

Supplemental Table 1

Analysis of Uptake of Water, Sanitation, and Hygiene Interventions, and Promoter Visits--Proportional Differences from Control

Uptake Variable	Kakamega (Each Arm Separately)					
	Adjusted			Unadjusted		
Water Intervention Uptake and Behavior Change	WASH	WASH+	LNS	WASH	WASH+	LNS
Free Chlorine Detected, (95% CI)	0.382 (0.215, 0.549)	0.347 (0.220, 0.475)	0.002 (-0.033, 0.038)	0.385 (0.230, 0.540)	0.354 (0.222, 0.486)	-0.009 (-0.068, 0.050)
Control Mean, (N)	0.012 (284)			0.012 (283)		
Total Chlorine Detected, (95% CI)	0.458 (0.303, 0.613)	0.363 (0.236, 0.491)	0.002 (-0.033, 0.038)	0.462 (0.323, 0.601)	0.355 (0.227, 0.482)	-0.013 (-0.073, 0.048)
Control Mean, (N)	0.012 (284)			0.012 (283)		
VF Filter Use, (95% CI)	-0.079 (-0.193, 0.035)	-0.079 (-0.185, 0.026)	-0.029 (-0.146, 0.088)	-0.077 (-0.197, 0.044)	-0.082 (-0.192, 0.027)	-0.027 (-0.154, 0.100)
Control Mean, (N)	0.122 (304)			0.122 (303)		
Sanitation Intervention Uptake and Behavior Change						
Child Feces Risk Belief, (95% CI)	0.048 (-0.054, 0.150)	0.039 (-0.110, 0.189)	-0.022 (-0.148, 0.105)	0.054 (-0.062, 0.171)	0.053 (-0.109, 0.215)	-0.023 (-0.149, 0.103)
Control Mean, (N)	0.785 (321)			0.785 (320)		
Child Feces Disposed Of, (95% CI)	0.460 (0.337, 0.584)	0.508 (0.367, 0.650)	0.027 (-0.113, 0.166)	0.474 (0.357, 0.592)	0.519 (0.364, 0.675)	0.043 (-0.111, 0.196)
Control Mean, (N)	0.181 (323)			0.181 (322)		
Drop Hole Covered, (95% CI)	0.604 (0.511, 0.697)	0.477 (0.359, 0.595)	-0.023 (-0.053, 0.007)	0.565 (0.463, 0.667)	0.471 (0.366, 0.575)	-0.057 (-0.112, -0.002)
Control Mean, (N)	0.023 (304)			0.023 (303)		
Stool Visible in Latrine, (95% CI)	-0.247 (-0.418, -0.076)	-0.153 (-0.350, 0.044)	-0.092 (-0.285, 0.101)	-0.231 (-0.412, -0.050)	-0.167 (-0.362, 0.027)	-0.083 (-0.289, 0.123)
Control Mean, (N)	0.420 (304)			0.420 (303)		
Human Feces in Compound, (95% CI)	-0.079 (-0.176, 0.017)	-0.093 (-0.178, -0.007)	-0.027 (-0.120, 0.065)	-0.087 (-0.183, 0.008)	-0.102 (-0.190, -0.014)	-0.034 (-0.133, 0.065)
Control Mean, (N)	0.106 (317)			0.106 (316)		
Any Feces in Compound, (95% CI)	-0.016 (-0.104, 0.073)	-0.145 (-0.264, -0.027)	-0.057 (-0.186, 0.073)	-0.025 (-0.128, 0.077)	-0.207 (-0.339, -0.074)	-0.057 (-0.191, 0.078)
Control Mean, (N)	0.862 (323)			0.862 (322)		
Hygiene Intervention Uptake and Behavior Change						
HW Critical Times (of 5), (95% CI)	0.546 (0.161, 0.931)	0.557 (0.156, 0.957)	0.009 (-0.338, 0.356)	0.652 (0.324, 0.980)	0.560 (0.221, 0.900)	0.098 (-0.222, 0.418)
Control Mean, (N)	2.160 (323)			2.160 (322)		
Have Place for HW, (95% CI)	0.842 (0.761, 0.923)	0.876 (0.826, 0.927)	0.009 (-0.044, 0.063)	0.835 (0.745, 0.925)	0.859 (0.789, 0.928)	0.022 (-0.037, 0.081)
Control Mean, (N)	0.043 (323)			0.043 (322)		
Have Soap for HW, (95% CI)	0.526 (0.341, 0.712)	0.484 (0.339, 0.630)	0.029 (-0.102, 0.161)	0.510 (0.321, 0.700)	0.512 (0.365, 0.659)	0.040 (-0.092, 0.171)
Control Mean, (N)	0.191 (323)			0.191 (322)		
Mother Clean Hands, (95% CI)	0.046 (-0.100, 0.192)	0.118 (0.000, 0.236)	-0.112 (-0.226, 0.002)	0.042 (-0.098, 0.181)	0.109 (-0.019, 0.237)	-0.128 (-0.241, -0.014)
Control Mean, (N)	0.787 (323)			0.787 (322)		
Child Clean Hands, (95% CI)	0.110 (-0.047, 0.266)	0.052 (-0.089, 0.192)	0.053 (-0.078, 0.185)	0.126 (-0.019, 0.272)	0.090 (-0.052, 0.231)	0.063 (-0.086, 0.213)
Control Mean, (N)	0.570 (322)			0.570 (321)		
Health Promoter Uptake						
Respondent Knows Promoter's Name, (95% CI)	-0.000 (-0.077, 0.077)	0.065 (0.004, 0.125)	-0.028 (-0.107, 0.052)	0.004 (-0.075, 0.083)	0.079 (0.011, 0.147)	-0.017 (-0.097, 0.063)
Control Mean, (N)	0.935 (319)			0.935 (318)		
Promoter Booklet Available, (95% CI)	-0.159 (-0.339, 0.021)	-0.184 (-0.441, 0.073)	-0.150 (-0.344, 0.045)	-0.151 (-0.313, 0.012)	-0.205 (-0.477, 0.066)	-0.162 (-0.355, 0.032)
Control Mean, (N)	0.978 (307)			0.978 (307)		
Trusts Promoter Info Highly, (95% CI)	-0.044 (-0.112, 0.024)	0.006 (-0.044, 0.056)	-0.007 (-0.071, 0.056)	-0.035 (-0.098, 0.028)	0.016 (-0.035, 0.068)	-0.006 (-0.080, 0.069)
Control Mean, (N)	0.967 (319)			0.967 (319)		
Ranks Promoter Highly Committed, (95% CI)	0.008 (-0.095, 0.111)	0.098 (0.011, 0.185)	0.043 (-0.053, 0.140)	0.021 (-0.086, 0.129)	0.114 (0.024, 0.204)	0.061 (-0.034, 0.157)
Control Mean, (N)	0.847 (307)			0.847 (307)		
Considers Promoter Visits Worth Time, (95% CI)	-0.013 (-0.039, 0.013)	-0.000 (-0.000, -0.000)	-0.013 (-0.039, 0.012)	-0.009 (-0.030, 0.012)	0.003 (-0.007, 0.013)	-0.012 (-0.039, 0.015)
Control Mean, (N)	1.000 (319)			1.000 (319)		
Enumerator FE	NO			YES		
Controls	NO			YES		

Notes: Table shows estimated OLS coefficients on intervention status, with uptake levels from each intervention arm compared in the same joint regression to the omitted control group. Also shown are 95% confidence intervals computed with standard errors adjusted for clustering at the village level. Bold indicates significant difference from zero at the 95% confidence level. Regression in first three columns is from unadjusted regression, the latter three are adjusted.

Supplemental Table 2
Analysis of Uptake of Water Interventions, Excluding Households Receiving WaterGuard--Proportional Differences from Control

Uptake Variable	Kakamega (Combined vs. Control)		Bungoma (Treatment vs. Control Only)	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Water Intervention Uptake and Behavior Change				
Free Chlorine Detected, (95% CI)	0.377 (0.269, 0.486)	0.383 (0.278, 0.487)	0.657 (0.378, 0.936)	0.661 (0.281, 1.041)
Control Mean, (N)	0.012 (277)	0.012 (277)	0.143 (46)	0.143 (43)
Total Chlorine Detected, (95% CI)	0.426 (0.320, 0.532)	0.427 (0.322, 0.532)	0.730 (0.388, 1.071)	0.647 (0.302, 0.992)
Control Mean, (N)	0.012 (277)	0.012 (277)	0.190 (46)	0.190 (43)
Filter Use, (95% CI)	-0.064 (-0.136, 0.009)	-0.066 (-0.141, 0.009)	-0.091 (-0.229, 0.048)	-0.027 (-0.092, 0.038)
Control Mean, (N)	0.122 (297)	0.122 (296)	0.091 (47)	0.091 (44)
Enumerator FE	NO	YES	NO	YES
Controls	NO	YES	NO	YES

Notes: Table shows estimated OLS coefficient on intervention status, with 95% confidence intervals computed with standard errors adjusted for clustering at the village level. Regression in first and thirds columns is from unadjusted regression, while the second and fourth are adjusted to include controls specified in manuscript, as well as fixed effects for follow-up survey enumerator. Each arm's uptake levels are compared to the omitted control group. Bold indicates statistically significant difference from zero at the 95% confidence level.

Supplemental Table 3
Analysis of Uptake of Water, Sanitation, and Hygiene Interventions--Proportional Differences from Control

Uptake Variable	Kakamega (Combined vs. Control)		Bungoma (Treatment vs. Control Only)	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Water Treatment Uptake and Behavior Change				
Free Chlorine Detected, (95% CI)	0.364 (0.258, 0.470)	0.382 (0.283, 0.481)	0.600 (0.336, 0.864)	0.487 (0.050, 0.924)
Control Mean, (N)	0.012 (284)	0.012 (281)	0.143 (56)	0.143 (32)
Total Chlorine Detected, (95% CI)	0.410 (0.307, 0.513)	0.423 (0.322, 0.523)	0.667 (0.327, 1.007)	0.411 (0.031, 0.791)
Control Mean, (N)	0.012 (284)	0.012 (281)	0.190 (56)	0.190 (32)
VF Filter Use, (95% CI)	-0.066 (-0.137, 0.005)	-0.069 (-0.142, 0.003)	-0.091 (-0.228, 0.046)	-0.075 (-0.210, 0.060)
Control Mean, (N)	0.122 (304)	0.122 (301)	0.091 (57)	0.091 (33)
Sanitation Treatment Uptake and Behavior Change				
Child Feces Risk Belief, (95% CI)	0.054 (-0.042, 0.150)	0.064 (-0.042, 0.170)	0.005 (-0.166, 0.176)	-0.131 (-0.548, 0.285)
Control Mean, (N)	0.785 (321)	0.785 (318)	0.875 (49)	0.875 (37)
Child Feces Disposed Of, (95% CI)	0.471 (0.372, 0.571)	0.469 (0.366, 0.572)	0.213 (-0.008, 0.435)	0.157 (-0.239, 0.554)
Control Mean, (N)	0.181 (323)	0.181 (320)	0.667 (49)	0.667 (37)
Drop Hole Covered, (95% CI)	0.553 (0.472, 0.634)	0.543 (0.464, 0.623)	0.750 (0.604, 0.896)	0.822 (0.474, 1.169)
Control Mean, (N)	0.023 (304)	0.023 (301)	0.000 (44)	0.000 (33)
Stool Visible in Latrine, (95% CI)	-0.161 (-0.297, -0.024)	-0.153 (-0.283, -0.023)	-0.400 (-0.632, -0.168)	-0.510 (-0.703, -0.317)
Control Mean, (N)	0.420 (304)	0.420 (301)	0.400 (45)	0.400 (34)
Human Feces in Compound, (95% CI)	-0.074 (-0.132, -0.016)	-0.081 (-0.138, -0.024)	-0.043 (-0.192, 0.106)	0.051 (-0.250, 0.352)
Control Mean, (N)	0.106 (317)	0.106 (314)	0.083 (49)	0.083 (37)
Any Feces in Compound, (95% CI)	-0.053 (-0.147, 0.040)	-0.079 (-0.178, 0.021)	0.007 (-0.229, 0.242)	0.078 (-0.290, 0.447)
Control Mean, (N)	0.862 (323)	0.862 (320)	0.833 (49)	0.833 (37)
Hygiene Treatment Uptake and Behavior Change				
HW Critical Times (of 5), (95% CI)	0.547 (0.251, 0.843)	0.558 (0.299, 0.817)	0.494 (-0.348, 1.336)	1.320 (0.070, 2.570)
Control Mean, (N)	2.160 (323)	2.160 (320)	2.292 (52)	2.292 (28)
Have Place for HW, (95% CI)	0.855 (0.804, 0.905)	0.833 (0.771, 0.895)	0.708 (0.430, 0.987)	0.503 (0.123, 0.882)
Control Mean, (N)	0.043 (323)	0.043 (320)	0.042 (52)	0.042 (28)
Have Soap for HW, (95% CI)	0.493 (0.375, 0.610)	0.495 (0.370, 0.620)	0.661 (0.444, 0.877)	0.622 (0.088, 1.155)
Control Mean, (N)	0.191 (323)	0.191 (320)	0.125 (52)	0.125 (28)
Mother Hands No Visible Dirt, (95% CI)	0.132 (0.035, 0.228)	0.128 (0.028, 0.228)	0.077 (-0.214, 0.369)	0.372 (-0.046, 0.789)
Control Mean, (N)	0.787 (323)	0.787 (320)	0.708 (52)	0.708 (28)
Child Hands No Visible Dirt, (95% CI)	0.057 (-0.050, 0.164)	0.081 (-0.031, 0.194)	-0.205 (-0.475, 0.066)	-0.103 (-1.020, 0.813)
Control Mean, (N)	0.570 (322)	0.570 (319)	0.955 (42)	0.955 (23)
Enumerator Fixed Effects	NO	YES	NO	YES
Controls	NO	YES	NO	YES

Notes: Table shows estimated OLS coefficient on treatment status, with 95% confidence intervals computed with standard errors adjusted for clustering at the village level. Bold indicates significant difference from zero at the 95% level. Treatment in first two columns (Kakamega) was a combination of water, sanitation, and hygiene hardware. Treatment in the second two columns is the relevant treatment (W, S, OR H, all separately) compared to the control group. Adjusted regressions now additionally control for baseline appropriate disposal of child feces.