Syphilis test availability and uptake at medical facilities in southern China

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Objective To examine syphilis testing capacity, screening coverage rates and types of syphilis tests used in medical facilities in southern China.
Methods Eleven of the 14 municipalities in Guangdong province participated. Data on syphilis testing capacity, screening coverage and types of syphilis tests used were collected from all types of public medical facilities offering prenatal care ($n = 109$). A total of 494 680 women who delivered during 2004–2008 were studied.
Findings In 2008, 54 196 pregnant women (43.1%) were not screened for syphilis. Among such women, 32 863 (60.6%) attended clinics without any syphilis testing capacity and 21 333 (39.4%) attended clinics that performed testing but were not screened. The likelihood of not having syphilis test capacity was much higher for hygiene stations (odds ratio, OR: 10; 95% confidence interval, CI: 4–25), services at the township level (OR: 33; 95% CI: 10–100) and services with ≤ 1000 deliveries per year (OR: 1.002; 95% CI: 1.001–1.003). These same service characteristics correlated with lower screening coverage rates ($P < 0.01$). Only one antenatal clinic had the capacity to conduct both treponemal and non-treponemal tests for diagnosing syphilis.
Conclusion Syphilis screening is available in very few of the basic medical facilities offering prenatal care where most neonates in southern China are delivered. In light of this and of the increasing incidence of syphilis in the area, expanding point-of-care rapid syphilis testing is a priority.

Abstracts in عربي, 中文, Français, Русский and Español at the end of each article.

Introduction

The last decade has seen a pronounced resurgence of syphilis in China,[1–3] especially in south-eastern coastal provinces, which carry the greatest disease burden.[4,5] One such province is Guangdong. In 2009 it reported 39 112 syphilis cases and prevalence reached 41 cases per 100 000 total population, or nearly twice the rate in all of China (25 per 100 000).[6] Syphilis is now the second most commonly reported communicable disease in Guangdong province,[6] where a high prevalence has been observed among female sex workers[7] and men who have sex with men.[8,9]

Mother-to-child syphilis transmission is an important public concern in epidemic areas because syphilis can cause spontaneous abortion, stillbirth and irreversible congenital defects.[10] These adverse outcomes are fortunately preventable through effective prenatal screening programmes. However, organizing such programmes is challenging, especially in places where the health system faces problems. For example, in 2001 the state of Florida in the United States of America (USA) passed a law requiring that at least two syphilis tests be administered during pregnancy, but operational research from Miami showed that only 83% of pregnant women were screened at least once.[11] In a study from Mongolia, only 77% of 3519 pregnant women were screened and the presence of congenital syphilis showed an association with late-term antenatal care and with living farther from care services.[12] The influence of health systems issues on timely prenatal syphilis screening has been observed in several other countries, including Bolivia, Kenya and South Africa.[13]

In a project in Shenzhen (Guangdong province) in which 477 656 pregnant women were screened for syphilis, 0.5% had a positive treponemal test and mother-to-child transmission was prevented in 99.1% of these cases as a result of screening.[14] Although Shenzhen is the most developed city in Guangdong province and the one with the best medical infrastructure, most municipalities have far fewer resources, less equipped laboratories and limited syphilis testing capacity. The non-treponemal test, which is the one most commonly used to screen for syphilis, requires trained laboratory personnel, a refrigerator, a centrifuge and a rotator.[15] Although China's new 10-year National Syphilis Control Plan explicitly mandates widespread prenatal screening for syphilis, the existence of local capacity to undertake such screening, especially in resource constrained regions, is unclear. This study examined the status of syphilis testing capacity, prenatal syphilis screening coverage and types of syphilis tests in different types of medical facilities offering prenatal care in Guangdong province.

Methods

Study sites

Guangdong province is in south-eastern China and borders the South China Sea. Several administrative levels exist in the province, from municipality down to county/district, to township and to village. In 2010 there were 21 municipalities divided into 121 counties/districts. Of these 21 municipalities, seven (Guangzhou, Zhongshan, Zhuhai, Dongguan, Shenzhen, Jiangmen and Fushan) are in the central, more developed region known as the Pearl River Delta. Of the 14 less developed, more resource-constrained municipalities, seven (Chaozhou,

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Shantou, Jieyang, Shanwei, Huizhou, Heyuan and Meizhou) are in the east of the province, five (Zhaoqing, Yunfu, Yangjiang, Maoming and Zhanjing) are in the west and two (Qingyuan and Shaoguan) are in the north.[16] The Pearl River Delta had 11.4 primary syphilis cases per 100 000 population in 2008, a rate much higher than the province's overall rate of 7.6 primary syphilis cases per 100 000.[4] The case definition of syphilis in China includes both clinical criteria as well as laboratory confirmation with treponemal and non-treponemal tests.

Like other parts of China, Guangdong has a vertically organized public hospital system that goes from the municipal level down to the township level. A municipality generally has one municipal general hospital (known as a people's hospital or central hospital), one municipal hospital for women and children and one municipal hospital of traditional Chinese medicine. Administratively nested within municipalities, counties and districts have corollary general hospitals, women's and children's hospitals and traditional Chinese medicine hospitals. Each township has one hygiene station, which is a public health-care post offering basic services. General hospitals and women's and children's hospitals are where most pregnant women in urban areas seek prenatal care and deliver their babies. In contrast, most women in rural China deliver their babies either at home or at a township-level hygiene station. High-risk or complicated pregnancies are referred to county- or municipal-level facilities that provide a higher level of care.

This study was conducted in the 14 less developed municipalities selected for inclusion in the health services research project. All departments for the control of sexually transmitted infections (STIs) at the municipality level were contacted by phone to invite them to participate in a research project jointly organized by the Guangdong Provincial STI Control Department and the Guangdong Provincial Health Bureau. Eleven municipalities representing all the major regions outside the Pearl River Delta agreed to participate. The local STI control centre in each of these municipalities filled out a written survey developed by the Guangdong Provincial STI Control Department in collaboration with the Guangdong Provincial Health Bureau. Since the Provincial Health Bureau has jurisdiction over all hospitals in the province, it has the authority to conduct projects that cut across different health systems. The main goal of the survey was to record data about syphilis testing in all clinical facilities where women in the administrative region give birth. Data regarding whether or not a woman was tested for syphilis were obtained from internal administrative clinic records. Women whose syphilis test results were positive were treated with antibiotics in accordance with standard Chinese guidelines.

The survey was conducted in all hospitals that delivered babies within the municipality and included the following items: name of hospital; type of hospital (general, women's and children's, traditional Chinese medicine, hygiene station); administrative level (municipal, county/district, township); total number of women who delivered babies in 2006–2008; number of pregnant women screened for syphilis at least once before delivery in 2006–2008; treponemal and non-treponemal syphilis screening tests available as of 2008.

Local STI control centres, with technical assistance from the Guangdong Provincial Centre for STI Control and the Provincial Health Bureau, collected all the surveys from local hospitals and reported back to the Guangdong Provincial Centre for STI Control. One hospital that had inconsistent data was contacted and asked to clarify the requested information. In line with previous research, a health systems variable analysing the number of annual pregnancies was dichotomized into > 1000 pregnancies and ≤ 1000 pregnancies.[17] Data were entered into Excel 2010 (Microsoft, Redmond, USA) and analysed using SPSS 11.5 (SPSS Inc., Chicago, USA). χ^2 tests and Wilcoxon ranks sum tests were used to analyse the data, with statistical significance set at $P < 0.05$.

This research study was exempted from ethical review by the Guangdong Provincial STD Control Centre Institutional Review Board in Guangzhou, China.

Results

Summary statistics

Of the 109 medical facilities studied, most (76/109) were hygiene stations and belonged to the township administrative level. Of the 109 medical facilities, 51 were in the western part of the province. The 109 medical settings recorded a total of 494 680 births from 2004–2008; 125 645 of these births occurred in 2008, and that year 57% (71 449/125 645) of the pregnant women who attended the 109 medical facilities received at least one syphilis test. Of the pregnant women in the sample who were not screened for syphilis, 61% (32 863/54 196) had attended prenatal clinics without syphilis screening capacity and 39% (21 333/54 196) had attended a clinic with screening capacity but had not been screened.

Syphilis testing capacity

Local syphilis testing capacity at medical facilities following pregnant women was limited in this sample. Of the 109 medical facilities studied, only 40 (36.7%) provided some form of syphilis testing (Table 1). The most limited syphilis testing capacity was observed at hygiene stations; of the 76 facilities of this type, only 9 (11%) performed syphilis tests. Four of the 76 hygiene stations were near municipal or county capitals; of these four hygiene stations, three offered syphilis testing. Women's and children's hospitals, traditional Chinese medicine hospitals and general hospitals all had significantly higher syphilis testing capacity than hygiene stations. The most limited syphilis testing capacity was seen at the township administrative level, with only 9 of the 75 (12%) medical care facilities having such capacity. Medical settings with fewer deliveries per year had more limited syphilis testing capacity. There was no difference in syphilis test capacity between different regions in Guangdong province.

Prenatal syphilis testing coverage

In 2008, the 40 medical facilities with syphilis testing capacity recorded a total of 92 782 births. Only 77% (71 449/92 782) of the mothers who delivered received some form of syphilis testing. Syphilis screening coverage rates were higher at women's and children's hospitals, general hospitals, higher administrative levels and medical facilities with a larger number of deliveries (Table 2).

Very few medical facilities in this study were able to meet the national benchmark of ≥ 80% for syphilis screening coverage. Of the 40 medical facilities that had syphilis testing capacity, only 26 (65%) reached the coverage benchmark, and 11 of them were children's and women's hospitals (Table 3).

Types of syphilis tests

Of the hospitals that offered syphilis testing, very few had the capacity to perform both treponemal tests (e.g. the *Treponema pallidum* particle agglutination assay, or TPPA) and non-treponemal tests (e.g. the toluidine red unheated serum test, or TRUST) that are necessary to diagnose syphilis according to the Chinese case definition. The majority (85%) of medical facilities only performed non-treponemal tests. Only one women's and children's hospital performed both non-treponemal and treponemal tests. One tenth of all the hospitals had enzyme immunoassays for syphilis diagnosis (Table 4).

Discussion

To our knowledge, this is the first description of the uptake and availability of syphilis testing in medical facilities in China. Our data show that syphilis tests are not universally available in these settings, especially in hygiene stations, where many pregnant women receive prenatal care.[18]

Table 1. **Associations between syphilis testing capacity and health system variables in Chinese medical facilities where deliveries were attended in 2008, Guangdong province, China**

Variable	No. of facilities	Testing capacity				OR	95% CI
		Any syphilis testing		No syphilis testing			
		No.	%	No.	%		
Type of facility							
General hospital	14	13	92.9	1	7.1	96.8	11.3–830.6
WCH	14	14	100.0	0	0	–	–
TCMH	5	4	80.0	1	20.0	29.8	3.0–296.8
Hygiene station	76	9	11.8	67	88.2	R	–
Administrative level							
Municipal	10	9	90.0	1	10.0	66.0	7.5–584.0
County	24	22	91.7	2	8.3	80.7	16.2–402.1
Township	75	9	12.0	66	88.0	R	–
Region							
North	15	7	46.7	8	53.3	1.8	0.5–2. 9
West	51	19	37.3	32	62.7	1.2	0.5–2. 9
East	43	14	32.6	29	67.4	R	–
Annual pregnancies							
> 1 000	34	28	82.4	6	17.6	1.002	1.00–1.00
≤ 1 000	75	12	16.0	63	84.0	R	–
Total	**109**	**40**	**36.7**	**69**	**63.3**	**–**	**–**

CI, confidence interval; OR, odds ratio; R, reference; TCMH, traditional Chinese medicine hospital; WCH, women's and children's hospital.

Table 2. **Pregnant women screened for syphilis in different types of medical facilities, Guangdong province, China, 2008**

Variable	No. of pregnancies	Women screened		Z^a	*P*
		No.	%		
Type of facility					
General hospital	26 128	18 988	72.7	–7.01	< 0.01
WCH	58 040	47 104	81.2	–7.64	< 0.01
TCMH	3 431	1 771	51.6	–3.92	< 0.01
Hygiene station	38 046	3 906	10.3	R	–
Administrative level					
Municipal	26 144	20 423	78.1	–6.28	< 0.01
County	61 949	47 400	76.6	–7.74	< 0.01
Township	37 552	3 906	10.4	R	–
Region					
West	39 479	23 585	59.7	–0.77	0.44
East	66 514	38 335	57.6	–0.57	0.57
North	19 652	9 849	50.1	R	–
Annual pregnancies					
> 1 000	94 474	67 117	93.5	–7.82	< 0.01
≤ 1 000	31 171	4 652	6.5	R	–

R, reference; TCMH, traditional Chinese medicine hospital; WCH, women's and children's hospital.
[a] *Z*, standard score.

Studies in other contexts have also found low syphilis screening coverage among pregnant women. Only 57% of the pregnant women who attended the 109 hospitals included in this study received syphilis testing. This rate is higher than the average of 38% and 43% observed in sub-Saharan Africa[19] and the United Republic of Tanzania,[20] respectively, but lower than the 77% syphilis screening coverage rate reported in Mongolia.[12] The National Syphilis Control Plan in China established a 2015 benchmark to routinely screen 80% of pregnant women in cities and 60% of pregnant women in rural areas for syphilis. Reaching the benchmark in urban areas may be easier because women's and children's hospitals and general hospitals, which showed high screening coverage rates in our study, are where most urban women seek prenatal care. Conversely, achieving the benchmark in rural areas may be more challenging for several reasons. First, hygiene stations are the main and sometimes only facilities that provide prenatal care in those catchment areas, and in our sample such facilities had a screening coverage of only 10.3%. Second, in less developed regions some women still give birth at home and have fewer opportunities to be tested for syphilis. The rate of delivery in

Table 3. **Predictors of > 80% pregnant women screened for syphilis at medical facilities where deliveries were attended in 2008 in Guangdong province, China**

Variable	Total	≤ 80% screened		> 80% screened		OR	95% CI
		No.	%	No.	%		
Type of facility						0.784	0.44–1.39
General hospital	13	5	38.5	8	61.5	–	–
WCH	14	3	21.4	11	78.6	–	–
TCMH	4	1	25.0	3	75.0	–	–
Hygiene station	9	5	55.6	4	44.4	–	–
Administrative						0.724	0.29–1.83
Municipal	9	3	33.3	6	66.7	–	–
County	22	6	27.3	16	72.7	–	–
Township	9	5	55.6	4	44.4	–	–
Region						0.905	0.36–2.28
North	7	3	42.9	4	57.1	–	–
East	14	5	35.7	9	64.3	–	–
West	19	6	31.6	13	68.4	–	–
Annual pregnancies						1.51	0.37–4.09
> 1 000	26	9	32.1	19	67.9	–	–
≤ 1 000	14	5	41.7	7	58.3	–	–
Total	**40**	**14**	**–**	**26**	**–**	**–**	**–**

CI, confidence interval; OR, odds ratio; TCMH, traditional Chinese medicine hospital; WCH, women's and children's hospital.

Table 4. **Syphilis testing methods available at various medical facilities where deliveries were attended in 2008, Guangdong province, China**

Variable	EIA only		TRUST/RPR and TPPA		TPPA only		TRUST/RPR only	
	No.	%	No.	%	No.	%	No.	%
Type of facility								
General hospital	2	15.4	0	–	1	7.7	10	76.9
WCH	1	7.1	1	7.1	0	–	12	85.7
TCMH	0	–	0	–	0	–	4	100
Hygiene station	1	11.1	0	–	0	–	8	88.9
Administrative								
Municipal	0	–	1	11.1	0	–	8	88.9
County	3	13.6	0	–	1	4.6	17	81.8
Township	1	11.1	0	–	0	–	4	88.9
Region								
West	2	10.5	0	–	0	–	17	89.5
East	2	14.3	0	–	1	7.1	11	78.6
North	0	–	1	14.3	0	–	6	85.7
Total	**4**	**10**	**1**	**2.5**	**1**	**2.5**	**29**	**85**

EIA, enzyme immunoassay; RPR, rapid plasma reagin; TCMH, traditional Chinese medicine hospital; TPPA, *Treponema pallidum* particle agglutination; TRUST, toluidine red unheated serum test; WCH, women's and children's hospital.

health facilities has increased in recent years[21] but has not reached 100% yet.

Our finding that testing capacity at hygiene stations is limited is consistent with the findings of other studies in China.[22] The geographic barriers and lack of financial support described in studies outside China may be limiting syphilis testing capacity at hygiene stations in China as well.[12,23] China's new health-care reform plan emphasizes infrastructural and human resource development within the three-tier facility network (county, town and village level),[24] with hygiene stations playing a key role at the township level. Health care reform may help to increase syphilis testing capacity at the local, hygiene station level, but it remains to be determined whether reform will directly affect the availability of syphilis testing and key infrastructure.

Our findings suggest that large gaps exist between routine syphilis testing capacity in resource-constrained regions of China and screening coverage targets under the National Syphilis Control Plan. However, this study was conducted in 2008 and several provincial and national programmes to improve syphilis testing capacity have been implemented since. Our findings triggered the launching of a Guangdong pilot programme for rapid syphilis testing at prenatal care facilities in the 14 study municipalities.[25] The rapid treponemal test provides an inexpensive, simple and quick diagnostic method with good test characteristics.[26] Our health service study describes a major opportunity to substantially expand the scope of routine syphilis testing through the use of the rapid syphilis test. Effectively providing syphilis testing and ensuring 100% prenatal screening coverage are important preconditions for successfully achieving the goals established by China's National Syphilis Control Plan. Rapid point-of-care syphilis testing[27–30] is an excellent option, especially in rural areas with limited laboratory facilities. However, laboratory quality control must be considered when implementing syphilis screening in prenatal care facilities since inaccurate syphilis testing has been described in other areas[31] and in Guangdong province.[32]

This study has several limitations. First, the exact barriers to syphilis screening, such as lack of electricity and trained personnel, were not recorded. The National Syphilis Control Plan explicitly calls for expanding the training of medical personnel in syphilis programme management.[33] Second, this study only sampled public medical facilities providing prenatal care in southern China and the findings may not be applicable to other regions and types of facilities. We believe, however, that the hygiene stations in this study are probably very similar to facilities in other middle- and low-income settings where prenatal clinics have limited infrastructure and medical personnel.[34] Third, deliveries at home or in private prenatal care facilities were not sampled, and both settings are characterized by lower syphilis testing capacity.[35] Finally, the timing of prenatal care, a crucial aspect of congenital syphilis prevention, was not determined.[36] Timely prenatal care, preferably in the first trimester, is essential for effective syphilis prevention programmes.[37]

The elimination of congenital syphilis is a global health priority, but organizing effective prenatal screening, especially in the resource-constrained settings most heavily affected by congenital syphilis, remains a substantial challenge. Our research has identified the type of prenatal care facilities in these settings that would benefit the most from rapid syphilis testing. Further research is necessary to guide comprehensive implementation of the National Syphilis Control Plan in China and to meet established targets for the elimination of congenital syphilis. ■

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الملخص

توفر وإجراء اختبار الزهري في المرافق الصحية في جنوب الصين

الغرض فحص القدرة على إجراء اختبار الزهري، ومعدلات التغطية بالتحري عنه، وأنواع اختبار الزهري المستخدمة في المرافق الصحية في جنوب الصين.

الطريقة شاركت في البحث إحدى عشرة بلدية من 14 بلدية في مقاطعة غوانغدونغ. وجمعت المعطيات حول القدرة على إجراء اختبار الزهري، ومعدلات التغطية بالتحري عنه، وأنواع اختبار الزهري المستخدمة من جميع أنواع المرافق الطبية العمومية التي تقدم الرعاية السابقة للولادة (عددها = 109). وقد جرت دراسة 494680 امرأة ولدن خلال السنوات 2004–2008.

النتائج في عام 2008، لم يتم التحري عن الزهري لـ 54196 امرأة حاملاً (43.1٪). ومن بينهن 32683 امرأة (60.6) راجعن عيادات ليس لديها القدرة على إجراء اختبار الزهري، وراجعت 21333 امرأة (39.4٪) عيادات تجري الاختبار ولكن بدون إجراء التحري. وكانت أرجحية عدم القدرة على إجراء اختبار الزهري أعلى بكثير في مواقع الحفاظ على الصحة (نسبة الأرجحية: 10؛ فاصلة الثقة 95٪: 4–25)، وفي الخدمات على مستوى البلدة (نسبة الأرجحية: 33؛ فاصلة الثقة 95٪: 10–1000)، وفي مواقع الخدمات التي تقع فيها ولادات سنوية تساوي أو تقل عن 1000 ولادة (نسبة الأرجحية: 1.002؛ فاصلة الثقة 95٪: 1.001–1.003). وارتبطت نفس خواص الخدمة بمعدلات منخفضة من التغطية بالتحري (قوة الاحتمال P أقل من 0.01). فقط عيادة واحدة للرعاية السابقة للولادة كان لديها القدرة على إجراء اختبارات الكشف عن بكتيريا اللولبية وغير اللولبية لتشخيص الزهري.

الاستنتاج التحري عن الزهري متاح في عدد قليل جداً من المرافق الطبية الأساسية التي تقدم الرعاية السابقة للولادة، حيث تتم ولادة غالبية الولدان في جنوب الصين. وفي ضوء ذلك وبسبب زيادة معدلات وقوع الزهري في المنطقة، يعد من الأولويات توسيع قدرات نقطة الخدمة على إجراء اختبار الزهري بسرعة.

摘要

中国南方医疗机构梅毒测试的可用性和执行

目的 旨在调查中国南方医疗机构的梅毒测试能力、筛查覆盖率和梅毒测试类型。

方法 广东省14个市中的11个市参加了本项研究。所运用的梅毒测试能力、筛查覆盖率和梅毒测试类型方面的数据从提供产前护理的所有类型公共医疗机构（n = 109）处收集。本文研究了2004-2008年间分娩的共计494 680名妇女。

结果 2008年，54 196名孕妇（43.1%）未接受梅毒筛查。这些孕妇中，32 863 （60.6%）前往的是没有任何梅毒测试能力的诊所，而21 333 （39.4%）前往能进行梅毒测试的诊所但却没有接受筛查。下述医疗机构无法进行梅毒测试的可能性较大：卫生站（比值比：10；95%可信区间:4-25），乡镇级服务站（比值比：33；95%；可信区间：10-100）和每年分娩数量达1000例的服务站（比值比：1.002；95%可信区间：1.001-1.003）。这些服务站的相同特征是与较低的筛查覆盖率相关（P < 0.01）。仅有一家产前检查服务机构有能力用于梅毒诊断的密螺旋体和非密螺旋体检测。

结论 在中国南方，提供产前护理且为大多数婴儿出生地的基本医疗机构中，仅有很少的几家机构能够进行梅毒筛查。鉴于此情况以及该区域梅毒发病率的不断上升，扩大医疗点快速梅毒测试是当务之急。

Résumé

Disponibilité et recours au dépistage de la syphilis dans les établissements médicaux de Chine méridionale

Objectif Étudier la capacité à effectuer le dépistage de la syphilis, les taux de couverture du dépistage et les types de tests syphilitiques utilisés dans les établissements médicaux en Chine méridionale.

Méthodes Onze des 14 municipalités de la province de Guangdong ont participé à cette étude. Les données relatives à la capacité à effectuer le dépistage de la syphilis, à la couverture du dépistage et aux types de tests syphilitiques utilisés ont été recueillies auprès de toutes les sortes d'établissements médicaux proposant des soins prénataux (*n*=109). Un total de 494 680 femmes ayant accouché entre 2004 et 2008 ont fait l'objet de l'étude.

Résultats En 2008, 54 196 femmes enceintes (43,1%) n'ont pas subi le dépistage de la syphilis. Parmi ces femmes, 32 863 d'entre elles (60,6%) se sont rendues dans des cliniques ne disposant d'aucune capacité pour effectuer le dépistage de la syphilis et 21 333 d'entre elles (39,4%) n'ont pas subi de dépistage, bien qu'elles soient allées dans des cliniques aptes à le réaliser. La probabilité du manque de capacité de dépistage de la syphilis était beaucoup plus élevée pour les centres de santé (rapport des cotes, RC: 10; intervalle de confiance de 95%, IC: 4–25), les services au niveau communal (RC: 33; IC de 95%: 10–100) et les services réalisant moins de 1000 accouchements par an (RC: 1,002; IC de 95%: 1,001–1,003). Ces mêmes caractéristiques de service étaient en corrélation avec des taux de couverture de dépistage inférieurs (*P*<0,01). Seuls six (5,5%) types de services de soins prénataux disposaient de la capacité de mener des tests tréponémiques et non tréponémiques pour diagnostiquer la syphilis.

Conclusion Le dépistage de la syphilis n'est disponible que dans très peu d'établissements médicaux de base qui proposent des soins prénataux, dans lesquels la plupart des nouveau-nés de Chine méridionale voient le jour. À la lumière de ces informations et de l'incidence croissante de la syphilis dans cette région, l'extension du dépistage rapide de la syphilis aux points sanitaires est une priorité.

Резюме

Доступность и масштабы тестирования на сифилис в медицинских учреждениях южного Китая

Цель Исследовать имеющийся потенциал тестирования на сифилис, показатели охвата скринингом и виды тестов на сифилис, используемых в медицинских учреждениях южного Китая.

Методы В исследовании приняли участие 11 из 14 административно-территориальных единиц провинции Гуандун. Были собраны данные о потенциале тестирования на сифилис, охвате скринингом и типах тестов на сифилис по всем видам государственных медицинских учреждений, предлагающих услуги в области дородового ухода (n = 109). Всего были обследованы 494 680 женщин, рожавших в 2004–2008 годах.

Результаты В 2008 году 54 196 беременных женщин (43.1%) не были обследованы на сифилис. Из этого числа 32 863 женщины (60,6%) посещали клиники, не обладавшие необходимым потенциалом для проведения тестов на сифилис, а 21 333 женщины (39,4%) посещали клиники, в которых тестирование проводилось, но не проходили скрининга. Вероятность отсутствия необходимого потенциала для проведения тестов на сифилис значительно выше на гигиенических станциях (отношение шансов, ОШ: 10; 95% доверительный интервал, ДИ: 4–25), в поселковых службах (ОШ: 33; 95% ДИ: 10–100) и в службах, принимающих до 1 000 родов в год (ОШ: 1,002; 95% ДИ: 1,001–1,003). Эти же характеристики медико-санитарной службы коррелируют с более низкими показателями охвата скринингом (P < 0,01). Только одна клиника дородового ухода обладала необходимым потенциалом для проведения трепонемных и нетрепонемных тестов для диагностики сифилиса.

Вывод Лишь в очень немногих медицинских учреждениях базового уровня, где предлагаются услуги по дородовому уходу и появляется на свет большинство новорожденных в южном Китае, доступен скрининг на сифилис. Учитывая вышесказанное, а также принимая во внимание рост заболеваемости сифилисом в данном районе страны, расширение возможностей для быстрого тестирования на сифилис по месту лечения является приоритетной задачей.

Resumen

Disponibilidad de pruebas de sífilis e índice de aceptación en centros médicos del sur de China

Objetivo Examinar la capacidad para realizar pruebas de sífilis, evaluar las tasas de cobertura y los tipos de pruebas de sífilis utilizados en centros médicos del sur de China.

Métodos Participaron once de los catorce municipios de la provincia de Guangdong. Se recopilaron datos sobre la capacidad de realizar pruebas de sífilis, la cobertura de evaluación y los tipos de pruebas de sífilis de todos los tipos de centros médicos públicos que ofrecen cuidados prenatales ($n = 109$). Se estudió a un total de 494 680 mujeres que dieron a luz durante el periodo 2004-2008.

Resultados En el año 2008, 54 196 mujeres embarazadas (el 43,1%) no fueron evaluadas para la sífilis. De estas mujeres, 32 863 (el 60,6%) acudieron a clínicas sin capacidad para realizar pruebas de sífilis y 21 333 (el 39,4%) acudieron a clínicas que realizaban la prueba, aunque ésta no se les realizó. La probabilidad de no disponer de capacidad para realizar la prueba de sífilis era muy superior en puestos de salud (cociente de probabilidades, CP: 10; intervalo de confianza del 95%, IC: 4–25), servicios municipales (CP: 33; IC del 95%: 10–100) y servicios con ≤ 1000 partos al año (CP: 1.002; IC del 95%: 1.001–1.003). Estas mismas características de servicio correlacionadas con tasas de cobertura de evaluación inferiores ($P < 0,01$). Solo seis (5,5%) tipos de servicios de cuidados prenatales tienen la capacidad de realizar pruebas treponémicas y no treponémicas para el diagnóstico de la sífilis.

Conclusión La evaluación de la sífilis está disponible en muy pocas de las instalaciones médicas básicas que ofrecen cuidados prenatales y donde se da a luz a la mayor parte de los neonatos del sur de China. A causa de esto y del aumento de la incidencia de la sífilis en la zona, la ampliación de los puntos de asistencia para la realización de pruebas rápidas de sífilis es una prioridad.

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