

Provider-Initiated Testing and Counselling in Pediatric Units in Togo, 2013-2014: Results of Two Years Implementation

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Abstract

Background: Voluntary testing and counselling rates remain low in Togo. UNAIDS/WHO/CDC have recommended provider-initiated testing and counseling (PITC) for HIV in settings with high HIV prevalence since 2007. We aimed to assess the first results of routine HIV testing in Paediatrician units after two years implementation in Togo.

Method: Children (aged <15 years) who visited the 20 facilities selected were offered PITC for HIV. The intervention was implemented by trained health professionals for the period spanning. The implementation of the approach was first piloted between 2012 and 2014 in 20 health facilities.

Results: The PITC strategy was highly acceptable (95% of mothers counselled) and increased the number of patients who tested for HIV. Within two years, the number of children who received an HIV testing increased by 3 folds (7,373 in 2013 to 22,656 in 2014). In the same period, the number of children tested for HIV positive increased significantly from 697 (9.5%) to 1,680 (7.4%) ($p < 0.0001$). The sex ratio Male/female was 0.8 for HIV positive patients. Outpatient services (46%) accounted for half of the total number of tested children in the 20 facilities. High prevalence in tuberculosis services (19%), in the brotherly (9%) and outpatient services (8%), but low in Immunization services (5%) and PMTCT (5%) have been observed. A significant difference between the entry points and the HIV prevalence exists ($p < 0.0001$).

Conclusion: PITC for HIV was highly acceptable and resulted in an increased rate of HIV testing among children. The PITC strategy that facilitates early detection of HIV and referral for early treatment should be encouraged for broader HIV control and prevention in Togo communities.

Keywords: AIDS; HIV; Provider-initiated testing and counselling; children; Togo

Introduction

The first of the United Nation's 90-90-90 aims to end the HIV epidemic is for 90% of people living with HIV to learn their HIV status. HIV testing is therefore essential to achieving "the first 90" in 2020. Around 40% of people with HIV are unaware of their infection. The only way to determine a person's HIV status is for them to have an HIV test [1,2].

In Togo, the HIV prevalence in the general population is 2.5% [3]. HIV Early infant diagnosis (EID) in Prevention of Mother to Child Transmission (PMTCT) clinics started from 2009, but a low pediatric testing and antiretroviral treatment (ART) coverage exists, despite increasing access to ART in general population. In 2013, only 13% of Polymerase Chain Reaction (PCR) were drawn in infants during the 6-8 first weeks of life [4,5]. Children under 15 years ART coverage is low (35%) compared to 43% with adults. The 3,058 children on ART for 9,000 expected in 2015 [6] represent only 7% of national underworking file. In 2007, WHO/UNAIDS issued new HIV testing guidelines recommending 'provider-initiated HIV testing and counselling' (PITC). In contrast to existing 'voluntary counselling and testing' guidelines (whereby individuals self refer for testing), the PITC guidance recommends that, in countries with generalized epidemics, all patients are routinely offered an HIV test during clinical encounters [7]. In 2012, the national AIDS care program with UNICEF support initiated routine HIV testing in children in 20 hospitals as a pilot project of PITC. The project aims at multiplying the entry point for the registration of HIV infected children which didn't receive the PMTCT program [8,9]. We aimed to assess the first results of providing routine HIV testing for children at all entry points to the healthcare system.

Materials and Method

In 2012, twenty (20) sites of PITC were implemented in the six sanitary regions of Togo by integration of HIV testing in routine child health care: Région Lomé Commune (06), Région Maritime (06), Région Centrale (02), Région des Plateaux (03), Région Kara (02), Région Savanes (01). The 20 hospitals included 6 health regional and 2 teaching hospitals, among which 16 public facilities and 04 confessional ones. Facilities were selected according to their paediatrician affluence. It was a retrospective, descriptive and cross-sectional study conducted from January to march 2015. Implementation approach consisted in training of health care personnel on rapid HIV test guidelines, dried blood sample collection, supply of rapid serologic test kits and data collection tools. Overall, 98 staff were trained (an average of 2 staff per entry point). The target population was children (0-14 years) whose mothers accepted to be tested at the following entry points: out-patient and in-patient care, Immunization services, tuberculosis (TB) clinics, PMTCT services, brotherly (family centered approach). Data were collected from clinical registers. The statistical analysis was made with the software R version 3.3.2. It was a

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before-and-after comparative analysis. Tests of significance used were Chi-2 of Pearson or exact test of Fisher for qualitative data ($p < 0.05$).

Results

Implementation

At the beginning in 2012, twenty (20) pilot sites were selected for 141 (14.2%) facilities delivering HIV care in Togo.

Testing and acceptance rates

Results show that 4.1% (22,656/552,585) of children registered at all entry points were tested. The acceptance rate of the test was 95.0% (22,656 tested out of 23,848 counselled).

Testing activity

From end of the year 2012 to end of the year 2014, testing activity increased by 3 times: number of children tested for HIV increased from 7,373 to 22,656. In the same period, the number of children tested for HIV positive increased from 697 to 1,680.

HIV prevalence decreased significantly from 9.5% to 7.4% (Chi-2=31.70, $p < 0.0001$). The sex ratio Male/female was 0.8 for HIV positive patients (Table 1).

Entry points

Outpatient services (46%) accounted for half of the total number of tested children in the 20 facilities and 52% of the infected volume.

High prevalence in TB services (19%) and in the brotherhood (9%) and outpatients services (8%), but low in Immunization (5%) and PMTCT (5%) have been observed (Table 2). A significant difference between the entry points and the HIV prevalence exists ($p < 0.0001$).

Discussion

The results of our study show that, routine HIV testing for children at all entry points is feasible. PITC is an acceptable approach to fast-track identification of HIV positive children and linkage to early ART.

Testing rate

Only 4.1% of children attending the 20 selected facilities have been tested. PITC greatly increases nurses' workload and work-related stress. Nurses are generally positive about PITC, but express the need for more training and managerial support. Health system constraints (lack of staff, lack of space) mean that nurses do not always have time to provide adequate counselling [10]. In 2014, Togo Ministry of health and

social protection reported one nurse for 4,746 people, one midwife for 15,691 and one physician for 16,690 [11]. A hierarchical and didactic nursing culture affects counselling quality and the boundaries between voluntary informed consent and coercion can become rather blurred. Nurses are particularly stressed by breaking bad news and handling ethical dilemmas [10]. In another study in Zimbabwe, the main reasons given for not offering PITC were the perceived unsuitability of the accompanying guardian to provide consent for HIV testing on behalf of the child and lack of availability of staff or HIV testing kits [12]. For Bandason et al. uptake of diagnostic HIV testing by pupils was also low with only 47/4,386 (1%) pupils undergoing testing [13].

Acceptance rate

Positive attitude of parents/caretakers to HIV testing given availability of treatment. The high level of acceptance rate (95.0%) in our study was confirmed in Nigeria (94%) [14]. In Zambia in a 36 month period following PITC institutionalization, of total inpatient children eligible for PITC ($n = 5,074$), 98.5% of children adolescents and adults more than 13 years were counselled and 98.2% were tested in 2012 [15]. Never the less, Bandason et al. [13] experienced low level of acceptance rate in Zimbabwe: the main barrier to HIV testing was parents' fear of their children experiencing stigma and of unmasking their own HIV status should the child test HIV positive. Most guardians believed that a child's HIV-positive result should not be disclosed and the child could take HIV treatment without knowing the reason. Increased recognition of the high burden of undiagnosed HIV infection in children is needed. Despite awareness of the benefits of HIV testing, HIV-related stigma still dominates parents/guardians' psychological landscape. There is need for comprehensive information and support for families to engage with HIV testing services [13].

Testing results

After PITC roll-out, the hospitals experienced considerably higher testing uptake in our study: within two years, the number of children who received an HIV testing increased by 3 folds (22,656 in 2014 against 7,373 in 2013). The same experience was noticed in Zambia with Mutanga [15]: Findings support PITC as an important intervention to increase HIV testing.

Identically the number of children tested for HIV positive increased from 697 to 1,680. The objective of the case-finding initiative is to improve access to ART for HIV positive children through active case of finding through all entry points for sick children at the health facilities [7,8]. An important part of mothers are still not receiving PMTCT care, because antenatal care coverage is low (61.2%) in Togo and those who are attending private clinic without routine testing (34.0%) or delivering birth at home (50.5%) [16]. Lesson learnt is case finding in routine child care settings from PITC approach to fast-track identification of HIV positive children and linkage to early ART.

The HIV prevalence among children under 15 years who underwent HIV testing was 7.4% in Togo in 2014. Idem 6.8% among pupils in Zimbabwe [13], 9.0% in Nigeria among adolescents and adults [14], and 15.0% in Zambia [15]. The HIV prevalence is known to be higher

	2013	2014	Total
HIV prevalence (%)	9.5	7.4	$P < 0.0001$
HIV positive	697	1,680	2,377
HIV negative	6,676	20,976	27,652
Number of children tested	7,373	22,656	30,029

Data source: Togo PNLIS 2013-2014

Table 1: Number of children tested and HIV prevalence according to the year, 2013-2014.

Entry point	MOTHER CARE		PEDIATRIC UNITS				Total
	PMTCT/EID	Brotherly (Family)	Out-patient	In-patient	Immunization services	TB clinics	
Tested	4,663	3,540	10,435	1,768	2,229	21	22,656
HIV positive	247	330	881	117	101	04	1,680
Prevalence	5%	9%	8%	7%	5%	19%	7%

Table 2: HIV positive cases by entry point (Togo, 2013-2014).

in Austral Africa and in Nigeria [1]. But our result are 3 times more superior to the national prevalence of HIV infection in Togo (2.5%) in 2014 [3]. That means that children attending facilities for a symptom (fever, cough, diarrhea, skin signs) could hide an HIV status. Normally, PITC should be systematic in Paediatric Units.

Symptomatic testing by health professional at the beginning of the implementation of PITC in Togo can explain the reduction of prevalence from 9.5% to 7.4% in one year. In fact, during the PITC activity, providers have been directed many times to propose test to every child coming into the health care system, not only sick ones.

Majority of patients were female in our study (sex ratio 0.8%), as found by Bandason et al. (sex ratio 0.85%) [13]. No reason is really found about these gender proportions, but in Togo, general population is majority of female (51% vs 49% men) [17].

Entry points

Outpatient services can be numbered about 46% of patients tested and 52% of HIV positive children. Mc COLLUM [18] team reported that 81% of 7,077 pediatric inpatients in MALAWI were tested in 2013. Our results could be explained because 06 facilities under 20 selected do not provide hospitalization care (secondary health care).

Tuberculosis care services (19%) and family approach (9%) show very high levels of HIV prevalence. Tuberculosis is the HIV most frequent opportunistic infection and the national program against tuberculosis reported 21% co-infection VIH/TB in 2015 [19]. Also the mother to child transmission without intervention (20-45%) calls to a family centered approach [20]. Brotherly systematic testing permits to reveal others infected members without HIV status. Outpatient (8%) and inpatient (7%) high prevalence are related to HIV morbidity. Immunization services (5%) and PMTCT (5%) were less important. Others entry points as nutrition rehabilitation care and children of adults in ART clinic were not documented because of insufficiency in PITC tools (register not exhaustive). In January 2017, all PITC tools have been reviewed and the lacks corrected. Preference of entry points of PITC (TB, familial testing, nutrition care, hospitalization) is recommended as to consider financial challenges (test kits).

Conclusion

PITC is an acceptable and feasible. This strategy helps to increase case-finding for HIV positive children in routine child care settings, particularly in generalized epidemic settings. TB services and brotherly showed highest HIV prevalence and more efforts should be done towards them. The PITC strategy that facilitates early detection of HIV and referral for early treatment should be encouraged for broader HIV control and prevention in Togo. The integration of HIV testing in routine child health care will help to reach UNAIDS 90-90-90 aims for 2020.

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