

Additional File 1:

Socio-demographic factors as reported by the parents

Characteristics		N	%
Health centre (n=794)	Kadutu (urban)	99	12
	Kaziba (rural)	109	14
	Malkiya wa Amani (urban)	100	13
	Muhanzi (urban)	106	13
	Muku (rural)	119	15
	Nyantende (rural)	126	16
	Panzi (suburban)	135	17
	Location of residence (n=794)	Urban	304
	Rural	355	44.7
	Suburban	135	17.0
Sex (n=794)	Female	392	49.4
Age (months) (n=794)	< 6	302	38.0
	6 - 12	184	23.2
	> 12 - 24	125	15.7

	> 24 – 60	183	23.1
Nutritional status (n=794)	Undernutrition ¹	286	36.0
Mother's occupation (n=284)	Agriculture	197	69.4
	Self-employed	61	21.4
	Employed	25	8.8
	Unknown	1	0.4
Father's occupation (n=284)	Agriculture	113	39.8
	Self-employed	109	38.4
	Employed	34	12.0
	Unknown	21	7.4
	Other jobs	7	2.4
Mother's education (n=284)	No education	149	52.4
	Primary school	65	22.9
	Secondary school	65	22.9
	Occupational studies	4	1.4
	University	1	0.4
Father's education (n=284)	No education	67	23.6
	Primary school	98	34.5
	Secondary school	85	30.0

	Occupational studies	23	8.1
	University	11	3.9
Number of rooms in the house (n=284)	0-1	91	32.0
	2-3	160	56.4
	> 3	33	11.6
People living in the house (n=284)	0-4	30	10.6
	5-7	133	46.8
	> 7	121	42.6
People sleeping in the same room as the child (n=284)	1 - 2	31	10.9
	3 - 4	218	76.8
	> 4	35	12.3
Children < 5 years of age living in the house (n=284)	0-2	47	16.6
	3-4	221	77.8
	> 4	16	5.6
Siblings (n=284)	0-2	80	28.2
	3-4	103	36.2

	>4	101	35.6
Having animals in the house (n=284)		32	11.2
Partly breastfeeding (months) (n=284)	< 6	7	2.5
	7-12	38	13.4
	12-24	165	58.1
	> 24	74	26.0
Kitchen (n=284)	Enclosed in house	77	27.1
Most important fuel for cooking (n=284)	Wood	180	63.4
	Charcoal	94	33.1
	Electricity	10	3.5
Most used stove for cooking (n=284)	Free stones	179	63.0
	Charcoal stove	94	33.1
	Grid electric	11	3.9
Parental tobacco smoking (n=284)		11	3.9
Immunisation BCG² (n = 794)		783	98.6
Immunisation HiB³ (n = 772)	None	55	71.2

	1 dose	77	10.0
	2 or 3 doses	641	83.0
Immunisation PCV13	None (n= 772)	331	42.9
	1 dose (n = 772)	159	20.6
	2 or 3 doses (n =645 ⁴)	283	43.9
Immunisation measles (n = 431)		343	79.6
Ongoing symptoms (n=284)	Fever ⁵	22	7.7
	Chills	21	7.4
	Cough	88	31.0
	Runny nose	25	8.8
Past history of disease (n=284)	Malaria	44	15.5
	Gastroenteritis	41	14.4
	Neonatal problems	51	18.0
	Asthma/bronchiolitis	14	4.9
	Other diseases ⁶	31	10.9
	HIV	0	0
	Tuberculosis	0	0
	Heart disease	0	0
Previous hospitalisation (n=284)		74	26.0

¹ Undernutrition defined as weight for age or weight for height as a Z score ≤ -2 standard deviations, determined by ENA for smart software 2011 [26],

² BCG =Bacillus Calmette–Guérin vaccine, ³ HiB=*Haemophilus influenzae* type B vaccine,

⁴ 645 = the number of children that were supposed to be given ≥ 2 doses of PCV13 when they were older than 10 weeks or two and a half months,

⁵ Fever = 37.5-39.0°C),

⁶ Other diseases = genetic disorders (sickle cell disease n= 2, Down syndrome n=1), cerebral palsy n=3