

Supplementary Table 1A. Effectiveness of up-to-date pneumococcal conjugate vaccine schedule against presumed bacterial pneumonia in HIV-uninfected children born before March 1, 2011

	Age group (weeks)	Cases with hospital controls Cases=991, controls=1511			Cases with hospital controls, Soweto only Cases=674, controls=1075			Cases with community controls Cases=672, controls=1968		
		Strata in model*	Crude VE (95% CI)	Adjusted [†] VE (95% CI)	Strata in model*	Crude VE (95% CI)	Adjusted* VE (95% CI)	Strata in model*	Crude VE (95% CI)	Adjusted [‡] VE (95% CI)
By age group										
	8-15	58/129	-13.7 (-93.7, 33.3)	16.7 (-94.7, 64.4)	38/80	-6.8 (-106.5, 44.8)	74.8 (-7.7, 94.1)	42/86	9.6 (-72.8, 52.7)	-16.1 (-129.2, 41.2)
	16-40	38/361	33.2 (-13.3, 60.6)	35.8 (-23.4, 66.6)	14/223	36.7 (-44.3, 72.3)	52.5 (-36.4, 83.4)	32/221	45.3 (-5.2, 71.6)	49.1 (-0.2, 74.2)
	>=41	38/501	-4.1 (-68.3, 35.6)	15.5 (-50.3, 52.4)	31/371	-5.6 (-85.9, 40.0)	23.5 (-49.9, 61.0)	24/365	55.8 (18.1, 76.1)	46.4 (-4.6, 72.5)
	16-103	71/782	28.2 (-3.6, 50.2)	38.9 (5.0, 60.8)	38/524	31.1 (-13.5, 58.1)	51.4 (9.9, 73.8)	54/519	53.4 (25.5, 70.9)	50.4 (18.0, 70.1)
Overall	>=8	140/991	9.6 (-20.5, 32.2)	22.2 (-11.1, 45.5)	84/674	9.4 (-32.0, 37.7)	38.2 (0.5, 61.7)	99/672	39.9 (13.2, 58.4)	29.9 (-3.6, 52.5)

*The denominator indicates the number of strata (case-control sets) in that sub-group, and the numerator indicates the number of strata contributing to the model. When using conditional logistic regression, only discordant strata (i.e. sets with vaccinated case and at least one non-vaccinated control or with non-vaccinated case and at least one vaccinated control) contribute to the model.

[†] Adjusted for race, sex, discharge diagnosis of malnutrition, low birth weight, exclusive breastfeeding up to the age of 4 months, prior hospitalization for pneumonia, daycare attendance, mother self-reported HIV-infected, maternal education level <11th grade, contact with an adult with tuberculosis, more than 2 people sleeping in room with child, flush toilet in the home, and receipt of ≥1 dose of diphtheria-tetanus pertussis vaccine

[‡] Adjusted for weight –for-age Z score <2

Supplementary Table 1B. Effectiveness of up-to-date pneumococcal conjugate vaccine schedule against presumed bacterial pneumonia in HIV-uninfected children born on or after March 1, 2011

	Age group (weeks)	Cases with hospital controls Cases=335, controls=564		Cases with hospital controls, Soweto only Cases=219, controls=378		Cases with community controls Cases=217, controls=660				
		Strata in model*	Crude VE (95% CI)	Adjusted [†] VE (95% CI)	Strata in model*	Crude VE (95% CI)	Adjusted* VE (95% CI)	Strata in model*	Crude VE (95% CI)	Adjusted [‡] VE (95% CI)
By age group										
	8-15	34/100	-89.7 (-306.1, 11.4)	18.8 (-121.3., 70.2)	23/55	-56.0 (-280.6, 36.1)	40.2 (-95.0, 81.7)	26/56	22.2 (-78.7, 66.2)	18.6 (-119.4, 69.8)
	16-40	6/177	19.9 (-128.1, 71.9)	22.8 (-202.4, 80.3)	5/115	41.3 (-94.5, 82.3)	53.2 (-128.5, 90.)4	12/114	59.5 (-8.4, 84.9)	57.7 (-21.7, 85.3)
	>=41	1/58	62.7 (-528.7, 97.8)	13.7 (-99.2, 62.6)	1/49	--	30.6 (-100.4, 75.9)	1/47	--	--
	16-103	8/235	22.9 (-101.1, 70.5)	39.1 (-112.1, 82.5)	6/164	52.6 (-47.8, 84.8)	63.1 (-56.5, 91.3)	13/161	62.1 (3.6, 85.1)	61.3 (-5.6, 85.8)
Overall	>=8	44/335	-32.8 (-130.8, 23.6)	13.1 (-79.5, 57.9)	30/219	-0.1 (-92.6, 47.9)	42.1 (-34.9, 75.1)	39/217	42.8 (-6.7, 69.3)	42.4 (-15.6, 71.3)

*The denominator indicates the number of strata (case-control sets) in that sub-group, and the numerator indicates the number of strata contributing to the model. When using conditional logistic regression, only discordant strata (i.e. sets with vaccinated case and at least one non-vaccinated control or with non-vaccinated case and at least one vaccinated control) contribute to the model.

[†] Adjusted for race, sex, discharge diagnosis of malnutrition, low birth weight, exclusive breastfeeding up to the age of 4 months, prior hospitalization for pneumonia, daycare attendance, mother self-reported HIV-infected, maternal education level <11th grade, contact with an adult with tuberculosis, more than 2 people sleeping in room with child, flush toilet in the home, and receipt of ≥1 dose of diphtheria-tetanus pertussis vaccine

[‡] Adjusted for weight –for-age Z score <2