S1A Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult Women in Papua New Guinea

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Prevalence test-, high risk-, yaw-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Source
1	ANC sentinel survey	2008	RPR (any titer) & TPHA, or SNTTP	34	627	5.42	5.42	4.88	50.0		Urban	2	THE 2009 STI, HIV AND AIDS ANNUAL SURVEILLANCE REPORT National Department of Health STI, HIV and AIDS Surveillance Unit 2010 October
2	ANC sentinel survey	2008	RPR (any titer) & TPHA, or SNTTP	26	226	11.50	11.50	10.35	50.0		Rural	1	THE 2009 STI, HIV AND AIDS ANNUAL SURVEILLANCE REPORT National Department of Health STI, HIV and AIDS Surveillance Unit 2010 October
3	ANC sentinel survey	2009	RPR (any titer) & TPHA, or SNTTP	223	3,251	6.86	6.86	6.17	50.0		Urban	11	National Surveillance report 2010 National Department of Health STI, HIV and AIDS Surveillance Unit Published in January 2012
4	ANC sentinel survey	2009	RPR (any titer) & TPHA, or SNTTP	98	2,345	4.18	4.18	3.76	50.0		Rural	10	National Surveillance report 2010 National Department of Health STI, HIV and AIDS Surveillance Unit Published in January 2012
5	ANC sentinel survey	2010	RPR (any titer) & TPHA, or SNTTP	235	4,172	5.63	5.63	5.07	50.0		Urban	15	National Surveillance report 2010 National Department of Health STI, HIV and AIDS Surveillance Unit Published in January 2012
6	ANC sentinel survey	2010	RPR (any titer) & TPHA, or SNTTP	86	2,548	3.38	3.38	3.04	50.0		Rural	9	National Surveillance report 2010 National Department of Health STI, HIV and AIDS Surveillance Unit Published in January 2012
7	ANC sentinel survey	2011	RPR (any titer) & TPHA, or SNTTP	435	6,005	7.24	7.24	6.52	50.0		Urban/rural	24	THE 2011 ANNUAL STIs, HIV/AIDS SURVEILLANCE REPORT Papua New Guinea National Department of Health STIs, HIV/AIDS Surveillance Unit Published in November 2013
8	ANC sentinel survey	2010	Rapid syphilis test (TPHA-based)	35	2,288	1.53	1.07	0.96	20.0		9 urban clini	9	Unger HW. Sulphadoxine-pyrimethamine plus azithromycin for prevention of low birthweight in Papua New Guinea: a randomised controlled trial
9	ANC sentinel survey	2011	RPR (any titer) & TPHA, or SNTTP	4	391	1.02	1.02	0.92	10.0		North Coast	ANC clinics ir	Wangnapi RA. Prevalence and risk factors for Chlamydia trachomatis, Neisseria gonorrhoea and Trichomonas vaginalis infection in pregnant woman in Papua New Guinea
10	ANC sentinel survey	2014	RPR (any titer) & TPHA, or SNTTP	5	125	4.00	4.00	3.60	10.0		Urban Alotau	1	Badman 2016. A novel point of care testing strategy for sexually transmitted infections among pregnant women in high-burden settings: results of a feasibility study in Papua New Guinea BMC infectious diseases

S1A Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult Women in Papua New Guinea

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Prevalence test-, high risk-, yaw-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Source
11	ANC sentinel survey	2014	RPR (any titer) & TPHA, or SNTTP	17	765	2.22	2.22	2.00	25.0		6 rural and p	6	Vallely et al., Prevalence and risk factors of chlamydia trachomatis, Neisseria gonorrhoeae, trichomonas vaginalis and other sexually transmissible infections among women attending antenatal clinics in three provinces in Papua New Guinea: a cross-sectional survey Sexual Health 2016
12	ANC Routine	2016	Rapid syphilis test (TPHA-based)	982	19,133	5.13	3.59	3.23	4.2	454,627	National		National programme data
13	ANC Routine	2017	Rapid syphilis test (TPHA-based)	1,540	22,669	6.79	4.76	4.28	4.9	465,563	National		National programme data
14	Blood donor screening (Men & Women)	2011	Unknown	1,841	26,963	6.83	5.12	4.61	0*		21 blood ce	21	WHO 2016 global status report on blood safety and availability, https://extranet.who.int/iris/restricted/bitstream/10665/254987/1/9789241565431-eng.pdf
15	Blood donor screening (Men & Women)	2012	Unknown	3,443	26,518	12.98	9.74	8.76	0*		21 blood ce	21	WHO 2016 global status report on blood safety and availability, https://extranet.who.int/iris/restricted/bitstream/10665/254987/1/9789241565431-eng.pdf
16	Blood donor screening (Men & Women)	2013	Unknown	3,646	29,390	12.41	9.30	8.37	0*		21 blood ce	21	WHO 2016 global status report on blood safety and availability, https://extranet.who.int/iris/restricted/bitstream/10665/254987/1/9789241565431-eng.pdf
17	Survey (STI clinic)	2009	RPR (any titer) & TPHA,	134	2,099	6.38	6.38	5.75	0*		Urban/rural	13	THE 2009 STI, HIV AND AIDS ANNUAL SURVEILLANCE REPORT National Department of Health STI, HIV and AIDS Surveillance Unit 2010 October https://www.aidsdatahub.org/sites/default/files/documents/2009_STI_and_HIV_Annual_Surveillance_Report.pdf
18	Survey (STI clinic)	2011	Unknown	82	1,528	5.37	4.02	3.62	0*		Urban/rural	6	THE 2011 ANNUAL STIs, HIV/AIDS SURVEILLANCE REPORT Papua New Guinea National Department of Health STIs, HIV/AIDS Surveillance Unit Published in November 2013

S1A Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult Women in Papua New Guinea

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Prevalence test-, high risk-, yaw-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Source
19	Survey(FSW)	2010	Rapid syphilis test (TPH	31	128	24.22	16.95	15.26	0*		Port Moresb	1	Kelly, A et al. (2011) Askim na save (Ask and understand): People who sell and/or exchange sex in Port Moresby. Key Quantitative Findings. Papua New Guinea Institute of Medical Research and the University of New South Wales: Sydney, Australia.
20	Survey(FSW)	2016	RPR (any titer) & TPHA,	49	674	7.27	7.27	6.54	0*		Port Moresb	1	Kelly-Hanku at al (2018) Kauntim mi tu : Multi-Site Summary Report from the Key Population Integrated Bio-Behavioural Survey, Papua New Guinea. Papua New Guinea Institute of Medical Research and Kirby Institute, UNSW Sydney: Goroka, Papua New Guinea.
21	Survey(FSW)	2017	RPR (any titer) & TPHA,	49	709	6.91	6.91	6.22	0*		Lae	1	Kelly-Hanku at al (2018) Kauntim mi tu : Multi-Site Summary Report from the Key Population Integrated Bio-Behavioural Survey, Papua New Guinea. Papua New Guinea Institute of Medical Research and Kirby Institute, UNSW Sydney: Goroka, Papua New Guinea.
22	Survey(FSW)	2017	RPR (any titer) & TPHA,	21	709	2.96	2.96	2.66	0*		Mt Hagen	1	Kelly-Hanku at al (2018) Kauntim mi tu : Multi-Site Summary Report from the Key Population Integrated Bio-Behavioural Survey, Papua New Guinea. Papua New Guinea Institute of Medical Research and Kirby Institute, UNSW Sydney: Goroka, Papua New Guinea.

Footnotes:
ANC routine screening data were weighted by the year-specific national coverage (%) of screening (i.e. the percentage of ANC-registered women screened for syphilis)
small-scale subnational ANC or population-based surveys were assigned a weight between 10 and 50% depending on the number of sites, sample size and perceived quality of the study.

S1A Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult Women in Papua New Guinea

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Prevalence test-, high risk-, yaw-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Source
Male data:													
1	Survey (MSM/TG)	2017	RPR (any titer) & TPHA,	16	400	4.00	4.00	3.60	0.0		Port Moresb	1	Kelly-Hanku et al. (2017) Kauntim mi tu – Port Moresby: Key findings from the Key Population Integrated Bio-Behavioural Survey, Port Moresby, Papua New Guinea. Papua New Guinea Institute of Medical Research and Kirby Institute, UNSW Sydney: Goroka, Papua New Guinea. https://www.aidsdatahub.org/kauntim-mi-tu-%E2%80%93-port-moresby-key-findings-key-population-integrated-bio-behavioural-survey-port
2	Survey (MSM/TG)	2017	RPR (any titer) & TPHA,	29	352	8.24	8.24	7.41	0.0		Lae	1	Kelly-Hanku at al (2018) Kauntim mi tu : Multi-Site Summary Report from the Key Population Integrated Bio-Behavioural Survey, Papua New Guinea. Papua New Guinea Institute of Medical Research and Kirby Institute, UNSW Sydney: Goroka, Papua New Guinea.

These data were not used in estimations (which were for women only), but are included here so as to give a complete overview of STI prevalence data available
*Used only in sensitivity analysis. For sensitivity analysis, all data sets were added 10% of weights

S1B Table. Gonorrhoea and chlamydia prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Papua New Guinea

						Gonorrhea							Chlamydia								
No	Population	Study year(s)	Location	Age (years)	Geography	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Comments	Source
1	ANC, 2nd visit	2010.5	9 antenatal clinics in Madang and Sumkar districts in Madang Province	>=16	Urban	Genital Fluid	NAAT/PCR/LCR	92	1,362	6.75	7.12	50	Genital Fluid	NAAT/PCR/LCR	56	1,362	4.11	4.43	50	Data from an RCT, with special inclusion criteria	Unger HW. Sulphadoxine-pyrimethamine plus azithromycin for prevention of low birthweight in Papua New Guinea: a randomised controlled trial. BMC Med. 2015
2	ANC, 1st visit	2011 to 2012	North Coast (Madang)	16 to 39	Urban	Genital Fluid	NAAT/PCR/LCR	35	362	9.67	10.34	100	Genital Fluid	NAAT/PCR/LCR	40	362	11.05	12.50	100		Wangnapi RA et al. Prevalence and risk factors for Chlamydia trachomatis, Neisseria gonorrhoeae and Trichomonas vaginalis infection in pregnant women in Papua New Guinea Sex Transm Infect. 2015. 93(3):194-200.
3	ANC any visit	2011 to 2015	6 rural and peri-urban primary health care clinics in 3 provinces (Asaro, Eastern Highlands, Hides, Hela and Hiri, Central)	18-35	Rural	Genital Fluid	NAAT/PCR/LCR	109	765	14.25	17.12	100	Genital Fluid	NAAT/PCR/LCR	175	765	22.88	29.19	100	Cross sectional	Vallely et al., Prevalence and risk factors of chlamydia trachomatis, Neisseria gonorrhoeae, trichomonas vaginalis and other sexually transmissible infections among women attending antenatal clinics in three provinces in Papua New Guinea: a cross-sectional survey. Sexual Health 2016
4	ANC, 1st visit	2014	Urban antenatal clinic in Alotau, Milne Bay province	>=18	Urban	Genital Fluid	NAAT/PCR/LCR	14	125	11.20	12.05	100	Genital Fluid	NAAT/PCR/LCR	25	125	20.00	22.93	100	Prevalence survey	Badman 2016. A novel point of care testing strategy for sexually transmitted infections among pregnant women in high-burden settings: results of a feasibility study in Papua New Guinea. BMC infectious diseases
5	Women attending cervical cancer screening	2011 to 2015	4 provinces (EHP, WHP, Hela, Central)	30 to 59	Rural	Genital Fluid	NAAT/PCR/LCR	49	614	7.98	9.43	100	Genital Fluid	NAAT/PCR/LCR	46	614	7.49	9.30	100	Cross sectional	Vallely et al.Performance of syndromic management for the detection and treatment of genital Chlamydia trachomatis, Neisseria gonorrhoeae and Trichomonas vaginalis among women attending antenatal, well woman and sexual health clinics in Papua New Guinea: a cross-sectional study BMJ Open 2017;7(12):e018630
6	Female, rural community, cluster sampling	1995	Eastern Highlands	15 to 45	Rural	Genital Fluid	NAAT/PCR/LCR	68	373	18.23	21.86	100	Genital Fluid	NAAT/PCR/LCR	99	373	26.54	33.70	100	A stratified random cluster sample of 16 villages, each containing 18 women aged 15-45, in Asaro Valley of population of 19208 in the Eastern Highlands Province	Mgone CS et al. 2002. High prevalence of Neisseria gonorrhoeae and multiple sexually transmitted diseases among rural women in the Eastern Highlands Province of Papua New Guinea, detected by polymerase chain reaction Sex Transm Disease. 29(12): 775-779.
7	Women attending STI clinic	2011 to 2015	4 provinces (EHP, WHP, Hela, Central)	>=18	Rural	Genital Fluid	NAAT/PCR/LCR	63	385	16.36	19.72	0*	Genital Fluid	NAAT/PCR/LCR	78	385	20.26	25.80	0*	Cross sectional	Vallely et al.Performance of syndromic management for the detection and treatment of genital Chlamydia trachomatis, Neisseria gonorrhoeae and Trichomonas vaginalis among women attending antenatal, well woman and sexual health clinics in Papua New Guinea: a cross-sectional study BMJ Open 2017;7(12):e018630

S1B Table. Gonorrhoea and chlamydia prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Papua New Guinea

						Gonorrhea						Chlamydia								
No	Population	Study year(s)	Location	Age (years)	Geography	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Comments	Source
8	Sex workers	2017	Three cities (Port Moresby, Lae, and Mt. Hagen)	>=12	Urban	Genital Fluid	NAAT/PCR/LCR	386	2,092	18.45	20.09	0*	Genital Fluid	NAAT/PCR/LCR	680	2,092	32.50	37.54	0*	IBBS using RDS	Kelly-Hanku at al (2018) Kauntim mi tu : Multi-Site Summary Report from the Key Population Integrated Bio-Behavioural Survey, Papua New Guinea. Papua New Guinea Institute of Medical Research and Kirby Institute, UNSW Sydney: Goroka, Papua New Guinea.

Footnotes:
*Studies covering multiple years which did not provide the data by single year, were put at the midpoint of the study period
*Used only in sensitivity analysis. For sensitivity analysis, all data POINTS added were assigned a 10% statistical weight.

Male data:

1	MSM/TG	2016	Port Moresby	>=15	Urban	Genital Fluid	NAAT/PCR/LCR	14	400	3.5	4.33	0	Urine	NAAT/PCR/LCR	49	400	12.25	13.65	0	IBBS using RDS	Kelly-Hanku et al. (2017) Kauntim mi tu – Port Moresby: Key findings from the Key Population Integrated Bio-Behavioural Survey, Port Moresby, Papua New Guinea. Papua New Guinea Institute of Medical Research and Kirby Institute, UNSW Sydney: Goroka, Papua New Guinea. https://www.aidsdatahub.org/kauntim-mi-tu-%E2%80%93-port-moresby-key-findings-key-population-integrated-bio-behavioural-survey-port

These data were not used in estimations (which were for women only), but are included here so as to give a complete overview of STI prevalence data available

S1C Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Samoa

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Comments	Source
1	ANC sentinel survey	2000	RPR (any titer) & TPHA, or SNTTP	2	441	0.45	0.50	25.0		Apia, capital, ANC in national hospital	1		MOH. Sullivan EA et al. Prevalence of sexually transmitted diseases and human immunodeficiency virus among women attending prenatal services in Apia, Samoa. 2004. Int J of STD & AIDS 15(2): 116-119. or Antinatal STI survey; http://apps.who.int/iris/bitstream/handle/10665/206808/Antenatal_STI_survey_apia_samoa_eng.pdf?sequence=1&isAllowed=y
2	ANC sentinel survey	2004.5	RPR (any titer) & TPHA, or SNTTP	0	299	0.00	0.00	25.0		Apoa capital ('national') hospital, Medcen private clinic and Samoa family health association			Second generation surveillance surveys of antenatal women in Samoa 2008, MOH, https://aidsdatahub.org/sites/default/files/publication/Second_Generation_Surveillance_Survey_Samoa_2008.pdf
3	ANC Routine	2013	RPR/VDRL	0	2,458	0.00	0.00	25.6	9616	National data		outine testing ANC females, national	Routine surveillance MOH and NHS
4	ANC Routine	2014	RPR (any titer) & TPHA, or SNTTP	4	3,027	0.13	0.15	31.5	9616	National data		Routine testing ANC females, national	Routine surveillance MOH and NHS
5	ANC Routine	2015	RPR (any titer) & TPHA, or SNTTP	2	2,885	0.07	0.08	30.0	9616	National data		Routine testing ANC females, national	Routine surveillance MOH and NHS
6	ANC Routine	2016	RPR (any titer) & TPHA, or SNTTP	12	4,505	0.27	0.29	46.8	9616	National data		routine testing ANC females, national GAM report says "An estimated 9,616 women were pregnant at anytime during 2015. 2915 women recieved a full blood panel of STI testing on their first ANC visit in 2015. This means that only 30.3% of the antenatal population shows up for care at national health centers. Therefore, this data is technically not representative of the majority of the ANC population."	Routine surveillance MOH and NHS
7	ANC Routine	2017	RPR (any titer) & TPHA, or SNTTP	6	4,384	0.14	0.15	45.6	9616	National data		Routine testing ANC females, national	Routine surveillance MOH and NHS
8	unknown	2010	Unknown	5	216	2.31	1.91	0.0				Routine testing ANC females, national	Un-tracable
9	Immigant routine screening (Men)	2011	RPR/VDRL	0	387	0.00	0.00	0*		National data			Routine National Surveillance Data 2013, MoH and NHS
10	Immigant routine screening (Women)	2011	RPR/VDRL	1	288	0.35	0.20	0*		National data			MoH and NHS patient records
11	Immigant routine screening (Men & Women)	2012	RPR/VDRL	0	605	0.00	0.00	0*		National data		Immigration routine testing (both foreign and citizen testing for immigration clearance). Vast majority are the general	MoH and NHS patient records
12	Immigant routine screening (Men & Women)	2013	RPR/VDRL	1	703	0.14	0.08	0*		National data			Routine National Surveillance Data 2013, MoH and NHS

S1C Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Samoa

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Comments	Source
13	Immigant routine screening (Men)	2014	RPR (any titer) & TPHA, or SNTTP	2	320	0.63	0.69	0*		National data		majority are the general population, because this screening is not only for the immigrants coming to Samoa, but also for seasonal workers who are Samoa citizens going abroad.	MoH and NHS patient records
14	Immigant routine screening (Women)	2014	RPR (any titer) & TPHA, or SNTTP	2	165	1.21	1.33	0*		National data			MoH and NHS patient records
15	Immigant routine screening (Men & Women)	2015	RPR (any titer) & TPHA, or SNTTP	7	498	1.41	1.55	0*		National data			MoH and NHS patient records
16	Immigant routine screening (Men & Women)	2016	RPR (any titer) & TPHA, or SNTTP	25	1,764	1.42	1.56	0*		National data			MoH and NHS patient records
17	Immigant routine screening (Men & Women)	2017	RPR (any titer) & TPHA, or SNTTP	18	1,698	1.06	1.17	0*		National data			MoH and NHS patient records
18	Blood donor screening (Men)	2010	RPR (any titer) & TPHA, or SNTTP	0	952	0.00	0.00	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
19	Blood donor screening (Women)	2010	RPR (any titer) & TPHA, or SNTTP	0	83	0.00	0.00	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
20	Blood donor screening (Men)	2011	RPR (any titer) & TPHA, or SNTTP	0	1,367	0.00	0.00	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
21	Blood donor screening (Women)	2011	RPR (any titer) & TPHA, or SNTTP	0	113	0.00	0.00	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
22	Blood donor screening (Men & Women)	2012	RPR (any titer) & TPHA, or SNTTP	1	2,073	0.05	0.05	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
23	Blood donor screening (Men)	2013	RPR (any titer) & TPHA, or SNTTP	8	1,852	0.43	0.48	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
24	Blood donor screening (Women)	2013	RPR (any titer) & TPHA, or SNTTP	7	3,702	0.19	0.21	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
25	Blood donor screening (Men & Women)	2017	RPR (any titer) & TPHA, or SNTTP	6	3,952	0.15	0.17	0*		National data		Mandatory testings for blood donors and National Hospital laboratory testings	MoH and NHS patient records
26	All non-routine programme data except for ANC	2014	RPR/VDRL	10	315	3.17	1.85	0.0		National data		All non-routine programme data except for ANC	MoH and NHS patient records

Male data:

NONE

ANC routine screening data were weighted by the year-specific national coverage (%) of screening (i.e. the percentage of ANC-registered women screened for syphilis)

*Used only in sensitivity analysis. For sensitivity analysis, all data POINTS added were assigned a 10% statistical weight.

S1D Table. Gonorrhoea prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Samoa

						Gonorrhea							Chlamydia								
No	Population	Study year(s)	Location	Age (years)	Geography	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Comments	Source
1	ANC	1999.5	Apia	15 to 48	Urban/Rural	Genital Fluid	NAAT/PCR/LCR	14	427	3.28	3.52	50.0	Genital Fluid	NAAT/PCR/LCR	127	427	29.74	36.68	50.0	Genital fluid (tampon swabs)	Sullivan EA et al. 2004. Int J of STD & AIDS 15(2): 116-119.
2	ANC	2004.5	Apia	15 to 44	Urban/Rural	Urine	NAAT/PCR/LCR	7	298	2.35	2.47	50.0	Urine	NAAT/PCR/LCR	80	299	26.76	33.65	50.0		WHO (2006). Second generation surveillance survey of HIV, other STIs and risk behaviours in 6 Pacific Island countries (2004-2005)
3	ANC	2008	Apia 'national' hospital, medcen private clinic and samoa family health association	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	4	321	1.25	1.14	50.0	Urine	NAAT/PCR/LCR	88	321	27.41	34.49	50.0		Second generation surveillance surveys of antenatal women in Samoa 2008 https://aidsdatahub.org/sites/default/files/publication/Second_Generation_Surveillance_Survey_Samoa_2008.pdf
4	ANC	2011	National	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	99	3,867	2.56	2.72	100.0	Urine	NAAT/PCR/LCR	604	3,867	15.62	19.54	100.0	Routine testing ANC females, national	National program data
5	ANC	2012	National	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	1	4	25.00	0.28	0.0	Urine	NAAT/PCR/LCR	790	2,803	28.18	35.46	100.0	Routine testing ANC females, national	National program data
6	ANC	2013	National	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	0	6	0.00	0.18	0.0	Urine	NAAT/PCR/LCR	584	2,341	24.95	31.36	100.0	Routine testing ANC females, national	National program data
7	ANC	2014	National	15 to 49	Urban/Rural	-	-	-	-	-	-	-	Urine	NAAT/PCR/LCR	253	1,048	24.14	30.34	100.0	Routine testing ANC females, national	National program data
8	ANC	2015	National	15 to 49	Urban/Rural	-	-	-	-	-	-	-	Urine	NAAT/PCR/LCR	153	592	25.84	32.50	85.0	Routine testing ANC females, national	National program data
9	ANC	2017	National	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	27	480	5.63	6.42	25.0	Urine	NAAT/PCR/LCR	125	481	25.99	32.68	85.0	**Excluded in sensitivity analysis for gonorrhoea**	National program data
10	Sexually active females who do not use condoms - cluster sampling	2015	National	18-29	Urban/Rural	-	-	-	-	-	-	-	Urine	NAAT/PCR/LCR	86	239	35.98	45.35	0*	Sexually active females who do not use condoms	Walsh, Trans R Soc Trop Med Hyg 2015; 109: 245–251

Male data:
NONE
Footnotes:
*Used only in sensitivity analysis. For sensitivity analysis, all data POINTS added were assigned a 10% statistical weight.

S1F Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Federated States of Micronesia

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Comments	Source
1	ANC Routine	2012	RPR/VDRL	43	2,038	2.11	1.23	79.0	2,581	National data	NA		FSM STI HIV Annual Report
2	ANC Routine	2013	RPR/VDRL	61	1,559	3.91	2.28	73.6	2,118	National data	NA		FSM PCSI Indicator Report and FSM STD Quarterly Reports
3	ANC Routine	2014	RPR (any titer) & TPHA, or SNTTP	52	1,881	2.76	3.04	97.2	1,937	National data	NA		2014 FSM PCSI Indicator and FSM STI HIV Annual Report
4	ANC Routine	2015	RPR (any titer) & TPHA, or SNTTP	43	1,706	2.52	2.77	88.0	1,938	National data	NA	Data provided here is for the whole FSM	2015 FSM STI HIV Annual Report
5	ANC Routine	2015	RPR (any titer) & TPHA, or SNTTP	32	577	5.55	6.10	0		Data for Pohnpei State	NA	Excluded because these data are a subset of those in the preceding row	Pohnpei HIV/STI Data Report
6	ANC Routine	2016	RPR (any titer) & TPHA, or SNTTP	28	1,883	1.49	1.64	100	1,883	National data	NA		2016 FSM STI HIV Annual Report
7	ANC Routine	2017	RPR (any titer) & TPHA, or SNTTP	10	1,841	0.54	0.60	99.9	1,843	National data	NA		2017 FSM STI HIV Annual Report

Male data:
NONE

Footnotes:
ANC routine screening data were weighted by the year-specific national coverage (%) of screening (i.e. the percentage of ANC-registered women screened for syphilis)

S1G Table. Gonorrhoea and chlamydia prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Federated States of Micronesia.

						Gonorrhea						Chlamydia							
No	Population	Study year(s)	Location	Age (years)	Geography	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Comments	Source
1	ANC	2014	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	5	176	2.84	3.06	66.0	Urine	NAAT/PCR/LCR	80	607	13.18	16.45	40.0		FSM HIV-STI Annual Report
2	Physical Exam - Employment, Military Recruits, Students (women)	2014	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	1	89	1.12	0.99	34.0	Urine	NAAT/PCR/LCR	199	844	23.58	29.63	56.0		FSM HIV-STI Annual Report
3	Family Planning (women)	2014	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	1	7	14.29	16.85	0.0	Urine	NAAT/PCR/LCR	11	57	19.30	24.20	4.0	excluded for gonorrhoea estimation because of small sample size	FSM HIV-STI Annual Report
4	ANC	2015	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	4	343	1.17	1.04	58.0	Urine	NAAT/PCR/LCR	32	308	10.39	12.91	33.0		FSM HIV-STI Annual Report
5	Physical Exam - Employment, Military Recruits, Students (women)	2015	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	2	171	1.17	1.05	29.0	Urine	NAAT/PCR/LCR	137	586	23.38	29.37	60.0		FSM HIV-STI Annual Report
6	Family Planning (women)	2015	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	3	74	4.05	4.52	13.0	Urine	NAAT/PCR/LCR	31	90	34.44	43.40	7.0		FSM HIV-STI Annual Report
7	ANC	2016	National	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	3	281	1.07	0.92	61.0	Urine	NAAT/PCR/LCR	12	100	12.00	14.95	28.0		FSM HIV-STI Annual Report
8	Physical Exam - Employment, Military Recruits, Students (women)	2016	National	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	2	178	1.12	0.99	39.0	Urine	NAAT/PCR/LCR	41	259	15.83	19.81	72.0		FSM HIV-STI Annual Report
9	Family Planning (women)	2016	National	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	0	45	0.00	0.02	0*	Urine	NAAT/PCR/LCR	7	38	18.42	23.09	0*	excluded because of small sample size	FSM HIV-STI Annual Report
10	ANC	2017	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	6	239	2.51	2.66	62.0	Urine	NAAT/PCR/LCR	6	57	10.53	13.09	14.0		FSM HIV-STI Annual Report
11	Physical Exam - Employment, Military Recruits, Students (women)	2017	National	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	2	145	1.38	1.30	38.0	Urine	NAAT/PCR/LCR	47	364	12.91	16.11	86.0		FSM HIV-STI Annual Report
12	Family Planning (women)	2017	National	15 to 49+	Urban/Rural	Urine	NAAT/PCR/LCR	5	40	12.50	14.70	0*	Urine	NAAT/PCR/LCR	13	33	39.39	49.67	0*	excluded because of small sample size	FSM HIV-STI Annual Report
Male data (not used in estimations):																					
13	Physical Exam - Employment, Mi	2014	National	15 to 35+	Urban/Rur	Urine	NAAT/PCI	0	99	0.00	0.01	50.0	Urine	NAAT/PCR/L	54	427	12.65	15.09	0.0		FSM HIV-STI Annual Report
14	Physical Exam - Employment, Mi	2015	National	15 to 35+	Urban/Rur	Urine	NAAT/PCI	3	166	1.81	2.32	50.0	Urine	NAAT/PCR/L	40	253	15.81	19.08	0.0		FSM HIV-STI Annual Report
15	Physical Exam - Employment, Mi	2016	National	15 to 49	Urban/Rur	Urine	NAAT/PCI	2	222	0.90	1.09	50.0	Urine	NAAT/PCR/L	14	86	16.28	19.68	0.0		FSM HIV-STI Annual Report
16	Physical Exam - Employment, Mi	2017	National	15 to 35+	Urban/Rur	Urine	NAAT/PCI	2	164	1.22	1.52	50.0	Urine	NAAT/PCR/L	12	67	17.91	21.74	0.0		FSM HIV-STI Annual Report

These data were not used in estimations (which were for women only), but are included here so as to give a complete overview of STI prevalence data available

For sensitivity analysis, all datasets with * were given 10% weight

S1H Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Fiji

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Comments	Source
1	ANC sentinel survey	2004	RPR (any titer) & TPHA, or SNTTP	8	303	2.64	2.90	50.0		War Memorial Hospital, Suva	1		WHO (2006). Second generation surveillance survey of HIV, other STIs and risk behaviours in 6 Pacific Island countries (2004-2005); Cliffe, SJ, Tabrizi, S, Sullivan, EA. Chlamydia in the Pacific region, the silent epidemic. Sex Transm Dis. 2008; 35(9): 801-6.
2	ANC Routine	2008	RPR (any titer) & TPHA, or SNTTP	1,049	20,381	5.15	5.66	100.0		National			Newman-L et al. 2013 Global Estimates of Syphilis in Pregnancy and Associated Adverse Outcomes: Analysis of Multinational Antenatal Surveillance Data. PLOS MEDICINE. https://doi.org/10.1371/journal.pmed.1001396
3	ANC Routine	2009	RPR (any titer) & TPHA, or SNTTP	651	23,178	2.81	3.09	10.0		National		There is an issue with the quality of data since the number tested is even higher than estimated number of pregnancies in Fiji (around 21,000 in 2012). Hence only 10% wt is applied	Numerator from 3 divisional hospitals, Ra, Nausori Navua and Korovou Maternity Units, 16 sub-divisional hospitals, and Rotuma hospital.
4	ANC sentinel survey	2011	RPR (any titer) & TPHA, or SNTTP	98	2,168	4.52	4.97	5.0		Naurosi	1		Tuinakelo, 2013. Prevalence of anaemia, syphilis and hepatitis B in pregnant women in Nausori, Fiji. Publich Health Action. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4463080/
5	ANC Routine	2012	RPR (any titer) & TPHA, or SNTTP	128	13,977	0.92	1.01	66.7	20,970	National			National programme data
6	ANC Routine	2015	RPR (any titer) & TPHA, or SNTTP	165	6,550	2.52	2.77	31.7	20,651	National		CWMH hospital is the national referral centre and also has women delivering form the Eastern divisions (maritime islands) , as well as the central division. CWMH captures on average 33% of all births nationally	The source for the information is the Laboratory Information Systems, 2015 and includes Labasa and CWMH figures.
7	ANC Routine	2016	RPR (any titer) & TPHA, or SNTTP	311	8,739	3.56	3.91	45.2	19,350	National			The source for the information is the Laboratory Information Systems, 2016 and includes only Lautoka and CWMH figures
8	ANC Routine	2017	RPR (any titer) & TPHA, or SNTTP	435	7,678	5.67	6.23	38.7	19,842	National			Laboratory Information Systems, 2017

S1H Table. Syphilis prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Fiji

No.	Datatype	Year	Diagnostic test	N positive	N tested	Observed prevalence	Prevalence test-, high risk-adjusted	Weight for spectrum fitting	Number of test-eligible women in ANC	Location	Number of sites	Comments	Source
9	ANC Routine	2010	RPR (any titer) & TPHA, or SNTTP	1,591	40,064	3.97	4.37	0.0		Labasa, Lautoka and CWMH		Number tested cannot be verified and much higher than estimated number of pregnancies. Country decided to exclude the data point from analysis. CWMH = the national referral centre, covering women from the Eastern (maritime islands) & central divisions, for a total averaging 33% of all births nationally.	
10	ANC Routine	2014	RPR (any titer) & TPHA, or SNTTP	83	2,710	3.06	3.37	0.0		Labasa and CWMH		Number tested cannot be verified and country decided to exclude data point from the analysis. CWMH = the national referral centre, covering women from the Eastern (maritime islands) & central divisions, for a total averaging 33% of all births nationally.	Laboratory Information Systems, 2014

Male data:
NONE
Footnotes:
ANC routine screening data were weighted by the year-specific national coverage (%) of screening (i.e. the percentage of ANC-registered women screened for syphilis)

S1I Table. Gonorrhoea prevalence data used in the Spectrum-STI prevalence trend estimation for 15-49 year-old adult women in Fiji

						Gonorrhea							Chlamydia								
No	Population	Study year(s)	Location	Age (years)	Geography	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Clinical specimen	Diagnostic test	Number positive	Number tested	Prevalence	Prevalence, Test, Geography & High Risk Population Adjusted	Weight for Spectrum fitting (%)	Comments	Source
1	ANC	2004	Suva		Urban	Urine	NAAT/PCR/LCR	5	303	1.65	1.51	100.0	Urine	NAAT/PCR/LCR	88	303	29.04	34.01	100.0		WHO (2006). Second generation surveillance survey of HIV, other STIs and risk behaviours in 6 Pacific Island countries (2004-2005) https://journals.lww.com/stdjournal/Fulltext/2008/09000/Chlamydia_in_the_Pacific_Region,_the_Silent.6.aspx
2	ANC	2014	Micronesia (Fed. States of)	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	5	176	2.84	3.06	10.0	Urine	NAAT/PCR/LCR	199	844	23.58	29.63	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
3	Physical Exam - Employment, Military Recruits, Students	2014	Micronesia (Fed. States of)	15 to 35+	Urban/Rural	Urine	NAAT/PCR/LCR	1	89	1.12	0.99	10.0	Urine	NAAT/PCR/LCR	80	607	13.18	16.45	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
4	Family Planning (Women)	2014	Micronesia (Fed. States of)	15 to 49	Urban/Rural		-	-	-	-	-	-	Urine	NAAT/PCR/LCR	11	57	19.30	24.20	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
5	ANC	2015	Micronesia (Fed. States of)	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	4	343	1.17	1.04	10.0	Urine	NAAT/PCR/LCR	137	586	23.38	29.37	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
6	Physical Exam - Employment, Military Recruits, Students	2015	Micronesia (Fed. States of)	15 to 49+	Urban/Rural	Urine	NAAT/PCR/LCR	2	171	1.17	1.05	10.0	Urine	NAAT/PCR/LCR	32	308	10.39	12.91	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
7	Family Planning	2015	Micronesia (Fed. States of)	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	3	74	4.05	4.52	10.0	Urine	NAAT/PCR/LCR	31	90	34.44	43.40	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
8	ANC	2016	Micronesia (Fed. States of)	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	3	281	1.07	0.92	10.0	Urine	NAAT/PCR/LCR	41	259	15.83	19.81	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
9	Physical Exam - Employment, Military Recruits, Students	2016	Micronesia (Fed. States of)	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	2	178	1.12	0.99	10.0	Urine	NAAT/PCR/LCR	12	100	12.00	14.95	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
10	Family Planning	2016	Micronesia (Fed. States of)	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	0	45	0.00	0.02	0.0	Urine	NAAT/PCR/LCR	7	38	18.42	23.09	0.0	Excluded due to small sample size	FSM HIV-STI Annual Report
11	ANC	2017	Micronesia (Fed. States of)	15 to 49	Urban/Rural	Urine	NAAT/PCR/LCR	6	239	2.51	2.66	10.0	Urine	NAAT/PCR/LCR	47	364	12.91	16.11	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
12	Physical Exam - Employment, Military Recruits, Students	2017	Micronesia (Fed. States of)	15 to 49+	Urban/Rural	Urine	NAAT/PCR/LCR	2	145	1.38	1.30	10.0	Urine	NAAT/PCR/LCR	6	57	10.53	13.09	10.0	10% weight allocated for the data from FSM	FSM HIV-STI Annual Report
13	Family Planning	2017	Micronesia (Fed. States of)	15 to 49+	Urban/Rural	Urine	NAAT/PCR/LCR	5	40	12.50	14.70	0.0	Urine	NAAT/PCR/LCR	13	33	39.39	49.67	0.0	Excluded due to small sample size	FSM HIV-STI Annual Report

Male data:
NONE
Footnotes:
We supplemented one data point from Fiji with the 10 data points from FSM, judged most similar to Fiji in terms of STI epidemiology , underlying drivers and STI-related health care. Fiji's one country data point was assigned a weight of 100%, and the FSM data points each 10%