Table A. Characteristics of health worker participants in the standard care and intervention health facilities.

Health worker characteristic	Baseline		Immediately after intervention	
	Standard care (n=10)	Intervention (n=12)	Standard care (n=12)	Intervention (n=14)
Position				
In-charge	10 (100%)	7 (58%)	10 (83%)	8 (57%)
Nurse/Midwife	0	3 (25%)	1 (8%)	4 (29%)
Nursing aide/assistant	0	2 (17%)	1 (8%)	2 (14%)
Gender				
Male	6 (60%)	6 (50%)	8 (67%)	7 (50%)
Female	4 (40%)	6 (50%)	4 (33%)	7 (50%)
Age				
<30years	3 (30%)	2 (17%)	5 (42%)	3 (21%)
30-44 years	3 (30%)	5 (42%)	3 (25%)	6 (43%)
45+years	4 (40%)	5 (42%)	4 (33%)	5 (36%)
Originally from study area				
Yes	7 (70%)	8 (67%)	8 (67%)	9 (64%)
No	3 (30%)	4 (33%)	4 (33%)	5 (36%)
Years worked at the job				
Under 5 years	4 (40%)	3 (25%)	6 (50%)	3 (21%)
5-9 years	3 (30%)	4 (33%)	3 (25%)	5 (36%)
10+ years	3 (30%)	5 (42%)	3 (25%)	6 (43%)
Highest level of education				
Certificate	7 (70%)	10 (83%)	9 (75%)	11 (79%)
Diploma	3 (30%)	1 (8%)	3 (25%)	1 (7%)
Bachelor's degree	0	1(8%)	0	2 (14%)
Year graduated				
Before 1990	3 (30%)	1 (8%)	3 (25%)	1 (7.1%)
1990-1999	0	4 (33%)	0	4 (28.6%)
Since 2000	7 (70%)	7 (58%)	9 (75%)	9 (64.3%)
Language skills				
Japadhola+ Swahilli+ Another	8 (80%)	9(75%)	8 (67%)	11(79%)
local language	0	1(8%)	1 (8%)	1(7%)
Japadhola + Swahilli only	2 (20%)	2(17%)	3 (25%)	2(14%)
Japadhola only				

Table B. Characteristics of health care seekers in the standard care and intervention health facilities.

Care seeker characteristics	Baseline		Immediately after intervention	
	Standard care (n=47)	Intervention (n=53)	Standard care (n=96)	Intervention (n=117)
Care seeker age				
<30years	33 (70%)	37 (70%)	62 (65%)	79 (68%)
30-44 years	12 (26%)	13 (23%)	31 (32%)	30 (26%)
45+years	2 (4%)	4(8%)	3 (3%)	8 (7%)
Gender				
Male	1 (2%)	4(8%)	3 (3%)	6 (5%)
Female	46 (98%)	49(92%)	93 (97%)	111 (95%)
Care seeker been to this health centre before	46(98%)	47(89%)	94(98%)	103(88%)
Yes	1(2%)	6(11%)	2(2%)	14(12%)
No				
Originally from study area				
Yes	43 (91%)	47 (89%)	86 (90%)	104 (89%)
No	4 (9%)	6(11%)	10 (10%)	13 (11%)
Highest level of education				
None	10 (21%)	15 (28%)	24 (25%)	30 (26%)
Primary (P.1 –P.7)	33 (70%)	29 (55%)	62 (65%)	63 (54%)
Secondary (S.1-S.6)	4 (9%)	9(17%)	10 (10%)	23 (20%)
Diploma	0	0	0	1 (1%)
Primary working activity				
Unemployed	0	3(6%)	2 (2%)	3 (3%)
Housewife/stay home mother	2 (4%)	3(6%)	3 (3%)	9 (8%)
Peasant farmer	42(89%)	42 (79%)	86 (90%)	96 (82%)
Small business owner	3(6%)	2 (4%)	4 (4%)	6 (5%)
Other	0	3(6%)	1 (1%)	3 (3%)
Patient characteristics				
Age				
6 months and under	14 (30%)	8(15%)	29 (30%)	24(21%)
7-12 months	5(11%)	13(25%)	17(18%)	26(22%)
13-18 months	7(15%)	9(17%)	12(13%)	21(18%)
19-30 months	11(23%)	16(30%)	23(24%)	26(22%)
31-60 months	10(21%)	7(13%)	15(16%)	20(17%)
Gender				
Male	28(60%)	21(40%)	56(58%)	61(52%)
Female	19(40%)	32(60%)	40(42%)	56(48%)
Mother reports fever				
Yes	47(100%)	53(100%)	96(100%)	117(100%)
No	0	0	0	0
Mother reports cough				
Yes	18(38%)	38(72%)	51(53%)	74(63%)
No	29(62%)	15(28%)	45(47%)	43(37%)
Mother reports vomiting				
Yes	8(17%)	11(21%)	23(24%)	30(26%)
No	39(83%)	42(79%)	73(76%)	87(74%)
Mother reports flu				
Yes	8(17%)	20(38%)	28(29%)	40(34%)
No	39(83%)	33(62%)	68(71%)	77(66%)

Table C. Baseline intra-class correlation coefficients for each measurement method at the health worker and health facility levels.

Outcome	Level of cluster	Number of patients	Number of clusters	Intraclass correlation coefficient
Communication score by care seeker rating	Health worker	97	22	0.24
	Health facility	97	20	0.28
Communication score by audio-recorded interaction rating	Health worker	100	22	0.31
	Health facility	100	20	0.32

Table D. Univariate analyses of communication scores by health worker characteristic for each measurement method.

		Care seeker assessment		Audio-recorded interaction assessment	
	Number (n)[a]	Exit interview score (95% CI[b] of difference)	P-value	Audio-recorded interaction score (95% CI of difference)	P-value
Health worker characteristic					
Position at health centre					
In-charge	160	79.8		14.3	
Nurse/midwife	33	82.9 (77.6, 94.3)	0.47	14.7 (12.7, 17.4)	0.75
Nursing aide	20	79.5 (68.8, 89.4)	0.95	14.4 (11.6, 17.4)	0.94
Age					
<30 years	54	79.3		14.8	
30-44 years	75	79.6 (72.0, 88.0)		14.5 (12.1, 16.5)	
45+ years	84	81.8 (76.4, 92.2)	0.52[c]	14.0 (11.0, 15.3)	0.45[c]
Gender					
Male	115	78.3		13.8	
Female	98	79.7 (74.8, 87.4)	0.67	14.2 (12.9, 16.4)	0.63
Originally from area					
No	64	78.8		14.7	
Yes	149	81.1 (76.7, 89.9)	0.50	14.2 (11.9, 15.5)	0.58
Duration as a health worker					
Under 5 years	70	75.9		14.3	
5-9 years	68	79.1 (75.7, 88.8)		15.7 (15.2, 19.0)	
10+ years	75	85.8 (89.1, 102)	0.003[c]	13.2 (10.2, 13.9)	0.26[c]
Highest education					
Certificate	165	80.4		14.3	
Diploma	31	79.9 (70.2, 88.4)	0.90	14.6 (12.3, 17.3)	0.84
Bachelor's degree	17	80.0 (67.0, 92.3)	0.95	15.2 (12.8, 19.3)	0.60
Year Graduated					
Before 1990	33	84.2		13.5	
1990-1999	38	79.5 (63.7, 85.9)		15.2 (14.0, 20.0)	
Since 2000	142	79.7 (66.3, 84.0)	0.38[c]	14.4 (12.9, 17.7)	0.66[c]
Languages spoken					
Japhadhola, Swahili and another local language	156	80.6		14.2	
Japhadhola and Swahili	15	72.7 (53.1, 76.5)	0.19	18.1 (19.1, 25.0)	0.01

Japhadhola only	42	82.0 (75.6, 91.1)	0.73	13.8 (11.6, 15.4)	0.74

Note: adjusted for clustering at the health worker level. Between 3-5 patients sampled per health worker.

[a] Five patients lost between audio-recording and exit interview.

[b] Confidence Interval.

[c] Test for trend.

Table E. Univariate analyses of communication scores by care seeker characteristics for each measurement method.

	Number (n)[a]	Care seeker assessment		Audio-recorded interaction assessment	
		Exit interview score (95% CI[b] of difference)	P-value	Audio recorded interaction score (95% CI of difference)	P-value
Care seeker characteristic					
Age					
<30 years	141	79.2		14.3	
30-44 years	61	82.0 (80.8, 88.8)		15.1 (14.6, 17.2)	
45+ years	11	86.1 (84.9, 101.3)	0.05[c]	12.4 (7.9, 13.1)	0.91[c]
Gender					
Female	204	80.1		14.4	
Male	9	85.4 (82, 99.4)	0.23	13.5 (9.6, 15.4)	0.52
Been to health centre before					
Yes	197	80.6		14.3	
No	16	76.7 (65.8, 79.9)	0.28	15.2 (13.8, 18.5)	0.44
Originally from area					
Yes	190	81.0		14.3	
No	23	74.7 (62.6, 74.2)	0.03	14.8 (13.4, 17.2)	0.62
Highest education achieved					
None	54	83.7		14.2	
Primary (P1-P7)	125	79.3 (70.7, 79.3)	0.05	14.4 (13.3, 16.1)	0.70
Secondary (S1-S6)	33	78 (66.4, 78.1)	0.06	14.5 (13, 16.8)	0.79
Certificate	1	86.1 (62.1, 115)	0.86	16.6 (10.4, 27.9)	0.58
Primary working activity					
Peasant farmer	182	81.2		14.5	
Housewife/stay home mother	12	75.9 (62.8, 78.5)	0.19	13.8 (9, 17)	0.70
Small business owner/worker	10	79.3 (69.1, 85.8)	0.66	14 (11, 16)	0.69
Unemployed	5	65.2 (36.1, 62.5)	0.02	11.7 (6, 11.6)	0.04
Other	4	70.3 (46.7, 72.2)	0.10	16.1 (13.4, 22)	0.47
Patient (child) characteristic					
Age					
6 months and under	53	80.2		14.4	
7-12 months	43	76.1 (66.7, 77.2)		15.5 (14.8, 18.3)	
13-18 months	33	81.8 (77.8, 89.1)		13.7 (11.1, 14.9)	
19-30 months	49	82.1 (78.9, 89.2)		13.7 (11.3, 14.7)	
31-60 months	35	81.4 (76.8, 88.3)	0.19[c]	14.5 (12.7, 16.4)	0.47[c]
Gender					
Male	117	88.5		14.9	
Female	96	82.9 (73.8, 80.8)	0.001	14.5 (13, 15.4)	
Mother reports fever					
No	0	-		-	
Yes	213	80.3	-	14.4	-
Mother reports cough					
No	88	80.3		13.8	
Yes	125	80.3 (76.6, 83.9)	0.98	14.8 (14.6, 17)	0.10
Mother reports vomiting					
No	160	79.9		14.4	
Yes	53	81.6 (79.2, 87.6)	0.41	14.3 (12.8, 15.5)	0.83
Mother reports flu					
No	145	81.5		14.3	
Yes	68	77.4 (69.4, 77.2)	0.04	14.7 (13.9, 16.5)	0.48

Note: adjusted for clustering at the health worker level. Between 3-5 patients sampled per health worker.
[a] Five patients lost between audio-recording and exit interview.
[b] Confidence Interval.
[c] Test for trend.