



## Concept Note

### Regional Consultation on Algorithms for Syphilis Testing and Diagnosis In Latin America and the Caribbean

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**Dates: April 24-25, 2014**

**Location: Antigua, Guatemala**

#### Background

In 2009 the Regional Initiative for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis was launched by PAHO and UNICEF, and in September 2010 the PAHO Member Countries approved the Strategy and Plan of Action for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis by the year 2015 by resolution CD50.R12<sup>1</sup>.

Through this resolution, the region commits to the following targets by the year 2015:

- Reduction of the incidence of transmission of HIV from HIV-positive mothers to their infants to 2% or less.
- Reduction of the incidence of mother-to-child transmission of HIV to 0.3 cases or less per 1,000 live births.
- Reduction of the incidence of congenital syphilis to 0.5 cases or less (including stillbirths) per 1,000 live births.

HIV and syphilis testing of all women early in pregnancy, and prompt treatment of infected women, are essential to achieve these targets.

The syphilis component of this dual elimination initiative builds on an existing commitment from the region for elimination of congenital syphilis, adopted in 1995, when the Latin America and Caribbean (LAC) region adopted the Plan of Action for the Elimination of Congenital Syphilis (Resolution CE116.R3)<sup>2</sup>. Key elements of the cascade for elimination of congenital syphilis are: 1) prevention of syphilis infection in the general population, 2) routine timely syphilis screening and treatment of pregnant women; and 3) prompt treatment of syphilis seropositive pregnant women and their sexual contacts.

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<sup>1</sup> Pan American Health Organization (PAHO). Strategy and Plan of Action for the Elimination of mother-to-child transmission of HIV and Congenital Syphilis. 50<sup>th</sup> Directing Council, 62<sup>nd</sup> Session of the Regional Committee. CD50.R12. PAHO, Washington, DC, 2010.  
<http://new.paho.org/hq/dmdocuments/2010/CD50.R12-e.pdf>

<sup>2</sup> Ibid

Most countries in the region have policies for universal syphilis screening in pregnant women. However, uptake of screening is often less than optimal because screening policies are not applied in a systematic way, or due to lack of standardized syphilis testing algorithms that are practical and appropriate for different clinical settings. In 2011, 22 countries reported on ANC syphilis testing, of which none reported the target coverage of 95%. Eleven countries reported coverage rates of over 90%, and the remaining eleven reported coverage levels ranging from close to 90% to less than 20%<sup>3</sup>.

In 2008, approximately 106,500 pregnant women in the Americas were infected with syphilis, of whom an estimated 60% were treated (citation)<sup>4</sup>; this resulted in approximately 33,230 adverse pregnancy outcomes that year (citation)<sup>5</sup>. Interventions to improve the coverage and quality of antenatal syphilis screening programs could reduce the syphilis-attributable incidence of stillbirth and other perinatal deaths and disability by at least 50%<sup>6</sup>.

Beyond the context of elimination of congenital syphilis, effective measures for syphilis control in key populations such as men who have sex with men (MSM) and female sex workers (FSW) remains a priority for the region, taking into account the considerable burden of syphilis infection in these groups as presented in following table summarizing results from studies conducted during the period 2008-2011.

Country	Syphilis prevalence among MSM (%)			Syphilis prevalence among FSW (%)		
	2008	2010	2011	2008	2010	2011
Argentina	25.8	22.4		16.9	20.5	
Chile	0.2	6.3	10.4			
Colombia	18.0			7.7	3.3	
Costa Rica		12.9			13.7	13.7
Dominican Republic	9.0	5.1	7.0	7.8	7.0	
El Salvador		2.7	17.5		6.2	12.1
Guatemala	6.0	4.8	1.4	3.0	16.7	0.7
Honduras	6.4	1.5			12.9	
Jamaica	6.2	1.2		5.5	15.0	
Nicaragua		5.3	2.1		6.4	2.0
Paraguay		14.6	16.5	10.4	18.8	24.6
Trinidad & Tobago		31.8	10.8		11.6	8.9

*Source: World Health Organization (2013). Baseline report on global sexually transmitted infection surveillance. 2012.*

For elimination of congenital syphilis and control of syphilis in key affected groups, it is essential to both have access to practical and well performing diagnostics for the detection of syphilis infection, and to use them in effective ways appropriate to the clinical setting. Syphilis diagnostic technologies have been available for decades, but have required basic laboratory capacity that is not often available at the clinical setting. Drawing blood and sending specimens for testing and results leads

<sup>3</sup> Pan American Health Organization. 2012 Progress Report: Elimination of mother-to-child transmission of HIV and congenital syphilis in the Americas. Washington, D.C.: PAHO; 2013.

<sup>4</sup> Newman L, Kamb M, Hawkes S, Gomez G, Say L, Seuc A, Broutet N. Global estimates of syphilis in pregnancy and associated adverse outcomes: analysis of multinational antenatal surveillance data. PLoS Med. 2013;10(2).

<sup>5</sup> Gomez GB, Kamb ML, Newman LM, Mark J, Broutet N, Hawkes SJ. Untreated maternal syphilis and adverse outcomes of pregnancy: a systematic review and meta-analysis. Bull World Health Organ. 2013 Mar 1;91(3):217-26.

<sup>6</sup> Hawkes S, Matin N, Broutet N, Low N. Effectiveness of interventions to improve screening for syphilis in pregnancy: a systematic review and meta-analysis. Lancet Infect Dis. 2011 (9):684-91.

to loss to follow up of many syphilis-infected pregnant women, especially those coming to antenatal care late in pregnancy or for only one visit. However, in recent years simple, point-of-care (POC) technologies have been developed that can be applied by non-laboratory personnel in environments other than traditional laboratory settings. Rapid diagnostics that allow testing and treatment to be done in clinical settings with limited laboratory capacity have made these this intervention cost-effective and feasible in essentially every nation<sup>7</sup>. In addition, implementation of POCT for syphilis has shown to be feasible and acceptable for patients and health providers, and has led to improvement in several aspects of health services<sup>8</sup>. To ensure the quality of syphilis testing, both laboratory-based and POC testing, essential elements are the use of standardized procedures for quality assurance (QA), quality control, and proficiency testing.

Challenges exist in the region in ensuring appropriate integration of the more traditional and newer syphilis diagnostic technologies, appropriate protocols for testing QA, and arrive at appropriate and effective adaptation of the service delivery environment to achieve optimal benefit of the available technologies.

In response to the need for clarification of critical aspect of optimizing syphilis diagnostic methodologies and practices, and to support accelerated strengthening of country capacity in this regard, PAHO and CDC, in collaboration with other partners, are organizing a regional consultation on syphilis testing and diagnosis.

### **Meeting goal**

The goal of the meeting is to arrive at a consensus based on global guidance, country experiences and expert opinion, on strategies that can be applied in the LAC region to achieve broader access to quality syphilis testing.

### **Objectives**

1. Review of current policies and practices to identify issues hindering or supporting optimal syphilis screening and diagnosis, with focus on regional efforts for elimination of congenital syphilis, syphilis control in key populations, and syphilis surveillance.
2. Reach a consensus on recommendations for syphilis screening/diagnosis algorithms for specific settings for the Region taking into account emerging diagnostic technologies, program and cost- effectiveness, and the regional epidemiological context.
3. Identify key actions for follow-up on regional and country level for policy and program implementation and scale up of effective syphilis screening and diagnosis

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<sup>7</sup> Kahn JG, Jiwani A, Gomez GB, Hawkes SJ, Chesson HW, Broutet N, Kamb ML, Newman LM. The Cost and Cost-Effectiveness of Scaling up Screening and Treatment of Syphilis in Pregnancy: A Model. *PLoS One*. 2014; 9(1).

<sup>8</sup> García PJ, Cárcamo CP, Chiappe M, Valderrama M, La Rosa S, Holmes KK, Mabey DC, Peeling RW. Rapid Syphilis Tests as Catalysts for Health Systems Strengthening: A Case Study from Peru. *PLoS One*. 2013;8(6)

## **Expected outcomes**

1. Regional consensus position paper on screening and diagnosis of syphilis considering different settings/health care system levels and different populations.
2. Formation of a reference/working group on syphilis testing which can provide technical support to countries of the LAC region.
3. A set of consensus strategies and actions to help the region move forward with optimization of syphilis screening and diagnosis

## **Methodology**

This meeting will bring together regional and global experts and representatives from selected countries, to discuss and build a common understanding of the issues, and propose strategies that countries can use to move forward the agenda of quality syphilis screening and diagnosis.

It is envisioned that prior to the meeting, a background paper will be developed summarizing the current situation. The background paper will draw from a survey to be administered to countries (web-based and paper-based) as well as relevant other documents such as technical cooperation reports.

In addition, a preliminary strategic document will be drafted to serve as basis and input for the final consensus position paper.

In organization of this meeting, the following principles will be adhered to:

- Coordination with global guidance at WHO,
- Integration with and leveraging of existing MCH programs and platforms, especially HIV PMTCT
- Keeping affordability, cost-effectiveness and sustainability as central elements of the discussion

## **Meeting participants**

Considering the nature of the meeting, an anticipated 30 persons will participate, representing the following stakeholder groups:

- Regional experts from WHO/PAHO, CDC, WHO/PAHO Collaborating Centers, health ministries, and academia (18)
- Laboratory directors and programme representatives from selected countries (6).