene (WASH) within the UNICEF Country Programme of Cooperation, Government of Nigeria and UNICEF, 2009-2013

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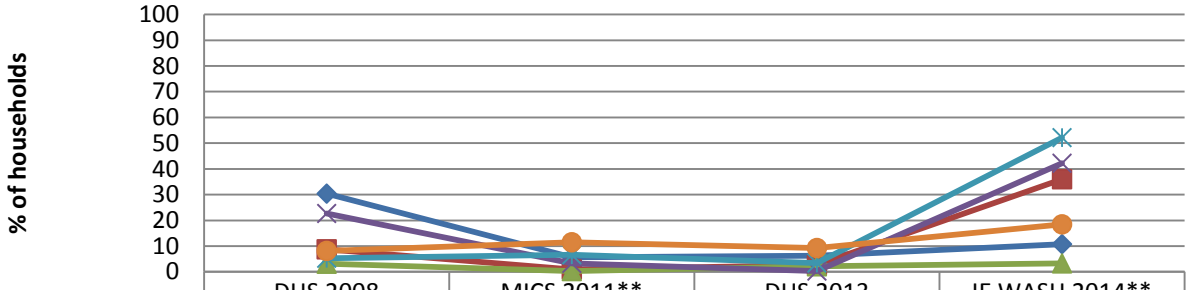
Trends in the % distribution of household using an appropriate water treatment method*, 2008 - 2014

*Appropriate water treatment methods include boiling, bleaching, filtering, and solar disinfecting

**% of hh members using unimproved drinking water sources



	DHS 2008	MICS 2011**	DHS 2013	IE WASH 2014**
Benue	30.4	5.6	6.3	10.8
Bauchi	8.7	0.9	2.6	36
Jigawa	3.1	0.3	2.2	3.3
Katsina	22.7	3.3	0.3	42.2
Cross River	5.3	6.6	3.4	52.2
Osun	8.1	11.5	9.3	18.4

Annex 1: Sampling Considerations

Sample Size - Household Survey

The RFP states: The main results planned include an increase of 5% of proportion of population in Focus States with access and use of improved water sources (2007 baseline); an increase of 3.5% of proportion of population in Focus States with access to and use of improved sanitary and hygiene facilities (2007 baseline); an additional 800 schools have safe water sources and sanitation facilities; adoption of sustained behaviours for water, hygiene and sanitation adopted in 2000 communities; and Nigeria certified dracunculiasis-free.

The calculation of sample size required for this study is based on the fact that its main aim is to produce tables, mainly for monitoring and evaluation purposes. Each table requires a specific approach to computing sample size.

For this evaluation, a comparison of monitoring indicators is required between the focus and counterfactual states. For example, Logical frameworks usually set to compare values of key indicators at baseline and end-of-project. In this case, we'll compare selected focus and counterfactual states on key variables at the end of the WASH programme period by conducting, amongst others, a household survey. The required sample size for the monitoring of the programme is therefore calculated using the formula

$$n = \frac{1}{R} * \frac{deff \times \left[Z_{1-\alpha}\sqrt{2P(1-P)} + Z_{1-\beta}\sqrt{P_1(1-P_1)+P_2(1-P_2)}\right]^2}{(P_2-P_1)^2}$$

Where

P_1 is the hypothesized value of the indicator in the selected focus states

P_2 is the expected value of the indicator in counter factual states

$P = (P_1+P_2)/2$

Z_α is the standard normal deviate value for an α type I error

$Z_{1-\beta}$ is the standard normal deviate value for a c type II error

Deff is the design effect in case of multi-stage cluster sample design

R=Overall response rate (usually set at 90%)

Table 1: Key Indicators, expected difference at end line and minimum sample size needed

Key Indicators	Selected Counterfactual Sates (2012)	Selected Focus States (2012)	Expected Difference (End line)	Minimum Sample size needed
An increase of **5%** of proportion of households in focus States with access and use of improved water sources (2007 baseline);	60.0%*	65%	5%	**1930**
An increase of **7%** of proportion of households in focus States with access and use of improved water sources (2007 baseline);	60.0%*	67%	7%	**973**
An increase of 3.5% of proportion of households in focus States with access to and use of improved sanitary and hygiene facilities (2007 baseline)	40.0%	43.5%	3.5%	**3972**
% Decrease in diarrheal prevalence	18.8%**	13.8%	5%	**1078**

*Note: Hypothetical values based on http://www.international.ucla.edu/media/files/89.pdf

** www.unicef.org/**nigeria**/media_2364.html

In order to statistically measure changes between the selected focus and counterfactual states at the end of the program, of 5% (with initial estimate at 60% for example and assuming a design effect of 1.5 and a 10% non-response rate) we would need a minimum sample size of 1930 households. In order to measure a 7% difference at end line between focus and counter factual states, a minimum sample size of 973 will be required.

In order to statistically measure changes between the selected focus and counterfactual states, as small as 3.5% (with initial estimate at 40% for example and assuming a design effect of 1.5, confidence level of 95%, statistical power of 80% and a 10% non-response rate) we would need a minimum sample size of close to 3972 households.

To measure a decrease in the diarrheal prevalence in households of 5% given an initial estimate of 18,8%, a minimum sample size of 1078 will be required. As before, the calculation assumes a design effect of 1,5, a confidence level of 95%, statistical power of 80% and a 10% non-response rate.

A minimum consideration for sample size will be therefore be around 1100 households across the 6 purposively selected LGAs.

The total sample size does however, has its limits. This means that at LGA level, we'll only be able to provide descriptive statistics of key variables. The statistical comparison, with sufficient statistical power, will comprise of comparing intervention and counterfactual (all communities across LGA combined) on key variables.

Annex 2: Quantitative tool

The Household Survey Questionnaire is found below:

Annex 3: Qualitative tools

I: Topic Guides for In-depth interviews

In depth interview with WASH focal person at State level

1. What are the responsibilities at State level for WASH? Is there a specific WASH department? How many WASH staff is there and what are their responsibilities (make a matrix if possible)?
2. What funding is available from the State for WASH? – What is the change since 2009? - And to what extent is this a result of the FG/UNICEF programme?
3. Have there been any changes in these as a result of the FG/UNICEF programme?
4. What activities have been carried out at State level under the FG/UNICEF programme - what activities were introduced by UNICEF?
   Which ones cannot be carried out anymore if UNICEF withdraws - which ones would remain?
5. What stakeholders are involved in the WASH programme at State level (government, non-government, private sector – profit making orgs, community leaders/groups, women inclusion??), what do they do? , what is their function & mandate, how do they relate? How are they held accountable on results and on finances?
6. How do you monitor the WASH programme at State and LGA level? Is the Monitoring and Evaluation Framework operational? Do you have a MIS system and how do you make use of results from monitoring and MIS system? How analyzed? Used for accountability mechanism? Translated into action?
7. How is the transfer or delegation of responsibilities to LGAs organized for WASH? Has this changed since 2009? And to what extent is this a result of the UNICEF programme? How do you think this is working (positive and negative)?
8. How are LGAs selected for inclusion in the FG/ UNICEF programme – what are the criteria, process and who decides on the selection?
9. How was capacity building on WASH organized by UNICEF for State level staff – were you satisfied? What topics were covered? What was the impact of these activities – do you feel being capable now to train others?
10. What accountability and transparency measures (public financial management, procurement system and public expenditure review) exist at State level to create an enabling environment for WASH implementation? Are these operational – how – who holds who to account on what?
11. How would you describe the capability at LGA level to deliver on expected outputs/ expected/ planned results?
12. What is the strength of the programme and what could be improved?
13. What is according to you, the outcome and impact of the UNICEF WASH programme?
14. What were the drivers of change (institutions, persons, events) that caused changes and results?

15. What external (national, state, LG, community level) and internal (organizational) contextual factors have been of influence on the programme (positive and negative)?
16. To what extent are the programmes sustainable? How?

In depth interview with Financial and/or planning officer State level

1. What are the responsibilities at State level for WASH? what is your mandate, what are your responsibilities as financial/planning officer do in WASH – what is your function in the FG / UNICEF WASH program?
2. What funding is available in the State for WASH –
    a. From the central level, from the Federal Government, State, UNICEF, from local taxes, other sources?
    b. what is the change in State funding for WASH since 2009 - and to what extent is this a result of the FG / UNICEF programme
    c. is there a funding gap? How to solve this?
3. Have there been any changes in these as a result of the FG / UNICEF programme
4. What stakeholders are involved in the programme at State level (government, non-government, private sector)?, what do they do?
17. How do you monitor the WASH programme at State and LGA level? Is there a Monitoring and Evaluation Framework? Is it operational? Do you have a MIS system and how do you make use of results from monitoring and MIS system? How analyzed? Used for accountability mechanism? Translated into action?
5. How do you ensure that the funds for WASH are used as intended?
6. How is the decentralization of responsibilities to LGAs organized for WASH, has this changed since 2009 and to what extent is this a result of the Unicef programme? How do you think this is working (positive and negative)?
7. Do you meet with WASH staff at LGA level? For what?
8. Have there been any workshops or capacity building seminars for WASH programme organized by UNICEF for State level staff? What topics were covered? Where you present at these events?
9. What accountability and transparency measures exist at State level for public financial management, procurement system and public expenditure review to create an enabling environment for WASH implementation? Are these operational – how?
10. How would you describe the capability at LGA level to deliver on expected outputs/ expected/ planned results?
11. What is according to you, the outcome and impact of the FG / UNICEF WASH programme.
12. What is the strength of the programme and what could be improved?
13. What external (national, state, LG, community level) and internal (organizational) contextual factors have been of influence on the programme (positive and negative)?
18. What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF programme?
19. Are the programmes sustainable? How?

In depth interview with WASH focal person at LGA level

1. What are the responsibilities/ mandate at LGA level for WASH in relation to State level and community? Is there a specific WASH department/unit? And how many WASH staff is there? What are their tasks (make a matrix if possible)? What indicators of success are used for their promotion?
2. What funding is available at LGA from the State for WASH? – What is the change since 2009? - and to what extent is this a result of the FG / UNICEF programme?
3. In addition:
    a. How do you approach a community for WASH – what strategy, target group, intervention?
    b. What are your resources available (financial/ human/ logistical)?
    c. How do you monitor/ evaluate outputs, effects, outcome – who analyses, who translate this to actions? Consequences?
4. What policies and regulations exist for the WASH sector (ask separate for water, sanitation and hygiene education) at state level? Is this in line with the policies and regulations at Federal level? Have you adjusted it for your LGA?
5. Have there been any changes in these as a result of the FG / UNICEF programme
6. What activities have been carried out at LGA level under the FG / UNICEF programme, in how many communities (water, sanitation, hygiene)
7. What stakeholders are involved in the programme at LGA level (government, non-government, private sector, community), what do they do? And how do they get selected?
8. How do you monitor the WASH programme at LGA level? Is there a Monitoring and Evaluation Framework? Is it operational? Do you have a MIS system? And how do you make use of results from monitoring and MIS system? How analyzed? Used for accountability mechanism? Translated into action?
9. How is the decentralization of responsibilities to LGAs organized for WASH? Has this changed since 2009? and to what extent is this a result of the FG / UNICEF programme? How do you think this is working (positive and negative)?
10. How would you describe the capability at LGA level to deliver on expected outputs/ expected/ planned results?
11. How are LGAs selected for inclusion in the FG / UNICEF programme – what are the criteria, process and who decides on the selection?
12. How are communities selected for inclusion in the FG / UNICEF programme – what are the criteria, process and who decides on the selection?
13. Have there been any training workshops or seminars for WASH programme organized by UNICEF for LGA level staff? Who was doing the training? What topics were covered? What was the impact of these activities? Is there any refresher training?
14. What is the range of technology, management and financing options for water supply available for communities?
15. How many new boreholes/wells have been constructed in your LGA?

16. How do you ensure Operation & Maintenance?, what is the division of responsibilities between LGA and community WASHCOM?
17. What do you do if water supply breaks down and the community cannot repair? Process? Time frame? Funds? Who repairs?
18. How many LGA people have been trained in CLTS? How many communities have they triggered per person and how many communities are ODF?
19. Where are latrine construction materials obtained in the LGA? How do you ensure the quality of the latrine construction (some latrines are more dangerous for health than OD)?
20. What process is in place to ensure that those who cannot afford a latrine are included in the CLTS programme
21. How are responsibilities for School WASH divided between WASH and Education sector – who funds? Who designs? Who contracts? Who supervises and monitors?
22. What is done by LGAs for hygiene education and environmental sanitation
23. What accountability and transparency measures/mechanisms exist at LGA level for public financial management, procurement system and public expenditure review to create an enabling environment for WASH implementation? Are these operational – how?
24. What is according to you the outcome and impact of the UNICEF WASH programme in your LGA?
25. What is the strength of the programme and what could be improved?
26. What external (national, state, LG, community level) and internal (organizational) contextual factors have been of influence on the programme (positive and negative)?
27. Is there any indication that the FG / UNICEF WASH programme has led to uptake of other programmes (mother and child helath, immunization, other)
28. Is there any indication that CLTS has scaled out by itself?
29. What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF programme
30. Do you think the programmes are sustainable? How?

In depth interview with Trainer of CLTS facilitators

1. What is your background (educational and professional)?, what kind of initial training? How have you been trained in CLTS yourself?
2. How were you selected to become a CLTS facilitator and trainer?
3. Can you describe your training programme? How much is classroom (theoretical) training and how much in the field (practical)?
4. Who do you train, how are they selected? – What is the role of the community in selecting? Gender, age, position, WASHCOM?
5. What is covered in triggering in the community? Can you describe step by step?
6. What is the range of sanitation technologies that you offer in your triggering?
7. What provisions in terms of technical solutions are made for old and/or disabled people
8. What numbers of villages are triggered vs number of ODF villages in this LGA – what is your strategy/ approach in the communities?
9. How many have you triggered and how many ODF?
10. What do you do if the triggering is not working in a village, what kind of problems to overcome?
11. What process is in place to ensure that also those people who cannot afford a latrine get one?
12. We know young people confront older persons, on sanitation and hygiene – e.g. outside defecation? How does this work? How does the community look at this in terms of acceptability?
13. How do you ensure that latrines have sufficient quality?
14. How are local builders trained? Has this number increased since the programme started?
15. How do you make sure people can get latrine construction materials?
16. What training do you give on hygiene education? ***Probe for*** :Washing hands at critical times, water transport, water storage
17. What do you train on hand washing facilities? Hygiene? Soap?
18. Who does the monitoring of the CLTS system? On what is monitored?
19. How would you describe the government support for CLTS?
20. Can a village be ODF if the school sanitation has not been done (only 5% of schools seem to be covered, true?)
21. What training do you give schools (head, teachers, PTA, school health clubs)?
22. What are the changes in the communities as a result of the UNICEF CLTS programme?
23. Have there been any training workshops for WASH CLTS for LGA level staff? What topics were covered? What was the impact of these activities?
24. What is the strength of the CLTS programme and what could be improved?

25. What external (national, state, LG, community level) and internal (organizational) contextual factors have been of influence on the programme (positive and negative)?
26. Is there any indication that the CLTS programme has led to uptake of other programmes (mother and child health, immunization, other)? – Has the organisation been strengthened – w\examples?
27. Is there any indication that CLTS has scaled out by itself?
28. What is according to you the Most Significant Change that has taken place as a result of the CLTS programme?

In depth interview with implementing NGO

1. How is your NGO involved in the FG / UNICEF WASH programme, since when? Please could you describe all your tasks water, sanitation, hygiene?
2. What is your relationship with the LGA WASH team, how do you coordinate? how is the division of roles, what are their and your responsibilities?
3. Who supervises the NGO interventions and how is this monitored?
4. What activities have been carried out at LGA level under the FG / UNICEF programme, in how many communities (water, sanitation, hygiene). What was your role?
5. What stakeholders are involved in the programme at LGA level (government, non-government, private sector, community), what do they do? And how do they get selected? How do they coordinate?
6. How are communities selected for inclusion in the FG / UNICEF programme – what are the criteria, process and who decides on the selection? What are the strategies to approach the community?
7. Have you seen any changes in attention for WASH at LGA level since 2009? To what extent is this result of the FG / UNICEF programme – what were other drivers of change?
8. Have you conducted capacity building activities? If yes, for who and on what topics? What is the process, what the learning approach?
9. Communities are supposed to have WASHCOMS. Can you tell about: selection, training which aspects, who (social-economic, gender division) gets trained on what (probe: community management, O&M, financial management, CLTS, hygiene etc) and how this is usually done?
10. How is the monitoring of the interventions at community level done? By who, on what, who is reported to, how are results analyzed?
11. What is the range of technology, management and financing options for water supply available for communities?
12. How is O&M organized? what is the division of responsibilities between LGA and community WASHCOM?
13. Have you been involved in triggering communities for CLTS? If so, how many communities have you triggered per person and how many communities are ODF?

14. How do you ensure the quality of the latrine construction (some latrines are more dangerous for health than OD)?
15. What process is in place to ensure that those who cannot afford a latrine are included in the CLTS programme
16. What do you think of the CLTS process – positive and negative effects, outcomes and impacts?
17. What is done by you for hygiene education and environmental sanitation?
18. Are you involved in school sanitation? If so, how? Positive and negative outcomes and impacts?
19. What is the strength of the WASH programme and what could be improved?
20. What external (national, state, LG, community level) and internal (organizational) contextual factors have been of influence on the programme (positive and negative)?
21. Is there any indication that the FG / UNICEF WASH programme has led to changes in the community organization – probe: e.g. uptake of other programmes (mother and child health, immunization, other)
22. Is there any indication that CLTS has scaled out by itself, e.g. from one to other communities?
23. What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF programme?
24. Are the programmes sustainable – institutional, financial, cultural, technical? How?

In depth interview with community leader

1. What are, according to you, the problems related to WASH in your community? what are the risks? How do different community members see these problems and risks?
2. What interventions have been done in your community for water supply, sanitation and hygiene?
3. Who decided on these interventions?, what was the level of commitment?– are they responding to the needs of the community?
4. Did the community get the information that enabled them to make an informed choice (**water supply**: borehole/well; cost to the user; location of water point; O&M requirements; **sanitation and hygiene education:** CLTS process; types of latrines to be constructed with costs (sanitation ladder); types of hand washing facilities and costs; water treatment practices; water storage requirements; **school sanitation** (if relevant); **requirements for community organization:** establishing WASHCOM; selection criteria for WASHCOM; tasks of WASHCOM? Who gave this information?
5. How did you ensure that everyone in the community was reached by the interventions and has equal access to services and information, including the most vulnerable groups?
6. Who has been facilitating the activities in the community? LGA, UNICEF, NGO, other? How has this been done (positive and negative)?
7. Is there a WASCOM in the community? How were they selected (criteria) and by who, for how long, how many men and women?
8. Do you know the tasks of the WASHCOM? – How are responsibilities divided over the different members?
9. What are the training the WASHCOM received? List if possible?
10. How would you describe the impact of the training (ask for examples) on the activities of the WASHCOM?
11. What are the current effects/ outcomes of the WASH programme? **Probe**: do you think WASH related behavior of community members has changed? Do you think health has improved? Are effects different for boys/ girls, for men/ women? Effects for the poor?
12. What are the program's strengths and what could be improved?
13. Have the WASH programme and the establishment of the WASHCOM led to strengthening of the community organization; probe: uptake of other programmes (mother and child health, immunization, other)?
14. What external (national, state, LG, community level) and internal (organizational) contextual factors have been of influence on the programme (positive and negative)?
15. Is there any indication that CLTS has scaled out by itself?
16. What is according to you the Most Significant Change that has taken place as a result of the CLTS programme?
17. Do you think the achievements of the WASH programme will be sustainable-For water, sanitation and hygiene? If yes – why; if no-why?

In depth interview with In-charge of School Hygiene Education programme

1. What is your primary work in the school? What are your responsibilities as the one in charge of the school Hygiene Education programme? How long have you played this role? How long have you been involved with the FG / UNICEF programme?
2. Were you trained for this role? How and for how long? What materials were used in your training?
3. What is the training like for school personnel regarding WASH activities? Who conducts the training and what materials are used?
4. How often are such trainings carried out? When was the last one carried out? How many such trained staff do you have?
5. Please could you describe all the WASH activities in the school? What activities do you do for hygiene? School sanitation?
6. Do you have an Environmental Health Clubs in the school? What types of activities are carried out by the EHCs?
7. What kind of training is given to the children in the EHCs? What information is given on hygiene? Sanitation? What materials are used? Please could I see an example?
8. What type of water point do you have in the school? Is it functioning? How regular is the water supply?
9. What types of latrines do you have in the school? Who is responsible for cleaning the latrines? How often is that done? Is there a roster? Please can you show me?
10. Are there separate latrines for boys and girls? How does that work out?
11. What types of hand washing facilities are available? May I please see an example?
12. How is operation and maintenance of the WASH facilities carried out? How is that budgeted for?
13. What are the lines of reporting for needed repairs? How would you rate the reaction time between reporting and actual repairs?
14. How would you describe the influence of the PTA on WASH practices? Latrine use, hand washing activities? Could you give some examples please?
15. How would you describe the influence of the children on their parents regarding WASH practices? Could you give some examples please?
16. How would you describe the influence of the teachers on WASH practices? Latrine use, hand washing activities? Could you give some examples please?
17. How would you describe the level of enrollment for girls and boys; rate of drop-out? Lateness to school due to time allocated to fetching water?
18. If you face challenges in your work in the area of WASH, where do you go and do you get the support you need? Can you give an example?
19. What do you think are the positive and negative outcomes and impacts of the school sanitation/hygiene programme?
20. What is the strength of the programme and what could be improved?

21. Use trend analysis to identify changes that have been achieved between the start of the programme and now. **Probe** how the programme has contributed to these changes.
22. What is according to you the Most Significant Change that has taken place as a result of the WASH programme?

In depth interview with Latrine builders

1. For how long have you been building latrines? Why is this work important? How did you come about choosing this line of work? What advantages/ disadvantages are there for you in the work?
2. Are you involved or in contact with the FG / UNICEF WASH programme - When and how?
3. Have you had any training in latrine building? Who trained you? How long did the training last? What materials were used to train you? Please could you show an example? Was it only in class, or also in practice?
4. When was the last time you were trained? How was that for you?
5. Do you think you have the proper tools to carry out your work? Have you had any assistance in the provision of your tools or in materials you work with? Who has assisted you? How?
6. What types of latrine do you usually build? Who usually makes the choice of latrine to build? What informs that decision usually?
7. Is there anything especially available in terms of building latrines for very old and/or disabled people?
8. How much do you get paid to build a latrine? Who usually pays you?
9. What about people that cannot afford to pay for their latrines? How does that work?
10. Who usually contacts you to build the latrines? Individuals, communities
11. How would you describe your schedule in the past three years? Which year has been your busiest?
12. When you encounter difficulties in your work what do you do? Where do you go? And do you get the support you need?
13. What materials do you usually use to construct the latrines? How do you get them? And from where? Are they usually readily available or do you have to order them? If you order them, how long does it take to arrive?
14. How long does it usually take to build the different types of latrines? What are the bottlenecks?
15. How do you ensure the quality of the latrine construction (some latrines are more dangerous for health than OD)?
16. What is your experience with latrine breaking down? How was that handled?
17. How long does it usually take to make repairs? What are the bottlenecks?
18. How do you get the spare parts you need for your work? How does that work for you? Where do you get them? How would you describe their availability?
19. What do you think are the greatest challenges you have in your work?
20. What is according to you the outcome and impact of the FG / UNICEF WASH programme?
21. What in your opinion is the strength of the programme and what could be improved?
22. What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF WASH programme

In-depth interview with In-charge of Health Facility (Diarrhoea and WASH service)

1. How important are WASH related health problems in your catchment area?
2. Is your health centre involved in the FG/UNICEF WASH programme or been in contact with elements of the programme or with programme stakeholders? Please describe relating to water, sanitation or hygiene; since when?
3. What is your relationship with the LGA WASH team?
4. How would you describe the WASH status in your own facility:
    a. What water facilities are available at your facility? How functional is it?
    b. What type of latrines do you have? When were they built? By whom?
    c. What hand washing facilities are available?
5. Is any of the hospital staff trained in WASH? Who? And how?
6. What type of information on WASH is given to women on hygiene and , sanitation? To the community in general? How?
7. In your opinion how have the lives of individuals been affected by this programme? Positive and negative
8. How are records kept in your facility? Who is in charge? Who supervises the process?
9. What about diarrhoea in children U-5? What is it usually like in this community?
10. What about prevalence or incidence of trachoma, filariasis, schistosomiasis, soil transmitted helminthiasis and changes in these since the WASH programme?
11. What do you think has been the changes since the programme? Do you have records that reflect this? Please may I see? What were the drivers of change?
12. Use trend analysis to identify changes that have been achieved between the start of the programme and now. **Probe** how the programme has contributed to these changes.
13. What do you think is the strength of the programme and what could be improved?
14. Is there any indication that the FG/UNICEF WASH programme has led to uptake of other programmes (mother and child health, immunization, other)?
15. What is according to you the Most Significant Change that has taken place as a result of the FG/UNICEF programme?

In-Depth Interview with Hand Pump Caretaker

1. How long have you been taking care of hand pumps? Why is this work important? How did you come about choosing this line of work? What advantages/ disadvantages are there for you in the work?
2. Are you involved with any WASH programme – Which, when and how? **Probe** for involvement with the FG / UNICEF WASH programme
3. Are you part of the WASHCOM in your community? Or is this work a private business?
4. Have you had any training for taking care of the hand pump? Who trained you? How long did the training last? What materials were used to train you? Please could you show an example? Was it only in class, or also in practice?
5. When was the last time you were trained? How was that for you?
6. Do you think you have the proper tools to carry out your work? Have you had any assistance in the provision of your tools or in materials you work with? Who has assisted you? How?
7. How do you take care of the hand pump? What are your regular activities? Do you have a regular maintenance contract or do they only call you when a repair is needed? Who calls you?
8. What do you do when there are problems with the hand pump - major repairs? Minor repairs?
9. How long does it usually take to make repairs? What are the bottlenecks?
10. How much do you get paid do this work? Who usually pays you?
11. How would you describe your schedule in the past three years? Which year has been your busiest?
12. How do you get the spare parts you need for your work? How does that work for you? Where do you get them? How would you describe their availability?
13. When you encounter a difficulty in your work, what do you do? What support is available to you?
14. What do you think are the greatest challenges you have in your work?
15. What is according to you the outcome and impact of the UNICEF WASH programme?
16. What in your opinion is the strength of the programme and what could be improved?
17. What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF WASH programme

In-depth Interview with WASHCOM member

1. How long have you been a WASHCOM member? Why do you consider this role important?
2. How long has the WASHCOM in your community been in existence? (existence since, selected how, composition, how long is membership for, what are the tasks, how much time involved, incentives)
3. What training have you received (mention different types) and was this sufficient to carry out your tasks?

- Initial training how many days, what topics
- Refresher training how many days, what topics
- What new skills and knowledge have you gained from these trainings
- Did you have any involvement in deciding the topics for training?

4. What materials have you received to be able to do your work?
5. What WASH interventions are done in the village? Tell me about the use and satisfaction of the community.
6. How do you collect money for O&M?
7. Repairs of water supply: what if it breaks down, what if you cannot repair, how long is the down time
8. How would you describe the availability of spare parts for repairs when needed?
9.
10. How do you report on your activities and how do you monitor the impact of your work
11. How is CLTS done in the village (process, guidance, quality assurance, inclusion, %of people with latrines, ODF status)
12. What activities do you do for hygiene? School sanitation?
13. If you face challenges in your work, where do you go and do you get the support you need?
14. Use trend analysis to identify changes that have been achieved between the start of the programme and now. Probe how the programme has contributed to these changes.
15. Do you know of any other (similar) interventions have been carried out that you feel are relevant, in whatever way and which could have influenced outcomes?
16. Has the FG / UNICEF WASH programme and the establishment of the WASHCOM led to uptake of other programmes (mother and child health, immunization, other)
17. What external and internal contextual factors have been of influence on the programme (positive and negative)
18. Is there any indication that CLTS has scaled out by itself?
19. What is according to you the Most Significant Change that has taken place as a result of the WASH programme
20. Do you think the achievements of the programme will be sustainable-For water, sanitation and hygiene? If yes – why; if no-why.
21. Tell us about the Most Significant Change

II: Topic Guides for Focus Group Discussions (FGDs)

Note on FGDs: As far as possible, have the focus group discussions with equal number of men and women. Ensure that men and women have equal input in the discussion. Or have men and women separate (but this will take more time, which you probably not have).

Aim for about 8-10 persons per FGD

These list of questions are guidelines, you are free to add questions in case things come up that are not covered in these guidelines. Be flexible, but keep time in mind.

For all questions (where relevant) probe about the situation before the UNICEF programme, after the programme and the reason for change.

FGDs should last approximately one – one and a half hour. This leaves limited time for participatory activities. However, try to set aside 10 minutes for a trend appraisal. Ask the FGD participants to think back how the situation was before the start of the programme and how the situation is now. Choose topics for the trend appraisal that are in line with the objectives of the programme. Give them 3 - 5 minutes to discuss amongst each other about this. Then ask them to describe the situation before and now. If there are changes, probe how these changes have come about. What has caused these changes. If you still have time left, ask them to describe what further changes they expect and why.

For finding out the most important impact of the programme for this group, use the Most Significant Change tool and note down the stories that people tell.

Preparation for the FGD:

1. Criteria for selection of FGD participants
2. Selection of FGD participants
3. Selection of location for FGD (should allow for privacy, and for the creation of an atmosphere which promotes discussion, food and drinks can be served).
4. Once location selected, invite participants (through ???) who will explain the purpose of the work to any potential participants they have identified; they will stress that participation is voluntary, and that all discussions held will be
5. Make a Focus group checklist:

Make sure you have:

- Made arrangements for refreshments
- Have all of your equipment, and it is functional:
    - 1 tape recorder
    - 2 blank 90 minute tapes
    - Spare batteries for the tape recorder

- Notebook and pens
- Name cards and felt tip markers

- Have all of your focus group materials:
  - 1 large envelope
  - 2 copies of this focus group guide
  - Informed consent forms, if necessary (enough for up to 10 participants)

6. As participants arrive, welcome them and obtain informed consent. This will be verbal, and should be preceded with a general introduction to the purpose of the discussion. The facilitator is responsible for assuring that each participant:

- Knows participation is voluntary
- Knows they can leave at any time without any negative repercussions
- Know that all discussions will be held in confidence
- Know that they will be given a pseudo name during the discussions
- Know that the group discussions will be taped
- Participants should also be made aware that they should not discuss the information that is shared by other participants during the focus group once they leave the site.

1. Introduction:

We are conducting an impact evaluation of the UNICEF WASH programme in Nigeria for the period 2009-2013. This programme has as key objective to increase access to safe water sources, hygienic practices and improved sanitation especially in the rural areas and among vulnerable populations.

There are two main objectives for the evaluation:

- To determine the effectiveness of the WASH intervention and to identify what worked well and mechanisms that made it work, in order to learn and improve effectiveness for scaling up (to understand "what works, why, where and for whom").
- To assess the impact of the WASH interventions in order to identify opportunities to improve impact.

The UNICEF programme covers

- Water supply (increase in water sources, community management of water sources, increased access to sustainable drinking water),
- Sanitation (Increased awareness on CLTS among Government partners, NGOs and Communities; Resource pool of CLTS facilitators available in all focus states; more

communities adopting CLTS resulting in increased access to sanitation facilities and consequent reduction of open defecation practices

- Hygiene (Health Promotion on hygiene, construction, provision and rehabilitation of WASH facilities in schools, increased awareness on effective hand washing and other hygiene practices among Government partners, NGOs and Communities, Increased awareness of WASH in schools and more schools have WASH

Introduce yourself and clarify that you are not part of the programme and that the information that is being obtained will be treated confidentially. Encourage people to be open and frank as that will be more useful for learning from their experiences. Also mention that people are not obliged to participate and can withdraw at any time in line with research ethics. Ask permission to start with the FGD.

Background

Ask all people participating in the FGD since when they were involved/in-contact with the UNICEF WASH programme? (This will provide you as interviewer with info about the time span you can cover with the different persons involved in the FGD)

Community men and women – FGD topics

Subdomain: Water

Change:

- Distance to safe water source (% of community to water source less than 250 meters)
- Water quality
- Water quantity
- Reliability of supply (annually, monthly, daily)
- Average downtime for repairs
- Cost of water supply
- Incidence of water related diseases (diarrhoea, trachoma, filariasis, schistosomiasis)

Subdomain: Sanitation and hygiene

Change:

- Households having a latrine
- Type of latrines constructed (guidelines on options available)
- Distance to places where sanitation hardware can be bought
- Masons available to construct latrines
- Hand washing facilities near latrine
- ODF status of community (not, applied, certified)
- Incidence of sanitation related diseases (diarrhoea, soil-transmitted helminthiasis)

Subdomain: School sanitation

Change:

- Schools having separate latrines for boys and girls
- Schools having water supply
- Cleanliness of school latrines
- Schools having school health clubs
- Hygiene education taught
- Enrollment of girls in schools

Subdomain: WASHCOM functioning

Change:

- WASHCOM exists in community
- WASHCOM has been elected by community members

- WASHCOM is in charge of operation and maintenance of water supply
- WASHCOM gives hygiene information to the community
- WASHCOM ensures water supply is repaired
- WASHCOM represents different groups in the community (rich, poor, men, women, ethnic groups)

Subdomain: Access for different groups

Change:

- Water supply is used by poor men, poor women, middle income men and women, high income men and women
- Latrines are constructed by poor families, middle income families, high income families
- Latrines are used by men, women, boys, girls
- Hand washing facility constructed by poor families, middle income families, high income families

Subdomain: perception of behaviour change

Change:

- People hand washing at critical times
- People use soap or ash for hand washing
- People treating drinking water
- People covering their water containers at home
- People take drinking water from the container with a long handled dipper or tap

Focus group discussion with Community WASH Committees (WASCOMs)

Background

Ask all people participating in the FGD since when they were involved/in-contact with the UNICEF WASH programme? (This will provide you as interviewer with info about the time span you can cover with the different persons involved in the FGD)

1: WASHCOM organisation and training

- Tell me about the WASHCOM (existence since, selected how, composition, how long is membership for, what are the tasks, how much time involved, incentives)
- What training have you received (mention different types) and was this sufficient to carry out your tasks?
- Initial training how many days, what topics
- Refresher training how many days, what topics
- What new skills and knowledge have you gained from these trainings
- Did you have any involvement in deciding the topics for training?
- What materials have you received to be able to do your work

2: WASHCOM activities

- What WASH interventions are done in the village. Tell me about the use and satisfaction of the community.
- How do you collect money for O&M
- Repairs of water supply: what if it breaks down, what if you cannot repair, how long is the down time
- How do you report on your activities and how do you monitor the impact of your work
- How is CLTS done in the village (process, guidance, quality assurance, inclusion, %of people with latrines, ODF status)
- What activities do you do for hygiene? School sanitation?
- If you face challenges in your work, where do you go and do you get the support you need?

3: Changes after the start of the programme

- Use trend analysis to identify changes that have been achieved between the start of the programme and now. Probe how the programme has contributed to these changes.
- Has the WASH programme and the establishment of the WASHCOM led to uptake of other programmes (mother and child health, immunization, other)
- What external and internal contextual factors have been of influence on the programme (positive and negative)
- Is there any indication that CLTS has scaled out by itself?

- What is according to you the Most Significant Change that has taken place as a result of the WASH programme
- Do you think the achievements of the programme will be sustainable-For water, sanitation and hygiene? If yes – why; if no-why.
  Tell us about the Most Significant Change

WASH team FGD topics

1. Subdomain: WASH team organisation

- Composition of WASH team
- Selection process, period of duty
- Period of involvement in FG / UNICEF programme
- Capacity building for WASH team members – who, topics, by whom, impact?
- WASH team roles and responsibilities and division of tasks
- Function descriptions and indicators for promotion
- Reporting and supervision (how, to who)

2. Subdomain: WASH team policy environment

- What funding is available at LGA from the State for WASH – what is the change since 2009 - and to what extent is this a result of the FG / UNICEF programme
- What policies and regulations exist for the WASH sector (ask separate for water, sanitation and hygiene education) at state level? Is this in line with the policies and regulations at Federal level? Have you adjusted it for your LGA?
- Have there been any changes in these as a result of the UNICEF programme

3. Subdomain: WASH process in the LGA

- What stakeholders are involved in the programme at LGA level (government, non-government, private sector, community), what do they do? And how do they get selected?
- How do you monitor the WASH programme at LGA level. Is there a Monitoring and Evaluation Framework? Is it operational? Do you have a MIS system and how do you make use of results from monitoring and MIS system
- How is the decentralization of responsibilities to LGAs organized for WASH, has this changed since 2009 and to what extent is this a result of the UNICEF programme? How do you think this is working (positive and negative)
- How are LGA selected for inclusion in the FG / UNICEF programme – what are the criteria, process and who decides on the selection?
- How are communities selected for inclusion in the FG / UNICEF programme – what are the criteria, process and who decides on the selection?

- What accountability and transparency measures exist at LGA level for public financial management, procurement system and public expenditure review to create an enabling environment for WASH implementation? Are these operational – how?

4. Subdomain: WASH team water supply activities

- What is the range of technology, management and financing options for water supply available for communities
- How many new boreholes/wells have been constructed in your LGA under the UNICEF programme and under other programmes
- How do you ensure O&M, what is the division of responsibilities between LGA and community WASHCOM?
- What do you do if water supply breaks down and the community cannot repair? Process? Time frame? Funds? Who repairs?

5. Subdomain: WASH team CLTS activities

- How many LGA people have been trained in CLTS? How many communities have they triggered per person and how many communities are ODF?
- Do you have a Sani centre in the LGA? Other places where latrine construction materials can be obtained.
- How do you ensure the quality of the latrine construction (some latrines are more dangerous for health than OD)
- What process is in place to ensure that those who cannot afford a latrine are included in the CLTS programme
- How are responsibilities for School WASH divided between WASH and Education sector – who funds? Who designs? Who contracts? Who supervises and monitors?
- What is done by the WASH team for hygiene education and environmental sanitation

6. Subdomain: WASH impacts and context

- Do you know of any other (similar) interventions have been carried out that you feel are relevant, in whatever way and which could have influenced outcomes?
- Has the FG / UNICEF WASH programme and the establishment of the WASHCOM led to uptake of other programmes (mother and child health, immunization, other)
- What external and internal contextual factors have been of influence on the programme (positive and negative)
- Is there any indication that CLTS has scaled out by itself?
- Do you think the achievements of the programme will be sustainable - for water, sanitation and hygiene? If yes – why; if no-why.

7. Subdomain: Trend analysis and MSC

- Use trend analysis to identify changes that have been achieved between the start of the programme and now (topics: access to water supply; quality of water supply; access to latrines; hygiene behaviour; add any that is found important) . Probe how the programme has contributed to these changes
- What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF WASH programme

CLTS facilitators FGD topics

1. Subdomain: facilitators' selection and training

- Selection process for a CLTS facilitator? (Gender, age, position, WASHCOM, any other?)
- Responsibilities of a CTLS facilitator (period of duty, tasks, time involved, fees/incentives)
- Training received: topics, practicals, time, frequency (including refresher and supervision discussions), given by who, skills and knowledge gained
- Materials received to be able to do your work (technology options, sanitation ladder, hygiene awareness)
- Other informal CLTS partners/facilitators in the communities

2. Subdomain: CLTS process in the community

- CLTS triggering process in the village (step by step), who are targeted, method
- Community partners in the triggering process (youth confronting older people on OD?)
- Range of sanitation/hygiene technologies offered and how (also for older and disabled people)
- Emergence of different models of latrines
- Process to ensure that people who cannot afford a latrine get one?
- Availability of local builders (trained?) and sanitation hardware
- Quality assurance system
- Evidence of quality improvement of latrines over time(sanitation ladder)
- Monitoring process (what, who)
- Approach taken if initial triggering does not have sufficient impact
- Support from WASH team?

3. Subdomain: hygiene education process in the community

- Topics, method, frequency and beneficiaries of hygiene education (hand washing, soap/ash, water transport, water storage, water treatment, environmental hygiene, health aspects)
- Type of involvement in school sanitation and hygiene
- Hygiene level of latrines (latrine slab cleanable)

4. Subdomain: CLTS impacts and context

- Number of communities' triggered (per facilitator) leading to how many ODF?
- The ODF certification process (can a community be ODF if the school does not have latrines)

- Do you know of any other (similar) interventions have been carried out that you feel are relevant, in whatever way and which could have influenced outcomes?
- Has the FG / UNICEF CLTS programme led to uptake of other programmes (mother and child health, immunization, other)
- What external and internal contextual factors have been of influence on the programme (positive and negative)
- Is there any indication that CLTS has scaled out by itself?
- What is the strength of the CLTS programme and what could be improved
- Do you think the achievements of the programme will be sustainable - for water, sanitation and hygiene? If yes – why; if no-why.

5. Subdomain: Trend analysis and MSC

- Use trend analysis to identify changes that have been achieved between the start of the programme and now (topics: access to water supply; quality of water supply; access to latrines; hygiene behaviour; add any that is found important) . Probe how the programme has contributed to these changes
- What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF WASH programme

Members of School Environmental Health Clubs: FGD topics

1. Subdomain: members' participation and training

- Length of membership, composition of membership
- Reason for membership
- Responsibilities and activities of an EHC member/head
- Training received: topics, practicals, time, frequency (including refresher and supervision discussions), given by who, skills and knowledge gained
- Materials received to be able to do activities (pamphlets, games, songs)

2. Subdomain: activities of EHC

- Activities carried out by EHC in school
- Activities carried out by EHC outside school (home, community)
- Supervision and support of activities, by who
- Activities on WASH carried out in school by others (teachers, CLTS facilitators, PTA)

3. Subdomain: school WASH facilities

- Types of latrines in school (how many latrines for girls/boys, teachers male/female)
- Hand washing facilities (type, presence of soap/ash, water availability)
- Keeping the latrines clean (who, how, roster, supervision, repercussions if not clean)
- Keeping the school compound clean
- Availability of cleaning tools and detergents
- Type of water supply, hours of functioning, seasonality of availability

4. Subdomain: teachers' involvement in WASH

- Specific teacher responsible for school WASH and EHC support?
- Attention for WASH in school curriculum
- Roster for operation and maintenance of facilities made by teacher
- Monitoring framework
- Discussions on programme EHC activities with teacher responsible
- Involvement of PTA in WASH

5. Subdomain: impacts and context

- Do you feel what you have learnt on hygiene and sanitation has made a difference in the school, in your own life? At home? How?
- How would you describe the influence of the PTA on WASH practices? Latrine use, hand washing activities?

- How would you describe your influence on your parents regarding WASH practices? Do you have examples?
- How would you describe the influence of the teachers on WASH practices? Latrine use, hand washing activities? Can you give an example?
- When things break down, how are they usually fixed? Who do you have to tell? How long does it usually take for it to be fixed? Do you know who fixes them?
- Decrease of school drop-out rates by girls
- Decrease of illness in pupils

6. Subdomain: Trend analysis and MSC

- Use trend analysis to identify changes that have been achieved between the start of the programme and now (topics: access to water supply; access to latrines; hygiene behaviour; add any that is found important). Probe how the programme has contributed to these changes
- What is according to you the Most Significant Change that has taken place as a result of the FG / UNICEF WASH programme

Community Children – FGD topics

Subdomain: Water

Change:

- Distance to safe water source (perception of distance – far or near)
- Water availability
- Water quality (colour, smell, clarity)
- Responsibility for fetching water – child, brother, sister, mother etc

Subdomain: Sanitation and hygiene

Change:

- Households having a latrine
- Type of latrines
- Hand washing facilities near latrine
- Involvement in triggering and experiences with triggering
- Knowledge of hygiene
- Incidence of diarrhoea

Subdomain: School enrolment and drop out

Change:

- Enrollment in school at any time and currently
- Ever had to stop going to school (due to diarrhoeal illnesses, chores at home?)
- (where relevant) menstrual hygiene, do girls go to school when they have their monthly period
- Lateness to school
- Schools having water supply
- Cleanliness of school latrines
- Schools having school health clubs
- Hygiene education taught
- Enrollment of girls in schools

Subdomain: perception of behaviour change

Change:

- Hand washing at critical times in the family
- Family use soap or ash for hand washing

- Family covering their water containers at home
- People take drinking water from the container with a long handled cup or tap

III: Observations checklist

Quantitative:

Household Survey

1. Material of floor, roof, walls of the house
2. Type of container used to store the drinking water:
3. Latrine:

- *Does it have a water seal, cleanable slab? What is the material of the superstructure (cement slab)?*
- *Does the toilet have a roof?*
- *Does it have a curtain, door or other materials that provides privacy?*
- *Are anal cleansing materials present in the toilet (e.g. water/ sponge/ toilet roll)?*

4. Hand washing facilities:

- *Is water present at the specific place for hand washing?*
- *If there is a tap or pump present at the specific place for hand washing, open the tap or operate the pump to see if water is coming out. If there is a bucket, basin, or other type of water container, examine it to see whether water is present in the container)*
- *Is soap or detergent present at the specific place for hand washing?*

Qualitative:

IDI with head of school WASH

1. Materials for hygiene training for children in EHC
2. Roster for cleaning of school latrines
3. Hand washing facilities, water, soap (as with survey)
4. School Latrines (Boys/Girls), water, soap available (as with survey)

IDI with In-charge of health facility

1. Records of diarrhea trend in U-5s in the past four years if available.
2. Latrine and hand washing facilities; water, soap available (as with survey)

Review of WASHCOM books to probe if objectives and expected results were clear and observable once implementation was underway or completed

IV: Informed Consent Forms

Informed Consent Form - Focus Group Discussions

Introduction:

We are from the Royal Tropical Institute conducting an impact evaluation of the UNICEF WASH programme in Nigeria for the period 2009-2013. This programme has as key objective to increase access to safe water sources, hygienic practices and improved sanitation especially in the rural areas and among vulnerable populations.

There are two main objectives for the evaluation:

1. To determine the effectiveness of the WASH intervention and to identify what worked well and mechanisms that made it work, in order to learn and improve effectiveness for scaling up (to understand "what works, why, where and for whom").
2. To assess the impact of the WASH interventions in order to identify opportunities to improve impact.

The UNICEF programme covers

- Water supply (increase in water sources, community management of water sources, increased access to sustainable drinking water),
- Sanitation (Increased awareness on CLTS among Government partners, NGOs and Communities; Resource pool of CLTS facilitators available in all focus states; more communities adopting CLTS resulting in increased access to sanitation facilities and consequent reduction of open defecation practices
- Hygiene (Health Promotion on hygiene, construction, provision and rehabilitation of WASH facilities in schools, increased awareness on effective hand washing and other hygiene practices among Government partners, NGOs and Communities, Increased awareness of WASH in schools and more schools have WASH

Procedures including confidentiality

We would like to ask you some questions relating to the:

1. Importance, Usefulness and Appropriateness of the programme to meet the objectives
2. Results and influence of the programmes as well as the sustainability of the achieved results in WASH

The interview will last approximately 60 -90 minutes and will take place in------- to ensure your privacy.

To make sure that I don't forget or change what you are saying to me I ask for your permission to tape or write down the conversation. Everything that will be recorded or written down will be confidential. Your name will not be recorded or written down. The researchers who will read the notes for analysis will not know your name. The recordings/notes will be kept in a locked place and will be destroyed or deleted after what is recorded is written down.

Risks, discomforts and rights to withdraw

Participation in this study is voluntary. During the interview, you are allowed to refuse to answer any question and you are allowed to stop the interview at any time. There are no consequences should you decide not to continue with the interview.

Benefits

You will not have to pay to participate in this survey; nor will we pay you. You will not directly benefit from this survey, however the information that you will provide us may give some important information to the policy makers to improve the overall water, sanitation and hygiene condition of this country and you may have an indirect benefit from that.

Consent and contact

Have you got any questions you will like to ask?

Do you agree to answer the questions now?

If you have any other questions about this study later you can contact the supervisor at... or telephone no……..

If you agree to participate after receiving the above information please sign.

☐ Check for verbal consent

Read by Respondent [ ] Interviewer [ ]

Agreed [ ] Refused [ ]

Respondent: _____

Interviewer: _____ Date: ___/___/___

Informed Consent Form – In-Depth Interviews

Introduction:

We are from the Royal Tropical Institute conducting an impact evaluation of the UNICEF WASH programme in Nigeria for the period 2009-2013. This programme has as key objective to increase access to safe water sources, hygienic practices and improved sanitation especially in the rural areas and among vulnerable populations.

There are two main objectives for the evaluation:

1. To determine the effectiveness of the WASH intervention and to identify what worked well and mechanisms that made it work, in order to learn and improve effectiveness for scaling up (to understand "what works, why, where and for whom").
2. To assess the impact of the WASH interventions in order to identify opportunities to improve impact.

The UNICEF programme covers

- Water supply (increase in water sources, community management of water sources, increased access to sustainable drinking water),
- Sanitation (Increased awareness on CLTS among Government partners, NGOs and Communities; Resource pool of CLTS facilitators available in all focus states; more communities adopting CLTS resulting in increased access to sanitation facilities and consequent reduction of open defecation practices
- Hygiene (Health Promotion on hygiene, construction, provision and rehabilitation of WASH facilities in schools, increased awareness on effective hand washing and other hygiene practices among Government partners, NGOs and Communities, Increased awareness of WASH in schools and more schools have WASH

Procedures including confidentiality

We would like to ask you some questions relating to the:

1. Importance, Usefulness and Appropriateness of the programme to meet the objectives
2. Results and influence of the programmes as well as the sustainability of the achieved results in WASH

The interview will last approximately 60 minutes and will take place in------- to ensure your privacy.

To make sure that I don't forget or change what you are saying to me I ask for your permission to tape or write down the conversation. Everything that will be recorded or written down will

be confidential. Your name will not be recorded or written down. The researchers who will read the notes for analysis will not know your name. The recordings/notes will be kept in a locked place and will be destroyed or deleted after what is recorded is written down.

Risks, discomforts and rights to withdraw

Participation in this study is voluntary. During the interview, you are allowed to refuse to answer any question and you are allowed to stop the interview at any time. There are no consequences should you decide not to continue with the interview.

Benefits

You will not have to pay to participate in this survey; nor will we pay you. You will not directly benefit from this survey, however the information that you will provide us may give some important information to the policy makers to improve the overall water, sanitation and hygiene condition of this country and you may have an indirect benefit from that.

Consent and contact

Have you got any questions you will like to ask?

Do you agree to answer the questions now?

If you have any other questions about this study later you can contact the supervisor at... or telephone no……..

If you agree to participate after receiving the above information please sign below.

 Check for verbal consent

Read by Respondent [ ] Interviewer [ ]

Agreed [ ] Refused [ ]

Respondent: _____

Interviewer: _____ Date: ___/___/___

Informed Consent Form– Parents of Children in School EHCs Invited for FGDS

Introduction:

We are from the Royal Tropical Institute conducting an impact evaluation of the UNICEF WASH programme in Nigeria for the period 2009-2013. This programme has as key objective to increase access to safe water sources, hygienic practices and improved sanitation especially in the rural areas and among vulnerable populations.

There are two main objectives for the evaluation:

1. To determine the effectiveness of the water, sanitation and hygiene (WASH) intervention and to identify what worked well and mechanisms that made it work, in order to learn and improve effectiveness for scaling up (to understand "what works, why, where and for whom").
2. To assess the impact of the WASH interventions in order to identify opportunities to improve impact.

The UNICEF programme specifically includes a School WASH programme which involves Health Promotion on hygiene, construction, provision and rehabilitation of WASH facilities in schools.

Invitation of your child/ward to a Focus Group Discussion

Your child has been invited to a focus group discussion because of he/she belongs to his/her school's Health club. We would like your permission for your child to participate in this FGD. The FGD will comprise of a group of about 8-10 children.

Procedures including confidentiality

We would like to ask your child (and the other children) some questions relating to the:

1. Importance, Usefulness and Suitability of the programme to meet the objectives
2. Results and influence of the programmes as well as the sustainability of the achieved results in WASH

The interview will last approximately 60 -90 minutes and will take place in------- to ensure their privacy.

To make sure that we don't forget or change what they say to us we ask for your permission to tape or write down the conversation. Everything that will be recorded or written down will be confidential. Their names will not be recorded or written down. The researchers who will

read the notes for analysis will not know their names. The recordings/notes will be kept in a locked place and will be destroyed or deleted after what is recorded is written down.

Risks, discomforts and rights to withdraw

Participation in this study is voluntary. During the interview, your child is allowed to refuse to answer any question and he/she is allowed to stop the interview at any time. There are no consequences should he/she decides not to continue with the interview.

Benefits

There is no direct personal benefit to you or your child from participating in this study. However, the information that you will provide us may give some important information to the policy makers to improve the overall water, sanitation and hygiene condition of this country and you may have an indirect benefit from that.

Consent and contact

If you have any other questions about this study you can contact the Study Coordinator at... or telephone no……..

If you agree for your child to participate after receiving the above information please sign.

_____ Date: ___/___/___

Informed Consent Form – Children in School Environmental Health Clubs

Introduction:

We are from the Royal Tropical Institute conducting an impact evaluation of the UNICEF WASH programme in Nigeria for the period 2009-2013. This programme has as key objective to increase access to safe water sources, hygienic practices and improved sanitation especially in the rural areas and among vulnerable populations.

There are two main objectives for the evaluation:

1. To determine the effectiveness of the WASH intervention and to identify what worked well and mechanisms that made it work, in order to learn and improve effectiveness for scaling up (to understand "what works, why, where and for whom").
2. To assess the impact of the WASH interventions in order to identify opportunities to improve impact.

The UNICEF programme specifically includes a School WASH programme which involves Health Promotion on hygiene, construction, provision and rehabilitation of WASH facilities in schools.

Procedures including confidentiality

We would like to ask you some questions relating to:

1. How the School WASH programme works to meet the objectives
2. The results and influence of the School WASH programmes

The interview will last approximately 60 -90 minutes and will take place in------- to ensure your privacy.

To make sure that I don't forget or change what you are saying to me I ask for your permission to tape or write down the conversation. Everything that will be recorded or written down will be confidential. Your name will not be recorded or written down. The researchers who will read the notes for analysis will not know your name. The recordings/notes will be kept in a locked place and will be destroyed or deleted after what is recorded is written down.

Risks, discomforts and rights to withdraw

Participation in this study is voluntary. During the interview, you are allowed to refuse to answer any question and you are allowed to stop the interview at any time. There are no consequences should you decide not to continue with the interview.

Benefits

You will not have to pay to participate in this survey; nor will we pay you. You will not directly benefit from this survey, however the information that you will provide us may give some important information to the policy makers to improve the overall water, sanitation and hygiene condition of this country and you may have an indirect benefit from that.

Consent and contact

Have you got any questions you will like to ask?

Do you agree to answer the questions now?

If you have any other questions about this study later you can contact the supervisor at... or telephone no……..

If you agree to participate after receiving the above information please sign.

 Check for verbal consent

Read by Respondent [ ] Interviewer [ ]

Agreed [ ] Refused [ ]

Respondent: _____

Interviewer: _____ Date: ___/___/___

Annex 4: Construction of Wealth Index

There are several steps to the construction of the DHS wealth index: determination of indicator variables, dichotomization, calculation of indicator weights and the index value, and calculation of distribution cut points.

Indicator Variables

The selection of indicator variables is relatively straightforward. Almost all household assets and utility services are to be included, including country-specific items. The reason for using a broad criterion rather than selected items is that the greater the number of indicator variables, the better the distribution of households with fewer households being concentrated on certain index scores. Generally, any item that will reflect economic status is used.

Construction of the Index

There are various ways to assign weighting values to the indicator variables. Ad hoc weights, such as assigning "1" for a bicycle, "3" for a motorcycle, and "5" for a car or truck, work to a certain extent, but they are arbitrary with regard to researcher and are difficult to assign when the wealth ordering is not readily apparent. For this reason, Filmer and Pritchett recommended using principal components analysis (PCA) to assign the indicator weights, the procedure that is used for the DHS wealth index. DHS uses the

SPSS factor analysis procedure. This procedure first standardizes the indicator variables (calculating zscores); then the factor coefficient scores (factor loadings) are calculated; and finally, for each household,

the indicator values are multiplied by the loadings and summed to produce the household's index value. In this process, only the first of the factors produced is used to represent the wealth index. The resulting

sum is itself a standardized score with a mean of zero and a standard deviation of one.

Construction of Quintiles

For tabular analysis with the DHS wealth index, quintiles are used. These quintiles are based on the distribution of the household population rather than on the distribution of households. The distribution is population based because it is thought that most analyses are concerned with poor people rather than poor households. Quintiles are used instead of other percentiles as a compromise between limiting the number of categories to be tabulated and adequately representing the relationship between wealth and the

phenomenon of interest. Other percentiles can be just as easily determined as quintiles. The cut points in the wealth index at which to form the quintiles are calculated by obtaining a weighted frequency distribution of households, the weight being the product of the number of de jure members of

the household and the sampling weight of the household. Thus, the distribution represents the national household population, where each member is given the wealth index score of his or her household. The

persons are then ordered by the score, and the distribution is divided at the points that form the five 20-percent sections. Then the household score is recoded into the quintile variable so that each member of a household also receives that household's quintile category.

Annex 5: Study Validity

Statistical conclusion validity refers to the ability to make an accurate assessment about whether the independent and dependent variables are related and about the strength of that relationship. So the two key questions here are: 1) Are the variables related? And 2) How strong is the relationship? Typically, null hypothesis significance testing is used to determine whether two variables are related in the population from which the study data were selected. To determine how STRONG a relationship is, effect size indicators are used. For this evaluation, a statistical comparison of communities with and without interventions will be conducted for outcome variables (for example % of under 5s with diarrhea in the 2 weeks preceding the survey), taken in to effect or controlling for background and other variables, on a 5% level of significance. Relative Risk will be used as a measure of strength.

External validity has to do with the degree to which the results of a study can be generalized to and across populations of persons, settings, times, outcomes, and treatment variations. A good synonym for external validity is generalizing validity because it always has to do with how well you can generalize research results. In our case, to ensure representative data of the study population (this is: the six LGAs (one per State) where the evaluation is carried out – not to e.g. the total population of Nigeria), we will conduct a two staged cluster design[1] , a sampling scheme thought to be sufficient for most sampling of community health factors. We will choose between 20-30 communities in total per LGA for inclusion in the study. Choosing a two-stage cluster sampling design with more census blocks and fewer interviews per block will give the most precise estimates of the variables to be measured in your community.

Construct Representation or Construct Validity

Different constructs (e.g., social norms for testing drinking water in communities) can be recorded in an Evaluation of this nature. The problem is that, usually, there is no single behavior or operation available that can provide a complete and perfect representation of the construct. In order to maximise construct validity, we will use likert scale statements tested for internal consistency by other large scale projects[2]; we will perform Cronbach's alpha coefficient analysis on scale items in the context of Nigeria. Items that are not reliable will be dropped from further analysis. Composite scores will be generated for reliable items and compared between with and without intervention communities. The household questionnaire developed for this evaluation were brought together from a variety of reliable sources, for

[1] Henderson RH and Sundaresan T. Cluster sampling to assess immunization coverage: a review of experience with a simplified sampling method. Bulletin of the World Health Organization, 60(2):253-260. Available at: http://whqlibdoc.who.int/bulletin/1982/Vol60-No2/bulletin_1982_60(2)_253-260.pdf

[2] Hernandez Tobias 2010, Access and behavioral outcome indicators for water, sanitation and hygiene. HIP project

example the DHS Nigeria, MICS Nigeria, relevant WASH studies such as the OPM DFID value for money studies across 6 countries, and the HIP project.

We aim to maximize validity in the quantitative component of this evaluation by:

- Selection of study design (Quasi-experimental)
- Careful sampling using a two-staged cluster approach
- Develop, pre-test and training of tools
- Careful counterfactuals' selection
- Control confounding by design and analysis
- Minimise bias through standardisation (good forms, clear definitions)
- Training includes validation of instruments
- Careful interpretation and careful analysis of data

We aim to maximize validity in the qualitative component of this evaluation by:

- Triangulation
    - Different sources
    - Different methods
    - Multi-disciplinary teams
- Collect perspectives from different 'actors'
- Jointly develop, pre-testing and training of tools

Peer and participant checking: we plan a participatory initial analysis workshop concurrent with the final data collection

Annex 6a: Outcome Analysis

Methodology

Data from the Nigerian WASH Household Survey (2014) were analysed to determine the association of key determinants and outcome variables available in the dataset, in order to compare counterfactual and intervention areas.

Our approach included generating descriptive statistics, in SPSS, version 20. A Wealth index was constructed following the DHS approach[3]. Multivariate logistic regressions were performed per outcome variable in order to compare odds ratios across models for each outcome ($p < 0.05$)

Table 1: Outcome Measures from the WASH Household Survey data (2014)

Outcome Measures	**Definition**
Diarrhea (any member)	Any household member with Diarrhea in the 2 weeks preceding the survey
Severe Diarrhea (any member)	Any household member with Diarrhea in the 2 weeks preceding the survey and still had it at the time of the survey
Diarrhea (under 5)	Any household with children under 5 where a child under the age of 5 had Diarrhea in the 2 weeks preceding the survey
Not in School	Currently not in school (5-17 year olds)
Missed School	Missed school in last month (5-17 years olds)
Work	Engaged in work (paid or unpaid) in the week prior to the survey (5-17 year olds) for someone who is not a member of the family
Household Chores	Engaged in household chores* in the week prior to the survey for 5-17 year olds *shopping, cleaning, washing, clothes, cooking, or caring for children, old or sick people
Fetch water	Fetched water for household use in the week before the survey (5-17 year olds)

[3] *Shea Oscar Rutstein, Kiersten Johnson, August 2004. DHS Comparative Reports No. 6, The DHS Wealth Index*

Table 2: Definitions of analytical variables, WASH Household Survey data (2014)

Variable	Definition
Treatment Group	Counterfactual or Intervention
Household wealth quintiles	Wealth Quintile 1 (reference) Wealth Quintile 2 Wealth Quintile 3 Wealth Quintile 4 Wealth Quintile 5
Area	North (reference) or South
Household Dependency Ratio**	High household dependency ratio or no household member aged 15-64
Sex of Household Head	Male Headed Household (reference) Female Headed Household
Lack of Adult Education	Household without any adult with secondary education
Lack of access to improved drinking water	Household's main water source for drinking water: unimproved
Lack of improved sanitation	Most household members do not practice Open Defecation
Lack of Hygiene Knowledge	Household lack knowledge on 3 critical moments for hand washing

** The ratio of adults over the age of 64 and children under the age of 15 to adults aged 15–64

Results are presented in **Tables 61, 62 and 63** in the Annex 5 – HHS results tables.

A short summary of the results:

Diarrhea (Any member of the household) :

The proportion of households reporting Diarrhea in the 2 weeks preceding the survey were not significantly different between the counterfactual and intervention areas.

Households in the North, however, were 2,057 times more likely than households in the South to have diarrhea ($p<0.01$, 95% CI (1,255; 3,372)) and female headed households 2,35 more likely than male headed households ($p<0.01$, 95% CI (1,247; 4,427)).

Households practicing open defection also demonstrated a higher likelihood of 1,789 times of having diarrhea in the 2 weeks preceding the survey than households not practicing open defecation ($p<0.1$, 95% CI (0,967; 3,308)).

Other analytical variables did not demonstrate an association with this outcome variable.

Severe Diarrhea (Any member of the household) :

The only analytical variable displaying a significant association with severe Diarrhea was a female headed household. Female headed households were 2,6 times more likely to have

had persistent, severe diarrhea ($p<0.05$, 95% CI (1,153; 5,870)) than male headed households.

Diarrhea – children under the age of 5:

Counterfactual households (with children under the age of 5) were 1,73 times more likely to have had Diarrhea of children under the age of 5. ($p<0.1$, 95% CI (1,153; 5,870)).

Please note, for Diarrhea of children under the age of 5, an additional analysis, excluding **Birnin Kudu**, was performed. The supportive argument for doing this arose from the increase in the percentage of children under 5 who had diarrhea in the 2 weeks preceding the survey in Jigawa from 2008 to 2013, namely from 8,2% to 14,8% (DHS 2008 and DHS 2013 respectively). Our data also showed an elevated incidence of Diarrhea in under 5s of 20,1%. This is contrary to expectations for this impact evaluation and could introduce skewed results. We therefore performed the multivariate binary logistical regression per outcome variable again and a statistical significant result at a 5% level was achieved: an odds ratio of 4,242 and a 95% Confidence Interval (CI) of (1,107; 16,261), $p=0,035$ was revealed. This means a statistical significant difference in the percentage of children under 5 between the intervention (4,5%) and counterfactual areas (9,1%) could be demonstrated. The population odds for Diarrhea in children under 5 in the counterfactual areas lies between 1,107 and 16,261 compared to the intervention areas.

Results for the other analytical variables in relation to the outcome variables were similar to the results presented in this section and therefore not included.

Children aged 5-17 years currently not in school:

Children in the North were almost 7 times more likely to currently not be in school than children from the South ($p<0.01$, 95% CI (3,205; 14,673)).

Children from households in the poor, average, rich and richest quintiles were more likely to be in school than the children from households in the poorest quintiles, as can be seen from the odds ratio, 95% CIs presented in the Table 61, Annex 5 ($p<0.05$).

Other analytical variables did not demonstrate an association with this outcome variable.

Children aged 5-17 years who missed school:

Households reported, per child aged between 5 and 17 years, currently in school, the number of days absent form school in the month preceding the survey. Missing school was 1,6 times more likely for children in counterfactual areas ($p<0.01$, 95% CI (1,036; 2,376)).

Children from highly dependent families (i.e. a ratio of adults over the age of 64 and children under the age of 15 to adults aged 15–64 of more than 1) were 1,5 times more likely to miss school than children form low dependency families ($p<0.1$, 95% CI (0,983; 2,313)).

Other analytical variables did not demonstrate an association with this outcome variable.

Work (paid or unpaid) by 15-17 year olds:

Significant factors influencing whether 15-17 year olds worked for someone outside of the family in the week preceding the survey, were the geographical area, wealth, dependency ratio in households and lack out knowledge of 3 critical hand wash moments. A child from the North was 0,65 times less likely to work than a child in the South ($p<0.1$, 95% CI (0,405; 1,056)). Children from the richest, rich, average and poor quintiles were more likely to work than the poorest quintile as illustrated in the Table 61, Annex 5. This is also reflected in the household dependency ratio: children form highly dependent families were 0,62 times less likely to work than children form low dependency families. ($p<0.05$, 95% CI (0,400; 0,970)).

Children from households knowledgably with regard to critical moments for hand washing were 1,7 more likely to work ($p<0.05$, 95% CI (1,127; 2,817)) than households with less knowledge on critical moments for hand washing.

Other analytical variables did not demonstrate an association with this outcome variable.

Household chores done by 15-17 year olds:

Significant factors influencing whether 15-17 year olds carried out household chores in the week preceding the survey, were the geographical area, and wealth. A child from the North was 0,5 times less likely to carry out chores than a child in the South ($p<0.1$, 95% CI (0,291; 0,861). Children from the richest, rich, average and poor quintiles were more likely to perform household chores than the poorest quintile as illustrated in the Table 61, Annex 5.

Other analytical variables did not demonstrate an association with this outcome variable.

Fetching water by 15-17 year olds:

Significant factors influencing whether 15-17 year olds fetched water in the week preceding the survey, were geographical area, wealth, dependency ratio and adult education.

A child from the North was 0,3 times less likely to fetch water than a child in the South ($p<0.01$, 95% CI (0,169; 0,550)). Children from households with average wealth were more 1,7 times more likely than the children from the poorest households to fetch water ($p<0.1$, 95% CI (0,927; 3,295)). Children from households in the 4^{th} and 5^{th} quintiles (more wealthier) were less likely to fetch water than the poorest children, although this was not statistically significant.

Children from households with high dependency ratios, were 1.6 times more likely to fetch water than children from low dependency ratio households. ($p<0.05$, 95% CI (1,046; 2,550)). In households where no adults were educated, children were 0,5 times less likely to fetch water. ($p<0.05$, 95% CI (0,296; 0,880)).

Other analytical variables did not demonstrate an association with this outcome variable.

Annex 6b: Secondary Data

Data from three sources considered relevant for the Impact Evaluation (IE), were further scrutinized to get an indication of trends over the time period covered by the IE. These data sources were the Demographic Health Surveys (DHS) of 2008 and 2013, and the Multiple Indicator Cluster Survey (MICS) of 2013 for Nigeria.

All the data sources considered cover and represent some indicators for Water, Sanitation and Hygiene at state level. This present a first limitation for trend analysis, as our IE data, represents data at LGA level. In fact, for our analysis, only descriptive data at LGA is presented as the sample size and statistical power of the study allows only for statistical comparison of intervention and counterfactual areas (i.e. LGAs combined). The following LGAs (one per State) were covered in the IE WASH 2014, namely:

- Oju (Benue),
- Dass (Bauchi),
- Birnin Kudu (Jigawa),
- Bakori (Katsina),
- Yakurr (Cross River),
- and in Ejigbo (Osun).

Never the less, to get an indication of trends over time within the context of the evaluation period, the comparison of available indicators, is an important contribution to this work.

We extracted the following indicators from the DHS and MICS Nigerian data:

- % Children under 5 who had Diarrhea in the 2 weeks preceding the survey
- % Distribution of households with an improved[4], not shared toilet facility
- % Distribution of households with an improved source of drinking water[5]
- % Distribution of households using an appropriate treatment method[6],[7]

Definitions were not exactly the same for all indicators (presented in footnotes).

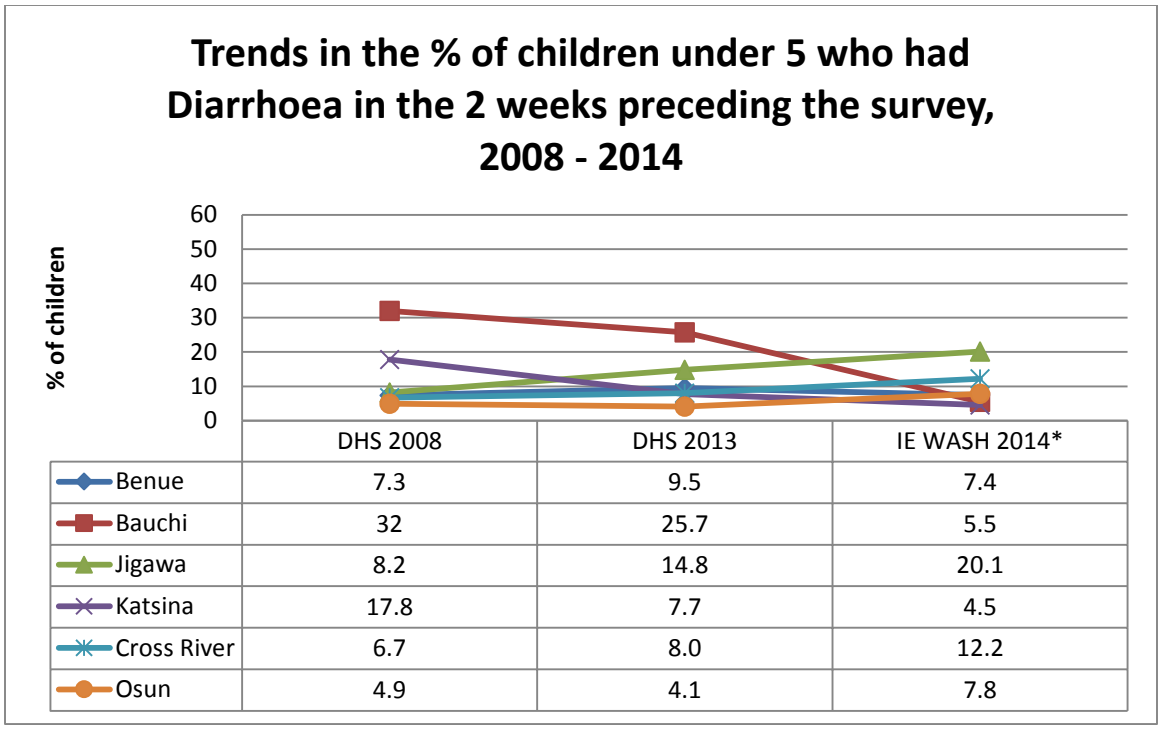
Graphical representation of trends for these indicators are given below:

[4] Flush toilet, ventilated improved pit latrine with a slab, or a composting toilet

[5] Piped source within the dwelling or plot, public tap, tube well or borehole, and protected well or spring

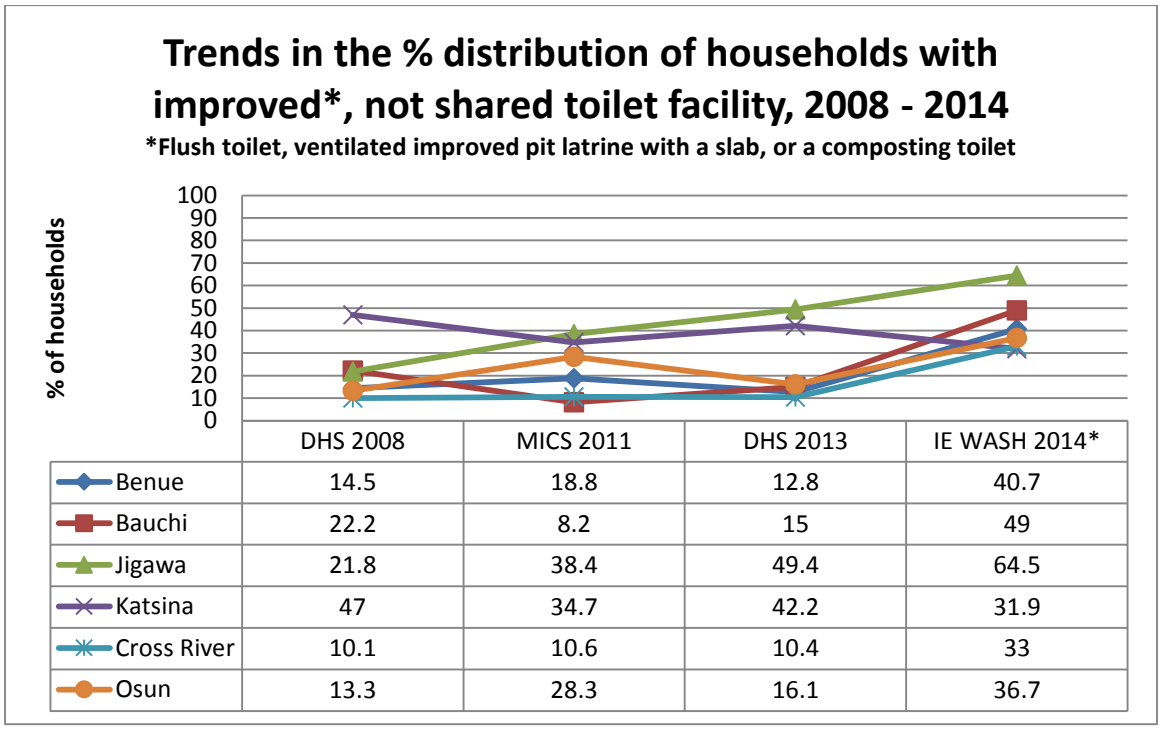
[6] Appropriate water treatment methods include boiling, bleaching, filtering, and solar disinfecting (DHS)

[7] Percentage members using unimproved drinking water sources and using an appropriate water treatment method (MICS)



	DHS 2008	DHS 2013	IE WASH 2014*
Benue	7.3	9.5	7.4
Bauchi	32	25.7	5.5
Jigawa	8.2	14.8	20.1
Katsina	17.8	7.7	4.5
Cross River	6.7	8.0	12.2
Osun	4.9	4.1	7.8

* IE WASH 2014

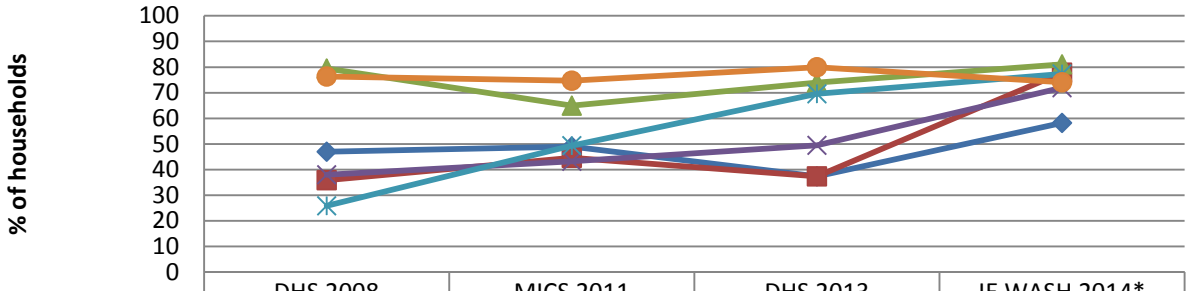


	DHS 2008	MICS 2011	DHS 2013	IE WASH 2014*
Benue	14.5	18.8	12.8	40.7
Bauchi	22.2	8.2	15	49
Jigawa	21.8	38.4	49.4	64.5
Katsina	47	34.7	42.2	31.9
Cross River	10.1	10.6	10.4	33
Osun	13.3	28.3	16.1	36.7

* *PLEASE NOTE: The following LGAs (one per State) were covered in the IE WASH 2014. Oju (Benue), Dass (Bauchi), Birnin Kudu (Jigawa), Bakori (Katsina), Yakurr (Cross River), Ejigbo (Osun).*

Trends in the % distribution of households with improved source of drinking water*, 2008 - 2014

*piped source within the dwelling or plot, public tap, tube well or borehole, and protected well or spring

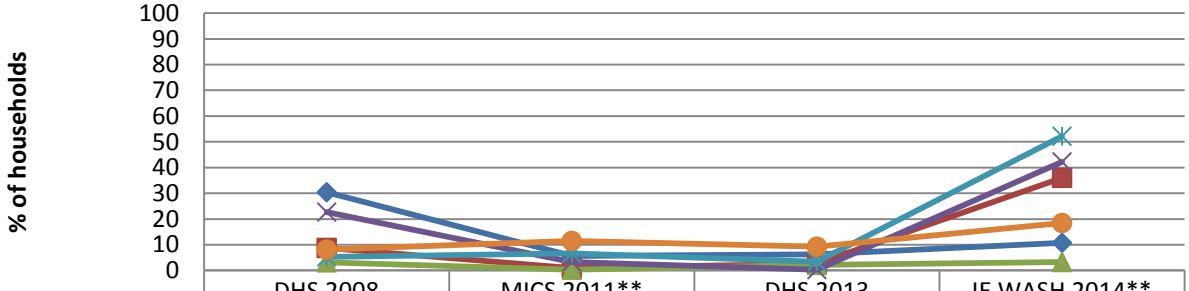


	DHS 2008	MICS 2011	DHS 2013	IE WASH 2014*
Benue	47	49	37.3	58.2
Bauchi	35.8	44.6	37.4	77.8
Jigawa	79.4	64.9	73.9	81.1
Katsina	38	43.2	49.5	71.9
Cross River	25.8	49.4	69.6	77.3
Osun	76.3	74.7	80	74.1

Trends in the % distribution of household using an appropriate water treatment method*, 2008 - 2014

*Appropriate water treatment methods include boiling, bleaching, filtering, and solar disinfecting

**% of hh members using unimproved drinking water sources



	DHS 2008	MICS 2011**	DHS 2013	IE WASH 2014**
Benue	30.4	5.6	6.3	10.8
Bauchi	8.7	0.9	2.6	36
Jigawa	3.1	0.3	2.2	3.3
Katsina	22.7	3.3	0.3	42.2
Cross River	5.3	6.6	3.4	52.2
Osun	8.1	11.5	9.3	18.4

Annex 7: HHS – Results Tables

Table 1 - Descriptive statistics of sample - Households

		Treatment Group											
		Counterfactual						Intervention					
		Count	Column N %	Median	Mean	Minimum	Maximum	Count	Column N %	Median	Mean	Minimum	Maximum
Area	North	293[a]	52.9%					285[a]	51.7%				
	South	261[a]	47.1%					266[a]	48.3%				
	Total	554	100.0%					551	100.0%				
Wealth	Poorest	126[a]	22.7%					95[b]	17.2%				
	Poor	128[a]	23.1%					93[b]	16.9%				
	Average	114[a]	20.6%					107[a]	19.4%				
	Rich	94[a]	17.0%					127[b]	23.0%				
	Richest	92[a]	16.6%					129[b]	23.4%				
	Total	554	100.0%					551	100.0%				
Religion	Christianity	207[a]	37.4%					243[b]	44.2%				
	Islam	337[a]	60.8%					304[a]	55.3%				
	Other	10[a]	1.8%					3[a]	.5%				
	Total	554	100.0%					550	100.0%				
Number of people in hh		554		4.50	4,78[a]	1.00	14.00	551		4.00	4,66[a]	1.00	14.00
Number of Adults in hh		554		2.00	2,52[a]	0.00	9.00	551		2.00	2,50[a]	0.00	9.00
Number of Children age 6 to 17 in hh		554		1.00	1,25[a]	0.00	11.00	551		1.00	1,26[a]	0.00	7.00
Number of Children under 5 in hh		554		0.00	,80[a]	0.00	5.00	551		0.00	,78[a]	0.00	7.00
Number of males in hh		554		2.00	2,53[a]	0.00	9.00	551		2.00	2,44[a]	0.00	11.00
Number of females in hh		554		2.00	2,38[a]	0.00	11.00	551		2.00	2,35[a]	0.00	10.00
Number of bedrooms in hh		554		3	3[a]	1	20	551		3	3[a]	1	22

Number of hh members currently in school	554	1.00	1,15[a]	0.00	7.00	551	1.00	1,28[a]	0.00	7.00

Note: Values in the same row and subtable not sharing the same subscript are significantly different at p< ,05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances.[1]

1. Tests are adjusted for all pairwise comparisons within a row of each innermost subtable using the Bonferroni correction.

Pearson Chi-Square Tests

		Treatment Group
Area	Chi-square	,150
	df	1
	Sig.	,699
Wealth	Chi-square	21,227
	df	4
	Sig.	,000*
Religion	Chi-square	8,334
	df	2
	Sig.	,016*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 2 – Descriptive statistics of sample-Individuals in households ii

		Treatment Group					
		Counterfactual		Intervention		Total	
		Count	Column N %	Count	Column N %	Count	Column N %
Gender	Male	1402	51.5%	1343	50.9%	2745	51.2%
	Female	1321	48.5%	1297	49.1%	2618	48.8%
	Total	**2723**	**100.0%**	**2640**	**100.0%**	**5363**	**100.0%**
Relationship with household head	Head	528	19.4%	509	19.3%	1037	19.3%
	Spouse	598	21.9%	561	21.3%	1159	21.6%
	Son / Daughter	1368	50.2%	1309	49.6%	2677	49.9%
	Son / Daughter-in-Law	20	.7%	26	1.0%	46	.9%
	Grand Child	43	1.6%	46	1.7%	89	1.7%
	Parent	28	1.0%	31	1.2%	59	1.1%
	Father / Mother in Law	5	.2%	6	.2%	11	.2%
	Brother / Sister	93	3.4%	80	3.0%	173	3.2%
	Brother / Sister-in-Law	14	.5%	16	.6%	30	.6%
	Nephew / Niece	16	.6%	36	1.4%	52	1.0%
	Uncle / Aunt	2	.1%	3	.1%	5	.1%
	Other Relatives	3	.1%	9	.3%	12	.2%
	Adopted Children	1	.0%	0	0.0%	1	.0%
	No Relatives	1	.0%	3	.1%	4	.1%
	Servant / Housemaid	2	.1%	0	0.0%	2	.0%
	Other (Specify)	2	.1%	5	.2%	7	.1%
	Don't Know	1	.0%	0	0.0%	1	.0%
	Total	**2725**	**100.0%**	**2640**	**100.0%**	**5365**	**100.0%**
Marital Status (15 years and above)	Never married	402	23.8%	366	22.8%	768	23.3%
	Married	1244	73.7%	1177	73.3%	2421	73.5%
	Widowed	32	1.9%	49	3.1%	81	2.5%
	Separated	2	.1%	9	.6%	11	.3%

	Divorced	7	.4%	3	.2%	10	.3%
	Don't know	0	0.0%	1	.1%	1	.0%
	Total	**1687**	**100.0%**	**1605**	**100.0%**	**3292**	**100.0%**
Read (15 years and above)	Yes	873	51.7%	861	53.6%	1734	52.7%
	No	804	47.7%	727	45.3%	1531	46.5%
	Don't Know	6	.4%	10	.6%	16	.5%
	Did not answer	4	.2%	7	.4%	11	.3%
	Total	**1687**	**100.0%**	**1605**	**100.0%**	**3292**	**100.0%**
Write (15 years and above)	Yes	763	87.4%	793	92.1%	1556	89.7%
	No	109	12.5%	68	7.9%	177	10.2%
	Don’t Know	1	.1%	0	0.0%	1	.1%
	Total	**873**	**100.0%**	**861**	**100.0%**	**1734**	**100.0%**
School Enrolment (5 years and above)	Yes currently in school	681	29.0%	664	29.3%	1345	29.2%
	Yes previously enrolled	637	27.1%	709	31.3%	1346	29.2%
	Never	1021	43.5%	881	38.9%	1902	41.2%
	Don't know	8	.3%	10	.4%	18	.4%
	Total	**2347**	**100.0%**	**2264**	**100.0%**	**4611**	**100.0%**
Education (5 years and above)	Less than Primary 1	40	3.0%	22	1.6%	62	2.3%
	Primary 1	60	4.6%	63	4.6%	123	4.6%
	Primary 2	86	6.5%	99	7.2%	185	6.9%
	Primary 3	85	6.4%	100	7.3%	185	6.9%
	Primary 4	74	5.6%	57	4.2%	131	4.9%
	Primary 5	72	5.5%	58	4.2%	130	4.8%
	Primary 6	213	16.2%	222	16.2%	435	16.2%
	Junior Secondary 1	34	2.6%	46	3.4%	80	3.0%
	Junior Secondary 2	49	3.7%	57	4.2%	106	3.9%
	Junior Secondary 3	79	6.0%	78	5.7%	157	5.8%
	Senior Secondary 1	32	2.4%	35	2.5%	67	2.5%
	Senior Secondary 2	48	3.6%	53	3.9%	101	3.8%

	Senior Secondary 3	283	21.5%	290	21.1%	573	21.3%
	Post-Secondary Education Year1	24	1.8%	28	2.0%	52	1.9%
	Post-Secondary Education Year2	46	3.5%	50	3.6%	96	3.6%
	Post-Secondary Education Year3	31	2.4%	42	3.1%	73	2.7%
	Post-Secondary Education Year4	46	3.5%	58	4.2%	104	3.9%
	Masters	2	.2%	5	.4%	7	.3%
	Don't know	14	1.1%	10	.7%	24	.9%
	Total	**1318**	**100.0%**	**1373**	**100.0%**	**2691**	**100.0%**
Occupation (15 years and above)	Agriculture	514	30.5%	487	30.4%	1001	30.4%
	Business/ trading	230	13.6%	229	14.3%	459	14.0%
	Skilled manual	80	4.7%	74	4.6%	154	4.7%
	Unskilled manual	42	2.5%	31	1.9%	73	2.2%
	Clerical	4	.2%	3	.2%	7	.2%
	Professional/technical/ managerial	27	1.6%	26	1.6%	53	1.6%
	Civil Servant	39	2.3%	64	4.0%	103	3.1%
	Homemaker/ housewife	324	19.2%	303	18.9%	627	19.1%
	Domestic helper	3	.2%	3	.2%	6	.2%
	Retired	20	1.2%	16	1.0%	36	1.1%
	Student	213	12.6%	200	12.5%	413	12.6%
	Unemployed	95	5.6%	87	5.4%	182	5.5%
	Physically disabled	2	.1%	4	.2%	6	.2%
	Civil Servant	16	.9%	18	1.1%	34	1.0%
	Other (Specify)	75	4.4%	58	3.6%	133	4.0%
	Don't know	2	.1%	1	.1%	3	.1%
	Total	**1686**	**100.0%**	**1604**	**100.0%**	**3290**	**100.0%**

Pearson Chi-Square Tests

		TreatmentGroup
Gender	Chi-square	,204
	df	1
	Sig.	,652
Relationship with household head	Chi-square	20,904
	df	16
	Sig.	,182[a,b]
Marital Status	Chi-square	12,129
	df	5
	Sig.	,033[a,b,*]
Read	Chi-square	3,734
	df	3
	Sig.	,292
Write	Chi-square	10,993
	df	2
	Sig.	,004[a,b,*]
School enrollment	Chi-square	13,104
	df	3
	Sig.	,004[*]
Highest Education	Chi-square	18,559
	df	18
	Sig.	,419
Occupation	Chi-square	12,014
	df	15
	Sig.	,678[a]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

b. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 3 - Main water source[8] for drinking water

		HHs with Improved Drinking Water	Number of beneficiaries	Main Water source																			
				Improved												Unimproved							
				Piped into dwelling	Piped into yard/plot	Piped into neighbour	Public tap	Protected well in dwelling	Protected well in yard/plot	Protected public well	Tubewell/bore hole	Protected spring	Rainwater harvesting	Sachet Water	Other (Specify)	Open well in dwelling	Open well in yard/plot	Open public well	Spring	River or stream	Pond or lake	Tanker-Truck	Dam
		%	n	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Treatment Group	Counterfactual	68.2	1907	1.6	0.4	0.5	6	0.9	1.4	2	54	0.2	0	0.7	0.4	2.3	1.1	6.9	1.6	19.3	0.4	0.2	0.2
	Intervention	80.4	2131	1.1	0.7	0.2	5.6	1.8	1.1	4.4	63.1	0.2	0.2	1.1	0.9	1.1	3.5	6.9	0.7	7.5	0	0	0
	Total	**74.3**	**4038**	**1.4**	**0.5**	**0.4**	**5.8**	**1.4**	**1.3**	**3.2**	**58.5**	**0.2**	**0.1**	**0.9**	**0.6**	**1.7**	**2.3**	**6.9**	**1.2**	**13.4**	**0.2**	**0.1**	**0.1**
Area	North	78	2613	1.2	0.2	0	2.8	1.6	0.7	4.3	66.9	0.2	0	0	0.2	2.8	3.8	11.1	0	3.8	0.3	0	0.2
	South	70.2	1425	1.5	0.9	0.8	9.1	1.1	1.9	1.9	49.3	0.2	0.2	1.9	1.1	0.6	0.6	2.3	2.5	23.9	0	0.2	0
	Total	**74.3**	**4038**	**1.4**	**0.5**	**0.4**	**5.8**	**1.4**	**1.3**	**3.2**	**58.5**	**0.2**	**0.1**	**0.9**	**0.6**	**1.7**	**2.3**	**6.9**	**1.2**	**13.4**	**0.2**	**0.1**	**0.1**
Wealth	Poorest	69.2	727	0	0	0	1.4	0.5	0	2.3	64.7	0.5	0	0	0	0.5	1.8	13.1	0	14.5	0.5	0	0.5
	Poor	64.3	740	0.5	0	0	1.4	0.5	0.5	4.1	57	0	0	0	0.5	1.8	2.3	9	0	22.2	0.5	0	0
	Average	69.1	823	0	0	0.5	3.2	1.4	0.9	4.5	57.7	0	0	0.5	0.5	2.3	4.1	7.7	1.4	15.5	0	0	0
	Rich	81	860	1.8	0.5	0.9	10.9	1.4	1.8	1.8	60.6	0	0	0	1.4	2.7	2.3	1.8	1.8	10.4	0	0	0
	Richest	87.8	888	4.5	2.3	0.5	12.2	3.2	3.2	3.2	52.5	0.5	0.5	4.1	0.9	1.4	0.9	2.7	2.7	4.5	0	0.5	0
	Total	**74.3**	**4038**	**1.4**	**0.5**	**0.4**	**5.8**	**1.4**	**1.3**	**3.2**	**58.5**	**0.2**	**0.1**	**0.9**	**0.6**	**1.7**	**2.3**	**6.9**	**1.2**	**13.4**	**0.2**	**0.1**	**0.1**

[8] Improved water sources for drinking water are households using any of the following types of water supply : piped water (into dwelling, yard or plot, to neighbour, public tap/standpipe), tubewell/borehole, protected well, protected spring, rainwater collection and bottled/sachet water.

Pearson Chi-Square Tests

		Improved Drinking Water	Water source
Treatment Group	Chi-square	21,263	60,043
	df	1	19
	Sig.	,000*	,000*,b,c
Area Area	Chi-square	8,727	218,659
	df	1	19
	Sig.	,003*	,000*,b,c
qhwlthi Wealth	Chi-square	43,982	240,396
	df	4	76
	Sig.	,000*	,000*,b,c

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 4 - Improved Drinking Water

		Improved Drinking Water			
		No		Yes	
		Water source available		Water source available	
		Yes	No	Yes	No
		Row N %	Row N %	Row N %	Row N %
Treatment Group	Counterfactual	85.0%	15.0%	94.1%	5.9%
	Intervention	88.1%	11.9%	90.2%	9.8%
	Total	86.2%	13.8%	92.0%	8.0%
Area	North	85.8%	14.2%	94.9%	5.1%
	South	86.5%	13.5%	88.5%	11.5%
	Total	86.2%	13.8%	92.0%	8.0%
Wealth	Poorest	91.2%	8.8%	98.0%	2.0%
	Poor	88.6%	11.4%	93.7%	6.3%
	Average	77.9%	22.1%	92.7%	7.3%
	Rich	85.7%	14.3%	89.9%	10.1%
	Richest	88.0%	12.0%	87.4%	12.6%
	Total	**86.2%**	**13.8%**	**92.0%**	**8.0%**

Pearson Chi-Square Tests

		Improved Drinking Water	
		No	Yes
		water source available	water source available
Treatment Group	Chi-square	.540	4.248
	df	1	1
	Sig.	.462	,039*
Area	Chi-square	.023	11.025
	df	1	1
	Sig.	.880	,001*
Wealth	Chi-square	5.765	14.861
	df	4	4
	Sig.	.217	,005*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 5 – Drinking water on premises

		Drinking Water on premises	
		No	Yes
		Row N %	Row N %
Treatment Group	Counterfactual	91.2%	8.8%
	Intervention	88.7%	11.3%
	Total	89.9%	10.1%
Area	North	89.6%	10.4%
	South	90.3%	9.7%
	Total	89.9%	10.1%
Wealth	Poorest	97.3%	2.7%
	Poor	94.1%	5.9%
	Average	90.5%	9.5%
	Rich	88.2%	11.8%
	Richest	79.6%	20.4%
	Total	**89.9%**	**10.1%**

Pearson Chi-Square Tests

		Drinking Water on premises
Treatment Group	Chi-square	1.799
	df	1
	Sig.	.180
Area	Chi-square	.158
	df	1
	Sig.	.691
Wealth	Chi-square	44.159
	df	4
	Sig.	,000*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 6 - Distance to water source

				Distance to water source less than 250m			
				No		Yes	
				Count	Row N %	Count	Row N %
Improved Drinking Water	No	Area	North	66	52.0%	61	48.0%
			South	100	63.7%	57	36.3%
		Treatment Group	Counterfactual	111	63.1%	65	36.9%
			Intervention	55	50.9%	53	49.1%
		Wealth	Poorest	45	66.2%	23	33.8%
			Poor	39	50.0%	39	50.0%
			Average	47	69.1%	21	30.9%
			Rich	22	52.4%	20	47.6%
			Richest	13	46.4%	15	53.6%
	Yes	Area	North	225	50.1%	224	49.9%
			South	93	25.3%	274	74.7%
		Treatment Group	Counterfactual	149	39.5%	228	60.5%
			Intervention	169	38.5%	270	61.5%
		Wealth	Poorest	81	52.9%	72	47.1%
			Poor	65	45.8%	77	54.2%
			Average	63	41.4%	89	58.6%
			Rich	60	33.7%	118	66.3%
			Richest	49	25.7%	142	74.3%

Pearson Chi-Square Tests

				Distance to water source less than 250m
Improved Drinking Water	No	Area	Chi-square	3.975
			df	1
			Sig.	,046*
		Treatment Group	Chi-square	4.063
			df	1
			Sig.	,044*
		Wealth	Chi-square	9.454
			df	4
			Sig.	.051
	Yes	Area	Chi-square	52.098
			df	1
			Sig.	,000*
		Treatment Group	Chi-square	.090
			df	1
			Sig.	.764
		Wealth	Chi-square	32.025
			df	4
			Sig.	,000*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 7 - Frequency of use of water source

				How frequently do you use this water point?											
				Daily		Weekly		Monthly		Seasonally		Infrequently		Don't Know	
				Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Improved Drinking Water	No	Area	North	114	89.8%	1	.8%	0	0.0%	9	7.1%	3	2.4%	0	0.0%
			South	150	94.9%	1	.6%	0	0.0%	0	0.0%	7	4.4%	0	0.0%
		Treatment Group	Counterfactual	164	93.2%	1	.6%	0	0.0%	5	2.8%	6	3.4%	0	0.0%
			Intervention	100	91.7%	1	.9%	0	0.0%	4	3.7%	4	3.7%	0	0.0%
		Wealth	Poorest	64	94.1%	1	1.5%	0	0.0%	0	0.0%	3	4.4%	0	0.0%
			Poor	73	92.4%	0	0.0%	0	0.0%	4	5.1%	2	2.5%	0	0.0%
			Average	62	91.2%	0	0.0%	0	0.0%	2	2.9%	4	5.9%	0	0.0%
			Rich	39	92.9%	0	0.0%	0	0.0%	2	4.8%	1	2.4%	0	0.0%
			Richest	26	92.9%	1	3.6%	0	0.0%	1	3.6%	0	0.0%	0	0.0%
	Yes	Area	North	438	97.3%	5	1.1%	0	0.0%	2	.4%	3	.7%	2	.4%
			South	331	89.7%	21	5.7%	1	.3%	1	.3%	15	4.1%	0	0.0%
		Treatment Group	Counterfactual	360	95.2%	10	2.6%	1	.3%	0	0.0%	5	1.3%	2	.5%
			Intervention	409	92.7%	16	3.6%	0	0.0%	3	.7%	13	2.9%	0	0.0%
		Wealth	Poorest	152	99.3%	0	0.0%	0	0.0%	0	0.0%	1	.7%	0	0.0%
			Poor	136	95.8%	2	1.4%	0	0.0%	1	.7%	3	2.1%	0	0.0%
			Average	146	96.1%	1	.7%	0	0.0%	1	.7%	4	2.6%	0	0.0%
			Rich	166	92.7%	9	5.0%	0	0.0%	0	0.0%	3	1.7%	1	.6%
			Richest	169	87.6%	14	7.3%	1	.5%	1	.5%	7	3.6%	1	.5%

Pearson Chi-Square Tests

				How frequently do you use this water point?
Improved Drinking Water	No	Area	Chi-square	12.282
			df	3
			Sig.	,006[*,b,c]
		Treatment Group	Chi-square	.291
			df	3
			Sig.	,962[b,c]
		Wealth	Chi-square	11.240
			df	12
			Sig.	,508[b,c]
	Yes	Area	Chi-square	28.334
			df	5
			Sig.	,000[*,b,c]
		Treatment Group	Chi-square	9.271
			df	5
			Sig.	,099[b,c]
		Wealth	Chi-square	34.397
			df	20
			Sig.	,024[*,b,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 8 - Who usually fetches water for the household?

Improved Drinking Water				Who usually goes to this (current) water point to collect water for your household?									
				Adult woman (age 15+ years)		Adult man (age 15+ years)		Female child (under 15)		Male child (under 15)		Don't Know	
				Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
	No	Area Area	North	33	26.0%	77	60.6%	6	4.7%	11	8.7%	0	0.0%
			South	92	58.2%	34	21.5%	19	12.0%	13	8.2%	0	0.0%
		Treatment Group	Counterfactual	87	49.4%	58	33.0%	16	9.1%	15	8.5%	0	0.0%
			Intervention	38	34.9%	53	48.6%	9	8.3%	9	8.3%	0	0.0%
		Wealth	Poorest	27	39.7%	35	51.5%	1	1.5%	5	7.4%	0	0.0%
			Poor	33	41.8%	31	39.2%	5	6.3%	10	12.7%	0	0.0%
			Average	37	54.4%	19	27.9%	9	13.2%	3	4.4%	0	0.0%
			Rich	17	40.5%	16	38.1%	6	14.3%	3	7.1%	0	0.0%
			Richest	11	39.3%	10	35.7%	4	14.3%	3	10.7%	0	0.0%
	Yes	Area	North	80	17.8%	259	57.6%	47	10.4%	63	14.0%	1	.2%
			South	219	59.7%	54	14.7%	52	14.2%	38	10.4%	4	1.1%
		Treatment Group	Counterfactual	121	32.1%	175	46.4%	41	10.9%	37	9.8%	3	.8%
			Intervention	178	40.5%	138	31.4%	58	13.2%	64	14.5%	2	.5%
		Wealth	Poorest	30	19.6%	94	61.4%	14	9.2%	15	9.8%	0	0.0%
			Poor	36	25.4%	68	47.9%	17	12.0%	21	14.8%	0	0.0%
			Average	50	32.9%	60	39.5%	20	13.2%	21	13.8%	1	.7%
			Rich	96	53.9%	42	23.6%	19	10.7%	20	11.2%	1	.6%
			Richest	87	45.3%	49	25.5%	29	15.1%	24	12.5%	3	1.6%

Pearson Chi-Square Tests

				Who usually goes to this (current) water point to collect water for your household?
Improved Drinking Water	No	Area	Chi-square	48.636
			df	3
			Sig.	,000[*,b]
		Treatment Group	Chi-square	7.560
			df	3
			Sig.	,056[b]
		Wealth	Chi-square	19.225
			df	12
			Sig.	,083[b]
	Yes	Area	Chi-square	200.765
			df	4
			Sig.	,000[*,b]
		Treatment Group	Chi-square	20.843
			df	4
			Sig.	,000[*,b]
		Wealth	Chi-square	88.770
			df	16
			Sig.	,000[*,b,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 9 – Container for collecting water

Improved Drinking Water			Final Container				
			Bucket/Basin	Jar	Jerry can	Pitcher	Other
			Row N %	Row N %	Row N %	Row N %	Row N %
No	Treatment Group	Counterfactual	59.7%	1.1%	35.8%	3.4%	0.0%
		Intervention	49.5%	5.5%	43.1%	1.8%	0.0%
		Total	55.8%	2.8%	38.6%	2.8%	0.0%
	Area	North	45.7%	4.7%	43.3%	6.3%	0.0%
		South	63.9%	1.3%	34.8%	0.0%	0.0%
		Total	55.8%	2.8%	38.6%	2.8%	0.0%
	Wealth	Poorest	50.0%	1.5%	48.5%	0.0%	0.0%
		Poor	57.0%	3.8%	36.7%	2.5%	0.0%
		Average	67.6%	1.5%	29.4%	1.5%	0.0%
		Rich	45.2%	2.4%	42.9%	9.5%	0.0%
		Richest	53.6%	7.1%	35.7%	3.6%	0.0%
		Total	55.8%	2.8%	38.6%	2.8%	0.0%
Yes	Treatment Group	Counterfactual	50.8%	1.9%	46.3%	0.0%	1.1%
		Intervention	53.7%	1.1%	43.3%	.5%	1.4%
		Total	52.4%	1.5%	44.7%	.2%	1.2%
	Area	North	39.6%	1.1%	59.3%	0.0%	0.0%
		South	68.0%	1.9%	26.8%	.5%	2.7%
		Total	52.4%	1.5%	44.7%	.2%	1.2%
	Wealth	Poorest	37.3%	.7%	62.1%	0.0%	0.0%
		Poor	52.8%	.7%	46.5%	0.0%	0.0%
		Average	53.9%	1.3%	44.1%	0.0%	.7%
		Rich	54.7%	.6%	43.6%	1.1%	0.0%
		Richest	60.6%	3.6%	31.1%	0.0%	4.7%
		Total	**52.4%**	**1.5%**	**44.7%**	**.2%**	**1.2%**

Pearson Chi-Square Tests

				Final Container
Improved Drinking Water	No	Treatment Group	Chi-square	7.341
			df	3
			Sig.	,062[a]
		Area	Chi-square	18.476
			df	3
			Sig.	,000[a,*]
		Wealth	Chi-square	18.775
			df	12
			Sig.	,094[a,c]
	Yes	Treatment Group	Chi-square	3.327
			df	4
			Sig.	,505[a,c]
		Area	Chi-square	94.786
			df	4
			Sig.	,000[a,*,c]
		Wealth	Chi-square	68.469
			df	16
			Sig.	,000[a,*,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 10 - Household roster - fetching water (Ages 5-17)

		household roster fetch water					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Household roster gender	Male	623	73.6%	220	26.0%	3	.4%
	Female	505	67.2%	242	32.2%	5	.7%
	Total	1128	70.6%	462	28.9%	8	.5%
Treatment Group	Counterfactual	549	68.5%	249	31.1%	3	.4%
	Intervention	579	72.6%	213	26.7%	5	.6%
	Total	1128	70.6%	462	28.9%	8	.5%
Area	North	682	64.5%	371	35.1%	5	.5%
	South	446	82.6%	91	16.9%	3	.6%
	Total	1128	70.6%	462	28.9%	8	.5%
Wealth	Poorest	182	58.0%	132	42.0%	0	0.0%
	Poor	236	68.0%	110	31.7%	1	.3%
	Average	287	75.9%	91	24.1%	0	0.0%
	Rich	227	74.4%	75	24.6%	3	1.0%
	Richest	196	77.2%	54	21.3%	4	1.6%
	Total	**1128**	**70.6%**	**462**	**28.9%**	**8**	**.5%**

Pearson Chi-Square Tests

		household roster fetch water
household roster gender	Chi-square	8.391
	df	2
	Sig.	,015*,b
Treatment Group	Chi-square	4.093
	df	2
	Sig.	,129b
Area	Chi-square	57.726
	df	2
	Sig.	,000*
Wealth	Chi-square	52.011
	df	8
	Sig.	,000*,b

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

Table 11a – Household roster - fetching water (improved and unimproved)

				household roster fetch water			
				Yes		No	
				Count	Row N %	Count	Row N %
Improved Drinking Water	No	Gender	Male	161	72.2%	62	27.8%
			Female	105	60.0%	70	40.0%
		Treatment Group	Counterfactual	165	65.2%	88	34.8%
			Intervention	101	69.7%	44	30.3%
		Area	North	119	54.8%	98	45.2%
			South	147	81.2%	34	18.8%
		Wealth	Poorest	56	60.9%	36	39.1%
			Poor	71	63.4%	41	36.6%
			Average	78	70.3%	33	29.7%
			Rich	38	71.7%	15	28.3%
			Richest	23	76.7%	7	23.3%
	Yes	Gender	Male	459	74.4%	158	25.6%
			Female	397	69.8%	172	30.2%
		Treatment Group	Counterfactual	384	70.5%	161	29.5%
			Intervention	472	73.6%	169	26.4%
		Area	North	557	67.1%	273	32.9%
			South	299	84.0%	57	16.0%
		Wealth	Poorest	126	56.8%	96	43.2%
			Poor	165	70.5%	69	29.5%
			Average	203	77.8%	58	22.2%
			Rich	189	75.9%	60	24.1%
			Richest	173	78.6%	47	21.4%

Pearson Chi-Square Tests

				household roster fetch water
Improved Drinking Water	No	household roster gender	Chi-square	6.581
			df	1
			Sig.	,010*
		Treatment Group	Chi-square	.819
			df	1
			Sig.	.365
		Area	Chi-square	30.975
			df	1
			Sig.	,000*
		Wealth	Chi-square	4.540
			df	4
			Sig.	.338
	Yes	household roster gender	Chi-square	3.147
			df	1
			Sig.	.076
		Treatment Group	Chi-square	1.480
			df	1
			Sig.	.224
		Area	Chi-square	35.350
			df	1
			Sig.	,000*
		Wealth	Chi-square	36.978
			df	4
			Sig.	,000*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 11b – Household roster – time spent in fetching water, ages 5 to 17 (improved and unimproved)

			Gender		Treatment Group		Area		Wealth				
			Male	Female	Counterfactual	Intervention	North	South	Poorest	Poor	Average	Rich	Richest
Improved Drinking Water	No	Count	687	627	818	497	659	656	289	385	349	168	124
		Median	7	7	7	7	6	7	7	7	7	4	9
		Mean	9	9	9	9	8	10	10	9	9	6	13
		Standard Deviation	7	6	6	7	6	7	6	6	7	4	10
		Minimum	1	1	1	1	1	1	1	1	2	1	1
		Maximum	42	30	42	30	28	42	28	28	42	14	30
	Yes	Count	2052	1985	1907	2131	2613	1425	727	740	823	860	888
		Median	6	5	5	6	6	6	7	6	5	6	4
		Mean	7	7	7	7	7	7	9	8	7	7	6
		Standard Deviation	6	6	6	6	6	6	6	5	7	6	6
		Minimum	1	1	1	1	1	1	1	1	1	1	1
		Maximum	42	42	42	42	37	42	30	30	42	42	30

Comparisons of Column Means[a]

		Gender		Treatment Group		Area		Wealth				
		Male	Female	Counterfactual	Intervention	North	South	Poorest	Poor	Average	Rich	Richest
		(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(C)	(D)	(E)
Improved Drinking Water	No						A					D
	Yes							C E				

Results are based on two-sided tests assuming equal variances with significance level ,05. For each significant pair, the key of the smaller category appears under the category with larger mean.

a. Tests are adjusted for all pairwise comparisons within a row of each innermost subtable using the Bonferroni correction.

Table 12 - Discussion on water safety

		Treatment Group					
		Counterfactual		Intervention		Total	
		Count	Column N %	Count	Column N %	Count	Column N %
Did anybody discuss with you about how to keep your water safe?	Yes	281	50.7%	310	56.5%	591	53.6%
	No	265	47.8%	233	42.4%	498	45.1%
	Don't Know	8	1.4%	6	1.1%	14	1.3%
	Friend/Family	6	2.1%	4	1.3%	10	1.7%
	WASHCOM	160	56.9%	184	59.4%	344	58.2%
	Someone in community/Leader/Church Leader	3	1.1%	14	4.5%	17	2.9%
	Health Staff/Workers	40	14.2%	29	9.4%	69	11.7%
	LGA	9	3.2%	6	1.9%	15	2.5%
	Environmental staff	2	.7%	4	1.3%	6	1.0%
	Government	3	1.1%	4	1.3%	7	1.2%
	NGO	5	1.8%	4	1.3%	9	1.5%
	School	3	1.1%	5	1.6%	8	1.4%
	Radio/TV	1	.4%	2	.6%	3	.5%
	RUWASA	3	1.1%	3	1.0%	6	1.0%
	Unicef	11	3.9%	10	3.2%	21	3.6%
	Can't remember	35	12.5%	41	13.2%	76	12.9%
	Total	**281**	**100.0%**	**310**	**100.0%**	**591**	**100.0%**

Pearson Chi-Square Tests

		Treatment Group
Did anybody discuss with you about how to keep your water safe?	Chi-square	3.742
	df	2
	Sig.	.154
Discussion on water safety	Chi-square	12.428
	df	12
	Sig.	,412[a]

Results are based on nonempty rows and columns in each innermost subtable.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

Table 13 - Treatment of water

		Teatment of water																	
		Add alum		Add Bleach / Chlorine		Boil		Strain it through a cloth		Don't know		Use a water filter (ceramic, sand, composite,etc)		Solar disinfection		Let it stand and settle		Add water tablet / Liquid	
		Count	%	Count	%	Count	%	Count	Row N %	Count	%	Count	%	Count	%	Count	%	Count	%
Treatment Group	Counterfactual	44	30,8%	11	7,7%	24	16,8%	52	36,4%	1	,7%	10	7,0%	1	,7%	37	25,9%	5	3,5%
	Intervention	22	18,8%	4	3,4%	33	28,2%	40	34,2%	0	0,0%	19	16,2%	0	0,0%	20	17,1%	9	7,7%
Area	North	38	35,2%	11	10,2%	21	19,4%	58	53,7%	1	,9%	4	3,7%	0	0,0%	14	13,0%	5	4,6%
	South	28	18,4%	4	2,6%	36	23,7%	34	22,4%	0	0,0%	25	16,4%	1	,7%	43	28,3%	9	5,9%
Wealth	Poorest	6	23,1%	1	3,8%	1	3,8%	8	30,8%	1	3,8%	0	0,0%	0	0,0%	11	42,3%	1	3,8%
	Poor	17	41,5%	1	2,4%	6	14,6%	21	51,2%	0	0,0%	2	4,9%	0	0,0%	9	22,0%	1	2,4%
	Average	18	30,5%	1	1,7%	7	11,9%	32	54,2%	0	0,0%	4	6,8%	0	0,0%	10	16,9%	0	0,0%
	Rich	16	21,1%	4	5,3%	22	28,9%	16	21,1%	0	0,0%	16	21,1%	0	0,0%	18	23,7%	7	9,2%
	Richest	9	15,5%	8	13,8%	21	36,2%	15	25,9%	0	0,0%	7	12,1%	1	1,7%	9	15,5%	5	8,6%

Pearson Chi-Square Tests

		Treatment of water
Treatment Group	Chi-square	24.380
	df	9
	Sig.	,004[*,b,c]
Area	Chi-square	65.118
	df	9
	Sig.	,000[*,b,c]
Wealth	Chi-square	104.180
	df	36
	Sig.	,000[*,b,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 14 - Water treatment – friends and neighbours

		Most of my friends take some action at home to treat their water to make it safer to drink.										My neighbours take some action at home to treat their water to make it safer to drink.									
		Totally Disagree		Partially Disagree		No Opinion		Partially Agree		Totally Agree		Totally Disagree		Partially Disagree		No Opinion		Partially Agree		Totally Agree	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	195	35.2 %	101	18.2 %	129	23.3 %	80	14.4 %	49	8.8 %	170	30.7 %	116	20.9 %	142	25.6 %	73	13.2 %	53	9.6 %
	Intervention	161	29.3 %	96	17.5 %	159	28.9 %	87	15.8 %	47	8.5 %	153	27.8 %	111	20.2 %	156	28.4 %	89	16.2 %	41	7.5 %
Area	North	189	32.8 %	152	26.3 %	82	14.2 %	95	16.5 %	59	10.2 %	161	27.9 %	179	31.0 %	86	14.9 %	93	16.1 %	58	10.1 %
	South	167	31.7 %	45	8.5 %	206	39.1 %	72	13.7 %	37	7.0 %	162	30.7 %	48	9.1 %	212	40.2 %	69	13.1 %	36	6.8 %
Wealth	Poorest	92	41.6 %	78	35.3 %	31	14.0 %	13	5.9 %	7	3.2 %	81	36.7 %	84	38.0 %	36	16.3 %	14	6.3 %	6	2.7 %

Poor	76	34.4 %	50	22.6 %	49	22.2 %	22	10.0 %	24	10.9 %	73	33.0 %	50	22.6 %	50	22.6 %	23	10.4 %	25	11.3 %
Average	69	31.4 %	32	14.5 %	55	25.0 %	42	19.1 %	22	10.0 %	57	25.9 %	47	21.4 %	55	25.0 %	37	16.8 %	24	10.9 %
Rich	51	23.1 %	18	8.1 %	76	34.4 %	55	24.9 %	21	9.5 %	46	20.8 %	23	10.4 %	81	36.7 %	50	22.6 %	21	9.5 %
Richest	68	30.8 %	19	8.6 %	77	34.8 %	35	15.8 %	22	10.0 %	66	29.9 %	23	10.4 %	76	34.4 %	38	17.2 %	18	8.1 %

Pearson Chi-Square Tests

		Most of my friends take some action at home to treat their water to make it safer to drink.	My neighbours take some action at home to treat their water to make it safer to drink.	The majority of people in my community take some action at home to treat their water to make it safer to drink.
Treatment Group	Chi-square	6.820	4.760	5.728
	df	4	4	4
	Sig.	.146	.313	.220
Area	Chi-square	119.054	135.596	98.942
	df	4	4	4
	Sig.	,000*	,000*	,000*
Wealth	Chi-square	145.116	127.167	109.295
	df	16	16	16
	Sig.	,000*	,000*	,000*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 15 - Storage of drinking water

		Do you store your drinking water?			
		Yes		No	
		Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	520	93.9%	34	6.1%
	Intervention	525	95.5%	25	4.5%
	Total	1045	94.7%	59	5.3%
Area	North	556	96.4%	21	3.6%
	South	489	92.8%	38	7.2%
	Total	1045	94.7%	59	5.3%
Wealth	Poorest	214	96.8%	7	3.2%
	Poor	206	93.2%	15	6.8%
	Average	212	96.4%	8	3.6%
	Rich	211	95.5%	10	4.5%
	Richest	202	91.4%	19	8.6%
	Total	1045	94.7%	59	5.3%

Pearson Chi-Square Tests

		Do you store your drinking water?
Treatment Group	Chi-square	1.382
	df	1
	Sig.	.240
Area	Chi-square	6.944
	df	1
	Sig.	,008*
Wealth	Chi-square	9.165
	df	4
	Sig.	.057

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 16 - Observations – type of container for water storage

		Record observation: Based on observations determine if the type of container used to store the drinking water:											
		Covered, accessed by pouring or tap		Covered, accessed by dipping		Uncovered, accessed by pouring or tap		Uncovered, accessed by dipping		Other		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	58	11.2%	431	83.2%	6	1.2%	17	3.3%	4	.8%	2	.4%
	Intervention	69	13.2%	438	83.6%	7	1.3%	4	.8%	4	.8%	2	.4%
	Total	127	12.2%	869	83.4%	13	1.2%	21	2.0%	8	.8%	4	.4%
Area	North	105	18.9%	431	77.7%	11	2.0%	5	.9%	1	.2%	2	.4%
	South	22	4.5%	438	89.9%	2	.4%	16	3.3%	7	1.4%	2	.4%
	Total	127	12.2%	869	83.4%	13	1.2%	21	2.0%	8	.8%	4	.4%
Wealth	Poorest	47	22.0%	155	72.4%	6	2.8%	5	2.3%	0	0.0%	1	.5%
	Poor	32	15.6%	163	79.5%	6	2.9%	4	2.0%	0	0.0%	0	0.0%
	Average	26	12.3%	176	83.4%	0	0.0%	9	4.3%	0	0.0%	0	0.0%
	Rich	6	2.8%	199	94.3%	1	.5%	3	1.4%	1	.5%	1	.5%
	Richest	16	8.0%	176	87.6%	0	0.0%	0	0.0%	7	3.5%	2	1.0%
	Total	127	12.2%	869	83.4%	13	1.2%	21	2.0%	8	.8%	4	.4%

Pearson Chi-Square Tests

		Based on observations determine the type of container used to store the drinking water:
Treatment Group	Chi-square	9.099
	df	5
	Sig.	,105[a]
Area	Chi-square	66.639
	df	5
	Sig.	,000[a,*]
Wealth	Chi-square	96.481
	df	20
	Sig.	,000[a,*,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 17a – Perception of water quality 1

		What is the appearance of the water from the main drinking water source?								Is the water free from visible particles?							
		Always clear		Mostly clear		Mostly turbid		Always turbid		Always		Mostly		Sometimes		Never	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	414	75.0%	113	20.5%	23	4.2%	2	.4%	332	60.1%	128	23.2%	71	12.9%	21	3.8%
	Intervention	452	82.2%	81	14.7%	13	2.4%	4	.7%	342	62.2%	115	20.9%	66	12.0%	27	4.9%
	Total	866	78.6%	194	17.6%	36	3.3%	6	.5%	674	61.2%	243	22.1%	137	12.4%	48	4.4%
Area	North	446	77.3%	111	19.2%	14	2.4%	6	1.0%	337	58.5%	160	27.8%	46	8.0%	33	5.7%
	South	420	80.0%	83	15.8%	22	4.2%	0	0.0%	337	64.1%	83	15.8%	91	17.3%	15	2.9%
	Total	866	78.6%	194	17.6%	36	3.3%	6	.5%	674	61.2%	243	22.1%	137	12.4%	48	4.4%
Wealth	Poorest	150	67.9%	55	24.9%	12	5.4%	4	1.8%	107	48.4%	80	36.2%	29	13.1%	5	2.3%
	Poor	159	72.3%	50	22.7%	10	4.5%	1	.5%	108	48.9%	61	27.6%	39	17.6%	13	5.9%
	Average	174	79.1%	38	17.3%	7	3.2%	1	.5%	144	65.8%	37	16.9%	25	11.4%	13	5.9%
	Rich	184	83.6%	31	14.1%	5	2.3%	0	0.0%	150	68.2%	42	19.1%	21	9.5%	7	3.2%
	Richest	199	90.0%	20	9.0%	2	.9%	0	0.0%	165	74.7%	23	10.4%	23	10.4%	10	4.5%
	Total	866	78.6%	194	17.6%	36	3.3%	6	.5%	674	61.2%	243	22.1%	137	12.4%	48	4.4%

Table 17b – Perception of water quality 2

		What is the colour of the water?										What is the odour of the water?			
		Clear		Yellowish		Brownish		Reddish		Other Colour		No smell		Foul smelling	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	485	87.7%	27	4.9%	38	6.9%	3	.5%	0	0.0%	541	97.7%	13	2.3%
	Intervention	523	95.1%	11	2.0%	13	2.4%	2	.4%	1	.2%	530	96.4%	20	3.6%
	Total	1008	91.4%	38	3.4%	51	4.6%	5	.5%	1	.1%	1071	97.0%	33	3.0%
Area	North	535	92.7%	19	3.3%	18	3.1%	4	.7%	1	.2%	560	97.1%	17	2.9%
	South	473	89.9%	19	3.6%	33	6.3%	1	.2%	0	0.0%	511	97.0%	16	3.0%
	Total	1008	91.4%	38	3.4%	51	4.6%	5	.5%	1	.1%	1071	97.0%	33	3.0%
Wealth	Poorest	191	86.4%	14	6.3%	15	6.8%	1	.5%	0	0.0%	208	94.1%	13	5.9%
	Poor	195	88.2%	12	5.4%	13	5.9%	1	.5%	0	0.0%	216	97.7%	5	2.3%
	Average	201	91.4%	6	2.7%	13	5.9%	0	0.0%	0	0.0%	217	98.6%	3	1.4%
	Rich	206	93.6%	3	1.4%	8	3.6%	2	.9%	1	.5%	215	97.3%	6	2.7%
	Richest	215	97.3%	3	1.4%	2	.9%	1	.5%	0	0.0%	215	97.3%	6	2.7%
	Total	1008	91.4%	38	3.4%	51	4.6%	5	.5%	1	.1%	1071	97.0%	33	3.0%

Table 17c – Perception of water quality 3

		How would you rate the taste of the water from this Water Point?								Is the water salty?			
		Excellent		Good		Bad		Very Bad		Yes		No	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	157	28.3%	373	67.3%	24	4.3%	0	0.0%	77	13.9%	476	86.1%
	Intervention	165	30.0%	352	64.0%	32	5.8%	1	.2%	78	14.2%	472	85.8%
	Total	322	29.2%	725	65.7%	56	5.1%	1	.1%	155	14.1%	948	85.9%
Area	North	214	37.1%	337	58.4%	26	4.5%	0	0.0%	74	12.8%	503	87.2%
	South	108	20.5%	388	73.6%	30	5.7%	1	.2%	81	15.4%	445	84.6%
	Total	322	29.2%	725	65.7%	56	5.1%	1	.1%	155	14.1%	948	85.9%
Wealth	Poorest	58	26.2%	151	68.3%	11	5.0%	1	.5%	29	13.1%	192	86.9%
	Poor	72	32.6%	139	62.9%	10	4.5%	0	0.0%	22	10.0%	199	90.0%
	Average	77	35.0%	136	61.8%	7	3.2%	0	0.0%	25	11.4%	195	88.6%
	Rich	57	25.8%	150	67.9%	14	6.3%	0	0.0%	39	17.6%	182	82.4%
	Richest	58	26.2%	149	67.4%	14	6.3%	0	0.0%	40	18.2%	180	81.8%
	Total	322	29.2%	725	65.7%	56	5.1%	1	.1%	155	14.1%	948	85.9%

Table 18 - Availability of water

		To what extent is water usually available from this water point?									
		Always		Often		Rarely		Never		Don't know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	458	82.7%	81	14.6%	12	2.2%	1	.2%	2	.4%
	Intervention	448	81.5%	86	15.6%	15	2.7%	0	0.0%	1	.2%
	Total	906	82.1%	167	15.1%	27	2.4%	1	.1%	3	.3%
Area	North	470	81.5%	85	14.7%	19	3.3%	1	.2%	2	.3%
	South	436	82.7%	82	15.6%	8	1.5%	0	0.0%	1	.2%
	Total	906	82.1%	167	15.1%	27	2.4%	1	.1%	3	.3%
Wealth	Poorest	191	86.4%	25	11.3%	5	2.3%	0	0.0%	0	0.0%
	Poor	182	82.4%	36	16.3%	2	.9%	1	.5%	0	0.0%
	Average	183	83.2%	26	11.8%	10	4.5%	0	0.0%	1	.5%
	Rich	175	79.2%	41	18.6%	4	1.8%	0	0.0%	1	.5%
	Richest	175	79.2%	39	17.6%	6	2.7%	0	0.0%	1	.5%
	Total	906	82.1%	167	15.1%	27	2.4%	1	.1%	3	.3%

Pearson Chi-Square Tests

		To what extent is water usually available from this water point?
Treatment Group	Chi-square	1.912
	df	4
	Sig.	,752[a,b]
Area	Chi-square	4.890
	df	4
	Sig.	,299[a,b]
Wealth	Chi-square	20.123
	df	16
	Sig.	,215[a,b]

Results are based on nonempty rows and columns in each innermost subtable.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

b. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 19a - Maintenance of water point (Treatment group and Area)

		Treatment Group						Area					
		Counterfactual		Intervention		Total		North		South		Total	
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
Who maintains the water point	Gov, LGA	9	2.1%	5	1.0%	14	1.5%	8	1.5%	6	1.7%	14	1.5%
	WASH Committee	41	9.7%	33	6.8%	74	8.2%	58	10.6%	16	4.5%	74	8.2%
	Women	6	1.4%	9	1.9%	15	1.7%	3	.5%	12	3.4%	15	1.7%
	Community	193	45.7%	235	48.5%	428	47.2%	269	49.0%	159	44.4%	428	47.2%
	Youth/Schools	8	1.9%	9	1.9%	17	1.9%	14	2.6%	3	.8%	17	1.9%
	Household/Family	36	8.5%	51	10.5%	87	9.6%	45	8.2%	42	11.7%	87	9.6%
	Volunteer	9	2.1%	6	1.2%	15	1.7%	15	2.7%	0	0.0%	15	1.7%
	None	1	.2%	1	.2%	2	.2%	0	0.0%	2	.6%	2	.2%
	Specific Name	35	8.3%	44	9.1%	79	8.7%	65	11.8%	14	3.9%	79	8.7%
	Caretaker	0	0.0%	4	.8%	4	.4%	3	.5%	1	.3%	4	.4%
	Unicef	0	0.0%	2	.4%	2	.2%	2	.4%	0	0.0%	2	.2%
	Private	30	7.1%	19	3.9%	49	5.4%	2	.4%	47	13.1%	49	5.4%
	Dont Know	54	12.8%	67	13.8%	121	13.3%	65	11.8%	56	15.6%	121	13.3%

Table 19b - Maintenance of water point (Wealth)

		Wealth											
		Poorest		Poor		Average		Rich		Richest		Total	
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
Who maintains the water point	Gov, LGA	0	0.0%	1	.6%	5	2.8%	5	2.7%	3	1.6%	14	1.5%
	WASH Committee	11	5.9%	24	14.4%	15	8.4%	13	6.9%	11	5.9%	74	8.2%
	Women	1	.5%	0	0.0%	6	3.4%	4	2.1%	4	2.1%	15	1.7%
	Community	91	49.2%	91	54.5%	90	50.3%	88	46.8%	68	36.2%	428	47.2%
	Youth/Schools	9	4.9%	1	.6%	3	1.7%	2	1.1%	2	1.1%	17	1.9%
	Household/Family	8	4.3%	8	4.8%	19	10.6%	22	11.7%	30	16.0%	87	9.6%
	Volunteer	2	1.1%	2	1.2%	6	3.4%	2	1.1%	3	1.6%	15	1.7%
	None	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.1%	2	.2%
	Specific Name	35	18.9%	20	12.0%	9	5.0%	3	1.6%	12	6.4%	79	8.7%
	Caretaker	0	0.0%	0	0.0%	1	.6%	2	1.1%	1	.5%	4	.4%
	UNICEF	1	.5%	1	.6%	0	0.0%	0	0.0%	0	0.0%	2	.2%
	Private	0	0.0%	3	1.8%	6	3.4%	16	8.5%	24	12.8%	49	5.4%
	Don't Know	27	14.6%	16	9.6%	19	10.6%	31	16.5%	28	14.9%	121	13.3%

Table 20a – Time for major repairs of water point

		Major repairs time							
		Days		Weeks		Months		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	135	47.9%	60	21.3%	20	7.1%	67	23.8%
	Intervention	168	45.0%	98	26.3%	31	8.3%	76	20.4%
	Total	303	46.3%	158	24.1%	51	7.8%	143	21.8%
Area	North	193	51.1%	115	30.4%	21	5.6%	49	13.0%
	South	110	39.7%	43	15.5%	30	10.8%	94	33.9%
	Total	303	46.3%	158	24.1%	51	7.8%	143	21.8%
Wealth	Poorest	49	43.4%	31	27.4%	4	3.5%	29	25.7%
	Poor	52	46.4%	32	28.6%	7	6.3%	21	18.8%
	Average	67	51.1%	27	20.6%	5	3.8%	32	24.4%
	Rich	63	42.6%	36	24.3%	13	8.8%	36	24.3%
	Richest	72	47.7%	32	21.2%	22	14.6%	25	16.6%
	Total	303	46.3%	158	24.1%	51	7.8%	143	21.8%

Table 20b – Time for minor repairs

		Minor repairs time							
		Days		Weeks		Months		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	213	70.1%	21	6.9%	3	1.0%	67	22.0%
	Intervention	288	75.0%	30	7.8%	5	1.3%	61	15.9%
	Total	501	72.8%	51	7.4%	8	1.2%	128	18.6%
Area	North	317	79.1%	33	8.2%	4	1.0%	47	11.7%
	South	184	64.1%	18	6.3%	4	1.4%	81	28.2%
	Total	501	72.8%	51	7.4%	8	1.2%	128	18.6%
Wealth	Poorest	94	70.1%	14	10.4%	2	1.5%	24	17.9%
	Poor	100	78.1%	9	7.0%	1	.8%	18	14.1%
	Average	90	67.7%	9	6.8%	1	.8%	33	24.8%
	Rich	97	67.8%	13	9.1%	3	2.1%	30	21.0%
	Richest	120	80.0%	6	4.0%	1	.7%	23	15.3%
	Total	501	72.8%	51	7.4%	8	1.2%	128	18.6%

Table 21a – Money paid for repairs of water point

		Do you contribute money to the repair of the Water Point if it is broken down?					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	217	56.5%	157	40.9%	10	2.6%
	Intervention	277	63.2%	149	34.0%	12	2.7%
	Total	494	60.1%	306	37.2%	22	2.7%
Area	North	353	73.8%	115	24.1%	10	2.1%
	South	141	41.0%	191	55.5%	12	3.5%
	Total	494	60.1%	306	37.2%	22	2.7%
Wealth	Poorest	117	71.8%	43	26.4%	3	1.8%
	Poor	104	67.5%	46	29.9%	4	2.6%
	Average	100	64.1%	50	32.1%	6	3.8%
	Rich	93	54.1%	74	43.0%	5	2.9%
	Richest	80	45.2%	93	52.5%	4	2.3%
	Total	494	60.1%	306	37.2%	22	2.7%

Table 21b – Regularity of payments made for water point

		Do you make any regular payments for this water point?						How often do you make payments?											
		Yes		No		Don't Know		Yearly		Monthly		Weekly		Every time we use it		Other		Don't know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	85	20,7%	325	79,1%	1	,2%	2	2,4%	9	10,6%	19	22,4%	53	62,4%	2	2,4%	0	0,0%
	Intervention	126	27,2%	335	72,4%	2	,4%	2	1,6%	27	21,4%	12	9,5%	81	64,3%	4	3,2%	0	0,0%
	Total	211	24,1%	660	75,5%	3	,3%	4	1,9%	36	17,1%	31	14,7%	134	63,5%	6	2,8%	0	0,0%
Area	North	44	8,5%	474	91,5%	0	0,0%	3	6,8%	17	38,6%	20	45,5%	4	9,1%	0	0,0%	0	0,0%
	South	167	46,9%	186	52,2%	3	,8%	1	,6%	19	11,4%	11	6,6%	130	77,8%	6	3,6%	0	0,0%
	Total	211	24,1%	660	75,5%	3	,3%	4	1,9%	36	17,1%	31	14,7%	134	63,5%	6	2,8%	0	0,0%
Wealth	Poorest	7	4,0%	166	96,0%	0	0,0%	0	0,0%	1	14,3%	2	28,6%	4	57,1%	0	0,0%	0	0,0%
	Poor	30	18,2%	135	81,8%	0	0,0%	1	3,3%	7	23,3%	13	43,3%	9	30,0%	0	0,0%	0	0,0%
	Average	26	15,0%	146	84,4%	1	,6%	1	3,8%	7	26,9%	10	38,5%	8	30,8%	0	0,0%	0	0,0%
	Rich	56	30,8%	125	68,7%	1	,5%	0	0,0%	6	10,7%	4	7,1%	43	76,8%	3	5,4%	0	0,0%
	Richest	92	50,8%	88	48,6%	1	,6%	2	2,2%	15	16,3%	2	2,2%	70	76,1%	3	3,3%	0	0,0%
	Total	**211**	**24,1%**	**660**	**75,5%**	**3**	**,3%**	**4**	**1,9%**	**36**	**17,1%**	**31**	**14,7%**	**134**	**63,5%**	**6**	**2,8%**	**0**	**0,0%**

Pearson Chi-Square Tests

		Do you contribute money to the repair of the Water Point if it is broken down?	Do you make any regular payments for this water point?	How often do you make payments?
Treatment Group	Chi-square	4,149	5,377	9,490
	df	2	2	4
	Sig.	,126	,068[b]	,050[*,b]
Area	Chi-square	90,601	176,407	85,583
	df	2	2	4
	Sig.	,000[*]	,000[*,b]	,000[*,b,c]
Wealth	Chi-square	35,706	126,627	61,966
	df	8	8	16
	Sig.	,000[*,b]	,000[*,b,c]	,000[*,b,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 22a – Change in Improved source of drinking water

		Improved Source of Drinking Water Before				Improved Source of Drinking Water After				% Change from Before
		No		Yes		No		Yes		
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Treatment Group	Counterfactual	354	63,9%	200	36,1%	176	31,8%	378	68,2%	89,0%
	Intervention	319	58,0%	231	42,0%	109	19,8%	441	80,2%	90,9%
	Total	673	61,0%	431	39,0%	285	25,8%	819	74,2%	90,0%
Area	North	355	61,5%	222	38,5%	127	22,0%	450	78,0%	102,7%
	South	318	60,3%	209	39,7%	158	30,0%	369	70,0%	76,6%
	Total	673	61,0%	431	39,0%	285	25,8%	819	74,2%	90,0%
Wealth	Poorest	164	74,2%	57	25,8%	68	30,8%	153	69,2%	168,4%
	Poor	152	68,8%	69	31,2%	79	35,7%	142	64,3%	105,8%
	Average	146	66,4%	74	33,6%	68	30,9%	152	69,1%	105,4%
	Rich	110	49,8%	111	50,2%	42	19,0%	179	81,0%	61,3%
	Richest	101	45,7%	120	54,3%	28	12,7%	193	87,3%	60,8%
	Total	673	61,0%	431	39,0%	285	25,8%	819	74,2%	90,0%

Pearson Chi-Square Tests

		Improved Source of Drinking Water Before	Improved Drinking Water After
Treatment Group	Chi-square	4,035	20,583
	df	1	1
	Sig.	,045*	,000*
Area	Chi-square	,162	9,137
	df	1	1
	Sig.	,687	,003*
Wealth	Chi-square	57,915	42,489
	df	4	4
	Sig.	,000*	,000*

Results are based on nonempty rows and columns in each innermost

*. The Chi-square statistic is significant at the ,05 level.

Table 22b – Distance of previous water source in relation to the current water source

		Was this water source : _____ than the current water source					
		Closer distance		Equal distance		Further distance	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	142	42.4%	46	13.7%	147	43.9%
	Intervention	130	36.5%	34	9.6%	192	53.9%
	Total	272	39.4%	80	11.6%	339	49.1%
Area	North	166	45.5%	63	17.3%	136	37.3%
	South	106	32.5%	17	5.2%	203	62.3%
	Total	272	39.4%	80	11.6%	339	49.1%
Wealth	Poorest	64	45.1%	28	19.7%	50	35.2%
	Poor	45	36.9%	20	16.4%	57	46.7%
	Average	51	38.3%	9	6.8%	73	54.9%
	Rich	62	43.4%	11	7.7%	70	49.0%
	Richest	50	33.1%	12	7.9%	89	58.9%
	Total	272	39.4%	80	11.6%	339	49.1%

Pearson Chi-Square Tests

		Was this water source : _____ than the current water source
Treatment Group	Chi-square	7.672
	df	2
	Sig.	,022*
Area	Chi-square	50.888
	df	2
	Sig.	,000*
Wealth	Chi-square	29.906
	df	8
	Sig.	,000*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 23 – Types of Latrines

		What kind of latrine do members of your household usually use?															
		Improved								Not Improved							
		Pit latrine with slab covered		Water seal latrine		Composting latrine		Ventilated improved pit latrine		No latrine/bush/field		Pit latrine with slab uncovered		Hanging toilet/latrine		Bucket latrine	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	199	36,6%	44	8,1%	55	10,1%	30	5,5%	117	21,5%	96	17,7%	2	,4%	0	0,0%
	Intervention	228	42,0%	74	13,6%	57	10,5%	18	3,3%	74	13,6%	91	16,8%	0	0,0%	1	,2%
Area	North	322	56,5%	11	1,9%	57	10,0%	15	2,6%	49	8,6%	115	20,2%	1	,2%	0	0,0%
	South	105	20,3%	107	20,7%	55	10,7%	33	6,4%	142	27,5%	72	14,0%	1	,2%	1	,2%
Wealth	Poorest	110	51,6%	1	,5%	23	10,8%	1	,5%	43	20,2%	33	15,5%	1	,5%	1	,5%
	Poor	94	43,1%	2	,9%	38	17,4%	2	,9%	43	19,7%	39	17,9%	0	0,0%	0	0,0%
	Average	91	42,1%	4	1,9%	28	13,0%	6	2,8%	43	19,9%	43	19,9%	1	,5%	0	0,0%
	Rich	76	34,5%	20	9,1%	17	7,7%	16	7,3%	37	16,8%	54	24,5%	0	0,0%	0	0,0%
	Richest	56	25,6%	91	41,6%	6	2,7%	23	10,5%	25	11,4%	18	8,2%	0	0,0%	0	0,0%
	Total	**427**	**39,3%**	**118**	**10,9%**	**112**	**10,3%**	**48**	**4,4%**	**191**	**17,6%**	**187**	**17,2%**	**2**	**,2%**	**1**	**,1%**

Table 24a – Shared use of sanitation facilities : Improved latrines

		Shared use of sanitation facilities : Improved Latrines									
		Not Shared		Public		Shared by 5 or less households		Shared by more than 5 households		Total	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	227	41.5%	20	3.7%	74	13.5%	7	1.3%	328	60.0%
	Intervention	271	49.7%	11	2.0%	90	16.5%	3	.6%	375	68.8%
Area	North	305	53.2%	1	.2%	94	16.4%	5	.9%	405	70.7%
	South	193	37.2%	30	5.8%	70	13.5%	5	1.0%	298	57.4%
Wealth	Poorest	116	53.5%	0	0.0%	18	8.3%	1	.5%	135	62.2%
	Poor	99	45.2%	2	.9%	31	14.2%	3	1.4%	135	61.6%
	Average	96	44.2%	4	1.8%	27	12.4%	2	.9%	129	59.4%
	Rich	75	34.2%	10	4.6%	43	19.6%	1	.5%	129	58.9%
	Richest	112	50.9%	15	6.8%	45	20.5%	3	1.4%	175	79.5%
	Total	498	45.6%	31	2.8%	164	15.0%	10	.9%	703	64.4%

Table 24b – Shared use of sanitation facilities : Unimproved latrines /OD

		Unimproved								Open defecation			
		Not Shared		Public		Shared by 5 or less households		Total		Open defecation		Total	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	90	16.5%	2	.4%	10	1.8%	102	18.6%	117	21.4%	117	21.4%
	Intervention	80	14.7%	1	.2%	15	2.8%	96	17.6%	74	13.6%	74	13.6%
Area	North	108	18.8%	0	0.0%	11	1.9%	119	20.8%	49	8.6%	49	8.6%
	South	62	11.9%	3	.6%	14	2.7%	79	15.2%	142	27.4%	142	27.4%
Wealth	Poorest	35	16.1%	0	0.0%	4	1.8%	39	18.0%	43	19.8%	43	19.8%
	Poor	34	15.5%	0	0.0%	7	3.2%	41	18.7%	43	19.6%	43	19.6%
	Average	41	18.9%	0	0.0%	4	1.8%	45	20.7%	43	19.8%	43	19.8%
	Rich	45	20.5%	1	.5%	7	3.2%	53	24.2%	37	16.9%	37	16.9%
	Richest	15	6.8%	2	.9%	3	1.4%	20	9.1%	25	11.4%	25	11.4%
	Total	170	15.6%	3	.3%	25	2.3%	198	18.1%	191	17.5%	191	17.5%

Pearson Chi-Square Tests

		Shared used of sanitation facilities		
		Improved	Unimproved	Open defecation
Treatment Group	Chi-square	6,548	1,741	
	df	3	2	
	Sig.	,088[a]	,419[a]	
Area	Chi-square	40,482	8,055	
	df	3	2	
	Sig.	,000[a,*]	,018[a,*]	
Wealth	Chi-square	41,619	13,397	
	df	12	8	
	Sig.	,000[a,*]	,099[a,c]	

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 25a – Recorded Observations of Latrines

		Record observation: Does it have a water seal?						Record observation: Does it have a cleanable slab/floor?			
		Yes		No		Don't Know		Yes		No	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	72	17.7%	334	82.3%	0	0.0%	205	50.9%	198	49.1%
	Intervention	100	22.6%	342	77.4%	0	0.0%	287	63.8%	163	36.2%
Area	North	76	14.9%	435	85.1%	0	0.0%	290	57.0%	219	43.0%
	South	96	28.5%	241	71.5%	0	0.0%	202	58.7%	142	41.3%
Wealth	Poorest	5	3.0%	161	97.0%	0	0.0%	75	45.2%	91	54.8%
	Poor	14	8.6%	149	91.4%	0	0.0%	74	45.4%	89	54.6%
	Average	22	13.4%	142	86.6%	0	0.0%	89	54.3%	75	45.7%
	Rich	39	22.3%	136	77.7%	0	0.0%	104	58.4%	74	41.6%
	Richest	92	51.1%	88	48.9%	0	0.0%	150	82.4%	32	17.6%
	Total	172	20.3%	676	79.7%	0	0.0%	492	57.7%	361	42.3%

Table 25b – Recorded Observations of Latrines 2

		Record observation: What is the material of the superstructure?						Record observation: Does the latrine have a roof?			
		Brick or other permanent material		Reeds/ wood/ bamboo		No superstructure		Yes		No	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	189	46.2%	80	19.6%	140	34.2%	114	27.9%	295	72.1%
	Intervention	244	53.2%	113	24.6%	102	22.2%	172	37.5%	287	62.5%
Area	North	223	43.3%	120	23.3%	172	33.4%	66	12.8%	449	87.2%
	South	210	59.5%	73	20.7%	70	19.8%	220	62.3%	133	37.7%
Wealth	Poorest	41	24.4%	49	29.2%	78	46.4%	5	3.0%	163	97.0%
	Poor	49	29.5%	37	22.3%	80	48.2%	11	6.6%	155	93.4%
	Average	73	44.2%	47	28.5%	45	27.3%	34	20.6%	131	79.4%
	Rich	107	59.1%	44	24.3%	30	16.6%	79	43.6%	102	56.4%
	Richest	163	86.7%	16	8.5%	9	4.8%	157	83.5%	31	16.5%
	Total	433	49.9%	193	22.2%	242	27.9%	286	32.9%	582	67.1%

Table 25c – Observations of Latrines 3

		Record Observation: Does it have a curtain, door or other materials that provides privacy?								Record observation: Is there a cleaning brush or broom in the latrine?				Record observation: Are anal cleansing materials present in the latrine (e.g. Paper / leaves / corncobs / latrine roll / kettle with water etc)			
		Curtain		Door		Other Materials		No Door / Curtain		Yes		No		Yes		No	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	12	2,9%	121	29,5%	24	5,9%	253	61,7%	70	17,1%	340	82,9%	82	20,0%	327	80,0%
	Intervention	12	2,6%	170	37,0%	16	3,5%	261	56,9%	122	26,6%	337	73,4%	129	28,2%	329	71,8%
Area	North	8	1,6%	75	14,6%	13	2,5%	419	81,4%	66	12,8%	449	87,2%	143	27,9%	370	72,1%
	South	16	4,5%	216	61,0%	27	7,6%	95	26,8%	126	35,6%	228	64,4%	68	19,2%	286	80,8%
Wealth	Poorest	2	1,2%	4	2,4%	8	4,8%	154	91,7%	6	3,6%	162	96,4%	24	14,4%	143	85,6%
	Poor	5	3,0%	13	7,8%	7	4,2%	141	84,9%	20	12,0%	146	88,0%	35	21,1%	131	78,9%
	Average	2	1,2%	29	17,5%	8	4,8%	127	76,5%	25	15,1%	141	84,9%	50	30,3%	115	69,7%
	Rich	12	6,6%	81	44,8%	14	7,7%	74	40,9%	38	21,0%	143	79,0%	40	22,1%	141	77,9%
	Richest	3	1,6%	164	87,2%	3	1,6%	18	9,6%	103	54,8%	85	45,2%	62	33,0%	126	67,0%
	Total	**24**	**2,8%**	**291**	**33,5%**	**40**	**4,6%**	**514**	**59,1%**	**192**	**22,1%**	**677**	**77,9%**	**211**	**24,3%**	**656**	**75,7%**

Pearson Chi-Square Tests

		Does it have a water seal?	Does it have a cleanable slab/floor?	What is the material of the superstructure?	Does the latrine have a roof?	Does it have a curtain, door or other materials that provides privacy?	Is there a cleaning brush or broom in the latrine?	Are anal cleansing materials present in the latrine (e.g. Paper / leaves / corncobs / latrine roll / kettle with water etc)
Treatment Group	Chi-square	3,130	14,514	15,768	9,022	7,235	11,370	7,731
	df	1	1	2	1	3	1	1
	Sig.	,077[a]	,000[*]	,000[*]	,003[*]	,065	,001[*]	,005[*]
Area	Chi-square	23,277	,256	25,480	232,356	259,188	63,235	8,543
	df	1	1	2	1	3	1	1
	Sig.	,000[a,*]	,613	,000[*]	,000[*]	,000[*]	,000[*]	,003[*]
Wealth	Chi-square	155,428	67,145	203,281	358,675	429,764	164,858	21,267
	df	4	4	8	4	12	4	4
	Sig.	,000[a,*]	,000[*]	,000[*]	,000[*]	,000[a,*]	,000[*]	,000[*]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

Table 26a – Construction of latrines 1

		Was this part of a community wide program? (Did you construct this latrine as a family or were there some people in the community who constructed at the same time?)					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	73	35.6%	128	62.4%	4	2.0%
	Intervention	77	32.9%	143	61.1%	14	6.0%
Area	North	47	18.7%	191	75.8%	14	5.6%
	South	103	55.1%	80	42.8%	4	2.1%
Wealth	Poorest	20	17.7%	86	76.1%	7	6.2%
	Poor	33	36.3%	54	59.3%	4	4.4%
	Average	36	45.6%	40	50.6%	3	3.8%
	Rich	33	37.5%	53	60.2%	2	2.3%
	Richest	28	41.2%	38	55.9%	2	2.9%
	Total	**150**	**34.2%**	**271**	**61.7%**	**18**	**4.1%**

Pearson Chi-Square Tests

		Was this part of a community wide program? (Did you construct this latrine as family or were there some people in the community who constructed at the same time?)
Treatment Group	Chi-square	4.597
	df	2
	Sig.	.100
Area	Chi-square	63.699
	df	2
	Sig.	,000*
Wealth	Chi-square	21.394
	df	8
	Sig.	,006*,b

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

Table 26b – Construction of latrines 2

		Was this part of a community wide program? (Did you construct this latrine as family or were there some people in the community who constructed at the same time?)															
		Yes								No							
		Who built this latrine?								Who built this latrine?							
		Household		Local Mason		Combination		Other (Specify)		Household		Local Mason		Combination		Other (Specify)	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	54	74.0%	10	13.7%	4	5.5%	5	6.8%	107	84.3%	17	13.4%	2	1.6%	1	.8%
	Intervention	72	93.5%	4	5.2%	1	1.3%	0	0.0%	127	88.8%	13	9.1%	1	.7%	2	1.4%
Area	North	41	87.2%	4	8.5%	2	4.3%	0	0.0%	159	83.7%	29	15.3%	2	1.1%	0	0.0%
	South	85	82.5%	10	9.7%	3	2.9%	5	4.9%	75	93.8%	1	1.3%	1	1.3%	3	3.8%
Wealth	Poorest	16	80.0%	1	5.0%	2	10.0%	1	5.0%	78	91.8%	7	8.2%	0	0.0%	0	0.0%
	Poor	30	90.9%	2	6.1%	1	3.0%	0	0.0%	44	81.5%	7	13.0%	3	5.6%	0	0.0%
	Average	28	77.8%	6	16.7%	2	5.6%	0	0.0%	38	95.0%	2	5.0%	0	0.0%	0	0.0%
	Rich	28	84.8%	4	12.1%	0	0.0%	1	3.0%	42	79.2%	11	20.8%	0	0.0%	0	0.0%
	Richest	24	85.7%	1	3.6%	0	0.0%	3	10.7%	32	84.2%	3	7.9%	0	0.0%	3	7.9%
	Total	**126**	**84.0%**	**14**	**9.3%**	**5**	**3.3%**	**5**	**3.3%**	**234**	**86.7 %**	**30**	**11.1%**	**3**	**1.1%**	**3**	**1.1%**

Pearson Chi-square tests

		Was this part of a community wide program? (Did you construct this latrine as family or were there some people in the community who constructed at the same time?)	
		Yes	No
		Who built this latrine?	Who built this latrine?
Treatment Group	Chi-square	11.845	1.968
	df	3	3
	Sig.	,008*,b	,579b
Area	Chi-square	2.591	17.752
	df	3	3
	Sig.	,459b	,000*,b,c
Wealth	Chi-square	16.825	38.356
	df	12	12
	Sig.	,156b,c	,000*,b,c

Results are based on nonempty rows and columns in each innermost sub table.

*. The Chi-square statistic is significant at the, 05 level.

b. More than 20% of cells in this sub table have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this sub table is less than one. Chi-square results may be invalid.

Table 27 – Cash, labour and materials contributed towards latrine construction

		Contribute cash						Contribute labour						Contribute materials					
		Yes		No		Don't Know		Yes		No		Don't Know		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	128	67,7%	54	28,6%	7	3,7%	171	89,5%	19	9,9%	1	,5%	140	79,1%	35	19,8%	2	1,1%
	Intervention	157	70,1%	60	26,8%	7	3,1%	200	91,7%	17	7,8%	1	,5%	190	86,4%	29	13,2%	1	,5%
Area	North	147	62,8%	82	35,0%	5	2,1%	228	93,8%	15	6,2%	0	0,0%	197	82,4%	42	17,6%	0	0,0%
	South	138	77,1%	32	17,9%	9	5,0%	143	86,1%	21	12,7%	2	1,2%	133	84,2%	22	13,9%	3	1,9%
Wealth	Poorest	49	47,1%	54	51,9%	1	1,0%	103	91,2%	10	8,8%	0	0,0%	81	74,3%	27	24,8%	1	,9%
	Poor	56	65,1%	26	30,2%	4	4,7%	86	97,7%	2	2,3%	0	0,0%	72	83,7%	14	16,3%	0	0,0%
	Average	56	74,7%	18	24,0%	1	1,3%	67	88,2%	8	10,5%	1	1,3%	61	83,6%	11	15,1%	1	1,4%
	Rich	69	82,1%	9	10,7%	6	7,1%	73	91,3%	6	7,5%	1	1,3%	72	92,3%	5	6,4%	1	1,3%
	Richest	55	85,9%	7	10,9%	2	3,1%	42	80,8%	10	19,2%	0	0,0%	44	86,3%	7	13,7%	0	0,0%
	Total	**285**	**69,0%**	**114**	**27,6%**	**14**	**3,4%**	**371**	**90,7%**	**36**	**8,8%**	**2**	**,5%**	**330**	**83,1%**	**64**	**16,1%**	**3**	**,8%**

Pearson Chi-Square Tests

		Contribute cash	Contribute labour	Contribute materials
Treatment Group	Chi-square	,303	,598	3,859
	df	2	2	2
	Sig.	,860	,741[b,c]	,145[b]
Area	Chi-square	16,322	8,271	5,359
	df	2	2	2
	Sig.	,000[*]	,016[*,b,c]	,069[b]
Wealth	Chi-square	57,143	15,449	13,454
	df	8	8	8
	Sig.	,000[*,b]	,051[b,c]	,097[b,c]

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts

c. The minimum expected cell count in this subtable is less than

Table 28a – Cost of building latrines 1

		Cost of building latrines							
		No expenses		Expenses		Don't Know		Total	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	75	35.2%	94	44.1%	44	20.7%	213	100.0%
	Intervention	73	30.5%	117	49.0%	49	20.5%	239	100.0%
Area	North	94	36.3%	140	54.1%	25	9.7%	259	100.0%
	South	54	28.0%	71	36.8%	68	35.2%	193	100.0%
Wealth	Poorest	67	56.8%	44	37.3%	7	5.9%	118	100.0%
	Poor	34	36.2%	42	44.7%	18	19.1%	94	100.0%
	Average	19	23.8%	48	60.0%	13	16.3%	80	100.0%
	Rich	18	19.8%	50	54.9%	23	25.3%	91	100.0%
	Richest	10	14.5%	27	39.1%	32	46.4%	69	100.0%
	Total	**148**	**32.7%**	**211**	**46.7%**	**93**	**20.6%**	**452**	**100.0%**

Pearson Chi-Square Tests

		Cost to build latrine
Treatment Group	Chi-square	1.312
	df	2
	Sig.	.519
Area	Chi-square	44.570
	df	2
	Sig.	,000*
Wealth	Chi-square	78.767
	df	8
	Sig.	,000*

Results are based on nonempty rows and columns in each innermost sub table.
*. The Chi-square statistic is significant at the ,05 level.

Table 28b - Cost of building latrines 2

		If your household spent money to build the latrine, how much did you spend at the time when it was built?					
		Valid N	Mean	Standard Deviation	Median	Minimum	Maximum
Treatment Group	Counterfactual	94	7512	18603	3000	25	150000
	Intervention	117	13839	40794	5000	10	250000
Area	North	140	4441	4626	2500	30	20000
	South	71	23994	54291	6000	10	250000
Wealth	Poorest	44	2102	1843	1500	30	10000
	Poor	42	3920	3776	2500	35	15000
	Average	48	7029	6848	5000	400	30000
	Rich	50	8884	14317	5000	98	100000
	Richest	27	47650	81216	9000	10	250000
	Total	**211**	**11020**	**32901**	**4000**	**10**	**250000**

Comparisons of Column Means[a]

	Treatment Group		Area		Wealth				
	Counterfactual	Intervention	North	South	Poorest	Poor	Average	Rich	Richest
	(A)	(B)	(A)	(B)	(A)	(B)	(C)	(D)	(E)
If your household spent money to build the latrine, how much did you spend at the time when it was built?				A					A B C D

Results are based on two-sided tests assuming equal variances with significance level ,05. For each significant pair, the key of the smaller category appears under the category with larger mean.

a. Tests are adjusted for all pairwise comparisons within a row of each innermost sub table using the Bonferroni correction.

Table 29a – Choice of latrine models given?

		Were you given a list or a choice of latrine models with their costs before it was built?					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	12	5.6%	164	76.6%	38	17.8%
	Intervention	21	8.8%	182	76.2%	36	15.1%
Area	North	9	3.5%	218	83.8%	33	12.7%
	South	24	12.4%	128	66.3%	41	21.2%
Wealth	Poorest	1	.8%	97	81.5%	21	17.6%
	Poor	9	9.6%	70	74.5%	15	16.0%
	Average	7	8.8%	68	85.0%	5	6.3%
	Rich	8	8.8%	65	71.4%	18	19.8%
	Richest	8	11.6%	46	66.7%	15	21.7%
	Total	33	7.3%	346	76.4%	74	16.3%

Pearson Chi-Square Tests

		Were you given a list or a choice of latrine models with their costs before it was built?
Treatment Group	Chi-square	2.072
	df	2
	Sig.	.355
Area	Chi-square	21.658
	df	2
	Sig.	,000*
Wealth	Chi-square	19.126
	df	8
	Sig.	,014*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 29b - Latrine checklist given?

		Latrine checklist - Did you get a construction plan?					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	12	6.0%	167	83.9%	20	10.1%
	Intervention	18	8.0%	187	83.5%	19	8.5%
Area	North	15	6.2%	219	90.9%	7	2.9%
	South	15	8.2%	135	74.2%	32	17.6%
Wealth	Poorest	4	3.8%	98	94.2%	2	1.9%
	Poor	7	8.0%	74	84.1%	7	8.0%
	Average	7	8.9%	69	87.3%	3	3.8%
	Rich	5	5.6%	70	78.7%	14	15.7%
	Richest	7	11.1%	43	68.3%	13	20.6%
	Total	30	7.1%	354	83.7%	39	9.2%

Pearson Chi-Square Tests

		Did you get a construction plan?
Treatment Group	Chi-square	,881
	df	2
	Sig.	,644
Area Area	Chi-square	28,279
	df	2
	Sig.	,000*
qhwIthi Wealth	Chi-square	28,939
	df	8
	Sig.	,000*

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 30a – Filling up of pit or septic tanks

		Since your latrine has been built, has the pit or septic tank filled-up?					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	92	22.1%	310	74.3%	15	3.6%
	Intervention	80	17.4%	372	80.7%	9	2.0%
Area	North	145	27.7%	374	71.4%	5	1.0%
	South	27	7.6%	308	87.0%	19	5.4%
Wealth	Poorest	21	12.2%	147	85.5%	4	2.3%
	Poor	39	22.5%	131	75.7%	3	1.7%
	Average	50	29.1%	118	68.6%	4	2.3%
	Rich	34	19.4%	136	77.7%	5	2.9%
	Richest	28	15.1%	150	80.6%	8	4.3%
	Total	172	19.6%	682	77.7%	24	2.7%

Pearson Chi-Square Tests

		Since your latrine has been built, has the pit or septic tank filled-up?
Treatment Group	Chi-square	5,783
	df	2
	Sig.	,055
Area	Chi-square	65,029
	df	2
	Sig.	,000*
Wealth	Chi-square	21,385
	df	8
	Sig.	,006*,b

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected

Table 30b – Means of emptying filled up pit or septic tanks

		What did you do when the pit or septic tank filled-up last time?															
		Pit emptied and waste buried nearby		Pit emptied and waste removed from the neighbourhood		Pit covered and dug a new latrine		Pit emptied and waste dumped nearby		Other (Specify)		Pit covered and used alternative pit		Don't know		Total	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	26	28.3%	25	27.2%	21	22.8%	12	13.0%	4	4.3%	4	4.3%	0	0.0%	92	100.0%
	Intervention	26	32.5%	19	23.8%	16	20.0%	9	11.3%	7	8.8%	2	2.5%	1	1.3%	80	100.0%
Area	North	49	33.8%	35	24.1%	28	19.3%	21	14.5%	8	5.5%	3	2.1%	1	.7%	145	100.0%
	South	3	11.1%	9	33.3%	9	33.3%	0	0.0%	3	11.1%	3	11.1%	0	0.0%	27	100.0%
Wealth	Poorest	6	28.6%	7	33.3%	6	28.6%	1	4.8%	0	0.0%	1	4.8%	0	0.0%	21	100.0%
	Poor	12	30.8%	8	20.5%	9	23.1%	6	15.4%	3	7.7%	0	0.0%	1	2.6%	39	100.0%
	Average	17	34.0%	13	26.0%	8	16.0%	7	14.0%	4	8.0%	1	2.0%	0	0.0%	50	100.0%
	Rich	10	29.4%	7	20.6%	7	20.6%	6	17.6%	3	8.8%	1	2.9%	0	0.0%	34	100.0%
	Richest	7	25.0%	9	32.1%	7	25.0%	1	3.6%	1	3.6%	3	10.7%	0	0.0%	28	100.0%
	Total	**52**	**30.2%**	**44**	**25.6%**	**37**	**21.5%**	**21**	**12.2%**	**11**	**6.4%**	**6**	**3.5%**	**1**	**.6%**	**172**	**100.0%**

Pearson Chi-Square Tests

		What did you do when the pit or septic tank filled-up last time?
Treatment Group	Chi-square	3,588
	df	6
	Sig.	,732[a,b]
Area	Chi-square	17,252
	df	6
	Sig.	,008[a,b,*]
Wealth	Chi-square	19,276
	df	24
	Sig.	,737[a,b]

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell

b. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 31 – Level of satisfaction with sanitation arrangements

		Quality Satisfaction: Quality				Accessibility				Privacy 'Satisfaction: Privacy				Clean Satisfaction: Cleanliness				Cost Satisfaction: Cost			
		Dissatisfied		Satisfied		Dissatisfied		Satisfied		Dissatisfied		Satisfied		Dissatisfied		Satisfied		Dissatisfied		Satisfied	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Treatment Group	Counterfactual	160	33,7%	315	66,3%	145	29,0%	355	71,0%	163	32,3%	341	67,7%	166	33,5%	329	66,5%	126	30,2%	291	69,8%
	Intervention	134	28,0%	345	72,0%	106	21,8%	381	78,2%	126	25,7%	364	74,3%	116	23,7%	374	76,3%	109	27,7%	285	72,3%
Area	North	83	15,3%	459	84,7%	76	14,0%	467	86,0%	93	16,8%	459	83,2%	68	12,3%	484	87,7%	91	17,1%	442	82,9%
	South	211	51,2%	201	48,8%	175	39,4%	269	60,6%	196	44,3%	246	55,7%	214	49,4%	219	50,6%	144	51,8%	134	48,2%
Wealth	Poorest	32	17,1%	155	82,9%	24	12,3%	171	87,7%	33	16,9%	162	83,1%	34	17,8%	157	82,2%	23	13,3%	150	86,7%
	Poor	59	31,1%	131	68,9%	46	23,4%	151	76,6%	64	32,3%	134	67,7%	55	27,9%	142	72,1%	44	25,0%	132	75,0%
	Average	66	35,3%	121	64,7%	58	29,4%	139	70,6%	61	30,3%	140	69,7%	62	31,3%	136	68,7%	60	34,9%	112	65,1%
	Rich	68	35,4%	124	64,6%	70	35,7%	126	64,3%	79	39,9%	119	60,1%	74	37,4%	124	62,6%	66	41,5%	93	58,5%
	Richest	69	34,8%	129	65,2%	53	26,2%	149	73,8%	52	25,7%	150	74,3%	57	28,4%	144	71,6%	42	32,1%	89	67,9%
	Total	294	30,8%	660	69,2%	251	25,4%	736	74,6%	289	29,1%	705	70,9%	282	28,6%	703	71,4%	235	29,0%	576	71,0%

Pearson Chi-Square Tests

		Quality Satisfaction: Quality	Access Satisfaction: Accessibility	Privacy 'Satisfaction: Privacy	Clean Satisfaction: Cleanliness	Cost Satisfaction: Cost
Treatment Group	Chi-square	3,646	6,808	5,291	11,721	,641
	df	1	1	1	1	1
	Sig.	,056	,009*	,021*	,001*	,424
Area	Chi-square	141,495	83,221	89,992	163,492	107,052
	df	1	1	1	1	1
	Sig.	,000*	,000*	,000*	,000*	,000*
Wealth	Chi-square	21,651	30,829	27,472	19,124	37,682
	df	4	4	4	4	4
	Sig.	,000*	,000*	,000*	,001*	,000*

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

Table 32 - School latrines for female children

		Does the school your female children go to have latrines?							
		Yes		No		Don't Know		Total	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	174	63.3%	38	13.8%	63	22.9%	275	100.0%
	Intervention	240	74.3%	29	9.0%	54	16.7%	323	100.0%
Area	North	228	70.8%	48	14.9%	46	14.3%	322	100.0%
	South	186	67.4%	19	6.9%	71	25.7%	276	100.0%
Wealth	Poorest	32	43.8%	20	27.4%	21	28.8%	73	100.0%
	Poor	70	56.5%	24	19.4%	30	24.2%	124	100.0%
	Average	97	73.5%	12	9.1%	23	17.4%	132	100.0%
	Rich	106	77.4%	4	2.9%	27	19.7%	137	100.0%
	Richest	109	82.6%	7	5.3%	16	12.1%	132	100.0%
	Total	414	69.2%	67	11.2%	117	19.6%	598	100.0%

Pearson Chi-Square Tests

		Does the school your female children go to have latrines?
Treatment Group	Chi-square	8,626
	df	2
	Sig.	,013*
Area Area	Chi-square	18,727
	df	2
	Sig.	,000*
qhwlthi Wealth	Chi-square	60,802
	df	8
	Sig.	,000*

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

Table 33 – Improved latrines in the girls' schools

		Improved Latrine Girls													
		Improved								Not Improved				Don't know	
		What kind of latrines do they mainly have?								What kind of latrines do they mainly have?				What kind of latrines do they mainly have?	
		Pit latrine with slab covered		Water seal latrine		Ventilated improved pit latrine		Composting latrine		Pit latrine with slab uncovered		Bucket latrine		Don't know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	77	44.3%	30	17.2%	23	13.2%	2	1.1%	11	6.3%	0	0.0%	31	17.8%
	Intervention	115	47.9%	59	24.6%	23	9.6%	2	.8%	13	5.4%	1	.4%	27	11.3%
Area	North	155	68.0%	9	3.9%	40	17.5%	1	.4%	12	5.3%	0	0.0%	11	4.8%
	South	37	19.9%	80	43.0%	6	3.2%	3	1.6%	12	6.5%	1	.5%	47	25.3%
Wealth	Poorest	16	50.0%	3	9.4%	10	31.3%	0	0.0%	3	9.4%	0	0.0%	0	0.0%
	Poor	44	62.9%	8	11.4%	9	12.9%	1	1.4%	5	7.1%	0	0.0%	3	4.3%
	Average	53	54.6%	13	13.4%	11	11.3%	1	1.0%	6	6.2%	0	0.0%	13	13.4%
	Rich	50	47.2%	24	22.6%	7	6.6%	2	1.9%	5	4.7%	0	0.0%	18	17.0%
	Richest	29	26.6%	41	37.6%	9	8.3%	0	0.0%	5	4.6%	1	.9%	24	22.0%
	Total	**192**	**46.4%**	**89**	**21.5%**	**46**	**11.1%**	**4**	**1.0%**	**24**	**5.8%**	**1**	**.2%**	**58**	**14.0%**

Pearson Chi-Square Tests

		Improved Latrine - Girls		
		Improved	Not Improved	Don't know
		What kind of latrines do they mainly have?	What kind of latrines do they mainly have?	What kind of latrines do they mainly have?
Treatment Group	Chi-square	3,554	,818	
	df	3	1	
	Sig.	,314[a]	,366[a,c]	
Area	Chi-square	144,678	,962	
	df	3	1	
	Sig.	,000[a,*]	,327[a,c]	
Wealth	Chi-square	51,797	3,299	
	df	12	4	
	Sig.	,000[a,*,c]	,509[a,c]	

Results are based on nonempty rows and columns in each innermost

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 34 – Separate latrines for boys and girls in the girls' schools

		Are they separate for boys and girls?							
		Yes		No		Don't Know		Total	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	133	78.2%	16	9.4%	21	12.4%	170	100.0%
	Intervention	198	82.8%	21	8.8%	20	8.4%	239	100.0%
Area	North	191	83.8%	27	11.8%	10	4.4%	228	100.0%
	South	140	77.3%	10	5.5%	31	17.1%	181	100.0%
Wealth	Poorest	27	84.4%	3	9.4%	2	6.3%	32	100.0%
	Poor	56	81.2%	7	10.1%	6	8.7%	69	100.0%
	Average	80	83.3%	10	10.4%	6	6.3%	96	100.0%
	Rich	82	79.6%	9	8.7%	12	11.7%	103	100.0%
	Richest	86	78.9%	8	7.3%	15	13.8%	109	100.0%
	Total	**331**	**80.9%**	**37**	**9.0%**	**41**	**10.0%**	**409**	**100.0%**

Pearson Chi-Square Tests

		Are they separate for boys and girls?
Treatment Group	Chi-square	1,877
	df	2
	Sig.	,391
Area	Chi-square	21,305
	df	2
	Sig.	,000*
Wealth	Chi-square	4,581
	df	8
	Sig.	,801

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 35 – School latrines for male children

		Does the school your male children go to have latrines?					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	191	64.7%	36	12.2%	68	23.1%
	Intervention	240	73.8%	33	10.2%	52	16.0%
Area	North	249	73.2%	45	13.2%	46	13.5%
	South	182	65.0%	24	8.6%	74	26.4%
Wealth	Poorest	38	51.4%	14	18.9%	22	29.7%
	Poor	79	57.2%	31	22.5%	28	20.3%
	Average	99	72.3%	14	10.2%	24	17.5%
	Rich	106	77.9%	5	3.7%	25	18.4%
	Richest	109	80.7%	5	3.7%	21	15.6%
	Total	**431**	**69.5%**	**69**	**11.1%**	**120**	**19.4%**

Pearson Chi-Square Tests

		Does the school your male children go to have latrines?
Treatment Group	Chi-square	6,398
	df	2
	Sig.	,041*
Area	Chi-square	17,699
	df	2
	Sig.	,000*
Wealth	Chi-square	49,518
	df	8
	Sig.	,000*

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 36 – Improved latrines in the boys' schools

		Boys Improved Latrines													
		Improved								Not Improved				Don't Know	
		What kind of latrines do they mainly have?								What kind of latrines do they mainly have?				What kind of latrines do they mainly have?	
		Pit latrine with slab covered		Water seal latrine		Ventilated improved pit latrine		Composting latrine		Pit latrine with slab uncovered		Bucket latrine		Don't know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	87	45.5%	27	14.1%	44	23.0%	2	1.0%	9	4.7%	0	0.0%	22	11.5%
	Intervention	112	46.7%	61	25.4%	25	10.4%	4	1.7%	13	5.4%	1	.4%	24	10.0%
Area	North	159	63.9%	9	3.6%	61	24.5%	1	.4%	10	4.0%	0	0.0%	9	3.6%
	South	40	22.0%	79	43.4%	8	4.4%	5	2.7%	12	6.6%	1	.5%	37	20.3%
Wealth	Poorest	17	44.7%	2	5.3%	14	36.8%	0	0.0%	2	5.3%	0	0.0%	3	7.9%
	Poor	48	60.8%	10	12.7%	13	16.5%	1	1.3%	6	7.6%	0	0.0%	1	1.3%
	Average	52	52.5%	12	12.1%	19	19.2%	1	1.0%	6	6.1%	0	0.0%	9	9.1%
	Rich	51	48.1%	22	20.8%	11	10.4%	2	1.9%	4	3.8%	0	0.0%	16	15.1%
	Richest	31	28.4%	42	38.5%	12	11.0%	2	1.8%	4	3.7%	1	.9%	17	15.6%
	Total	**199**	**46.2%**	**88**	**20.4%**	**69**	**16.0%**	**6**	**1.4%**	**22**	**5.1%**	**1**	**.2%**	**46**	**10.7%**

Pearson Chi-Square Tests

		Improved Latrines - Boys		
		Improved	Not Improved	Don't Know
		What kind of latrines do they mainly have?	What kind of latrines do they mainly have?	What kind of latrines do they mainly have?
Treatment Group	Chi-square	17,539	,672	
	df	3	1	
	Sig.	,001[*,b]	,412[b,c]	
Area	Chi-square	155,053	,804	
	df	3	1	
	Sig.	,000[*,b]	,370[b,c]	
Wealth	Chi-square	54,856	3,764	
	df	12	4	
	Sig.	,000[*,b,c]	,439[b,c]	

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 37 – Separate latrines for boys and girls in the boy's schools

		Are they separate for boys and girls?					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	158	83.2%	15	7.9%	17	8.9%
	Intervention	188	79.3%	28	11.8%	21	8.9%
Area	North	212	85.1%	30	12.0%	7	2.8%
	South	134	75.3%	13	7.3%	31	17.4%
Wealth	Poorest	33	86.8%	3	7.9%	2	5.3%
	Poor	65	82.3%	9	11.4%	5	6.3%
	Average	86	86.9%	8	8.1%	5	5.1%
	Rich	76	72.4%	16	15.2%	13	12.4%
	Richest	86	81.1%	7	6.6%	13	12.3%
	Total	**346**	**81.0%**	**43**	**10.1%**	**38**	**8.9%**

Pearson Chi-Square Tests

		Are they separate for boys and girls?
Treatment Group	Chi-square	1,801
	df	2
	Sig.	,406
Area	Chi-square	28,443
	df	2
	Sig.	,000*
Wealth	Chi-square	11,892
	df	8
	Sig.	,156

Results are based on nonempty rows and

*. The Chi-square statistic is significant at the ,05 level.

Table 39 – Sanitation Challenges

		Sanitation Challenges											
		Lack of Finance		Lack of Knowledge on how to do this		Lack of Interest of other household members		Lack of Mason in the community		Lack of materials		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	403	94.6%	38	8.9%	47	11.0%	45	10.6%	113	26.5%	8	1.9%
	Intervention	401	94.6%	35	8.3%	23	5.4%	30	7.1%	109	25.7%	10	2.4%
Area	North	423	94.8%	51	11.4%	52	11.7%	70	15.7%	135	30.3%	6	1.3%
	South	381	94.3%	22	5.4%	18	4.5%	5	1.2%	87	21.5%	12	3.0%
Wealth	Poorest	163	94.2%	23	13.3%	22	12.7%	35	20.2%	39	22.5%	2	1.2%
	Poor	171	96.1%	16	9.0%	17	9.6%	16	9.0%	53	29.8%	2	1.1%
	Average	160	93.0%	15	8.7%	10	5.8%	12	7.0%	49	28.5%	4	2.3%
	Rich	161	95.8%	7	4.2%	8	4.8%	9	5.4%	48	28.6%	3	1.8%
	Richest	149	93.7%	12	7.5%	13	8.2%	3	1.9%	33	20.8%	7	4.4%
	Total	**804**	**94.6%**	**73**	**8.6%**	**70**	**8.2%**	**75**	**8.8%**	**222**	**26.1%**	**18**	**2.1%**

Pearson Chi-Square Tests

		Sanitation Challlenges
Treatment Group	Chi-square	12,488
	df	6
	Sig.	,052
Area	Chi-square	90,519
	df	6
	Sig.	,000*
Wealth	Chi-square	72,988
	df	24
	Sig.	,000*

Results are based on nonempty rows and columns

*. The Chi-square statistic is significant at the ,05 level.

Table 40 – Knowledge of critical moments for hand washing

		Critical moments for hand washing															
		Before eating		Before preparing food		Before breastfeeding or feeding a child		After defecation		After cleaning a child that has defecated/changing a child's nappy		When my hands are dirty		After cleaning the latrine or potty		Don't know	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	C	Row N %	C	Row N %	Count	Row N %
Treatment Group	Counterfactual	528	96.2%	217	39.5%	88	16.0%	459	83.6%	81	14.8%	354	64.5%	145	26.4%	2	.4%
	Intervention	531	96.7%	215	39.2%	92	16.8%	462	84.2%	83	15.1%	361	65.8%	144	26.2%	7	1.3%
Area	North	564	97.7%	211	36.6%	126	21.8%	465	80.6%	93	16.1%	340	58.9%	168	29.1%	3	.5%
	South	495	95.0%	221	42.4%	54	10.4%	456	87.5%	71	13.6%	375	72.0%	121	23.2%	6	1.2%
Wealth	Poorest	215	97.3%	72	32.6%	35	15.8%	158	71.5%	28	12.7%	133	60.2%	37	16.7%	1	.5%
	Poor	205	93.6%	78	35.6%	38	17.4%	175	79.9%	32	14.6%	137	62.6%	60	27.4%	2	.9%
	Average	210	96.3%	88	40.4%	39	17.9%	187	85.8%	29	13.3%	137	62.8%	60	27.5%	2	.9%
	Rich	217	98.2%	98	44.3%	34	15.4%	199	90.0%	38	17.2%	158	71.5%	62	28.1%	2	.9%
	Richest	212	96.8%	96	43.8%	34	15.5%	202	92.2%	37	16.9%	150	68.5%	70	32.0%	2	.9%
	Total	**1059**	**96.4%**	**432**	**39.3%**	**180**	**16.4%**	**921**	**83.9%**	**164**	**14.9%**	**715**	**65.1%**	**289**	**26.3%**	**9**	**.8%**

Pearson Chi-Square Tests

		Critical moments for handwash
Treatment Group	Chi-square	3,452
	df	8
	Sig.	,903
Area	Chi-square	74,056
	df	8
	Sig.	,000*
Wealth	Chi-square	90,626
	df	32
	Sig.	,000*

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 41 – Observed hand washing stations

		Can you show me where members of your household most often wash their hands?			
		Yes		No	
		Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	182	32.9%	371	67.1%
	Intervention	208	37.9%	341	62.1%
Area	North	284	49.3%	292	50.7%
	South	106	20.2%	420	79.8%
Wealth	Poorest	78	35.5%	142	64.5%
	Poor	78	35.5%	142	64.5%
	Average	76	34.5%	144	65.5%
	Rich	77	34.8%	144	65.2%
	Richest	81	36.7%	140	63.3%
	Total	**390**	**35.4%**	**712**	**64.6%**

Pearson Chi-Square Tests

		Can you show me where members of your household most often wash their hands?
Treatment Group	Chi-square	2,983
	df	1
	Sig.	,084
Area	Chi-square	102,194
	df	1
	Sig.	,000*
Wealth	Chi-square	,252
	df	4
	Sig.	,993

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

Table 42 – Knowledge of more or less than 3 critical hand washing moments

		Critical hand washing moments > 3			
		Knows less than 3		Knows 3 or more moments	
		Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	143	25.8%	411	74.2%
	Intervention	117	21.2%	434	78.8%
Area	North	139	24.0%	439	76.0%
	South	121	23.0%	406	77.0%
Wealth	Poorest	75	33.9%	146	66.1%
	Poor	53	24.0%	168	76.0%
	Average	51	23.1%	170	76.9%
	Rich	38	17.2%	183	82.8%
	Richest	43	19.5%	178	80.5%
	Total	**260**	**23.5%**	**845**	**76.5%**

Pearson Chi-Square Tests

		Critical handwashing moments > 3
Treatment Group	Chi-square	3,218
	df	1
	Sig.	,073
Area	Chi-square	,181
	df	1
	Sig.	,670
Wealth	Chi-square	20,320
	df	4
	Sig.	,000*

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 43 – Most frequently used hand washing station

		Where do members of your household most often wash their hands?											
		Inside/within 10 paces of the latrine facility		Inside/within 10 paces of the Kitchen/cooking place		Elsewhere in home or yard		Outside yard		No specific place		Other	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	42	7.6%	15	2.7%	98	17.8%	14	2.5%	382	69.2%	1	.2%
	Intervention	44	8.0%	17	3.1%	107	19.5%	24	4.4%	357	65.0%	0	0.0%
Area	North	69	12.0%	13	2.3%	128	22.2%	22	3.8%	343	59.5%	1	.2%
	South	17	3.2%	19	3.6%	77	14.7%	16	3.0%	396	75.4%	0	0.0%
Wealth	Poorest	18	8.2%	3	1.4%	34	15.5%	9	4.1%	155	70.5%	1	.5%
	Poor	19	8.6%	1	.5%	41	18.6%	7	3.2%	152	69.1%	0	0.0%
	Average	17	7.7%	5	2.3%	31	14.1%	5	2.3%	162	73.6%	0	0.0%
	Rich	12	5.4%	8	3.6%	57	25.8%	5	2.3%	139	62.9%	0	0.0%
	Richest	20	9.1%	15	6.8%	42	19.1%	12	5.5%	131	59.5%	0	0.0%
	Total	**86**	**7.8%**	**32**	**2.9%**	**205**	**18.6%**	**38**	**3.5%**	**739**	**67.1%**	**1**	**.1%**

Pearson Chi-Square Tests

		of your household most often wash their hands?	
		Yes	No
		Where members of your household most often wash their hands?	Where members of your household most often wash their hands?
Treatment Group	Chi-square	6,081	7,760
	df	4	5
	Sig.	,193	,170[b,c]
Area Area	Chi-square	20,010	7,028
	df	4	5
	Sig.	,000*	,219[b,c]
qhwlthi Wealth	Chi-square	29,828	38,456
	df	16	20
	Sig.	,019*	,008*[,b,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 44 – Recorded observation of water in hand washing station

		Record observation: Is water present at the specific place for hand washing?			
		Yes		No	
		Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	34	47.2%	38	52.8%
	Intervention	37	44.0%	47	56.0%
Area	North	50	47.6%	55	52.4%
	South	21	41.2%	30	58.8%
Wealth	Poorest	15	48.4%	16	51.6%
	Poor	15	55.6%	12	44.4%
	Average	10	37.0%	17	63.0%
	Rich	14	56.0%	11	44.0%
	Richest	17	37.0%	29	63.0%
	Total	**71**	**45.5%**	**85**	**54.5%**

Pearson Chi-Square Tests

		Record observation : Is water present at the specific place for hand washing?
Treatment Group	Chi-square	,158
	df	1
	Sig.	,691
Area	Chi-square	,575
	df	1
	Sig.	,448
Wealth	Chi-square	4,450
	df	4
	Sig.	,348

Results are based on nonempty rows and columns in each innermost subtable.

Table 45 – Cleansing agents used for hand washing

		Cleansing Agents									
		None		Bar Soap		Detergent (Powder / Liquid / Paste)		Liquid soap		Ash / Mud / Sand	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	26	38.2%	13	19.1%	9	13.2%	3	4.4%	24	35.3%
	Intervention	35	43.2%	27	33.3%	6	7.4%	2	2.5%	25	30.9%
Area	North	40	38.8%	22	21.4%	6	5.8%	2	1.9%	44	42.7%
	South	21	45.7%	18	39.1%	9	19.6%	3	6.5%	5	10.9%
Wealth	Poorest	15	50.0%	3	10.0%	4	13.3%	0	0.0%	9	30.0%
	Poor	8	30.8%	3	11.5%	1	3.8%	0	0.0%	15	57.7%
	Average	11	40.7%	5	18.5%	1	3.7%	0	0.0%	12	44.4%
	Rich	6	25.0%	11	45.8%	3	12.5%	0	0.0%	11	45.8%
	Richest	21	50.0%	18	42.9%	6	14.3%	5	11.9%	2	4.8%
	Total	**61**	**40.9%**	**40**	**26.8%**	**15**	**10.1%**	**5**	**3.4%**	**49**	**32.9%**

Pearson Chi-Square Tests

		CleansingAgent
Treatment Group	Chi-square	6,328
	df	5
	Sig.	,276[a]
Area	Chi-square	29,026
	df	5
	Sig.	,000[a,*]
Wealth	Chi-square	67,064
	df	20
	Sig.	,000[a,*,c]

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 46a – Recorded observation of distance of hand washing station from latrine 1

		Record Observation: Is there a hand washing station inside the household latrine or within 10 paces of the latrine?			
		Yes		No	
		Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	92	17.0%	448	83.0%
	Intervention	128	23.4%	419	76.6%
Area	North	157	27.3%	418	72.7%
	South	63	12.3%	449	87.7%
Wealth	Poorest	36	16.6%	181	83.4%
	Poor	46	21.1%	172	78.9%
	Average	43	19.8%	174	80.2%
	Rich	42	19.4%	175	80.6%
	Richest	53	24.3%	165	75.7%
	Total	**220**	**20.2%**	**867**	**79.8%**

Pearson Chi-Square Tests

		Record Observation: Is there a hand washing station inside the household latrine or within 10 paces of the latrine?
Treatment Group	Chi-square	6,816
	df	1
	Sig.	,009*
Area	Chi-square	37,748
	df	1
	Sig.	,000*
Wealth	Chi-square	4,260
	df	4
	Sig.	,372

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

Table 46b - Recorded observation of distance of hand washing station from latrine 2

		Record Observation: Is there a hand washing station inside the household latrine or within 10 paces of the latrine?											
		Yes											
		Where members of your household most often wash their hands?											
		Inside/within 10 paces of the latrine facility		Inside/within 10 paces of the Kitchen/cooking place		Elsewhere in home or yard		Outside yard		No specific place		Other	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	36	39.1%	5	5.4%	25	27.2%	2	2.2%	24	26.1%	0	0.0%
	Intervention	35	27.3%	10	7.8%	38	29.7%	6	4.7%	39	30.5%	0	0.0%
Area	North	59	37.6%	6	3.8%	46	29.3%	3	1.9%	43	27.4%	0	0.0%
	South	12	19.0%	9	14.3%	17	27.0%	5	7.9%	20	31.7%	0	0.0%
Wealth	Poorest	16	44.4%	1	2.8%	13	36.1%	1	2.8%	5	13.9%	0	0.0%
	Poor	15	32.6%	1	2.2%	12	26.1%	0	0.0%	18	39.1%	0	0.0%
	Average	14	32.6%	2	4.7%	12	27.9%	1	2.3%	14	32.6%	0	0.0%
	Rich	9	21.4%	3	7.1%	15	35.7%	3	7.1%	12	28.6%	0	0.0%
	Richest	17	32.1%	8	15.1%	11	20.8%	3	5.7%	14	26.4%	0	0.0%
	Total	**71**	**32.3%**	**15**	**6.8%**	**63**	**28.6%**	**8**	**3.6%**	**63**	**28.6%**	**0**	**0.0%**

Table 46c - Recorded observation of distance of hand washing station from latrine 3

		Record Observation: Is there a hand washing station inside the household latrine or within 10 paces of the latrine?											
		No											
		Where members of your household most often wash their hands?											
		Inside/within 10 paces of the latrine facility		Inside/within 10 paces of the Kitchen/cooking place		Elsewhere in home or yard		Outside yard		No specific place		Other	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	6	1.3%	10	2.2%	73	16.3%	12	2.7%	345	77.2%	1	.2%
	Intervention	9	2.1%	7	1.7%	69	16.5%	18	4.3%	316	75.4%	0	0.0%
Area	North	10	2.4%	7	1.7%	82	19.6%	19	4.5%	299	71.5%	1	.2%
	South	5	1.1%	10	2.2%	60	13.4%	11	2.5%	362	80.8%	0	0.0%
Wealth	Poorest	2	1.1%	2	1.1%	21	11.6%	8	4.4%	147	81.2%	1	.6%
	Poor	4	2.3%	0	0.0%	29	16.9%	7	4.1%	132	76.7%	0	0.0%
	Average	3	1.7%	3	1.7%	19	10.9%	4	2.3%	145	83.3%	0	0.0%
	Rich	3	1.7%	5	2.9%	42	24.0%	2	1.1%	123	70.3%	0	0.0%
	Richest	3	1.8%	7	4.3%	31	18.9%	9	5.5%	114	69.5%	0	0.0%
	Total	**15**	**1.7%**	**17**	**2.0%**	**142**	**16.4%**	**30**	**3.5%**	**661**	**76.3%**	**1**	**.1%**

Table 47 – Recorded observation of device used for water in hand washing station

		Record Observation: What device is used for water at this hand washing station?									
		Tap		Kettle		Bucket		Wash Basin		Other (Specify)	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	3	5.1%	36	61.0%	10	16.9%	9	15.3%	1	1.7%
	Intervention	2	2.4%	39	47.6%	18	22.0%	17	20.7%	6	7.3%
Area	North	0	0.0%	73	77.7%	6	6.4%	11	11.7%	4	4.3%
	South	5	10.6%	2	4.3%	22	46.8%	15	31.9%	3	6.4%
Wealth	Poorest	0	0.0%	12	66.7%	2	11.1%	3	16.7%	1	5.6%
	Poor	0	0.0%	20	66.7%	1	3.3%	9	30.0%	0	0.0%
	Average	0	0.0%	23	79.3%	2	6.9%	1	3.4%	3	10.3%
	Rich	0	0.0%	12	40.0%	9	30.0%	7	23.3%	2	6.7%
	Richest	5	14.7%	8	23.5%	14	41.2%	6	17.6%	1	2.9%
	Total	**5**	**3.5%**	**75**	**53.2%**	**28**	**19.9%**	**26**	**18.4%**	**7**	**5.0%**

Pearson Chi-Square Tests

		Record Observation: What device is used for water at this hand washing station?
Treatment Group	Chi-square	5,020
	df	4
	Sig.	,285[a]
Area Area	Chi-square	74,754
	df	4
	Sig.	,000[a,*]
qhwlthi Wealth	Chi-square	54,095
	df	16
	Sig.	,000[a,*,c]

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 48 - Recorded observation of cleansing agents in hand washing station

		Cleansing Agent Latrine									
		Not able / does not want to show		Bar Soap		Detergent (Powder / Liquid / Paste)		Liquid soap		Ash / Mud / Sand	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	10	12.0%	29	34.9%	7	8.4%	3	3.6%	45	54.2%
	Intervention	23	21.5%	38	35.5%	7	6.5%	7	6.5%	52	48.6%
Area	North	21	14.5%	39	26.9%	10	6.9%	3	2.1%	96	66.2%
	South	12	26.7%	28	62.2%	4	8.9%	7	15.6%	1	2.2%
Wealth	Poorest	9	28.1%	2	6.3%	2	6.3%	0	0.0%	19	59.4%
	Poor	5	12.5%	11	27.5%	3	7.5%	2	5.0%	27	67.5%
	Average	2	5.3%	10	26.3%	1	2.6%	0	0.0%	29	76.3%
	Rich	5	13.9%	19	52.8%	6	16.7%	1	2.8%	16	44.4%
	Richest	12	27.3%	25	56.8%	2	4.5%	7	15.9%	6	13.6%
	Total	**33**	**17.4%**	**67**	**35.3%**	**14**	**7.4%**	**10**	**5.3%**	**97**	**51.1%**

Pearson Chi-Square Tests

		Cleansing Agent Latrine
Treatment Group	Chi-square	4,553
	df	5
	Sig.	,473
Area Area	Chi-square	91,317
	df	5
	Sig.	,000*,b
qhwlthi Wealth	Chi-square	99,339
	df	20
	Sig.	,000*,b

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

Table 49 – Hygiene practices

		Hygiene Practices									
		Food covered		Personal hygiene		Menstrual hygiene		Disposal of waste water		Cleanliness of house environment	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	391	72.1%	379	69.9%	75	13.8%	218	40.2%	410	75.6%
	Intervention	419	77.2%	395	72.7%	82	15.1%	204	37.6%	426	78.5%
Area	North	481	83.9%	382	66.7%	107	18.7%	283	49.4%	419	73.1%
	South	329	64.3%	392	76.6%	50	9.8%	139	27.1%	417	81.4%
Wealth	Poorest	169	76.8%	139	63.2%	27	12.3%	86	39.1%	147	66.8%
	Poor	160	73.1%	153	69.9%	23	10.5%	90	41.1%	155	70.8%
	Average	160	74.8%	150	70.1%	41	19.2%	84	39.3%	173	80.8%
	Rich	170	78.3%	156	71.9%	35	16.1%	78	35.9%	178	82.0%
	Richest	151	70.2%	176	81.9%	31	14.4%	84	39.1%	183	85.1%
	Total	**810**	**74.7%**	**774**	**71.3%**	**157**	**14.5%**	**422**	**38.9%**	**836**	**77.1%**

Pearson Chi-Square Tests

		Hygiene Practices
Treatment Group	Chi-square	7,033
	df	5
	Sig.	,218
Area	Chi-square	152,533
	df	5
	Sig.	,000*
Wealth	Chi-square	63,626
	df	20
	Sig.	,000*

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 50 – Main source of information on WASH

		Get info wash main																					
		School teacher		Parents		Other family members		Friends		Health staff		Community Committees		Posters/Books/magazines		Films/Videos		Radio		TV		State/LGA staff	
		Count	%	Count	%	Count	N %	Count	N %	Count	%	Count	%	Count	%	Count	N %	Count	N %	Count	%	t	%
Treatment Group	Counterfactual	75	14,8%	78	15,4%	32	6,3%	50	9,8%	170	33,5%	130	25,6%	10	2,0%	8	1,6%	120	23,6%	25	4,9%	43	8,5%
	Intervention	53	10,4%	58	11,4%	17	3,3%	42	8,2%	129	25,2%	187	36,6%	6	1,2%	4	,8%	72	14,1%	27	5,3%	51	10,0%
Area	North	24	4,3%	74	13,3%	17	3,1%	60	10,8%	184	33,0%	190	34,1%	2	,4%	0	0,0%	97	17,4%	9	1,6%	16	2,9%
	South	104	22,5%	62	13,4%	32	6,9%	32	6,9%	115	24,9%	127	27,5%	14	3,0%	12	2,6%	95	20,6%	43	9,3%	78	16,9%
Wealth	Poorest	11	5,3%	30	14,5%	12	5,8%	24	11,6%	45	21,7%	55	26,6%	1	,5%	0	0,0%	36	17,4%	1	,5%	7	3,4%
	Poor	15	7,5%	27	13,4%	7	3,5%	17	8,5%	65	32,3%	53	26,4%	0	0,0%	0	0,0%	39	19,4%	4	2,0%	16	8,0%
	Average	28	13,7%	26	12,7%	5	2,4%	18	8,8%	66	32,2%	76	37,1%	5	2,4%	3	1,5%	39	19,0%	7	3,4%	17	8,3%
	Rich	34	16,7%	30	14,8%	14	6,9%	21	10,3%	65	32,0%	71	35,0%	2	1,0%	4	2,0%	32	15,8%	9	4,4%	23	11,3%
	Richest	40	19,7%	23	11,3%	11	5,4%	12	5,9%	58	28,6%	62	30,5%	8	3,9%	5	2,5%	46	22,7%	31	15,3%	31	15,3%
	Total	128	12,6%	136	13,3%	49	4,8%	92	9,0%	299	29,3%	317	31,1%	16	1,6%	12	1,2%	192	18,8%	52	5,1%	94	9,2%

Pearson Chi-Square Tests

		Get info WASH main
Treatment Group	Chi-square	54,754
	df	11
	Sig.	,000*
Area	Chi-square	220,238
	df	11
	Sig.	,000*
Wealth	Chi-square	159,488
	df	44
	Sig.	,000*

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 51 – Preferred source of information on WASH

		From whom, or where, would you prefer to have received more information on this topic?																							
		Community		Health staff		Radio		State/LGA		Other		Parents		School		Don't know		Friends		Other family		TV		Posters/Book		Films/Videos	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	N %	Count	N %	Count	%	Count	%	Count	%	Count	%	Count	N %	Count	N %
Treatment Group	Counterfactual	118	21,4%	171	31,0%	102	18,5%	58	10,5%	27	4,9%	20	3,6%	19	3,4%	8	1,5%	12	2,2%	8	1,5%	6	1,1%	2	,4%	0	0,0%
	Intervention	176	32,2%	121	22,1%	69	12,6%	70	12,8%	32	5,9%	20	3,7%	18	3,3%	14	2,6%	7	1,3%	10	1,8%	9	1,6%	1	,2%	0	0,0%
Area	North	176	30,6%	167	29,0%	100	17,4%	53	9,2%	27	4,7%	11	1,9%	4	,7%	5	,9%	16	2,8%	15	2,6%	1	,2%	1	,2%	0	0,0%
	South	118	22,6%	125	23,9%	71	13,6%	75	14,4%	32	6,1%	29	5,6%	33	6,3%	17	3,3%	3	,6%	3	,6%	14	2,7%	2	,4%	0	0,0%
Wealth	Poorest	65	29,7%	55	25,1%	31	14,2%	26	11,9%	14	6,4%	7	3,2%	4	1,8%	1	,5%	7	3,2%	9	4,1%	0	0,0%	0	0,0%	0	0,0%
	Poor	43	19,5%	58	26,4%	50	22,7%	36	16,4%	12	5,5%	6	2,7%	3	1,4%	1	,5%	7	3,2%	4	1,8%	0	0,0%	0	0,0%	0	0,0%
	Average	65	29,7%	57	26,0%	33	15,1%	27	12,3%	11	5,0%	9	4,1%	8	3,7%	5	2,3%	3	1,4%	1	,5%	0	0,0%	0	0,0%	0	0,0%
	Rich	62	28,2%	61	27,7%	26	11,8%	22	10,0%	11	5,0%	9	4,1%	15	6,8%	7	3,2%	2	,9%	2	,9%	2	,9%	1	,5%	0	0,0%
	Richest	59	26,8%	61	27,7%	31	14,1%	17	7,7%	11	5,0%	9	4,1%	7	3,2%	8	3,6%	0	0,0%	2	,9%	13	5,9%	2	,9%	0	0,0%
	Total	294	26,8%	292	26,6%	171	15,6%	128	11,7%	59	5,4%	40	3,6%	37	3,4%	22	2,0%	19	1,7%	18	1,6%	15	1,4%	3	,3%	0	0,0%

Pearson Chi-Square Tests

		you prefer to have received more information on this topic?
Treatment Group	Chi-square	32,042
	df	11
	Sig.	,001*
Area Area	Chi-square	90,038
	df	11
	Sig.	,000*
qhwlthi Wealth	Chi-square	116,812
	df	44
	Sig.	,000*,b,c

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 52 – Knowledge (See, hear, participate) of WASH activities

		Wash Activities															
		Hand washing campaigns		Promotion of safe excreta disposal;		Community environmental sanitation		Personal and food hygiene promotion;		Keeping drinking water safe (Safe water chain);		Maintenance of water supply facilities;		Maintenance of sanitation facilities;		Construction of new WASH facilities.	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	272	63.1 %	134	31.1 %	278	64.5 %	185	42.9 %	150	34.8 %	120	27.8 %	140	32.5 %	49	11.4 %
	Intervention	292	63.3 %	157	34.1 %	283	61.4 %	188	40.8 %	163	35.4 %	137	29.7 %	118	25.6 %	50	10.8 %
Area	North	411	77.0 %	188	35.2 %	298	55.8 %	249	46.6 %	223	41.8 %	189	35.4 %	166	31.1 %	82	15.4 %
	South	153	42.7 %	103	28.8 %	263	73.5 %	124	34.6 %	90	25.1 %	68	19.0 %	92	25.7 %	17	4.7%
Wealth	Poorest	133	73.1 %	61	33.5 %	93	51.1 %	80	44.0 %	63	34.6 %	47	25.8 %	46	25.3 %	27	14.8 %
	Poor	122	67.4 %	58	32.0 %	107	59.1 %	94	51.9 %	74	40.9 %	66	36.5 %	57	31.5 %	27	14.9 %
	Average	126	69.6 %	64	35.4 %	117	64.6 %	78	43.1 %	72	39.8 %	53	29.3 %	59	32.6 %	20	11.0 %
	Rich	103	57.2 %	62	34.4 %	138	76.7 %	58	32.2 %	64	35.6 %	48	26.7 %	39	21.7 %	14	7.8%
	Richest	80	47.6 %	46	27.4 %	106	63.1 %	63	37.5 %	40	23.8 %	43	25.6 %	57	33.9 %	11	6.5%
	Total	**564**	**63.2 %**	**291**	**32.6 %**	**561**	**62.9 %**	**373**	**41.8 %**	**313**	**35.1 %**	**257**	**28.8 %**	**258**	**28.9 %**	**99**	**11.1 %**

Pearson Chi-Square Tests		
		Wash Activities
Treatment Group	Chi-square	7,853
	df	8
	Sig.	,448
Area Area	Chi-square	234,899
	df	8
	Sig.	,000*
qhwlthi Wealth	Chi-square	120,066
	df	32
	Sig.	,000*
Results are based on nonempty rows and columns in		
*. The Chi-square statistic is significant at the ,05 level.		

Table 53 – Knowledge of the existence of WASHCOM and WASHCOM members

		Do you have a WASH committee in your community?								Do you know the members of the WASH committee in your community?							
		Yes		No		Don't Know		Did not answer/NA		Yes		No		Don't Know		Did not answer/NA	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	338	61.1 %	106	19.2 %	85	15.4 %	24	4.3 %	288	85.2 %	40	11.8 %	10	3.0 %	0	0.0 %
	Intervention	398	72.5 %	62	11.3 %	83	15.1 %	6	1.1 %	337	84.7 %	51	12.8 %	10	2.5 %	0	0.0 %
Area	North	421	73.1 %	84	14.6 %	66	11.5 %	5	.9%	364	86.5 %	44	10.5 %	13	3.1 %	0	0.0 %
	South	315	59.9 %	84	16.0 %	102	19.4 %	25	4.8 %	261	82.9 %	47	14.9 %	7	2.2 %	0	0.0 %
Wealth	Poorest	127	57.7 %	48	21.8 %	39	17.7 %	6	2.7 %	101	79.5 %	23	18.1 %	3	2.4 %	0	0.0 %
	Poor	149	67.7 %	32	14.5 %	25	11.4 %	14	6.4 %	127	85.2 %	17	11.4 %	5	3.4 %	0	0.0 %
	Average	148	67.3 %	37	16.8 %	28	12.7 %	7	3.2 %	133	89.9 %	12	8.1%	3	2.0 %	0	0.0 %
	Rich	159	71.9 %	24	10.9 %	37	16.7 %	1	.5%	138	86.8 %	20	12.6 %	1	.6%	0	0.0 %
	Richest	153	69.2 %	27	12.2 %	39	17.6 %	2	.9%	126	82.4 %	19	12.4 %	8	5.2 %	0	0.0 %
	Total	**736**	**66.8 %**	**168**	**15.2 %**	**168**	**15.2 %**	**30**	**2.7 %**	**625**	**84.9 %**	**91**	**12.4 %**	**20**	**2.7 %**	**0**	**0.0 %**

Pearson Chi-Square Tests

		Do you have a WASH committee in your community?	Do you know the members of the WASH committee in your community?
Treatment Group	Chi-square	27.225	.282
	df	3	2
	Sig.	,000*	,869b
Area	Chi-square	34.116	3.683
	df	3	2
	Sig.	,000*	,159b
Wealth	Chi-square	37.487	13.368
	df	12	8
	Sig.	,000*	,100b

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

Table 54 – Knowledge of WASH activities carried out by WASHCOM

		Wash activities											
		In charge of keeping water supply functional (O&M)		In charge of promoting CLTS		Supervision of the quality of latrine construction		Hygiene Education		Community mobilization		Collecting money for O&M of Water points	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	155	54.6%	162	57.0%	137	48.2%	198	69.7%	182	64.1%	41	14.4%
	Intervention	191	57.5%	182	54.8%	169	50.9%	215	64.8%	189	56.9%	67	20.2%
Area	North	272	74.9%	212	58.4%	214	59.0%	260	71.6%	207	57.0%	86	23.7%
	South	74	29.2%	132	52.2%	92	36.4%	153	60.5%	164	64.8%	22	8.7%
Wealth	Poorest	75	76.5%	52	53.1%	47	48.0%	66	67.3%	52	53.1%	14	14.3%
	Poor	79	62.7%	64	50.8%	67	53.2%	87	69.0%	75	59.5%	32	25.4%
	Average	74	56.1%	89	67.4%	73	55.3%	97	73.5%	83	62.9%	29	22.0%
	Rich	66	48.2%	75	54.7%	71	51.8%	97	70.8%	86	62.8%	19	13.9%
	Richest	52	42.3%	64	52.0%	48	39.0%	66	53.7%	75	61.0%	14	11.4%
	Total	**346**	**56.2%**	**344**	**55.8%**	**306**	**49.7%**	**413**	**67.0%**	**371**	**60.2%**	**108**	**17.5%**

Pearson Chi-Square Tests

		Wash activities
Treatment Group	Chi-square	9.753
	df	6
	Sig.	.135
Area	Chi-square	194.515
	df	6
	Sig.	,000*
Wealth	Chi-square	78.573
	df	24
	Sig.	,000*

Results are based on nonempty rows and columns in each innermost subtable.
*. The Chi-square statistic is significant at the ,05 level.

Table 55 - Knowledge of number of years the WASHCOM has been in existence

		Wash years							
		Less than 1 year		1-5 years		More than 5 years		Do not know/Did not answer	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	24	7.1%	204	60.4%	21	6.2%	89	26.3%
	Intervention	19	4.8%	260	65.3%	14	3.5%	105	26.4%
Area	North	16	3.8%	290	68.9%	20	4.8%	95	22.6%
	South	27	8.6%	174	55.2%	15	4.8%	99	31.4%
Wealth	Poorest	7	5.5%	74	58.3%	7	5.5%	39	30.7%
	Poor	7	4.7%	102	68.5%	4	2.7%	36	24.2%
	Average	9	6.1%	102	68.9%	9	6.1%	28	18.9%
	Rich	16	10.1%	94	59.1%	7	4.4%	42	26.4%
	Richest	4	2.6%	92	60.1%	8	5.2%	49	32.0%
	Total	**43**	**5.8%**	**464**	**63.0%**	**35**	**4.8%**	**194**	**26.4%**

Pearson Chi-Square Tests

		0 'Less than 1 year' 1 '1-5 years' 2 'More than 5 years' 3 'Do not know,Did not answer'
Treatment Group	Chi-square	5,203
	df	3
	Sig.	,158
Area	Chi-square	17,712
	df	3
	Sig.	,001*
Wealth	Chi-square	18,820
	df	12
	Sig.	,093

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 56 – Presence of sanitation centre in the community

		Do you have a sanitation centre in your community?							
		Yes		No		Don't Know		Did not answer/NA	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	162	29.3%	287	51.9%	84	15.2%	20	3.6%
	Intervention	172	31.3%	285	51.9%	84	15.3%	8	1.5%
Area	North	188	32.6%	303	52.6%	79	13.7%	6	1.0%
	South	146	27.8%	269	51.1%	89	16.9%	22	4.2%
Wealth	Poorest	49	22.3%	127	57.7%	38	17.3%	6	2.7%
	Poor	60	27.3%	119	54.1%	30	13.6%	11	5.0%
	Average	66	30.0%	115	52.3%	31	14.1%	8	3.6%
	Rich	72	32.6%	109	49.3%	39	17.6%	1	.5%
	Richest	87	39.4%	102	46.2%	30	13.6%	2	.9%
	Total	**334**	**30.3%**	**572**	**51.9%**	**168**	**15.2%**	**28**	**2.5%**

Pearson Chi-Square Tests

		Do you have a sanitation centre in your community?
Treatment Group	Chi-square	5,435
	df	3
	Sig.	,143
Area	Chi-square	14,802
	df	3
	Sig.	,002*
Wealth	Chi-square	29,886
	df	12
	Sig.	,003*

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 57 – Knowledge of ODF

		Do you know what Open Defecation Free (ODF) is?			
		Yes		No	
		Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	277	50.1%	276	49.9%
	Intervention	353	64.3%	196	35.7%
Area	North	405	70.3%	171	29.7%
	South	225	42.8%	301	57.2%
Wealth	Poorest	136	61.8%	84	38.2%
	Poor	132	60.0%	88	40.0%
	Average	124	56.4%	96	43.6%
	Rich	114	51.6%	107	48.4%
	Richest	124	56.1%	97	43.9%
	Total	**630**	**57.2%**	**472**	**42.8%**

Pearson Chi-Square Tests

		Do you know what Open Defecation Free (ODF) is?
Treatment Group	Chi-square	22,713
	df	1
	Sig.	,000*
Area	Chi-square	85,140
	df	1
	Sig.	,000*
Wealth	Chi-square	5,637
	df	4
	Sig.	,228

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

Table 58 – Is this community ODF?

		Is this community ODF?					
		Yes		No		Don't Know	
		Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	211	76.4%	61	22.1%	4	1.4%
	Intervention	278	78.8%	70	19.8%	5	1.4%
Area	North	305	75.3%	96	23.7%	4	1.0%
	South	184	82.1%	35	15.6%	5	2.2%
Wealth	Poorest	101	74.3%	34	25.0%	1	.7%
	Poor	96	72.7%	33	25.0%	3	2.3%
	Average	105	84.7%	18	14.5%	1	.8%
	Rich	87	76.3%	26	22.8%	1	.9%
	Richest	100	81.3%	20	16.3%	3	2.4%
	Total	**489**	**77.7%**	**131**	**20.8%**	**9**	**1.4%**

Pearson Chi-Square Tests

		Is this community ODF?
Treatment Group	Chi-square	,491
	df	2
	Sig.	,782
Area	Chi-square	6,947
	df	2
	Sig.	,031*
Wealth	Chi-square	10,264
	df	8
	Sig.	,247b

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

Table 59 – Awareness of school health club in community

		Are you aware of a school health club at the school in or closest to your community?							
		Yes		No		Don't Know		Did not answer/NA	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	38	6.9%	250	45.2%	206	37.3%	59	10.7%
	Intervention	67	12.2%	238	43.4%	191	34.8%	53	9.7%
Area	North	69	12.0%	247	42.9%	179	31.1%	81	14.1%
	South	36	6.8%	241	45.8%	218	41.4%	31	5.9%
Wealth	Poorest	8	3.6%	119	54.1%	53	24.1%	40	18.2%
	Poor	16	7.3%	98	44.5%	80	36.4%	26	11.8%
	Average	23	10.5%	85	38.6%	91	41.4%	21	9.5%
	Rich	27	12.2%	80	36.2%	100	45.2%	14	6.3%
	Richest	31	14.0%	106	48.0%	73	33.0%	11	5.0%
	Total	**105**	**9.5%**	**488**	**44.3%**	**397**	**36.0%**	**112**	**10.2%**

Pearson Chi-Square Tests

		Are you aware of a school health club at the school in or closest to your community?
Treatment Group	Chi-square	9,178
	df	3
	Sig.	,027*
Area	Chi-square	34,400
	df	3
	Sig.	,000*
Wealth	Chi-square	65,906
	df	12
	Sig.	,000*

Results are based on nonempty rows and columns in each

*. The Chi-square statistic is significant at the ,05 level.

Table 60 – Awareness of school health club activities

		Wash Activities Health Club							
		Participation in hand washing campaigns		Support and promotion of safe hygiene practices amongst peers		Influencing parents to construct latrines in households		Participation in CLTS activities…	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Treatment Group	Counterfactual	30	88.2%	24	70.6%	18	52.9%	13	38.2%
	Intervention	49	86.0%	45	78.9%	27	47.4%	30	52.6%
Area	North	58	96.7%	42	70.0%	40	66.7%	35	58.3%
	South	21	67.7%	27	87.1%	5	16.1%	8	25.8%
Wealth	Poorest	6	100.0%	6	100.0%	3	50.0%	2	33.3%
	Poor	16	100.0%	10	62.5%	9	56.3%	8	50.0%
	Average	20	95.2%	17	81.0%	12	57.1%	12	57.1%
	Rich	19	79.2%	16	66.7%	12	50.0%	11	45.8%
	Richest	18	75.0%	20	83.3%	9	37.5%	10	41.7%
	Total	**79**	**86.8%**	**69**	**75.8%**	**45**	**49.5%**	**43**	**47.3%**

Pearson Chi-Square Tests

		Wash Activities Health Club
Treatment Group	Chi-square	2,943
	df	4
	Sig.	,567
Area	Chi-square	47,757
	df	4
	Sig.	,000*
Wealth	Chi-square	18,222
	df	16
	Sig.	,311

Results are based on nonempty rows and columns in

*. The Chi-square statistic is significant at the ,05 level.

Table 61 - Multivariate Logistic Regression odds ratios and 95% Confidence Intervals (CI) by various outcomes, WASH Household Survey (2014)

Variable	Reference Category	Diarrhea (any member)	95% CI			Severe Diarrhea (any member)	95% CI			Diarrhea (under 5)^^	95% CI			Not in School	95% CI			Missed School	95% CI			Work	95% CI			Chores	95% CI			Fetch Water	95% CI		
Age		All				All				0-5				5-17				5-17				5-17				5-17				5-17			
Treatment Group	Counterfactual	1,004	,700	1,440		1,309	,728	2,353		1,733	,941	3,189	+	1,119	,715	1,754		1,569	1,036	2,376	**	1,006	,676	1,499		1,066	,721	1,576		,725	,483	1,089	
Area	North	2,057	1,255	3,372	**	,780	,374	1,627		1,835	,714	4,714		6,857	3,205	14,673	***	1,468	,899	2,395		,654	,405	1,056	+	,500	,291	,861	**	,305	,169	,550	***
Household wealth	2nd (1st Reference)	1,038	0,618	1,740		0,753	0,315	1,797		1,195	0,544	2,625		0,296	0,167	0,524	***	1,019	0,489	2,124		3,152	1,624	6,116	**	1,921	1,130	3,268	**	1,238	,707	2,167	
	3rd	0,671	0,374	1,204		0,780	0,317	1,917		1,206	0,527	2,761	+	0,303	0,167	0,551	***	1,262	0,611	2,608		2,326	1,152	4,698	**	2,852	1,574	5,166	**	1,748	,927	3,295	**
	4th	0,907	0,487	1,691		0,663	0,241	1,821		0,311	0,079	1,225		0,279	0,132	0,592	***	1,225	0,561	2,677		2,569	1,206	5,471	**	2,386	1,198	4,755	**	,958	,480	1,913	
	5th	0,916	0,435	1,930		0,621	0,196	1,971		0,702	0,172	2,857		0,037	0,005	0,295	***	0,820	0,348	1,933		2,496	1,093	5,700	**	3,231	1,386	7,533	**	,687	,299	1,578	
Household Dependency Ratio	High dependency Ratio	1,098	,722	1,670		,877	,425	1,809		,786	,424	1,456		,340	,209	,552	***	1,508	,983	2,313	+	,623	,400	,970	**	,791	,528	1,185		1,634	1,046	2,552	**
Head	Female	2,350	1,247	4,427	**	2,601	1,153	5,870	**	2,614	0,566	12,070		1,275	0,406	4,006		1,015	0,442	2,330		0,723	0,320	1,637		2,794	0,804	9,708		0,927	0,329	2,613	
Lack of Adult Education	Household without any adult with secondary education	1,142	,715	1,824		1,063	,514	2,197		,993	,443	2,227		4,884	2,516	9,483	***	,903	,564	1,447		1,023	,645	1,622		,983	,588	1,645		0,510	0,296	0,880	**
Lack of access to improved drinking water	Household's main water source for drinking water: unimproved	,801	,508	1,263		,894	,441	1,810		1,208	,609	2,398		,827	,491	1,394		,762	,459	1,263		,666	,409	1,085		,875	,552	1,386		0,847	0,527	1,364	
Lack of improved sanitation	Most household members practice Open Defecation	1,789	,967	3,308	+	1,746	,727	4,194		3,071	,865	10,898	+	,472	,231	,967	**	1,139	,587	2,211		,683	,398	1,169		1,216	,668	2,214		1,209	0,644	2,271	
Lack of Hygiene Knowledge	Household lack knowledge on 3 critical moments for hand washing	1,341	,889	2,022		1,367	,721	2,590		1,833	,951	3,533	+	1,340	,799	2,248		,814	,477	1,390		1,782	1,127	2,817	**	,994	,626	1,577		0,880	0,548	1,413	

^^ Please note, for Diarrhea of children under the age of 5, an additional analysis, excluding Birnin Kudu, revealed statistical significant result at a 5% level: Odds ratio of 4,242 and a 95% Confidence Interval (1,107; 16,261), p=0,035

^^ Please note, for Diarrhea of children under the age of 5, an additional analysis, excluding Birnin Kudu, revealed statistical significant result at a 5% level: Odds ratio of 4,242 and a 95% Confidence Interval (1,107; 16,261), p=0,035

Table 62 - Descriptive Statistics for various outcome measures by analytical variables (1)

		Any household member with diarrhea				Any household member with severe diarrhea				Diarrhoea in children under 5			
		No		Yes		No		Yes		No		Yes	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Treatment Group	Counterfactual	476	85,9%	78	14,1%	523	94,4%	31	5,6%	225	86,5%	35	13,5%
	Intervention	470	85,3%	81	14,7%	526	95,5%	25	4,5%	223	89,9%	25	10,1%
Area	North	473	81,8%	105	18,2%	552	95,5%	26	4,5%	308	87,0%	46	13,0%
	South	473	89,8%	54	10,2%	497	94,3%	30	5,7%	140	90,9%	14	9,1%
Wealth	Poorest	181	81,9%	40	18,1%	208	94,1%	13	5,9%	110	86,6%	17	13,4%
	Poor	183	82,8%	38	17,2%	209	94,6%	12	5,4%	93	84,5%	17	15,5%
	Average	194	87,8%	27	12,2%	210	95,0%	11	5,0%	98	86,7%	15	13,3%
	Rich	192	86,9%	29	13,1%	212	95,9%	9	4,1%	86	93,5%	6	6,5%
	Richest	196	88,7%	25	11,3%	210	95,0%	11	5,0%	61	92,4%	5	7,6%
Household dependency ratio	Low dependency	737	86,4%	116	13,6%	808	94,7%	45	5,3%	268	88,2%	36	11,8%
	High dependency	209	82,9%	43	17,1%	241	95,6%	11	4,4%	180	88,2%	24	11,8%
Sex of Household Head	Male	813	86,4%	128	13,6%	900	95,6%	41	4,4%	413	89,2%	50	10,8%
	Female	78	82,1%	17	17,9%	85	89,5%	10	10,5%	12	80,0%	3	20,0%
Any household member with secondary education	Yes	414	88,1%	56	11,9%	446	94,9%	24	5,1%	160	90,4%	17	9,6%
	No	532	83,8%	103	16,2%	603	95,0%	32	5,0%	288	87,0%	43	13,0%
Improved Drinking Water	No	250	87,7%	35	12,3%	271	95,1%	14	4,9%	116	86,6%	18	13,4%
	Yes	695	84,9%	124	15,1%	777	94,9%	42	5,1%	332	88,8%	42	11,2%
Most household members practice OD	No	772	84,5%	142	15,5%	866	94,7%	48	5,3%	386	87,3%	56	12,7%
	Yes	174	91,1%	17	8,9%	183	95,8%	8	4,2%	62	93,9%	4	6,1%
Knowledge on critical handwashing moments	No	214	82,3%	46	17,7%	242	93,1%	18	6,9%	97	83,6%	19	16,4%
	Yes	732	86,6%	113	13,4%	807	95,5%	38	4,5%	351	89,5%	41	10,5%
	Total	**946**	**85,6%**	**159**	**14,4%**	**1049**	**94,9%**	**56**	**5,1%**	**448**	**88,2%**	**60**	**11,8%**

Table 63 - Descriptive Statistics for various outcome measures by analytical variables (2)

		Households with children aged 5 to 17 currently in school				Households with children aged 5 to 17 who missed school				Households with children age 5 to 17 who worked outside the family				Households with children aged 5 to 17 who did household chores				Households with children aged 5 to 17 who fetched water			
		In school		Not in school		Missed school in last month		Did not miss school in last month		Did not work		Worked		Did not do household chores		Did do chores		Did not fetch water		Fetched water	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Treatment Group	Counterfactual	241	74,2%	84	25,8%	213	54,9%	175	45,1%	275	79,7%	70	20,3%	72	20,9%	273	79,1%	72	20,9%	273	79,1%
	Intervention	261	77,0%	78	23,0%	206	49,5%	210	50,5%	284	79,8%	72	20,2%	73	20,5%	283	79,5%	56	15,7%	300	84,3%
Area	North	252	63,0%	148	37,0%	178	50,7%	173	49,3%	348	82,5%	74	17,5%	116	27,5%	306	72,5%	103	24,4%	319	75,6%
	South	250	94,7%	14	5,3%	241	53,2%	212	46,8%	211	75,6%	68	24,4%	29	10,4%	250	89,6%	25	9,0%	254	91,0%
Wealth	Poorest	61	41,5%	86	58,5%	38	44,2%	48	55,8%	141	89,2%	17	10,8%	59	37,3%	99	62,7%	45	28,5%	113	71,5%
	Poor	100	74,6%	34	25,4%	67	47,9%	73	52,1%	107	74,3%	37	25,7%	32	22,2%	112	77,8%	29	20,1%	115	79,9%
	Average	118	81,4%	27	18,6%	91	52,3%	83	47,7%	119	79,3%	31	20,7%	24	16,0%	126	84,0%	19	12,7%	131	87,3%
	Rich	110	88,7%	14	11,3%	104	54,5%	87	45,5%	103	78,6%	28	21,4%	18	13,7%	113	86,3%	19	14,5%	112	85,5%
	Richest	113	99,1%	1	,9%	119	55,9%	94	44,1%	89	75,4%	29	24,6%	12	10,2%	106	89,8%	16	13,6%	102	86,4%
Household dependency ratio	Low dependency	315	72,4%	120	27,6%	348	57,6%	256	42,4%	356	77,1%	106	22,9%	89	19,3%	373	80,7%	93	20,1%	369	79,9%
	High dependency	187	81,7%	42	18,3%	71	35,5%	129	64,5%	203	84,9%	36	15,1%	56	23,4%	183	76,6%	35	14,6%	204	85,4%
Sex of Household Head	Male	431	73,5%	155	26,5%	351	51,9%	325	48,1%	491	79,2%	129	20,8%	140	22,6%	480	77,4%	122	19,7%	498	80,3%
	Female	37	86,0%	6	14,0%	44	59,5%	30	40,5%	35	79,5%	9	20,5%	3	6,8%	41	93,2%	5	11,4%	39	88,6%
Any household member with secondary education	Yes	257	94,8%	14	5,2%	253	55,4%	204	44,6%	219	76,8%	66	23,2%	39	13,7%	246	86,3%	32	11,2%	253	88,8%
	No	245	62,3%	148	37,7%	166	47,8%	181	52,2%	340	81,7%	76	18,3%	106	25,5%	310	74,5%	96	23,1%	320	76,9%
Improved Drinking Water	No	128	76,2%	40	23,8%	98	48,0%	106	52,0%	151	82,5%	32	17,5%	41	22,4%	142	77,6%	36	19,7%	147	80,3%
	Yes	373	75,4%	122	24,6%	320	53,4%	279	46,6%	407	78,7%	110	21,3%	104	20,1%	413	79,9%	92	17,8%	425	82,2%
Most household members practice OD	No	432	75,8%	138	24,2%	349	51,9%	324	48,1%	486	81,0%	114	19,0%	125	20,8%	475	79,2%	111	18,5%	489	81,5%
	Yes	70	74,5%	24	25,5%	70	53,4%	61	46,6%	73	72,3%	28	27,7%	20	19,8%	81	80,2%	17	16,8%	84	83,2%
Knowledge on critical handwashing moments	No	96	67,1%	47	32,9%	87	54,4%	73	45,6%	115	74,7%	39	25,3%	36	23,4%	118	76,6%	33	21,4%	121	78,6%
	Yes	406	77,9%	115	22,1%	332	51,6%	312	48,4%	444	81,2%	103	18,8%	109	19,9%	438	80,1%	95	17,4%	452	82,6%
	Total	**502**	**75,6%**	**162**	**24,4%**	**419**	**52,1%**	**385**	**47,9%**	**559**	**79,7%**	**142**	**20,3%**	**145**	**20,7%**	**556**	**79,3%**	**128**	**18,3%**	**573**	**81,7%**