

Supplemental Table 1. Incidence rate ratios of age- and HIV-stratified tuberculosis case notification rates in South Africa

TB case notification rates overall									2016 vs. 2009	
	2009	2010	2011	2012	2013	2014	2015	2016	IRR	95% CI
0-4 years	626	548	543	470	446	387	341	258	0.41	0.40 - 0.42
5-9 years	299	274	265	205	176	137	116	84	0.28	0.27 - 0.29
10-14 years	151	148	147	134	118	104	93	82	0.54	0.52 - 0.57
15-19 years	313	311	299	284	268	260	250	227	0.73	0.71 - 0.74
HIV-negative TB case notification rates ¹									2016 vs. 2013	
	2009	2010	2011	2012	2013	2014	2015	2016	IRR	95% CI
0-4 years	-	-	-	-	310	286	268	204	0.66	0.64 - 0.67
5-9 years	-	-	-	-	101	85	76	56	0.56	0.53 - 0.58
10-14 years	-	-	-	-	56	52	50	44	0.80	0.75 - 0.84
15-19 years	-	-	-	-	175	177	170	156	0.89	0.86 - 0.92
HIV-positive TB case notification rates ¹									2016 vs. 2013	
	2009	2010	2011	2012	2013	2014	2015	2016	IRR	95% CI
0-4 years	-	-	-	-	3 731	4 133	3 799	3 352	0.90	0.85 - 0.95
5-9 years	-	-	-	-	1 901	1 608	1 441	1 085	0.57	0.53 - 0.61
10-14 years	-	-	-	-	1 940	1 747	1 473	1 327	0.68	0.64 - 0.73
15-19 years	-	-	-	-	2 094	2 081	2 002	1 760	0.84	0.80 - 0.88

¹Patients with an unknown HIV status (n=17551/173909; 10%) were excluded from HIV-stratified TB case notification rates for 2013-2016

CI=Confidence interval; IRR=Incidence rate ratios; TB=Tuberculosis.

Supplemental Table 2. Univariable and age-stratified results of the association between HIV co-infection and age, sex and other clinical characteristics for all children and adolescents (0-19 years) with newly registered drug-susceptible tuberculosis and a known HIV status¹ reported in the ETR.Net 2013-2016 (n=156 398; excluding data from 2004-2012)

	Odds of HIV co-infection		
	OR	95% CI	p-value
Age bands			
0 - 4 years	Reference		
5 - 9 years	2.45	2.36 - 2.53	<0.001
10 - 14 years	4.52	4.36 - 4.69	<0.001
15 - 19 years	2.29	2.23 - 2.36	<0.001
Sex			
Female vs. male (ref)	1.22	1.19 - 1.24	<0.001
<u>Sex stratified by age:</u>			
0-4-year-old females vs. males (ref)	1.00	0.96 - 1.04	0.969
5-9-year-old females vs. males (ref)	0.97	0.92 - 1.02	0.218
10-14-year-old females vs. males (ref)	0.76	0.71 - 0.8	0.000
15- 19-year-old females vs. males (ref)	1.80	1.73 - 1.88	0.000
TB treatment history			
Retreatment vs. New (ref)	2.63	2.48 - 2.78	<0.001
Site of TB Disease			
EPTB only vs. PTB with/without EPTB (ref)	1.78	1.72 - 1.85	<0.001
Disseminated TB ²			
Disseminated disease vs. None (ref)	2.50	2.31 - 2.70	<0.001
Year			
2013	Reference		
2014	1.02	0.99 - 1.05	0.176
2015	0.97	0.94 - 1.00	0.090
2016	1.01	0.98 - 1.05	0.412
Bacteriological investigation			
Completed vs. Not completed (ref)	1.71	1.67 - 1.75	<0.001
Bacteriological status			
Confirmed vs. Clinically diagnosed (ref)	1.00	0.97 - 1.03	0.994

¹Analysis excluded 17 511 (10%) patients with an unknown HIV status during 2013-2016 (0-4 years: 10 032 [12%], 5-9 years: 2 968 [11%], 10-14 years: 1 388 [7%], 15-19 years: 3 123 [7%])

²ICD10 data available for n=141 548 (90.5%)

OR=odd's ratio; CI=confidence interval; EPTB=extra-pulmonary tuberculosis; PTB=pulmonary tuberculosis; ref=reference; TB=tuberculosis.