

SUPPLEMENTAL INFORMATION

Additional information about water supply services provided by The Community Water Supply and Sanitation Program (CWSSP); data collection procedures, patterns of attrition among study participants, characteristics of sampled households, Figure S1, and Table S1 and Table S2 are including in the Supplemental Information.

Households served by the CWSSP do not contribute to the construction costs of the borewells, storage facilities, or distribution networks; these costs are covered by the municipal water and sanitation authority. Users are expected to cover recurrent costs such as electricity to power the borewell pumps. As such, tap users typically pay a per-jerrican (20 L) fee of US dollars (USD) \$0.03–0.04 or the equivalent

of USD \$1.50–2.00 per m³ for the water that they obtain from the borewells.

DATA COLLECTION

Field protocols for taking water and hand samples were developed in English and Kiswahili and tested in a pilot community. Laboratory protocols for analyzing field samples were prepared in English and Kiswahili. The field teams that carried out data collection were comprised of recent university graduates from Dar es Salaam who underwent an intensive 3-week training on use of the personal digital assistants (PDAs), effective interviewing techniques, and proper collection of water and hand-rinse samples. Laboratory technicians were trained in processing and analysis of samples as well as logging sample data into a project database.

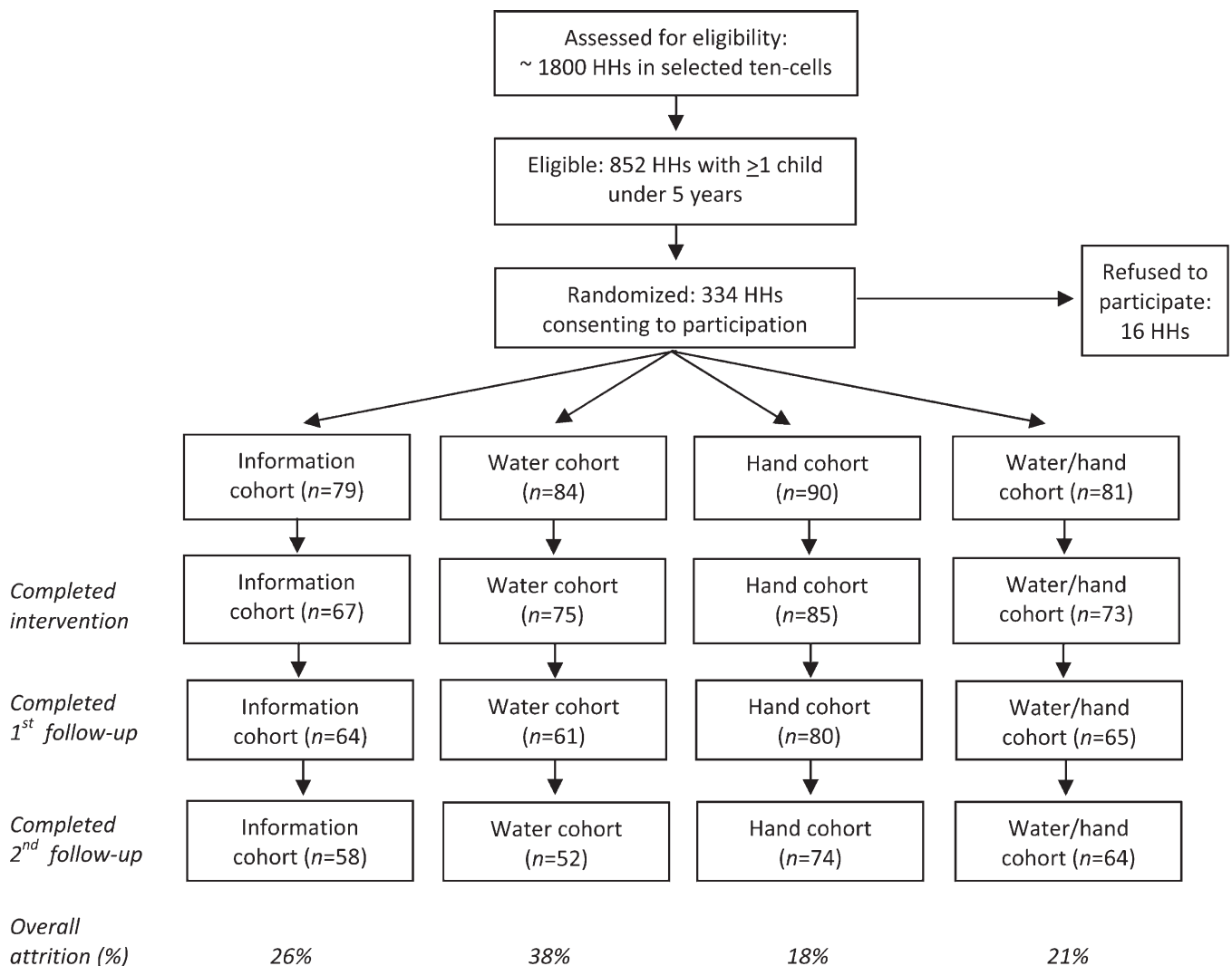


FIGURE S1. Study participant flowchart.

TABLE S1
Baseline characteristics of sample households and respondents by cohort

	Cohort 1: health information only (N = 58)	Cohort 2: hand tests only (N = 52)	Cohort 3: water tests only (N = 74)	Cohort 4: water and hand tests (N = 64)
Mean (SD) number of people in family	5.6 (2.2)	5.8 (2.6)	5.2 (2.1)	5.2 (2.5)
Mean (SD) number of families living in housing unit	2.9 (2.4)	2.8 (2.4)	3.1 (2.6)	3.2 (2.8)
Percentage of homeowners	63	57	62	57
Percentage of homes with electricity service	42	57	50	50
Percentage of families with a mobile phone	87	87	87	87
Mean (SD) regular expenses per week (USD)	25.21 (12.1)	23.78 (11.3)	23.60 (10.0)	25.20 (12.48)
Number of water sources used regularly	1.4 (0.6)	1.4 (0.6)	1.5 (0.8)	1.4 (0.6)
Percentage using own/neighbor's shallow well	54	48	58	47
Percentage using a public tap	14	15	12	17
Percentage buying vended water	15	17	11	5
Percentage using private household toilet	100	100	99	99
Mean (SD) age of respondent (mother)	31.9 (9.8)	28.6 (7.0)	31.1 (9.0)	30.2 (8.4)
Percentage who can read and write	83	84	91	85
Percentage who earn a wage	22	13	18	18
Percentage with no formal education	12	13	8	12
Percentage with more than primary education	24	25	21	17
Percentage with 1+ family member ill with GI symptoms in 2 days before interview	10	11	5	9
Percentage of Muslims	34	47	58	47
Percentage of Christians	66	53	42	53

Note that sample sizes refer to number of respondents in each cohort at the close of the study (i.e., after attrition). SD = standard deviation; USD = US dollars; GI = gastrointestinal.

TABLE S2
Ordinary least-squares regression of change in log mean *E. coli* contamination of stored water and hands between baseline and second follow-up survey

	Mean (SD) value for full sample	Model 1: change in stored water contamination (log cfu/100 mL)	Model 2: change in hand contamination (log cfu per two hands)
Intercept	–	1.54 (0.26)	2.45 (0.27)
Member of hand cohort (dummy)	0.24 (0.43)	0.10 (0.24)	–0.01 (0.19)
Member of water cohort (dummy)	0.31 (0.46)	–0.11 (0.24)	0.22 (0.17)
Member of hand/water cohort (dummy)	0.22 (0.42)	–0.09 (0.25)	0.25 (0.18)
Received high water test result (dummy)	0.15 (0.36)	0.34 (0.28)	–
Baseline <i>Escherichia coli</i> level (log cfu)	Water: 1.36 (0.98); hand: 3.20 (0.93)	–1.06* (0.10)	–0.83* (0.07)
Reported improved water storage (dummy)	0.26 (0.44)	0.00 (0.18)	–
Reported increased water treatment (dummy)	0.26 (0.44)	0.02 (0.19)	–
Reported increased handwashing frequency (dummy)	0.24 (0.42)	0.32 (0.20)	–0.09 (0.15)
Reported increased use of soap (dummy)	0.47 (0.50)	0.09 (0.14)	–0.04 (0.13)
Completed education beyond primary level (dummy)	0.22 (0.42)	–0.10 (0.19)	0.22 (0.15)
Adjusted R ²	–	0.44	0.43
N	–	154	214

Negative coefficients indicate reduction in mean contamination. SD = standard deviation; cfu = colony-forming units.

* $P \leq 0.01$.