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Think Syphilis: Evaluating Testing and Treatment Services for Pregnant Women Attending Prenatal Care in Maricopa County, Arizona

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Abstract

Background: Arizona has led the nation for rates of congenital syphilis. The purpose of this study was to evaluate compliance with mandated three timepoint syphilis testing for pregnant women attending prenatal care, describe access to benzathine penicillin G (BPG) treatment, and assess receipt and use of *Think Syphilis* campaign materials in Maricopa County, AZ.

Methods: A facility-level cross-sectional survey was performed among prenatal care providers and clinical staff in 2022–2023. Responses from individual participants were applied to their facilities, including respective satellite offices within their corporations.

Results: Responses from 42 distinct healthcare facilities were included, representing 104 outpatient obstetrician-gynecologist (Ob/Gyn) clinical settings. These facilities represented 232 delivering providers accounting for 33,196 live births, approximately 68% of all reported live births in Maricopa County for 2021. 97.6% (41/42) reported use of syphilis screening policies for pregnant women. Reported compliance with performing prenatal syphilis testing was 78.6% (33/42) for syphilis at first prenatal care visit and 73.8% (31/42) during the third trimester. Among providers with first-hand knowledge of hospital-based screening practices, 76.5% (13/17) reported syphilis screening at delivery. Only 11.9% (5/42) reported on-site clinic-based administration of

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Ethical/Legal Considerations:

This submission is an original contribution not previously published (except as an abstract), and is not under consideration for publication elsewhere and, if accepted, will not be published elsewhere in similar form, in any language, without the consent of Lippincott Williams & Wilkins. Each person listed as an author has participated in the study to a significant extent. Although the editors and referees make every effort to ensure the validity of published manuscripts, the final responsibility rests with the authors, not with the Journal, its editors, or the publisher.

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BPG; 71.4% (30/42) reported referring syphilis patients to an external site for treatment with BPG. Barriers to on-site treatment included cost and perception of syphilis as rare. The Maricopa County STI Clinic was the most reported treatment referral site by 90.5% (19/21) of respondents. Regarding the *Think Syphilis* campaign, 21.4% (9/42) confirmed receipt of campaign materials, and of these 77.8% (7/9) shared materials with office staff.

Conclusions: Reported performance of mandated syphilis testing for pregnant women attending prenatal care in Maricopa County is substantial. However, clinic-based barriers to on-site BPG administration exist. This survey afforded an opportunity to educate providers and clinic staff on maternal syphilis testing and treatment using the *Think Syphilis* campaign.

Short Summary

We evaluated compliance with mandated three time-point syphilis screening during prenatal care and delivery, access to benzathine penicillin G, and impact of the *Think Syphilis* campaign in Maricopa County, Arizona.

Keywords

Syphilis; congenital syphilis; STI Prevention; benzathine penicillin; epidemiology

INTRODUCTION

Congenital syphilis (CS) is a preventable outcome of untreated or inadequately treated syphilis among pregnant women. Fetal infection occurs through placental transfer of the bacterium *Treponema pallidum* during pregnancy; infant infection can also occur from exposure to the infectious organism in the birth canal during delivery. If left untreated or inadequately treated, CS can lead to miscarriage, stillbirth, and congenital deformities.^{1,2} Though preventable with timely screening and treatment, CS remains high in the United States.³

Since 2012, national rates of CS have increased annually culminating in 3,761 reported cases of CS in 2022, including 282 CS-related stillbirths and infant deaths.³ In 2021, Arizona emerged as the leading state for rates of CS, with a reported case rate of 232.2 per 100,000 live births, a rate 198% higher than the US total. Maricopa County accounted for 63% (n = 114) of Arizona's total CS cases in 2021.⁴

In 2003, in response to the Centers of Disease Control and Prevention (CDC) recommendations and the rising incidence of total syphilis, the Maricopa County Department of Public Health (MCDPH) implemented a public health order requiring syphilis testing during the third trimester and at delivery for all pregnant women, expanding upon the Arizona Revised Statute 36-693 state-based requirement for screening at first prenatal visit.^{5,6} This 2003 Public Health Order remains in effect and applies to clinicians providing obstetrical services in Maricopa County.⁷ Arizona's 2021 lead in CS rates, echoing its high ranking in 2003, reinforces the importance of expanding healthcare touchpoints for early maternal syphilis detection.⁴ In 2011, after Arizona's drop from its top national ranking CS position, a study assessing public health order compliance revealed that 89% of interviewed medical providers in Maricopa County reported performing repeat

syphilis screening during the third trimester.⁸ Despite reported compliance with prenatal syphilis screening, CS counts in Maricopa County continued to increase from 9 cases in 2011 to 137 in 2022, a cumulative growth rate of 1,422%.

In 2022, prompted by the sustained increase in CS cases, MCDPH developed a clinical practice survey to assess maternal syphilis screening and treatment with benzathine penicillin G (BPG) among prenatal care providers and clinics. The objective of this survey is to utilize facility-level aggregate data to characterize syphilis screening and treatment services available to pregnant women attending prenatal care in Maricopa County and to understand the impact of distributed syphilis campaign materials.

MATERIALS AND METHODS

Study Design and Setting

In response to sustained increases in CS cases, in April 2022, MCDPH launched the *Think Syphilis* campaign to increase provider knowledge through educational outreach and distribution of promotional materials to more than 600 obstetrician-gynecologist (Ob/Gyn) providers, pediatricians, midwives, infectious disease providers, clinical staff in emergency room departments, and public and private clinics around Maricopa County. Educational packet materials included a maternal syphilis screening checklist, a neonate evaluation and treatment flowchart for CS, a Maricopa CS statistics flyer, an updated 2022 Maricopa County Public Health Order for prenatal syphilis screening, *Think Syphilis* promotional stickers, and MCDPH STI Clinic business cards.

MCDPH staff developed a provider survey (Supplemental File 1) and performed two pilot evaluations with MCDPH STI clinic medical providers, comprised of nurse practitioners and nurses (n = 5), followed by the MCDPH STI communicable disease investigators (CDIs) (n = 13). Pilot feedback on the survey content was integrated before launch. Between November 2022 and May 2023, MCDPH conducted medical provider and facility-based surveys to characterize prenatal screening and treatment services for maternal syphilis. Questions comprised three major themes: syphilis screening practices, BPG treatment practices and barriers, and *Think Syphilis* materials acknowledgment. The survey included multi-select, multiple-choice, and free-text questions.

The survey and administration methods were reviewed within the protocols, *Facility and Provider-Level Maternal Syphilis Screening and Treatment Practices in Maricopa County, Arizona*, and given a non-research determination by the Arizona Department of Health Services (ADHS) Human Subjects Review Board (HSRB #22-0001).

Recruitment and Eligibility Criteria

To ensure comprehensive representation of prenatal and obstetrical care services available to pregnant women in Maricopa County, a list of medical providers delivering infants in Maricopa County in 2021 was obtained from the ADHS Office of Infectious Disease Services and Vital Statistics to identify providers accounting for the top 70% of deliveries. This list was then used to survey providers and identify associated providers and facilities. Survey responses were accepted from these providers or their clinic staff members including

obstetricians, nurses, or clinical administrative staff members with direct knowledge of *facility-level* syphilis screening and treatment practices.

Survey Administration and Data Collection

Surveys were administered using multiple modalities including paper surveys delivered in-person or by mail, as well as surveys conducted via telephone, fax, and email. Five project staff used a standard survey and script to minimize measurement error under consistent conditions for surveys conducted over the phone. A total of four contact attempts were performed by MCDPH staff to increase response rates. When a prenatal care provider was unavailable, the survey was completed by a clinic representative with direct knowledge of facility-based syphilis screening and treatment practices. In April 2023, 20 paper copies of the survey were distributed to delivering providers attending a local obstetrical society meeting. An additional 38 letters inclusive of a paper copy of the survey with return postage provided were sent by mail.

Qualtrics was used as the survey instrument and captured survey respondent data during phone-based interviews. When paper-based copies were utilized by either survey respondents or MCDPH STI Program staff, responses were hand-entered into Qualtrics. Participants who opted for survey completion by email were provided a user-specific survey link to complete the survey online. Those who declined to participate were offered *Think Syphilis* campaign materials.

Survey Results and Analytics

Among the sample of delivering providers, one respondent per prenatal health facility was included for analysis, with priority given to responses from medical providers delivering prenatal care. In cases where multiple providers in the sample worked within the same facility, a single individual was selected to represent the facility. When more than one respondent was a medical provider delivering prenatal care directly within the same parent corporation, the earliest completed survey was used for analysis. Survey responses were applied to all delivering providers at the same facility, as well as to their respective satellite offices assuming consistent practices within a single corporation. Infant representation in the survey was calculated as the number of infants delivered by providers represented in the survey, collected from the ADHS vital registry list of live births, divided by the total number of deliveries in Maricopa County in 2021. Facility response rate was calculated by taking the amount of parent facilities surveyed by the total amount of parent facilities in our sample.

During analysis, respondents who did not respond to individual questions or who were not presented with a particular question due to conditional logic were excluded from denominator percentage calculations for those specific questions. To assess facility-level delivery of syphilis screening at each timepoint in compliance with county mandates, participant-reported estimates were collected on the proportion (%) of pregnant women receiving antenatal care at each facility who were screened for syphilis. For review of delivery-based hospital screening practices, we limited our sample subset to delivering physicians and allied health professionals (categorized as physician assistants, nurses, nurse practitioners, and nurse managers) who were likely to have direct knowledge of inpatient

maternal syphilis screening practices at the time of delivery. Additionally, facilities were categorized into the following site types: Private Provider, Private Hospital, Federally Qualified Health Center (FQHC), Indian Health Service (IHS), and Public Hospital. Facility types were assigned and reviewed through use of internet search. Data were extracted from Qualtrics and analyzed using SAS Enterprise Guide (v8.3, Cary, North Carolina).

RESULTS

Survey Response Rate and Birth Coverage

From November 2022 through May 2023, contact attempts were made to the 66 unique facilities or corporations employing the top 190 delivering providers accounting for 70% (37,745/50,245) of all reported live births in Maricopa County. Of the 66 facilities, 42 surveys were completed by a provider or eligible clinic staff member (one per facility) and included in our analysis for a facility-level response rate of 64%.

These 42 facilities represented 129 delivering providers and accounted for 72% (27,221/37,745) of all live births in the sample and 54% (27,221/50,245) of all reported live births in Maricopa County for 2021. Of our sample, the provider response rate is 67.9% (129/190). Consequently, 32% (61/190) of the providers in our sample were not surveyed due to non-response from their respective facilities. When including providers outside of the respondent sample working within the same corporation, the distinct healthcare facilities represented by the survey included 232 total delivering providers accounting for 33,916 deliveries in Maricopa County in 2021, approximately 68% of all live births that year (Figure 1).

Characteristics of Respondents: Facilities and Providers

Of the 60 responses received, 42 surveys from distinct healthcare facilities were included for analysis. Excluded surveys included 13 duplicate respondents by clinic site and 5 surveys that were incomplete for analysis.

The 42 included surveys represent 42 unique facilities which encompass 104 outpatient Ob/Gyn central and satellite clinics. Among surveys included for analysis, 40.5% (17/42) were completed directly by an obstetrician-gynecologist, 23.8% (10/42) by clinical nursing/allied health professionals, and 35.7% (15/42) by administrative and support staff knowledgeable of syphilis screening practices.

Facility types represented by survey respondents included, 85.7% (36/42) private clinics, 4.8% (2/42) private hospital organizations, 4.8% (2/42) FQHC, 2.4% (1/42) IHS, and 2.4% (1/42) as a public hospital. Among all 33,916 deliveries represented by this survey, private clinics accounted for 88%, FQHCs and private hospitals each accounted for 5%, and public hospitals and the IHS each represented 1%. Among respondents, 97.6% (40/41) indicated that their facility provided care to uninsured patients. Moreover, 42.1% (16/38) of respondents indicated that at least 60% of their pregnant patients are on Medicaid.

Compliance with the Maricopa County Public Health Order

All 42 (100%) respondents reported testing for syphilis at least once during prenatal care. Moreover, 97.6% (41/42) respondents indicated their facility held an established syphilis screening policy for pregnant patients, and 95.2% (40/42) reported having an existing standing order for prenatal laboratory testing inclusive of syphilis. When assessing compliance with components of the Maricopa County Public Health Order, 78.6% (33/42) respondents reported testing pregnant patients for syphilis at the first prenatal visit. Similarly, 73.8% (31/42) respondents reported testing all pregnant patients during the third trimester.

Among responding survey participants, 74.1% (20/27) reported all pregnant patients are tested at delivery. When only including physicians or other delivering providers knowledgeable of hospital-based screening practices, 76.5% (13/17) reported syphilis screening at delivery. When assessing potential future prevention efforts, among respondents, 42.5% (17/40) facilities indicated interest in implementing rapid syphilis testing (fingerstick) at their facility for pregnant patients.

Benzathine Penicillin G Availability / Syphilis Treatment Practices

Regarding syphilis treatment practices and BPG availability, 16.6% (7/42) described prescribing BPG for patients to pick up at a pharmacy and return for an in-clinic injection. Only 11.9% (5/42) reported that their facilities stock BPG and staff treat on-site. Of these 5 facilities that stocked BPG, one was IHS, two were FQHCs, one was a public hospital, and one was a private clinic. Referral of patients to an external treatment site for BPG was reported by 71.4% (30/42) respondents. The MCDPH STI Clinic was the most reported treatment referral site by 91% (19/21) of respondents providing this information, with an additional 4.8% (1/21) indicating they both administer treatment on-site and refer to the MCDPH STI Clinic.

When respondents were presented a multi-select question assessing why patients were not treated for syphilis at their clinical facility, 63.6% (21/33) perceived syphilis as rare (implying very infrequent diagnoses), 18.2% (6/33) described issues with cost of treatment, 21.2% (7/33) issues with procurement of BPG, 12.1% (4/33) concerns for BPG expiration, 3.0% (1/33) reported they did not perform any injections directly in their clinic, 30.3% (10/33) listed other reasons, and 6.1% (2/33) indicated no barriers to report. Among the 10 respondents reporting other reasons, 20.0% (2/10) reported uncertainty as to why treatment was not directly provided at their facility. The remaining 80.0% (8/10) respondents described various factors, including BPG administration logistics, uncertainty regarding treatment guidelines, and preference for referral to the MCDPH STI Clinic to ensure appropriate treatment, follow-up, and management of sexual partners. There were 60.0% (24/40) who indicated interest in having an MCDPH mobile health unit team directly provide BPG treatment to facilities' consenting syphilitic pregnant patients.

Think Syphilis Campaign

There were 22.0% (9/41) respondents that indicated they received *Think Syphilis* campaign provider education materials mailed by MCDPH; 34.2% (14/41) reported they were unaware

if materials were received. Among the 9 respondents confirming receipt of *Think Syphilis* campaign materials, 77.8% (7/9) reported they shared the materials with their office staff, 55.6% (5/9) shared the materials with medical providers, 66.7% (6/9) posted the materials in their facility, 44.4% (4/9) reviewed their lab protocols, 33.3% (3/9) reviewed their standing orders, 44.4% (4/9) developed or changed lab protocols or standing orders for prenatal care visits to include syphilis testing, 11.1% (1/9) provided a teaching event, 11.1% (1/9) described that their facility now retests their pregnant patients after 32 weeks, and 11.1% (1/9) reported no actions taken.

DISCUSSION

This survey engaged Maricopa County's top delivering providers and their facilities to collect facility-level aggregate data to characterize syphilis screening and treatment services available to pregnant women attending prenatal care in Maricopa County and to understand the impact of "Think Syphilis" distributed outreach materials. Results from the survey reveal community medical provider and facility-level adherence with components of the public health order for syphilis screening at three time points in pregnancy is substantial, treatment with BPG is not readily available at outpatient Ob/Gyn facilities due to a complex variety of factors, and receipt of distributed campaign materials was low but effective in prompting action. High CS case rates in Arizona highlights the need for coordinated clinical and public health efforts to increase early antenatal care uptake among pregnant women, to ensure access to syphilis screening, and improve availability and administration of BPG within prenatal care clinics.

In assessing compliance with the public health order, all respondents described testing their pregnant patients for syphilis at least once during prenatal care, and over 98% and 95% reported having established syphilis screening policies and standing laboratory order sets, respectively. Over 70% of respondents indicated conducting a syphilis screening again during the third trimester and at delivery. These results suggest community Ob/Gyn provider and clinic compliance with the Maricopa County Public Health Order is high, the findings of which agree with a prior evaluation.⁸

Two-thirds of respondents reported referring their pregnant patients with syphilis for treatment with BPG. The most common referral site for BPG treatment was the MCDPH STI Clinic. When facilities were asked for why they do not treat directly at their facility with BPG, over 60% reported that they perceived syphilis as rare, exemplifying the need to educate providers on syphilis and congenital syphilis to ensure appropriate screening, treatment, and referral. The treatment referral practices characterized by this assessment corroborate those of a previous study which highlighted the reduced availability of BPG administration sites relative to syphilis screening sites.¹⁰ Further, only one private clinic in our survey sample stocked BPG for treatment. Considering BPG shortages experienced in 2023–2024, the high market cost of BPG per dose, and minimum order quantities, procurement issues may prohibit outpatient Ob/Gyn facilities from stocking BPG.^{11,12} The MCDPH STI clinic specializes in sexual health services, manages a high volume of syphilis cases, and benefits from 340B pricing eligibility, making it a primary referral site for syphilis case management.^{10,13,14} A MCDPH study revealed that among syphilis

cases receiving BPG, the MCDPH STI Clinic served as the treatment site for 49% of countywide cases despite diagnosing only 20%.^{9,10} Among surveyed facilities administering BPG directly on-site, all were 340B eligible, suggesting high market cost may be a unifying barrier to treatment in many prenatal care clinics.¹⁵

Although only 22.0% of respondents noted receipt of *Think Syphilis* campaign materials, additional information packets were distributed to participating facilities who were not aware of the campaign following survey completion. Due to the low recall of campaign materials, circulation of these resources within facilities may have been limited. Future campaigns may benefit from site-based education or follow-up after distribution. Among respondents who received the *Think Syphilis* campaign materials, survey responses indicated that the materials proactively prompted actions such as clinic-based education and review of clinic and lab protocols. Findings presented here demonstrate the impact of these campaign materials among recipients and underscore the importance of active campaign follow-up to ensure receipt and subsequent utilization of *Think Syphilis* campaign materials. Following survey completion, 142 additional *Think Syphilis* campaign materials were sent to 51 prenatal care facilities. Other jurisdictions across the US have launched similar syphilis media campaigns, however, evaluations of impact remain pending.^{16,17}

Our combined participant selection approach aimed to increase response rates and provide more complete response representation of providers delivering infants in 2021. We acknowledge several limitations. First, the reported proportion of pregnant women tested at each timepoint represents reported testing coverage and may underestimate the proportion of patients offered testing. However, proxy indicators for testing availability demonstrated that nearly all facilities affirmed having standing order sets for universal prenatal syphilis testing and syphilis screening policies for pregnant patients. Second, when evaluating if a respondent received a *Think Syphilis* Campaign package, we were unable to assess if their satellite facilities or administrative staff received materials, potentially underestimating material receipt acknowledgements. Third, we assumed that the infants represented by the survey were born to pregnant women who attended prenatal care from the delivering providers surveyed in this study. The risk of over-attributing our results is small, in 2020; only 2.5% of pregnant women in Arizona did not access prenatal care.¹⁸ Additionally, although most respondents represented private facilities, nearly all respondents reported providing care to uninsured patients and patients on Medicaid ensuring differing forms of financial access to prenatal care services were represented. Further, we limited our survey sample size to account for the majority of live births in Maricopa County rather than all live births and assumed that individual providers could report on clinical system-wide syphilis testing and treatment services. Lastly, self-reported responses introduce potential biases and inaccuracies and should be interpreted with caution.

The attribution of services delivered by clinical service providers to pregnant women delivering infants in Maricopa County in 2021 suggests systematic CS prevention service delivery in accordance with the public health order with some room for improvement.⁷ Despite high coverage of syphilis screening during prenatal care, high rates of CS in Arizona persist.¹⁸ The findings from this survey reaffirm the consistent delivery of CS prevention interventions for pregnant women attending prenatal care within outpatient

obstetrical clinics in Maricopa County. However, in 2021, approximately 58% of women giving birth to infants with CS in Maricopa County received either no prenatal care or late prenatal care, defined as care beginning in the third trimester, and thus did not meaningfully access these CS prevention services. Our findings show greater than 75% of delivering physicians and allied health personnel report screening women at delivery, a critical safety net to detect and treat CS and maternal syphilis. Increased access to syphilis screening and treatment for pregnant women not attending prenatal care is essential.²⁰ MCDPH continues to prioritize interventions to increase access and uptake of syphilis testing and BPG treatment among women who are pregnant or capable of becoming pregnant. These efforts prioritize populations experiencing substance abuse, homelessness, current or recent incarceration, recent immigration, and high-risk sexual activity by working with community-based organizations, emergency departments and corrections systems to expand syphilis screening.^{20, 21} Multidisciplinary partnerships encompassing prenatal care access and uptake, STI prevention, screening, and treatment services that address social barriers to healthcare and behavioral risk for women of childbearing potential and their sexual partners are needed to improve access and uptake of these lifesaving interventions within and outside of prenatal care settings.

Conclusion:

The survey results have guided MCDPH's efforts to identify missed opportunities for syphilis screening during pregnancy and access to recommended maternal treatment for CS prevention while increasing provider awareness of the Maricopa County Public Health Order for three timepoint syphilis screenings during pregnancy and delivery. Our study reveals high syphilis testing coverage in prenatal care settings and common syphilis treatment referral practices. We identified barriers to delivering BPG treatment at most of these sites summarily relating to perceptions of rare syphilis occurrence and cost of BPG prompting referral to the MCDPH STI Clinic for syphilis treatment. As syphilis continues to impact mothers and infants, other jurisdictions may leverage these findings and local provider assessments to educate prenatal care providers and facilitate syphilis screening and treatment in prenatal care settings.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Data Availability:

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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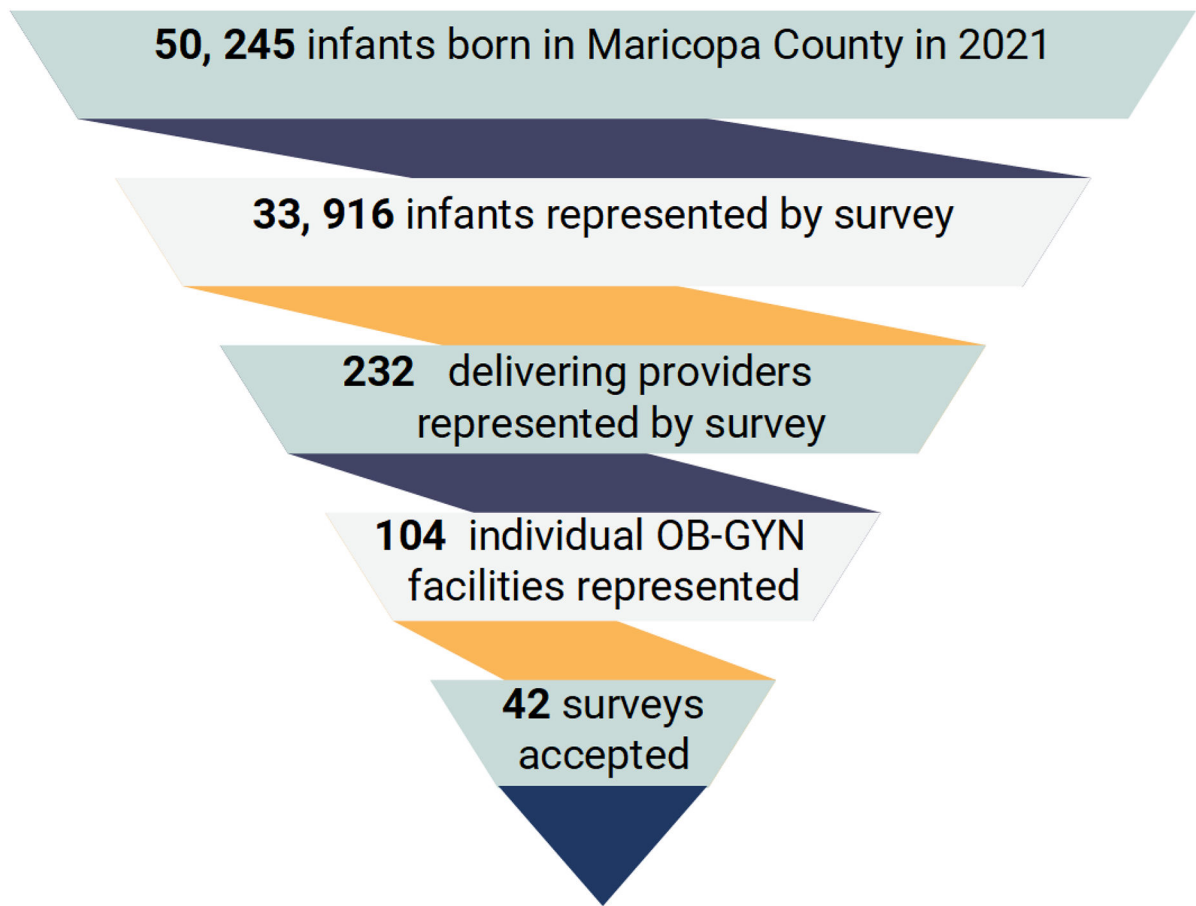


Figure 1: Hierarchical diagram of Maricopa County live birth coverage represented by survey results

Assuming satellite offices follow the same practices for syphilis screening and treatment as the direct facility respondent interviewed, survey responses represented providers and facilities that accounted for 70% (33,916/50,245) of the Maricopa County live births in 2021 representing 232 delivering providers, and 104 individual Ob/Gyn facilities. Sixty complete survey responses were obtained. Following selection of single surveys from unique facilities, 42 were utilized for analysis with each completed survey representing a unique facility.

Table 1:

Results of OB/Gyn provider survey to assess congenital syphilis prevention services, Maricopa County, Arizona, 2021–2022

	N (%)	Condition
Total	42/42(100)	
Q1: Healthcare Field		
Obstetrician-Gynecologist	17/42 (40.5)	
Clinical Nursing/Allied Health Professionals ^a	10/42 (23.8)	
Administrative and Support Staff	15/42 (35.7)	
Q2: Test for Syphilis at Prenatal Care		
Yes	42/42 (100)	
No	0/42 (0)	
Q3: Percent Tested for Syphilis at First Prenatal Visit		[Condition: Q2 = Yes]
100%	33/42 (78.6)	
80-99%	6/42 (14.3)	
60-79%	1/42 (2.4)	
40-59%	0/42 (0)	
20-39%	0/42 (0)	
0-19%	0/42 (0)	
Other- All Patients Tested at Second Prenatal Visit	2/42 (4.8)	
Q4: Percent Tested for Syphilis at Third Trimester		[Condition: Q2 = Yes]
100%	31/42 (73.8)	
80-99%	8/42 (19.1)	
60-79%	0/42 (0)	
40-59%	0/42 (0)	
20-39%	0/42 (0)	
0-19%	2/42 (4.8)	
Other- Later in pregnancy to AZHCCCS pregnant patients during the glucose test	1/42 (2.4)	
Q5: Percent Tested for Syphilis at Delivery Among Physicians and Allied Health Professionals Respondents		[Condition: Q2 = Yes]
100%	20/27 (74.1)	
80-99%	2/27 (7.4)	
60-79%	0/27 (0)	
40-59%	0/27 (0)	
20-39%	0/27 (0)	
0-19%	2/27 (7.4)	
Other	1/27 (3.7)	
Q6: Facilities With Established Syphilis Screening Policies for Pregnant Patients		[Condition: Q2 = Yes]
No	1/42 (2.4)	

	N (%)	Condition
Yes	41/42 (97.6)	
Q7: Facilities With a Standing Order Set for Prenatal Lab Testing for Syphilis		[Condition: Q2 = Yes]
No	2/42 (4.8)	
Yes	40/42 (95.2)	
Q8: Would Implement Rapid Syphilis Testing (fingerstick) at Facility for Pregnant Patients		
No	23/40 (57.5)	
Yes	17/40 (42.5)	
Q9: How facilities treat pregnant patients with syphilis ^b		
Facilities Treat Pregnant Patients with Syphilis at Their Clinic	5/42 (11.9)	
Facilities Treat Pregnant Patients with Syphilis by Referring to an External Clinic	30/42 (71.4)	
Facilities Treat Pregnant Patients with Syphilis by Prescribing Benzathine Penicillin for Patient Pickup at Pharmacy and Return for Injection at their Clinic	7/42 (16.7)	
Other- Treat at Hospital	1/42 (2.4)	
Q10: External Clinic Locations (Free Text)	30/42 (71.4)	[Condition: Q9 = Refer For Treatment]
Maricopa County STI Clinic	19/21 (90.5)	
Maricopa County STI Clinic and Own Facility	1/21 (4.8)	
Outpatient Infusion Center	1/21 (4.8)	
Q11: Reasons for Not Treating Pregnant Patients with Syphilis with Benzathine Penicillin Directly at Facility ^b		[Condition: Q9 = No Direct Treatment at Facility]
Cost	6/33 (18.2)	
Procurement	7/33 (21.2)	
Concern for Expiration	4/33 (12.1)	
Injections Not Performed	1/33 (3.0)	
Syphilis Is Rare	21/33 (63.6)	
Other	10/33 (30.3)	
None	2/33 (6.1)	
Q12: Interest in Having a Maricopa County Mobile Health Unit Team Provide Treatment with Benzathine Penicillin		
No	16/40 (40.0)	
Yes	24/40 (60.0)	
Q13: Received Syphilis Materials		
No	18/41 (43.9)	
Yes	9/41 (22.0)	
Unknown	14/41 (34.2)	
Q14: Actions Taken Since Receiving <i>Think Syphilis</i> Materials ^b		[Condition: Q14 = Yes]
Shared With Office Staff	7/9 (77.8)	
Shared With Medical Providers	5/9 (55.6)	
Posted In Facility	6/9 (66.7)	

	N (%)	Condition
Provided A Teaching Event	1/9 (11.1)	
Reviewed Lab Protocols	4/9 (44.4)	
Reviewed Standing Orders	3/9 (33.3)	
Developed Changed Protocols	2/9 (22.2)	
No Actions Taken	1/9 (11.1)	
Other	2/9 (22.2)	
Q15: Provide Care to Uninsured Patients		
No	1/42 (2.4)	
Yes	41/42 (97.6)	
Q16: To the best of your knowledge, what is the estimated percentage of your pregnant patients that are covered by Medicaid?		
100%	0/38 (0)	
80-99%	5/38 (13.2)	
60-79%	11/38 (29.0)	
40-59%	9/38 (23.7)	
20-39%	5/38 (13.2)	
0-19%	7/38 (18.4)	
Other	1/38 (2.6)	

^a Allied Health Professionals include Physician Assistants, Nurses, Nurse Practitioners, and Nurse Managers

^b Question is Multiselect