

Supplementary Table 1: Incidence of all-cause diarrhoeal hospitalisations (per 1000 population) pre-vaccine introduction (2006–2008) compared to vaccine-era (2010–2014) among HIV-uninfected children <5 years of age in Soweto, South Africa

Year	Hospitalisation incidence (per 1000 population)	Incidence difference ^a (95% CI ^b)	Percent change in incidence ^c (95% CI ^b)	P value
0–11 months				
2006–2008 ^d	50.6 (48.1, 53.2)			
2010	27.5 (25.7, 29.3)	-23.2 (-26.3, -20.1)	-45.8 (-50.1, -41.1)	<0.001
2011	22.5 (20.9, 24.1)	-28.1 (-31.1, -25.2)	-55.6 (-59.3, -51.6)	<0.001
2012	19.4 (18.0, 20.9)	-31.2 (-34.1, -28.3)	-61.6 (-65.0, -58.0)	<0.001
2013	17.8 (16.4, 19.2)	-32.8 (-35.7, -30.0)	-64.9 (-68.0, -61.4)	<0.001
2014	18.6 (17.2, 20.0)	-32.1 (-34.9, -29.2)	-63.3 (-66.6, -59.8)	<0.001
12–23 months				
2006–2008 ^d	13.8 (12.6, 15.2)			
2010	12.0 (10.9, 13.2)	-1.8 (-3.5, -0.1)	-13.1 (-24.2, -0.4)	0.041
2011	8.2 (7.3, 9.2)	-5.6 (-7.2, -4.0)	-40.8 (-49.1, -31.1)	<0.001
2012	7.3 (6.4, 8.2)	-6.5 (-8.1, -5.0)	-47.3 (-55.0, -38.4)	<0.001
2013	7.0 (6.1, 7.9)	-6.8 (-8.4, -5.3)	-49.5 (-57.0, -40.9)	<0.001
2014	8.8 (7.8, 9.8)	-5.0 (-6.7, -3.4)	-36.5 (-45.3, -26.5)	<0.001
24–59 months				
2006–2008 ^d	2.1 (1.8, 2.4)			
2010	2.3 (2.0, 2.6)	0.2 (-0.2, 0.6)	6.9 (-12.2, 22.9)	0.443
2011	2.1 (1.8, 2.4)	-0.0 (-0.4, 0.4)	-1.1 (-18.3, 19.8)	0.910
2012	1.9 (1.6, 2.1)	-0.2 (-0.6, 0.1)	-11.8 (-27.6, 7.4)	0.201
2013	1.7 (1.5, 2.0)	-0.4 (-0.8, -0.0)	-17.9 (-32.9, 0.3)	0.048
2014	2.1 (1.9, 2.4)	0.0 (-0.4, 0.4)	1.2 (-19.5, 18.3)	0.902

^a Incidence in vaccine-era years 2010, 2011, 2012, 2013 and 2014 respectively compared to median incidence in the pre-vaccine years 2006–2008. A negative value indicates a reduction in incidence; a positive value indicates an increase in incidence

^b Confidence interval

^c A negative percent change indicates a reduction in incidence; a positive percent change indicates an increase in incidence

^d Median hospitalisation incidence 2006–2008

Supplementary Table 2: Incidence of all-cause diarrhoeal hospitalisations (per 1000 population) pre-vaccine introduction (2006–2008) compared to vaccine-era (2010–2014) among known HIV-infected children <5 years of age in Soweto, South Africa

Year	Hospitalisation incidence (per 1000 population)	Incidence difference ^a (95% CI ^b)	Percent change in incidence ^c (95% CI ^b)	P value
0–11 months				
2006–2008 ^d	132.5 (114.7, 152.3)			
2010	103.6 (85.8, 124.1)	-28.9 (-55.2, -2.7)	-21.8 (-38.3, -1.3)	0.033
2011	58.4 (45.4, 74.1)	-74.1 (-97.2, -51.0)	-55.9 (-67.0, -41.7)	<0.001
2012	38.8 (28.3, 51.9)	-93.8 (-115.4, -72.1)	-70.8 (-79.3, -59.4)	<0.001
2013	50.3 (38.2, 65.0)	-82.3 (-104.8, -59.7)	-62.1 (-72.2, -48.9)	<0.001
2014	30.5 (21.2, 42.4)	-102.0 (-123.1, -81.0)	-77.0 (-84.4, -66.9)	<0.001
12–23 months				
2006–2008 ^d	37.6 (29.4, 47.4)			
2010	31.8 (23.9, 41.5)	-5.8 (-18.0, 6.3)	-15.5 (-41.7, 22.0)	0.352
2011	20.2 (13.6, 28.8)	-17.5 (-28.8, -6.2)	-46.4 (-66.2, -16.9)	0.003
2012	14.4 (8.9, 22.0)	-23.3 (-33.9, -12.6)	-61.8 (-77.7, -37.2)	<0.001
2013	20.7 (14.0, 29.6)	-16.9 (-28.3, -5.5)	-45.0 (-65.3, -14.6)	0.005
2014	13.2 (8.0, 20.7)	-24.4 (-34.9, -13.9)	-64.8 (-80.0, -41.0)	<0.001
24–59 months				
2006–2008 ^d	7.5 (5.4, 10.3)			
2010	3.9 (2.4, 6.0)	-3.6 (-6.5, -0.8)	-48.4 (-71.4, -9.6)	0.014
2011	4.0 (2.5, 6.2)	-3.5 (-6.4, -0.6)	-46.7 (-70.5, -6.6)	0.020
2012	4.1 (2.5, 6.4)	-3.4 (-6.4, -0.5)	-45.8 (-70.3, -4.1)	0.025
2013	4.4 (2.6, 6.9)	-3.1 (-6.2, -0.1)	-41.6 (-68.0, 3.3)	0.051
2014	3.3 (1.7, 5.6)	-4.3 (-7.2, -1.3)	-56.7 (-78.8, -17.4)	0.006

^a Incidence in vaccine-era years 2010, 2011, 2012, 2013 and 2014 respectively compared to median incidence in the pre-vaccine years 2006–2008. A negative value indicates a reduction in incidence; a positive value indicates an increase in incidence

^b Confidence interval

^c A negative percent change indicates a reduction in incidence; a positive percent change indicates an increase in incidence

^d Median hospitalisation incidence 2006–2008