

Evaluation of  
the Utility of  
Routinely  
Collected  
PMTCT  
Program Data  
in Haiti for HIV  
Surveillance,  
2012

Completed by the National Alliance  
of State & Territorial AIDS Directors  
in collaboration with the Haitian  
Ministry of Health

## Background

In recent years, the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) have encouraged countries with generalized HIV epidemics to begin using routine patient data to measure HIV prevalence among pregnant women attending antenatal care (ANC) clinics.<sup>1</sup>

Traditionally, HIV prevalence for this population has been estimated through unlinked anonymous testing (UAT) surveys conducted at ANC clinics. These surveys use leftover blood samples from pregnant women who receive HIV and syphilis tests during routine ANC services. The leftover blood samples are stripped of all information that could permit personal identification. Although UAT surveys are effective at measuring HIV prevalence, they raise ethical concerns since informed patient consent is not obtained and UAT test results are not provided to patients. Standalone UAT surveys are also costly to conduct.

In Haiti, the Ministry of Health has implemented six biannual UAT surveys in order to estimate the prevalence of

HIV among pregnant women, with the most recent survey conducted in 2012.

Haiti has long been committed to maternal health and the prevention of mother-to-child transmission (PMTCT) of HIV; between the years 2004-2010, 77 PMTCT programs were established, and by 2013 there were 112 PMTCT programs in place across the country. In addition, in 1999 Haiti implemented routine, opt-out syphilis screening of all pregnant woman routine, opt-out HIV screening of all pregnant women in 2000.

Due to its strong history of ANC and PMTCT programs, it was believed that Haiti could make use of its routine PMTCT data to estimate HIV prevalence among pregnant woman receiving antenatal care.

In 2012 the Haitian Ministry of Health (MoH) and the National Alliance of State and Territorial AIDS Directors (NASTAD) collaborated to assess whether routine PMTCT data could be used as an indicator of HIV prevalence among pregnant woman in Haiti. This report summarizes the objectives and the results of this evaluation.



<sup>1</sup> Guidelines for assessing the utility of data from prevention of mother-to-child transmission (PMTCT) programmes for HIV sentinel surveillance among pregnant women. UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, 2013.

## Overview of Evaluation

The primary objective of the evaluation was to assess the use of routine PMTCT data in the estimation of HIV prevalence among pregnant women in Haiti. The evaluation also sought to achieve the following, more specific objectives:

1. Identify and describe the political and operational characteristics of PMTCT and ANC programs
2. Visit dual-program sites (sites with ANC sentinel surveillance and PMTCT program data) to assess data quality
3. Compare HIV prevalence estimates based on PMTCT program data with those based on ANC sentinel surveillance data



The evaluation was conducted over a 12-month period from October 1, 2011 to September 31, 2012. It was implemented in three phases, as demonstrated in Figure 1, below.

### Figure 1: Three Phases of Implementation

**National Level:** Review the national strategies and the operationalization of PMTCT and ANC programs in Haiti.



**Site Level - PMTCT Evaluation:** Assess the implementation of the ANC and PMTCT programs and their integration at the site level.



**Site Level - ANC/PMTCT Program Integration:** Assess the integration of PMTCT services into routine antenatal care.

With the guidance of the Haitian Ministry of Health, 18 sentinel sites were selected to participate in this evaluation. Each of these sites had integrated or co-joined ANC and PMTCT programs, and had participated in the latest round of the UAT survey. The sites are listed in Table 2 (next page).

Both MoH and U.S. CDC ethics committees approved the evaluation. Data protection and patient privacy and confidentiality were prioritized throughout the implementation of the evaluation.

**Table 1: Selected Utility Evaluation Sites**

Department		Site	Has PMTCT and ANC	ANC Survey Site	Rural/Urban
<b>Northeast</b>	1	Centre Médico Social (Ouanaminthe)	Yes	Yes	Urban
<b>North</b>	2	Centre Médico Social de Lafossette (Cap-Haïtien)	Yes	Yes	Urban
	3	Hôpital Justinien (Cap-Haïtien)	Yes	Yes	Urban
<b>Northwest</b>	4	Hôpital Immaculée Conception (Port-de-Paix)	Yes	Yes	Urban
<b>Artibonite</b>	5	Hôpital La Providence (Gonaïves)	Yes	Yes	Urban
	6	Hôpital Charles Colimon (Petite Rivière)	Yes	Yes	Urban
<b>Centre</b>	7	Clinique Mobile Hôpital Comm. Mirebalais	Yes	Yes	Rural
	8	Hôpital Zanmi Lasante (Cange)	Yes	Yes	Rural
	9	Hôpital de Lascahobas	Yes	Yes	Urban
<b>Southeast</b>	10	Hôpital St-Michel (Jacmel)	Yes	Yes	Urban
<b>Nippes</b>	11	Centre de Santé Armée du Salut (Fonds-des-Nègres)	Yes	Yes	Rural
<b>South</b>	12	Hôpital Immaculée Conception (Cayes)	Yes	Yes	Urban
<b>Grande-Anse</b>	13	Centre de Santé Haitian Health Found. (Jérémie)	Yes	Yes	Urban
<b>West</b>	14	Hôpital Wesleyenne (La Gonâve)	Yes	Yes	Urban
	15	Hôpital Universitaire La Paix (Port-au-Prince)	Yes	Yes	Urban
	16	Hôpital Ste-Catherine Labouré (Cité Soleil/Delmas)	Yes	Yes	Urban
	17	Hôpital Communauté Haïtienne Frères (Pétionville)	Yes	Yes	Urban
	18	Hôpital de Carrefour	Yes	Yes	Urban

## Results

The results of the evaluation are summarized below:

- Implementation of a national HIV strategy for pregnant women has allowed for significant expansion of PMTCT services over the past several years, which has led to greater testing, treatment, and care of HIV among pregnant women, as well as prophylaxis for infants born to HIV-positive mothers.
- The integration of PMTCT programs at ANC sites is not uniformly orchestrated at all sites; 72% of the sites (13 of 18) integrate PMTCT services in the way that was prescribed by the Haitian MoH while other sites may refer women to PMTCT services located at other facilities.
- The use of PMTCT registers was not standard across all 18 sites. Seven sites (39%) used the most recent version of the register, while eight institutions (44%) used older versions of the register. Three sites did not use standard PMTCT registers.
- Of the 15 sites using a PMTCT register, 5 (27%) exhibited issues with the completeness of data. In some instances, some PMTCT-specific variables were missing (such as PMTCT enrollment date).
- Almost all (98%) of the 9,093 pregnant women who were offered HIV tests at the 18 sites over a 3 month period agreed to be tested. Of these, 94% returned to the sites to receive their test results.
- When site-level HIV test results were compared with those obtained from the Haitian National Public Health Laboratory, some discordant results were found. Overall, 14% of site-level positive tests were discordant, which may be the result of recording errors or variations in testing method. There was only very slight discordance among negative results (99.8% concordance).
- Despite the issues noted above, comparative analysis revealed that, overall, HIV data recorded at the site level was remarkably similar to data reported during the 2012 UAT survey for the same time period. The UAT survey estimated HIV prevalence at 2.3%, whereas site-level data showed 2.2% prevalence. Likewise, syphilis prevalence was estimated to be 4.3% by the UAT survey versus 4.4% via site-level data.

## Conclusions

Many of the clinics assessed during this evaluation overcome formidable barriers in order to not only provide ANC and PMTCT services but also to collect data on HIV and syphilis among pregnant women. Much of these data are of very good quality. However, there are several opportunities for growth and capacity building in the context of HIV surveillance among pregnant women receiving ANC services in Haiti. The following recommendations were devised based on the evaluation results detailed above:

- Clinics offering PMTCT services should work to further and more effectively integrate ANC services.
- The capacity of laboratory personnel should be strengthened through further training in order to improve the accuracy of the HIV tests.

- The Haitian Ministry of Health should standardize the distribution of tools necessary for the collection of accurate data (in particular, up-to-date PMTCT registers).
- Data quality checks should be formalized, implemented and enforced

Overall, the evaluation found that, with ongoing support from MoH, site-level data could adequately serve to replace biennial UAT surveys in Haiti.

The promising results of this evaluation were submitted to the Haitian MoH for further analysis and discussion as they consider use of PMTCT data for surveillance of HIV among pregnant women, and as the country works to achieve their stated goals of zero deaths due to HIV, zero stigmatization, and zero new infections.

