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Supplementary appendix

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Supplement to: Sarrassat S, Meda N, Badolo H, et al. Effect of a mass radio campaign on family behaviours and child survival in Burkina Faso: a repeated cross-sectional, cluster-randomised trial. *Lancet Glob Health* 2018; **6**: e330–41.

Table 1: Other major programs implemented in intervention and control clusters

Cluster	International NGOs / programs	# local OBCE
Banfora	CREPA; Progetto Mondo MLAL	6
Bogande	ACF; GRET (Nutrifaso program); Helvetas (Sanifaso program); UNICEF	6
Djibo	Croix Rouge; CRUS; DRC; Hunger Project	3
Kantchari	ACF	1
Ouahigouya	-	5
Sapouy	Hunger Project; MSI; PAM; UNICEF	0
Solenzo	SOS Sahel	2
All intervention clusters	ACF; CREPA; Croix Rouge; CRUS; DRC; Hunger Project; MSI; GRET (Nutrifaso program); PAM; Progetto Mondo MLAL; Helvetas (Sanifaso program); SOS Sahel; UNICEF	23
Boromo	Water Aid (Sanifaso program)	4
Gayeri	HKI; GRET (Nutrifaso program); PAM	3
Kongoussi	Plan International (PAASAD program); SOS Sahel	5
Koudougou	GIZ; PAM; Water Aid (Sanifaso program); USAID	5
Nouna	MSI; PAM; SOS Sahel	4
Po	-	3
Pouytenga	Medicus Mundi; Plan International (PAASAD program)	3
All control clusters	GIZ; HKI; Medicus Mundi; MSI; GRET (Nutrifaso program); PAM; Plan International (PAASAD program); SOS Sahel; USAID; Water Aid (Sanifaso program)	27

Table 2: Changes from baseline in self-reported behaviours (ITT analysis)

	Survey	Control arm		Intervention arm		"Crude" DiD	Cluster-level DiD analysis							
		total	%	total	%		Adjusted for baseline prevalence			Adjusted for baseline prevalence and confounder score				
							DiD	95%CI	P-value	DiD	95%CI	P-value		
Maternal health														
4 or more ANC visits	BS	2,562	50.8	2,470	37.0									
	ES ITT	2,378	56.4	2,361	41.7	-0.9	-7.9	-23.0	7.3	0.440	-4.8	-23.8	14.1	0.729
Saving during the pregnancy	BS	2,562	62.8	2,474	56.4									
	ES ITT	2,378	63.2	2,361	63.9	7.1	8.9	-0.9	18.7	0.061	14.2	2.4	25.9	0.053
Health facility delivery	BS	2,562	81.8	2,470	56.0									
	ES ITT	2,378	89.7	2,361	69.8	5.9	4.9	-14.1	23.9	0.515	3.3	-16.9	23.5	0.638
Newborn health														
Breastfeeding initiation within 1 hour after birth	BS	2,556	32.6	2,463	26.8									
	ES ITT	2,342	32.6	2,316	35.4	8.6	7.7	-15.0	30.3	0.491	22.0	-14.4	58.5	0.360
First bath delayed for 24 hours or more after birth	BS	2,556	55.9	2,463	49.3									
	ES ITT	2,358	50.8	2,331	39.2	-5.0	-3.2	-11.2	4.9	0.398	-1.2	-12.8	10.5	0.722
Health care seeking in a health facility or with a CHW (two weeks prior to interview)														
Fever, fast/difficult breathing or diarrhoea	BS	1,072	57.4	975	43.2									
	ES ITT	822	62.2	830	51.6	3.6	1.9	-18.5	22.4	0.812	0.6	-22.9	24.2	0.931
Fever	BS	735	63.7	637	50.2									
	ES ITT	582	73.5	572	58.2	-1.8	-0.3	-18.3	17.7	0.973	-3.2	-24.7	18.2	0.716
Fast/difficult breathing	BS	302	56.6	381	44.4									
	ES ITT	281	54.1	244	41.8	-0.1	-5.0	-27.3	17.3	0.656	-8.3	-38.1	21.4	0.532
Diarrhoea	BS	559	57.8	514	44.9									
	ES ITT	357	64.4	370	54.1	2.6	2.6	-16.0	21.2	0.750	-0.9	-22.8	21.0	0.923
Treatment (two weeks prior to interview)														
ACT or quinine IM/IV for fever	BS	735	17.3	639	16.9									
	ES ITT	613	39.3	587	27.6	-11.3	-11.3	-27.6	4.9	0.131	-11.3	-34.4	11.8	0.472
Antibiotic for fast/difficult breathing	BS	302	28.2	382	27.0									
	ES ITT	284	35.6	244	25.8	-8.6	-8.5	-33.7	16.6	0.488	-8.3	-44.2	27.5	0.884
ORS or more liquids for diarrhoea	BS	560	41.1	516	30.6									
	ES ITT	371	49.6	376	39.6	0.5	-8.2	-18.0	1.6	0.062	-10.4	-22.8	1.9	0.471
Home-made solutions for diarrhoea	BS	560	6.8	516	6.8									
	ES ITT	371	9.7	376	4.0	-5.7	-4.8	-18.2	8.6	0.608	-15.8	-30.8	-0.7	0.297

Nutrition													
Exclusive breastfeeding (day prior to interview, 0-5 months old)	BS	429	44.6	450	42.4								
	ES ITT	525	54.9	490	58.8	6.1	7.8	-11.9	27.4	0.423	6.1	-21.6	33.7
Complementary feeding (day prior to interview, 6-11 months old)	BS	418	55.5	411	49.9								
	ES ITT	546	63.6	536	60.1	2.1	-0.2	-17.2	16.7	0.982	-11.2	-30.7	8.3
Growth monitoring (past 6 months, 0-23 months old)	BS	1,525	59.7	1,615	51.1								
	ES ITT	1,940	68.3	1,904	51.1	-8.6	-9.4	-22.5	3.6	0.145	-7.7	-24.9	9.6
Bed net use													
Children under an ITN the night prior to interview	BS	2,567	60.3	2,475	58.5								
	ES ITT	2,886	68.2	2,784	68.1	1.7	-0.1	-10.6	10.3	0.972	-1.2	-15.7	13.2
Women under a net during their last pregnancy	BS	2,560	65.6	2,468	62.5								
	ES ITT	2,886	67.4	2,784	68.9	4.6	1.7	-11.3	14.8	0.798	3.6	-14.6	21.8
Sanitation													
Household latrine ownership	BS	2,559	19.5	2,458	25.0								
	ES ITT	2,858	40.6	2,768	39.9	-6.2	-6.8	-24.2	10.6	0.396	4.2	-18.7	27.1
Safe disposal of last children's stools †	BS	2,566	14.1	2,475	15.3								
	ES ITT	2,886	21.7	2,784	21.6	-1.3	-1.2	-6.5	4.0	0.640	1.1	-6.3	8.5
HWWS the last time women cleaned her child who defecated	BS	2,535	37.5	2,401	36.4								
	ES ITT	2,733	42.6	2,688	44.1	2.6	1.7	-8.6	12.1	0.713	-2.2	-16.0	11.6

BS: Baseline survey; ES: Endline survey; ITT: Intention-To-Treat analysis

† defined when the child used a latrine or when the stool was thrown into them or buried

Table 3: Effect modification by radio ownership on all-cause post-neonatal under-five child mortality (ITT analysis)

Period	Control arm		Intervention arm		Cluster-level analysis			Cluster-level analysis						
	Risk	95% CI	Risk	95% CI	Adjusted for pre-intervention level		P-value †	Adjusted for pre-intervention level and confounder score		P-value †				
					RR	95% CI		RR	95% CI					
No radio														
Mar 2010 - Feb 2012	92.1	64.9	119.3	127.6	105.2	150.0	-	-	-	-	-	-	-	
Mar 2012 - Oct 2014	80.9	58.7	103.2	99.9	81.1	118.8	0.63	0.34	1.17	0.164	0.63	0.30	1.31	0.164
Radio in the compound, not in the household														
Mar 2010 - Feb 2012	90.3	75.5	105.0	123.7	91.8	155.6	-	-	-	-	-	-	-	
Mar 2012 - Oct 2014	79.3	62.4	96.2	108.8	81.4	136.1	0.98	0.76	1.27	0.92	0.92	0.69	1.24	
Radio in the household														
Mar 2010 - Feb 2012	94.7	70.4	119.0	124.7	103.6	145.9	-	-	-	-	-	-	-	
Mar 2012 - Oct 2014	66.3	49.1	83.5	97.5	81.8	113.2	1.07	0.88	1.30	1.02	1.02	0.82	1.28	

† P-value for effect modification by radio ownership

Table 4: Effect modification by radio ownership on self-reported care seeking (ITT analysis)

Survey	Control arm		Intervention arm		"Crude" DiD	Cluster-level DiD analysis				Cluster-level DiD analysis				
	Total	%	Total	%		Adjusted for baseline prevalence		P-value [†]	Adjusted for baseline prevalence and confounder score		P-value [†]			
						DiD	95% CI		DiD	95% CI				
No radio														
Care seeking in a health facility or with CHW for fever, fast/difficult breathing or diarrhoea	BS	219	55.3	119	43.7	-	-	-	-	-	-	-	-	-
	ES ITT	180	68.9	142	45.8	-11.5	-5.9	-32.8	21.0	0.204	-5.6	-31.5	20.3	0.204
	Radio in the compound, not in the household													
	BS	164	53.1	236	44.5	-	-	-	-	-	-	-	-	-
	ES ITT	157	64.3	209	45.9	-9.8	-7.8	-35.2	19.6		-7.5	-31.9	16.9	
	Radio in the household													
BS	687	59.1	618	42.7	-	-	-	-	-	-	-	-	-	
ES ITT	476	59.2	475	55.8	13.0	7.8	-10.7	26.3		8.1	-12.5	28.7		

† P-value for effect modification by radio ownership

Table 5: Effect modification by distance to the closest facility on self-reported care seeking (ITT analysis)

Survey	Control arm		Intervention arm		"Crude" DiD	Cluster-level DiD analysis				Cluster-level DiD analysis				
	Total	%	Total	%		Adjusted for baseline prevalence		P-value [†]	Adjusted for baseline prevalence and confounder score		P-value [†]			
						DiD	95% CI		DiD	95% CI				
< 2 km														
Care seeking in a CSPS for fever, fast/difficult breathing or diarrhoea	BS	386	64.5	180	43.3	-	-	-	-	-	-	-	-	
	ES ITT	300	61.7	133	58.7	18.2	17.2	-4.4	38.8	0.003	22.7	-1.8	47.1	0.004
	2 - 5 km													
	BS	353	49.3	277	40.4	-	-	-	-	-	-	-	-	
	ES ITT	298	54.0	199	51.8	6.7	8.7	-9.2	26.5		14.1	-5.5	33.7	
	> 5 km													
BS	333	28.2	518	37.6	-	-	-	-	-	-	-	-		
ES ITT	224	49.6	498	41.2	-17.8	-20.1	-44.2	4.1		-13.7	-39.1	11.8		

† P-value for effect modification by distance to the closest facility