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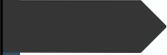
Journal of STD

Anik Ray RN



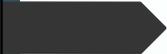
The Prevalence of *Mycoplasma genitalium* and Association With Human Immunodeficiency Virus Infection in Symptomatic Patients, Johannesburg, South Africa, 2007–2014

Mahlape P. Mahlangu, MSc, Etienne E. Müller, PhD, Johanna M.E. Venter, MSc,
Dumisile V. Maseko, BTech, and Ranmini S. Kularatne, MBChB, FCPATH(SA)



Background/Aim

- ▶ MG has been associated with genital discharge syndrome but there is limited prevalence data available in South Africa compared to other STI's.
- ▶ Studies in Western Europe, North America, and Australia estimate the prevalence MG between 1% - 3.3%
- ▶ MG has been associated with HIV acquisition and coinfection in a number of studies
- ▶ The aim of this study was to determine the prevalence of MG in HIV co-infected patients presenting to a primary health care facility in Johannesburg from 2007-2014.



Methods

- ▶ Participants attending Alexandria Health Centre in Johannesburg were chosen if they presented with urethral or vaginal D/C
- ▶ Demographic data collected by nurse administered questionnaire
- ▶ Urine, endocervical swab, and 10ml of blood were collected from each patient.
- ▶ Data analysis was performed using Stata

Results

- ▶ 4731 total – Male 2509, female 2222
- ▶ The median age of both males and females at enrolment was 28 years (interquartile range, 24–32 and 23–34, respectively)
- ▶ During the 8-year surveillance period, the overall relative prevalence of *M. genitalium* infections among males and females was 8.9% and 10.6%, respectively

Results

TABLE 1. Association of HIV Coinfection With *M. genitalium* Among Males and Females (2007–2014)

Other STIs	All				MUS				VDS						
	Total	HIV- (%)	HIV+ (%)	P	Total	HIV- (%)	HIV+ (%)	P	Total	HIV- (%)	HIV+ (%)	P			
Absence of other STIs	MG-	4510	2681 (59.5%)	1829 (40.5%)	0.014	MG-	2414	1601 (66.3%)	813 (33.7%)	P = 0.201	MG-	2096	1080 (51.5%)	1016 (48.5%)	< 0.001
	MG+	221	113 (51.1%)	108 (48.9%)		MG+	95	69 (72.6%)	26 (27.4%)		MG+	126	44 (34.9%)	82 (65.1%)	
	Total	4731	2794	1937		Total	2509	1670	839		Total	2222	1124	1098	
Presence of other STIs	MG-	4499	2677 (59.5%)	1822 (40.5%)	0.006	MG-	2382	1592 (66.8%)	790 (33.2%)	0.207	MG-	2117	1085 (51.2%)	1032 (48.8%)	0.005
	MG+	232	117 (50.4%)	115 (49.6%)		MG+	127	78 (61.4%)	49 (38.6%)		MG+	105	39 (37.1%)	66 (62.9%)	
	Total	4731	2794	1937		Total	2509	1670	839		Total	2222	1124	1098	

MG, *Mycoplasma genitalium*.

Limitations

- ▶ Patients were chosen from one public health center
- ▶ Inclusion criteria for women was too general



Dear Chief Executive

Our ref: H19/54139-1

Testing for HIV in Emergency Departments

It is important that all patients who present to Emergency Departments (ED) with a [fever of unknown origin](#) or undiagnosed viral illness are tested for HIV, irrespective of the presence of HIV risk factors.

Making HIV testing simpler

ED clinicians have identified barriers to testing for HIV, including concerns about how to manage HIV results and now outdated requirements to obtain written informed consent for testing.

These barriers to HIV testing in patients where it is clinically indicated have been removed because:

- no special consent is required before ordering HIV testing.
- ED staff can rely on the [HIV Support Program](#) to co-ordinate patient follow up.

Sexual health services follow up all positive HIV test results

ED clinicians do not need to inform a patient of their positive HIV test result, as this is a role for your LHD sexual health service and HIV clinicians. The NSW [HIV Support Program](#) will coordinate patient follow-up in this way:

1. Laboratory notifies positive HIV result to a HIV Surveillance Officer
2. HIV Surveillance Officer notifies LHD HIV clinician (HIV Support Program coordinator)
3. LHD HIV clinician contacts the doctor who ordered the test to obtain any further useful information and to arrange follow up for the patient.

LHDs can also implement local processes so that all ED HIV positive pathology results go directly to the sexual health service for follow-up. This already occurs in some LHDs.

Pre and post-test counselling for HIV is no longer required

Informed consent for HIV testing is now the same as obtaining consent for any pathology testing.



Emergency Department Testing Patterns for Sexually Transmitted Diseases in North Texas

Arti Barnes, MD, MPH, Katelyn K. Jetelina, PhD, Andrea C. Betts, MPH, Theresa
Mendoza,
Pranavi Sreeramoju, MD, and Jasmin A. Tiro, PhD



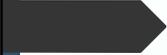
Aim

- ▶ Aim - to explore STD testing patterns in EDs in a large, urban metroplex in North Texas, a high prevalence region.



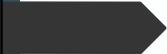
Method

- ▶ First visit to the ED only from July 2014 through June 2015
- ▶ CT/GC, HIV and Syphilis testing only
- ▶ Statistical analysis – univariate distribution



Results

- ▶ 18 to 44 years of age (72%) and female (72%)
- ▶ 1/3 of patient who presented with genitourinary system issues or symptoms were tested for at least one STI
- ▶ CT and GC most frequently conducted test, followed by HIV



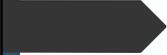
Discussion

- ▶ Vast majority of at risk individuals only received one test type
- ▶ Providers should increase co-testing for STI's based on epidemiological trends
- ▶ Ongoing training as per guidelines



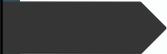
Improving Tracking of Postdischarge Results
of Sexually
Transmitted Infection Screening Tests in
Hospitalized
Adolescents and Young Adults: A Quality
Improvement Initiative

Sofya Maslyanskaya, MD, Elizabeth M. Alderman, MD,
Avni M. Bhalakia, MD, and Michael L. Rinke, MD, PhD



Aim

- ▶ To understand whether quality improvement (QI) interventions improve tracking of screening CT and GC laboratory test results pending at the time of hospital discharge of AYA patients admitted for non-STI related conditions.



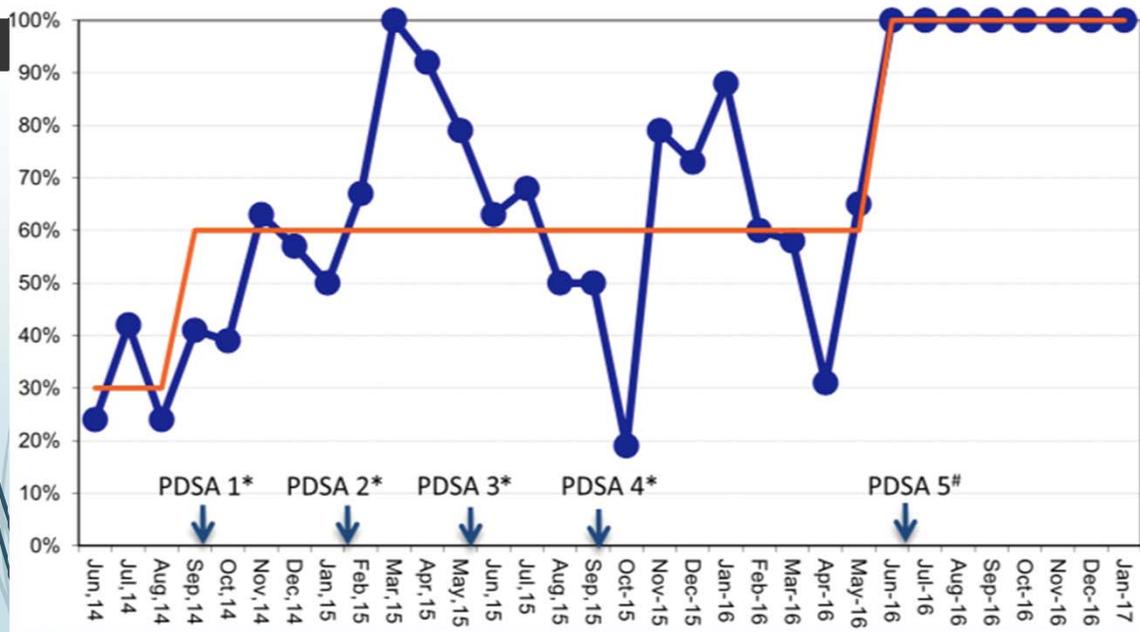
Setting

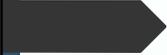
- ▶ inpatient service at an urban, academic children's hospital where we see a high prevalence of CT and GC infections in Adolescents and young adults (AYA) in our clinics and emergency department settings.
- ▶ Tracked using hybrid paper and EMR system

Interventions

- Baseline data was collected for three months prior to intervention
- 5 Plan - Do - Study Act (PDSA) cycles were completed - first 4 were provider reliant and last one was automated
- PDSA 1 - weekly text-page reminder for senior residents
- PDSA 2 - the addition of text page reminders for attending physicians
- PDSA 3 - the addition of reminder stickers on each computer in the residents' workroom area.
- PDSA 4 - hospital wide protocol for tracking all pending lab results, not just CT and GC.
- PDSA 5 - EHR, reminder and tasks set for all attending physicians in EHR program

Capture of Pending Chlamydia and Gonorrhea Tests On Discharge





Limitation

- ▶ Single institution
- ▶ Baseline duration was short
- ▶ Automated results > handwritten tasks

Low Chlamydia and Gonorrhoea Testing Rates Among Men Who Have Sex With Men in Guangdong and Shandong Provinces, China

D. Wu, PhD^{1,2,3}, K. T. Li, MD⁴, W. Tang, PhD^{1,2,3}, J. J. Ong, MD, PhD^{5,6}, W. Huang, MPH^{1,2}, H. Fu, PhD⁷, A. Lee^{1,2}, C. Wei, DrPH⁸ and J. D. Tucker, MD, PhD^{1,2,6}

1. University North Carolina at Chapel Hill, Project-China
2. Social Entrepreneurship to Spur Health Global
3. Dermatology Hospital of Southern Medical University, Guangzhou, china
4. Weill Cornell Medical College, New York, NY
5. Central Clinical School, Monash University, Monash, Australia
6. Faculty of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London, United Kingdom
7. Eastern Virginia Medical School, Norfolk, VA
8. Department of Social and Behaviour Health Sciences, Rutgers School of Pubic health, Piscataway, NJ

Sexually Transmitted Disease Volume 46, Number 4, April 2019

Objective: this study examines chlamydia and gonorrhoea testing rates and testing correlates among Chinese MSM.

Methods: an online survey of MSM was conducted in August 2017 in 8 cities in Guangdong and Shandong provinces. Multivariable logistic regressions were used to examine the association of testing with community engagement and recent HIV testing.

Sociodemographic characteristics, sexual history, sexual orientation, STI testing history, and community engagement information were collected. HIV stigma and HIV testing self-efficacy were also measured.

Sampling:

N=1031 MSM, recruited through a gay social networking dating app, blued.

Eligibility criteria: 1)biologically male at birth, 2)16 years or older, 3)reported ever having anal sex with men, and 4)HIV negative or unknown HIV status.

All survey data were anonymous and confidential, and online consent was obtained before the commencement of the survey. An incentive of 50 Chinese Yuan (7.5 US dollars) mobile phone top-up was provided to all participants.

Results:

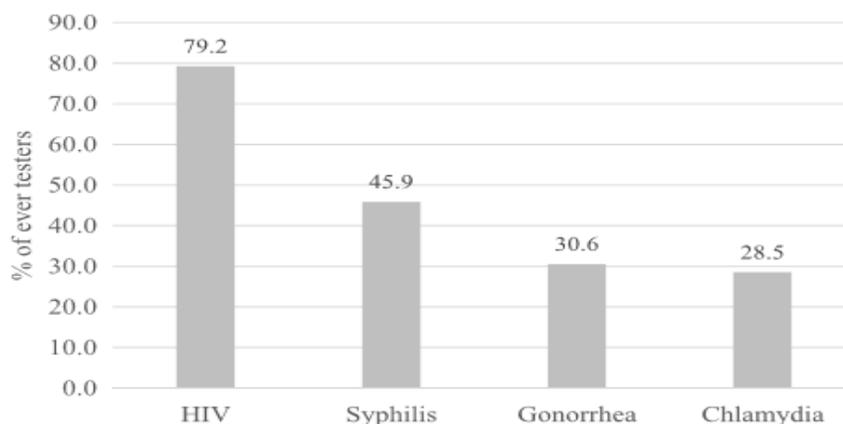


Figure 1. Percentage of MSM who reported to have ever tested for HIV, syphilis, gonorrhea, and chlamydia in 2017 in China (N = 1031).

Results:

- More than half of chlamydia (59.5%) and gonorrhoea (58.7%) testers were living in Guangdong Province. Most chlamydia and gonorrhoea testers were not students, had no children, self-identified as gay, and did not report condomless sex in the past 3 months.
- Those who had substantial community engagement were significantly more likely to report ever testing for Chlamydia (AOR, 2.8; 95% CI, 1.9-4.3) and Gonorrhoea (AOR, 2.9; 95% CI, 2.0-4.4) compared with men with no or minimal community engagement.
- Men with recent HIV testing were more likely to have received Chlamydia testing (AOR, 1.5; 95% CI, 1.1-2.2) and gonorrhoea testing (AOR, 1.6; 95% CI, 1.2-2.1)
- Furthermore, high HIV testing self-efficacy and low anticipated HIV stigma mean score was associated with higher odds of Chlamydia (AOR, 1.9; 95%CI, 1.4-2.6) and gonorrhoea testing (AOR, 1.8; 95% CI, 1.3-2.4).

Limits:

- The study examined chlamydia and gonorrhoea testing at a single time point in 2 provinces only. The findings may not be generalizable to the entire MSM population in the country.
- Self administered online survey may be subject to social desirability bias and men might not be familiar with chlamydia and gonorrhoea.
- Also it is worth noting, that men with more community engagement and who have been tested are more likely to take the survey than their counterparts. The test uptake rates are likely overestimates.

Conclusion:

- Chlamydia and gonorrhoea are common STDs in China, but test uptake rates are low. As previous studies have shown that a substantial proportions of new HIV infections can be attributed to coinfection with chlamydia or gonorrhoea, there is a need for more attention to chlamydia/gonorrhoea testing promotion in China to comprehensively address the HIV epidemic among MSM.

An Evaluation of Sexually Transmitted Infection and Odds of Preterm or Early-Term Birth Using Propensity Score Matching

R. J. Baer, MPH.^{1,2} C. D. Chambers, PhD.¹ K. K. Ryckman, PhD.³ S. P. Oltman, MS.^{2,4} L. Rand, MD.^{2,5} and L. L. Jelliffe-Pawlowski, PhD.^{2,5}

1. Department of Paediatrics, University of California San Diego, La Jolla

2. California Preterm Birth Initiative, University of California San Francisco, San Francisco, CA

3. Departments of Epidemiology and Paediatrics, University of Iowa, Iowa City, IA

4. Department of Epidemiology and Biostatistics

5. Department of Obstetrics, Gynaecology and Reproductive Sciences, University of California San Francisco, San Francisco, CA

Sexually Transmitted Disease Volume 46, Number 6, June 2019

Background:

- Preterm birth affects approximately 10% of live born deliveries in the United States. Preterm infants are at risk of death and short – and long – term complications. Infants born before 32 weeks (early preterm birth) are at greatest risk of these complications. Babies born after 36 weeks and before 39 weeks of gestation are more likely to experience neonatal mortality, developmental disabilities, and endocrine and metabolic morbidity compared with their peers born at 39 weeks gestation or later.

Objectives:

- The study evaluate the odds of preterm (by subtype <32 weeks, 32-36 weeks, spontaneous, provider – initiated) and early-term (37 and 38 weeks gestation) birth in women with an STI compare with a propensity score-match reference population.

Method:

- the sample was selected from California births between 2007 and 2012 from the database maintained by the California Office of Statewide Health Planning and Development.
- Sexually transmitted infection was defined as a maternal diagnosis of chlamydia, gonorrhea, or syphilis in the birth certificate or hospital discharge record.
- Infants with chromosomal abnormalities or major structural birth defects were excluded in the study.
- A reference sample of women without an STI was selected at 1:1 ratio using exact matching of propensity scores without replacement. Women without an exact propensity score matched control were not included in the analyses.
- Odds of preterm and early-term birth were calculate.

	Before Propensity Score Matching			Propensity-matched Sample		
	No STI	Any STI	P	No STI	Any STI	P
	n (%)	n (%)		n (%)	n (%)	
Sample	2,853,103	16,312		15,860	15,860	
Race and ethnicity						
White non-Hispanic	744,860 (26.1)	2984 (18.3)	<0.0001	2898 (18.3)	2898 (18.3)	1.0000
Hispanic	1,390,971 (48.8)	8031 (49.2)	0.2206	7933 (50.0)	7933 (50.0)	1.0000
Black non-Hispanic	150,820 (5.3)	2684 (16.5)	<0.0001	2549 (16.1)	2549 (16.1)	1.0000
Asian non-Hispanic	356,379 (12.5)	912 (5.6)	<0.0001	879 (5.5)	879 (5.5)	1.0000
Other non-Hispanic	210,073 (7.4)	1701 (10.4)	<0.0001	1601 (10.1)	1601 (10.1)	1.0000
Maternal age at delivery, y						
<18	81,910 (2.9)	1176 (7.2)	<0.0001	1119 (7.1)	1119 (7.1)	1.0000
18-34	2,265,956 (79.4)	14,095 (86.4)	<0.0001	13,779 (86.9)	13,779 (86.9)	1.0000
>34	505,131 (17.7)	1041 (6.4)	<0.0001	962 (6.1)	962 (6.1)	1.0000
BMI						
Underweight	139,376 (4.9)	833 (5.1)	0.1905	772 (4.9)	772 (4.9)	1.0000
Normal	1,307,341 (45.8)	7322 (44.9)	0.0169	7192 (45.4)	7192 (45.4)	1.0000
Overweight	677,742 (23.8)	3952 (24.2)	0.1569	3849 (24.3)	3849 (24.3)	1.0000
Obese	537,022 (18.8)	3332 (20.4)	<0.0001	3243 (20.5)	3243 (20.5)	1.0000
Parity						
Nulliparous	1,135,300 (39.8)	7989 (49.0)	<0.0001	7803 (49.2)	7803 (49.2)	1.0000
Multiparous	1,715,990 (60.1)	8318 (51.0)	<0.0001	8057 (50.8)	8057 (50.8)	1.0000
Maternal education, y						
<12	679,301 (23.8)	5679 (34.8)	<0.0001	5514 (34.8)	5514 (34.8)	1.0000
12	727,894 (25.5)	5389 (33.0)	<0.0001	5259 (33.2)	5259 (33.2)	1.0000
>12	1,341,400 (47.0)	4744 (29.1)	<0.0001	4654 (29.3)	4654 (29.3)	1.0000
Payment for delivery						
Private	1,327,414 (46.5)	3927 (24.1)	<0.0001	3813 (24.0)	3813 (24.0)	1.0000
Medi-Cal*	1,371,429 (48.1)	11,458 (70.2)	<0.0001	11,212 (70.7)	11,212 (70.7)	1.0000
Other	154,260 (5.4)	927 (5.7)	0.1199	835 (5.3)	835 (5.3)	1.0000
Prenatal care†						
Adequate/adequate plus	2,111,507 (74.0)	10,132 (62.1)	<0.0001	9984 (63.0)	9984 (63.0)	1.0000
Intermediate	358,641 (12.6)	2222 (13.6)	<0.0001	2140 (13.5)	2140 (13.5)	1.0000
Inadequate	291,701 (10.2)	3499 (21.5)	<0.0001	3332 (21.0)	3332 (21.0)	1.0000
Mother enrolled in WIC	1,518,227 (53.2)	12,005 (73.6)	<0.0001	11,738 (74.0)	11,738 (74.0)	1.0000
Smoked during pregnancy	127,675 (4.5)	1674 (10.3)	<0.0001	1478 (9.3)	1478 (9.3)	1.0000
Previous preterm birth	18,782 (0.7)	255 (1.6)	<0.0001	178 (1.1)	178 (1.1)	1.0000
Hypertension disorder	200,785 (7.0)	1337 (8.2)	<0.0001	1202 (7.6)	1202 (7.6)	1.0000
Diabetes	258,478 (9.1)	1221 (7.5)	<0.0001	1092 (6.9)	1092 (6.9)	1.0000
Drug/alcohol dependence/abuse	53,718 (1.9)	1182 (7.3)	<0.0001	957 (6.0)	957 (6.0)	1.0000
Mental illness	89,171 (3.1)	1336 (8.2)	<0.0001	1118 (7.1)	1118 (7.1)	1.0000

Odds of Preterm Birth Subtype by STIs:

TABLE 2. Odds of Preterm Birth Subtype by STI

	No STI	Any STI	Chlamydia	Gonorrhoea	Syphilis
	n (%)	n (%)	n (%)	n (%)	n (%)
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Samples	15,860	15,860	13,633	1932	1180
Gestation at birth					
<32 wk	143 (0.9)	192 (1.2)	146 (1.1)	29 (1.5)	26 (2.2)
PPROM	43 (0.3)	1.3 (1.1–1.7)	1.2 (0.9–1.5)	⇒ 1.8 (1.2–2.6)	⇒ 2.6 (1.7–3.9)
Spontaneous labor with intact membranes	95 (0.6)	71 (0.5)	47 (0.3)	15 (0.8)	12 (1.0)
Provider initiated	4 (0.0)	1.7 (1.1–2.4)	1.3 (0.8–1.9)	⇒ 3.0 (1.7–5.5)	⇒ 4.0 (2.1–7.5)
32–36 wk	995 (6.3)	102 (0.6)	86 (0.6)	9 (0.5)	10 (0.9)
PPROM	220 (1.4)	1.1 (0.8–1.4)	1.0 (0.8–1.4)	0.8 (0.4–1.6)	1.5 (0.8–2.9)
Spontaneous labor with intact membranes	502 (3.2)	15 (0.1)	10 (0.1)	4 (0.2)	4 (0.3)
Provider initiated	190 (1.2)	3.8 (1.2–11.3)	2.9 (0.9–9.2)	⇒ 8.7 (2.2–34.9)	⇒ 4.2 (3.5–56.8)
<37 wk	1138 (7.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.2 (1.0–1.4)	1.2 (0.8–1.8)
PPROM	263 (1.7)	247 (1.6)	203 (1.5)	38 (2.0)	19 (1.6)
Spontaneous labor with intact membranes	597 (3.8)	1.1 (0.9–1.4)	1.1 (0.9–1.3)	⇒ 1.5 (1.1–2.1)	1.2 (0.8–2.0)
Provider initiated	194 (1.2)	551 (3.5)	459 (3.4)	73 (3.8)	51 (4.3)
37 to 38 wk	4192 (26.4)	1.1 (1.0–1.2)	1.1 (0.9–1.2)	1.3 (1.0–1.6)	⇒ 1.4 (1.1–1.9)
39 to 42 wk	10,530 (66.4)	175 (1.1)	146 (1.1)	14 (0.7)	19 (1.6)
Reference		0.9 (0.8–1.1)	0.9 (0.7–1.1)	0.6 (0.4–1.1)	1.4 (0.9–2.3)
		1242 (7.8)	1016 (7.5)	161 (8.3)	128 (10.9)
		1.1 (1.0–1.2)	1.0 (0.9–1.1)	⇒ 1.2 (1.0–1.5)	⇒ 1.6 (1.3–1.9)
		318 (2.0)	250 (1.8)	53 (2.7)	31 (2.6)
		1.2 (1.0–1.4)	1.1 (0.9–1.3)	⇒ 1.8 (1.3–2.4)	⇒ 1.7 (1.1–2.4)
		653 (4.1)	545 (4.0)	82 (4.2)	61 (5.2)
		1.1 (1.0–1.2)	1.1 (0.9–1.2)	1.2 (0.9–1.5)	⇒ 1.4 (1.1–1.9)
		190 (1.2)	156 (1.1)	18 (0.9)	23 (2.0)
		1.0 (0.8–1.2)	0.9 (0.8–1.1)	0.8 (0.5–1.3)	⇒ 1.7 (1.1–2.6)
		4118 (26.0)	3502 (25.7)	562 (29.1)	309 (26.2)
		1.0 (0.9–1.0)	1.0 (0.9–1.0)	⇒ 1.2 (1.1–1.3)	1.0 (0.9–1.2)
		10,530 (66.4)	9115 (66.9)	1209 (62.6)	743 (63.0)

Bold emphasis indicates $P < 0.05$.

Findings and results:

- Gonorrhoea and syphilis were associated with increased odds of early preterm birth (before 32 weeks gestation).
- Women with gonorrhoea were the only subgroup of STIs at increased odds of an early-term birth (37 and 38 weeks).
- Women with syphilis were more likely to deliver before 37 weeks due to all indications compared to women without an STI.
- 452 women with an STI that did not have a propensity score match who were not analysed in the study were more likely to have smoked or used drugs/alcohol during pregnancy, had a mental illness, a comorbidity, and less likely to received adequate prenatal care compare with the analysed population. Only 32.7% of these women had adequate prenatal care, indicating that this may be a population that is particularly difficult to reach for intervention.

Limits:

- The study elected to remove infants with major birth defects from the sample. STIs may increase the risk of birth defects and infants with birth defects are more likely to be born preterm. The effect of this restriction may underestimate preterm birth rates in the population with an STI.
- Out of the 452 women with an STI that did not have an exact propensity score-matched control, 102 (22.6%) had preterm birth. Excluding these unmatched women lowered the preterm birth rate from the original sample of 8.2% to 7.8% in the analysed sample.
- Due to the nature of the administrative database, the ascertainment of STIs, method of diagnosis, timing of infections, staging of disease (syphilis), and treatment of the illness was unknown. It is unknown if the recorded syphilis was a past or current infection.
- It is also possible that the hospital and birth certificate did not capture all diagnosis. Therefore findings of the study should be interpreted with these limitations in mind.

Strengths of the study:

- The study provides important information about STIs and the odds of preterm birth. By creating a propensity score-matched reference population, the study were able to identify a population of women with very similar attributes, hence dramatically reduced the potential for confounding.
- Previous literature regarding the risk of preterm birth among women with syphilis is sparse and the sample size were small. Although critical information regarding testing, timing, and staging was unavailable, this study will contribute substantially to the literature given 1180 women with syphilis were included.

Conclusions:

- The findings of this study support the continued need for STI prevention education for women of childbearing age.
- Gonorrhoea and syphilis are associated with preterm births. More research needed to find out how it may lead to preterm birth.

Self Reported Infertility and Associated Pelvic Inflammatory Disease Among Women of Reproductive Age – National Health and Nutrition Examination Survey, United States, 2013 – 2016

G.E. Anyalechi, MD, MPH; J. Hong, PhD, MS; K. Kreisel, PhD; E. Torrone, PhD, MSPH; S. Boulet, PhD, MPH; R. Gorwitz, MD, MPH; R. D. Kirkcaldy, MD, MPH; and K. Bernstein, PhD, MS;

1. Division of STD Prevention, Centres for Disease Control and Prevention.
2. Department of Gynaecology and Obstetrics, Emory University School of Medicine, Atlanta, GA

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The study analysed self-reported lifetime infertility and infertility health care-seeking in women aged 18 to 49 years in the 2013 and 2015 National Health and Nutrition Examination Surveys.

Results:

- Among 2626 eligible women, 13.8% had self-reported infertility (95% CI, 12.3-15.3) with higher prevalence by age:
 - 960 (6.4%) 18 to 29 years old (95% CI, 4.8-8.0)
 - 799 (14.8%) 30 to 39 years old (95% CI, 12.2 – 17.3)
 - 867 (20.8%) 40 to 49 years old (95% CI, 17.2 -24.4)
- Non Hispanic white women and non Hispanic black women had the highest infertility prevalence.
- Women reporting PID treatment (n=122) had higher infertility prevalence (PR, 24.2%; 95% CI, 16.2 – 32.2) than women without PID treatment (PR, 13.3%; 95% CI, 11.6 – 15)

Results:

- Among 18 to 29 years old women, a history of PID was associated with a 4 fold higher prevalence of reported infertility.
- The prevalence of infertility did not significantly differ by having had a chlamydia diagnosis in the past 12 months, or Chlamydia trachomatis or Trichomonas vaginalis NAAT positivity at the time of examination.
- Among the 327 women who self-reported infertility, the weighted prevalence of reporting ever having sought health care for infertility was 60.9% (95% CI, 56.1-65.8) Women with health insurance were more likely to have sought care than women without insurance (64.3%; 95% CI, 58.9-69.7 vs 45.4%;

Conclusion:

The study concluded that STDs and subsequent PID could be a major reason for infertility in young women. Among women who reported a history of PID treatment, nearly 25% experienced infertility. To prevent PID and PID associated infertility, health care providers are encouraged to provide annual chlamydia and gonorrhoea screening for all women younger than 25 years, and women with high-risk behaviours older than 25 years.