

Supplementary File 2. Prevalence data, adjustments for diagnostic test performance, missing high-risk populations and urban-to-rural prevalence ratios, and data point weights used in the Spectrum-STI prevalence and trend estimation for adult women (15-49 years)

- (a) Zimbabwe syphilis
- (b) Morocco syphilis
- (c) Zimbabwe gonorrhoea
- (d) Morocco gonorrhoea.

(a) Zimbabwe syphilis

Year	Population	N, tested	TPHA +	TPHA%	RPR +	RPR%	TPHA+ RPR+	TPHA+ RPR+ %	Diagnostic test, data point used	Test-adjusted	High-risk adjusted	Weight
2000	ANC sentinel, 19 sites [1]	5,163	261	5.1%					TPHA	4.0%	4.4%	35%
2001	ANC sentinel, 19 sites [2]	6,790					47	0.69	RPR+TPHA	0.55%	0.61%	35%
2002	ANC sentinel, 19 sites [3]	6,942					124	1.79%	RPR+TPHA	1.79%	1.96%	35%
2004	ANC sentinel, 19 sites [4]	6,775					114	1.68%	RPR+TPHA	1.01%	1.11%	35%
2006	ANC sentinel, 19 sites [5]	7,363					68	0.92%	RPR+TPHA	0.55%	0.61%	35%
2009	ANC sentinel, 19 sites [6]	7,310					59	0.81%	RPR+TPHA	0.48%	0.53%	35%
2012	ANC sentinel, 54 sites [7]	18,455					328	1.78%	RPR+TPHA	1.1%	1.2%	100%
2008	ANC routine screening	33,047	1,125	3.4%					Rapid test	2.4%	2.6%	13%
2010		222,418	9,592	4.3%					Rapid test	3.0%	3.3%	56%
2010		119,929				2,240	1.9%		RPR	1.1%	1.2%	66%
2011		316,463	5,276	1.7%					Rapid test	1.2%	1.3%	82%
2012		414,784	7,676	1.9%					Rapid test	1.3%	1.4%	96%
2013		383,993	8,647						RPR	1.4%	1.5%	93%
2014		392,093	8,406						RPR	1.3%	1.4%	91%

Year	Population	N, tested	TPHA +	TPHA%	RPR +	RPR%	TPHA+ RPR+	TPHA+ RPR+ %	Diagnostic test, data point used	Test-adjusted	High-risk adjusted	Weight
2015		428,933			8,146	1.9%			Rapid test	1.3%	1.5%	99%
2001	Non-ANC adults [8]	F 904			20	2.21%			RPR and TPHA	2.21%	2.4%	10%
		M 692			8	1.16%			RPR and TPHA	1.16%	1.3%	

(b) Morocco syphilis

Year	Population & sites	N	TPH A+	TPHA %	RPR +	RPR%	TPHA+ RPR+	TPHA+ RPR+ %	Diagnostic test, data point used	Test-adjusted	High-risk adjusted	Weight
1996	ANC sentinel, 9 sites	2459			175	7.1%			RPR	4.3%	4.7%	30%
1999	ANC, Rabat/ & Salé [9]	323					5	1.55%	RPR+TPHA	1.55%	1.70%	6.7%
1999	FP, Rabat & Salé [9]	518					18	3.50%	RPR+TPHA	3.50%	3.80%	6.7%
1999	ANC sentinel, 9 sites*	10,135	113	1.11%	154	1.52%			TPHA*	0.89%	0.98%	30%
2001	ANC sentinel, 9 sites	3,154			63	2.00%			RPR	1.20%	1.32%	30%
2002	ANC sentinel, 19 sites	16,666			225	1.35%			RPR	0.81%	0.89%	63%
2004	ANC sentinel, 23 sites	18,302			187	1.02%			RPR	0.61%	0.67%	77%
2005	ANC sentinel, 25 sites*	17,711	129	0.73%	148	1.00%			TPHA*	0.58%	0.64%	83%
2007	ANC sentinel, 27 sites*	16,422	179	1.09%	161	1.13%			TPHA*	0.87%	0.96%	90%
2009	ANC sentinel, >30 sites*	15,290	166	1.09%	135	1.01%			TPHA*	0.87%	0.96%	100%
2010	ANC sentinel, 6 high-HIV sites	3,147	35	1.11%	26	1.11%			TPHA*	0.89%	0.98%	20%
2011-2012	ANC; Agadir, Fes, Rabat, Salé & Temara [10]	252			4	1.59%			RPR	0.95%	1.05%	17%
2011-2012	FP, Agadir, Fes, Rabat, Salé & Temara [10]	537			13	2.42%			RPR	1.45%	1.60%	17%

Year	Population & sites	N	TPH A+	TPHA %	RPR +	RPR%	TPHA+ RPR+	TPHA+ RPR+ %	Diagnostic test, data point used	Test-adjusted	High-risk adjusted	Weight
2012	ANC sentinel, 18 sites	7,981	78	0.98%	53	0.44%			TPHA*	0.78%	0.86%	60%

(c) Zimbabwe gonorrhoea

Year	Country & weight	Location	Population	Geography	N	Specimen	Diagnostic	Observed prevalence	Test-adjusted	Urban-rural adjusted	High-risk adjusted
1999	Zimbabwe, 100%	Greater Harare [11, 12]	PHC attendees for ANC, FP or child preventive cares	Urban	212	Genital	PCR	2.4%	2.2%	2.1%	2.3%
2000	Zimbabwe, 100%	Masvingo Province [12, 13]	Women students, three days school	Rural	245	Urine	PCR	2.9%	2.8%	2.9%	3.2%
2000	Zimbabwe, 100%	Masvingo Province [12, 13]	Adolescent girls recruited house to house	Rural	269	Urine	PCR	1.9%	1.7%	1.8%	2.0%
2000	Zimbabwe, 100%	Masvingo Province [12, 13]	Male students, three days school	Rural	319	Urine	PCR	1.9%	2.2%	2.3%	2.5%
2000	Zimbabwe, 100%	Masvingo Province [12, 13]	Adolescent boys recruited house to house	Rural	314	Urine	PCR	3.5%	4.2%	4.4%	4.9%
2000	Zimbabwe, 100%	Greater Harare [11, 12]	Pregnant women, sentinel sites	Urban	177	Genital	PCR	1.1%	0.89%	0.84%	0.93%
2001	Zimbabwe, 100%	32 rural villages [8]	General population, women	Rural	715	Genital	PCR	1.4%	1.2%	1.2%	1.4%
2001	Zimbabwe, 100%	32 rural villages [8]	General population, men	Rural	564	Urine	PCR	0.89%	0.97%	1.0%	1.1%
2000-2001	Botswana, 10%	Gaborone, 13 ANC clinics [12, 14, 15]	ANC	Urban	703	Genital	LCR	3.0%	2.9%	2.7%	3.0%
2001-2002	Botswana, 10%	Three towns [16]	ANC	Urban	268	Urine	LCR	2.6%	2.5%	2.4%	2.6%
2007-2008	Botswana, 10%	7 districts [12]	ANC	National	337	Urine	PCR	3.3%	3.2%	3.2%	3.6%

Year	Country & weight	Location	Population	Geography	N	Specimen	Diagnostic	Observed prevalence	Test-adjusted	Urban-rural adjusted	High-risk adjusted
1991-1992	Mozambique, 10%	Vilanculos [12, 17]	ANC	Rural	201	Genital	Culture	7.0%	9.2%	9.7%	10.6%
2000	Mozambique, 10%	Manhiça [12, 18]	ANC	Rural	145	Genital	Culture & gram stain	18.6%	23.6%	24.8%	27%
2004	Mozambique, 10%	Multi-center [19]	ANC	National	835	Urine	PCR	2.5%	2.4%	2.3%	2.5%
2004	Mozambique, 10%	Two towns in Tete province [19]	ANC	Urban	835	Urine	PCR	2.5%	2.4%	2.3%	2.5%
2002	South Africa, 10%	Kwamsane, rural KwaZulu Natal [20]	ANC	Rural	185	Genital	CUL	8.1%	10.7%	11.2%	12.4%
2002	South Africa, 10%	Vulindlela [21]	ANC	Rural	221	Genital	PCR	2.3%	2.1%	2.2%	2.4%
2010-2011	South Africa, 10%	Johannesburg [22]	ANC	Urban	109	Genital	PCR	0.92%	0.66%	0.63%	0.69%
2006-2007	South Africa, 10%	Johannesburg [23]	ANC	Urban	2499	Genital	PCR	3.1%	3.0%	2.9%	3.2%
2005-2008	South Africa, 10%	Durban [23]	ANC	Urban	2391	Genital	PCR	3.1%	3.1%	2.9%	3.2%
2007	South Africa, 10%	Pretoria [23]	ANC	Urban	200	Genital	PCR	4.5%	4.5%	4.3%	4.7%
2009	South Africa, 10%	Durban [24]	ANC	Urban	1459	Genital	PCR	6.4%	6.5%	6.2%	6.8%
2005-2008	South Africa, 10%	KwaZulu Natal [23]	ANC	Rural	1177	Genital	PCR	7.0%	7.2%	7.5%	8.3%
2011	South Africa, 10%	Mopani District [25]	ANC	Rural	604	Genital	PCR	10.9%	11.4%	12.0%	13.2%
2002	South Africa, 10%	Hlabisa [20, 26]	ANC	Rural	449	Genital	PCR	4.0%	4.0%	4.2%	4.6%
2000	South Africa, 10%	Khutsong (mining community adjacent to Carletonville) [27]	General population, men	Rural	606	Urine	PCR	3.3%	4.0%	4.2%	4.6%

Year	Country & weight	Location	Population	Geography	N	Specimen	Diagnostic	Observed prevalence	Test-adjusted	Urban-rural adjusted	High-risk adjusted
2000	South Africa, 10%	Khutsong (mining community adjacent to Carletonville) [27]	General population, women	Rural	893	Urine	PCR	8.6%	9.1%	9.6%	10.5%
2006	South Africa, 10%	Durban [28]	ANC	Urban	702	Urine	SDA	0.85%	0.61%	0.57%	0.63%
2006	South Africa, 10%	Hlabisa [28]	ANC	Rural	346	Urine	SDA	1.2%	0.94%	1.0%	1.1%
2002	Zambia, 10%	Lusaka [12, 29]	ANC	Urban	642	Genital	Gram stain	1.6%	0.75%	0.71%	0.78%
2006	Zambia 10%	Lusaka [28]	ANC	Urban	319	Urine	SDA	0.63%	0.36%	0.34%	0.37%
2006-2007	Zambia, 10%	Mazabuka [23]	ANC	Rural	1332	Genital	PCR	0.68%	0.40%	0.42%	0.47%

(d) Morocco gonorrhoea

Year	Country & weight	Location	Population	Geography	N	Specimen	Diagnostic	Observed prevalence	Test-adjusted	Urban-rural adjusted	High-risk adjusted
1999	Morocco, 100%	Rabat and Sale [9]	ANC	Urban	323	Urine	PCR	0.62%	0.35%	0.33%	0.36%
1999	Morocco, 100%	Rabat and Sale [9]	Family Planning clinic attendees	Urban	518	Urine	PCR	0.97%	0.73%	0.69%	0.76%
2011	Morocco, 100%	Rabat/ Salé/ Agadir /Fes [10]	ANC	Urban	252	Genital	PCR	0.79%	0.53	0.50%	0.55%
2011	Morocco, 100%	Rabat/ Salé/ Agadir /Fes [10]	Family planning clinic attendees	Urban	537	Genital	PCR	0.37%	0.08	0.07%	0.08%
1999-2000	Egypt, 10%	Greater Cairo [30]	Family Planning clinic attendees	Urban	108	Urine	PCR	2.8%	2.7%	2.6%	2.8%
1999-2000	Egypt, 10%	Greater Cairo [30]	ANC	Urban	604	Urine	PCR	2.0%	1.8%	1.7%	1.9%

Abbreviations: ANC = antenatal clinic attendants; FP = family planning clinic (female) clients; RPR = rapid plasma reagin; TPHA = *Treponema pallidum* haemagglutination assay; N = sample size tested; Test-adjusted = prevalence after adjusting for diagnostic test sensitivity & specificity; PHC = Primary Health Care; High-risk adjusted = prevalence after (+10%) adjustment for missing high-risk populations. Weight = statistical weight used in the Spectrum prevalence trend estimation; LCR = Ligase Chain Reaction (a type of Nucleic Amplification Assay); PCR: Polymerase Chain Reaction (a type of Nucleic Amplification Assay); SDA = Strand Displacement Assay.

Notes to Supplementary File 2 Table:

* TPHA and RPR were measured in these ANC surveillance rounds, but the combined (TPHA+/RPHR+) prevalence was not recorded. The Spectrum-STI estimation used the TPHA prevalence from these ANC data, which was judged more relevant than the RPR-based prevalence because of higher sensitivity of TPHA.

Syphilis data points without a specific reference stated were provided by the Ministry of Health to the WHO, through the GARPR system, as described in Methods.

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