

Additional File 5

Medical factors of the children in relation to pneumococcal carriage

Medical Factors		N (%)	Pneumococcal carriage N (%)	OR (95% CI)	p-Value
Nutritional status (n=794)	Under nutrition¹	286(36)	83(29)	2.18(1.54-3.10)	<0.0001
Immunization BCG² (n = 794)	BCG	783(99)	161(21)	Fisher test	0.998
Immunization Hib³ (n = 773)	0 dose (n = 773)	55(7.1)	5(9.1)	1.00	
	1 dose (n =773)	77(10)	15(20)	2.41(0.82-7.11)	0.108
	2 or 3 doses (n = 773)	641(83)	148(23)	3.01(1.75-7.66)	0.021
Immunization PCV13 (n = 773)	2 or 3 doses (n =646⁴)	283(44)	9(3.2)	1.00	
	1 dose (n = 773)	159(21)	46(29)	12.39(5.87-26.16)	<0.0001
	0 dose (n= 773)	331(43)	108(33)	13.47(6.68-27.17)	<0.0001
Measles Immunization (n = 431)	Measles (n = 431)	343(80)	84(24)	1.68(0.90-3.13)	0.1006
Ongoing symptoms (n=284)	Fever⁵ (n=284)	22(7.7)	14(64)	5.52(2.21-13.78)	<0.0001
	Chills (n=284)	21(7.4)	6(29)	1.082(0.40-2.89)	0.87
	Cough (n=284)	87(31)	23(26)	0.95(0.53-1.68)	0.86
	Runny nose (n=284)	25(8.8)	9(36)	1.58(0.67-3.74)	0.29

Past history of diseases (n=284)	Malaria (n=284)	41(14)	11(27)	0.98(0.46-2.08)	0.98
	Gastroenteritis (n=284)	43(15)	13(30)	1.19(0.58-2.44)	0.617
	Neonatal problems⁶ (n=284)	51(18)	22(43)	2.45(1.30-4.61)	0.004
	Asthma/Bronchiolitis (n=284)	14	4(29)	Fisher test	0.998
	Others diseases⁷ (n=284)	31(11)	9(29)	1.11(0.48-2.53)	0.789
	HIV (n=284)	00(0.0)	0.0		
	Tuberculosis (n=284)	00(0.0)	0.0		
Posterior Hospitalization (n=284)	Heart disease (n=284)	00(0.0)	0.0		
		74(26)	27(36)	1.83(1.04-3.25)	0.035
Use of antibiotic last month (n=284)	One month before the sampling	55(19)	23(42)	2.32(1.25-4.31)	0.006

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

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 Neonatal problems = neonatal hospitalisation, neonatal asphyxia or neonatal resuscitation

⁷ Other diseases = genetic disorders (sickle cell disease n= 2, Down syndrome n=1), cerebral palsy n=3

