

Supplementary table 1 - Baseline characteristics among children included and excluded from the analyses

	Included	Excluded	p-value
Numbers (%)	5937 (57)	4519 (43)	
Sex			.11
Male (%)	3039 (51)	2242 (50)	
Female (%)	2898 (49)	2277 (50)	
Median age in months at start of follow-up (interquartile range)	13.1 (11.0 – 15.5)	13.4 (11.1 – 15.7)	0.0005
MUAC at start of Follow-up¹	-1.06 (1.1)	-1.09 (1.12)	.42
Region			<0.0001
Oio	1307 (22)	969 (21)	
Biombo	1329 (22)	1380 (31)	
Gabu	1350 (23)	803 (18)	
Cacheu	787 (13)	692 (15)	
Bafata	1164 (20)	675 (15)	
Ethnicity²			<0.0001
Balanta	937 (16)	926 (21)	
Pepel	1117 (19)	1172 (26)	
Fula/Mandinca	3053 (52)	1728 (39)	
Manjaco	265 (5)	270 (6)	
Other	501 (9)	369 (8)	
Median maternal age in years (interquartile range)³	26 (20.9 - 30.8)	25.3 (20.4 - 30)	<0.0001
Education of caretaker⁴			0.95
0 years	5065 (85)	3805 (84)	
1-4 years	616 (10)	472 (10)	
>4 years	146 (2)	111 (2)	

¹ 3731 observations with missing MUAC

² 118 observations with missing information on ethnicity

³ 116 observations with missing information on maternal age

⁴ 241 observations with missing information on education of caretaker

Supplementary table 2 - Mortality of children visited between 18 and 35 months of age according to vaccination group

Vaccination status	Observations N	MR per 1000 PYRS (deaths/PYRS)	MRR (95% CI)	Boys			Girls		
				Observations N	MR per 1000 PYRS (deaths/PYRS)	MRR (95% CI)	Observations N	MR per 1000 PYRS (deaths/PYRS)	MRR (95% CI)
DTP < MV	2415	39.9 (46/1154)	Ref	1249	45.2 (27/598)	Ref	1166	34.1 (19/557)	Ref
DTP = MV	2065	47.0 (46/978)	0.98 (0.62-1.54)	1031	57.5 (28/487)	1.06 (0.59-1.92)	1034	36.7 (18/491)	0.85 (0.42-1.71)
DTP > MV	1940	31.3 (29/927)	0.62 (0.36-1.06)	954	41.4 (19/458)	0.83 (0.42-1.63)	986	21.3 (10/469)	0.39 (0.16-0.94)
DTP, no MV	580	65.9 (18/273)	1.40 (0.77-2.55)	278	76.2 (10/131)	1.39 (0.63-3.05)	302	56.3 (8/142)	1.37 (0.55-3.42)
No DTP, no MV	502	112.0 (26/232)	2.18 (1.21-3.90)	238	71.0 (8/113)	1.58 (0.64-3.91)	264	150.8 (18/119)	2.68 (1.21-5.94)
Out-of-sequence vaccinations combined									
DTP ≥ MV	4005	39.4 (75/1,905)	0.82 (0.54-1.24)	1985	49.7 (47/946)	0.96 (0.56-1.67)	2020	29.2 (28/960)	0.64 (0.33-1.24)

Note: Mortality rate ratios were calculated using Cox proportional hazards models with age as underlying time, stratified by sex and village cluster.

Supplementary table 3 - Registered vaccinations during follow-up (FU) period among those with vaccination status assessed again

	Observations N	Seen card after visit	Vaccinated during FU			
			DTP	MV	Polio	BCG
9-17 months of age Vaccination status						
DTP < MV	1590	1427	31 (2%)	0 (0%)	51 (4%)	3 (0%)
DTP = MV	1491	1324	310 (23%)	0 (0%)	316 (24%)	5 (0%)
DTP > MV	493	433	67 (15%)	0 (0%)	73 (17%)	0 (0%)
DTP, no MV	1816	1561	569 (36%)	866 (55%)	576 (37%)	14 (1%)
No DTP, no MV	547	516	120 (23%)	102 (20%)	118 (23%)	78 (15%)
18-35 months of age Vaccination status						
DTP < MV	2415	2053	18 (1%)	1 (0%)	38 (2%)	0 (0%)
DTP = MV	2065	1726	150 (9%)	0 (0%)	156 (9%)	2 (0%)
DTP > MV	1940	1648	75 (5%)	0 (0%)	82 (5%)	1 (0%)
DTP, no MV	580	429	77 (18%)	104 (24%)	79 (18%)	0 (0%)
No DTP, no MV	502	462	24 (5%)	19 (4%)	23 (5%)	13 (3%)

Supplementary table 4 - Mortality of children, who had received 3 doses of DTP, visited between 9 and 17 months of age according to vaccination group

Vaccination status	Observations N	MR per 1000 PYRS (deaths/PYRS)	MRR (95% CI)	Boys			Girls		
				Observations N	MR per 1000 PYRS (deaths/PYRS)	MRR (95% CI)	Observations N	MR per 1000 PYRS (deaths/PYRS)	MRR (95% CI)
DTP3 < MV	1492	30.4 (14/460)	Ref	774	37.7 (9/239)	Ref	718	22.6 (5/221)	Ref
DTP3 = MV	882	49.6 (13/262)	2.07 (0.88-4.86)	422	64.5 (8/124)	1.77 (0.61-5.15)	460	36.3 (5/138)	2.64 (0.65-10.73)
DTP3 > MV	363	35.8 (3/84)	1.27 (0.33-4.81)	191	23.2 (1/43)	0.76 (0.09-6.43)	172	49.1 (2/41)	2.09 (0.34-12.86)
DTP3, no MV	634	78.4 (20/255)	3.01 (1.42-6.34)	334	88.1 (12/136)	2.56 (0.97-6.74)	300	67.4 (8/119)	3.80 (1.17-12.33)
Out-of-sequence vaccinations combined									
DTP3>=MV	1245	46.3 (16/346)	1.85 (0.82-4.16)	613	53.8 (9/167)	1.53 (0.54-4.29)	632	39.2 (7/179)	2.46 (0.67-9.09)

Note: Mortality rate ratios were calculated using Cox proportional hazards models with age as underlying time, stratified by sex and village cluster