



PEDIATRIC HIV/AIDS CARE AND TREATMENT IN ETHIOPIA: RESULTS OF A SITUATIONAL ANALYSIS

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The International Center for AIDS Care & Treatment Programs

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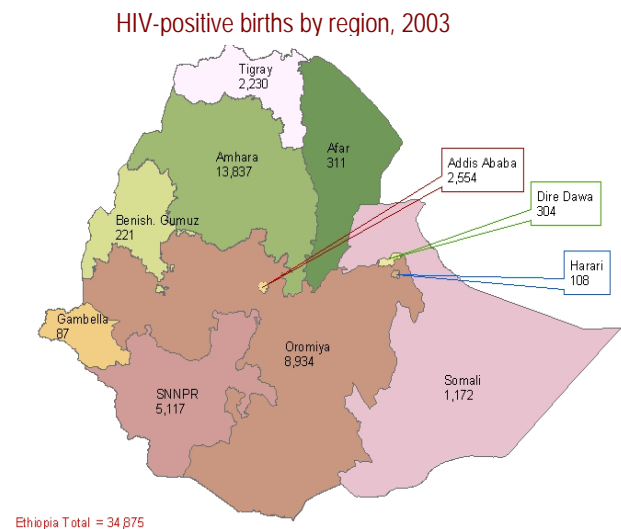
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I. PEDIATRIC HIV/AIDS IN ETHIOPIA

Globally, an estimated 2.3 million children are living with HIV/AIDS, and 2.1 million of these children are in sub-Saharan Africa.¹ Although success stories exist and resources are expanding, preventing and treating pediatric HIV infection in resource-limited settings remains extremely challenging. Often, the infrastructure to support prevention of mother-to-child transmission (pMTCT) services is poorly developed, it is difficult or impossible to diagnose HIV infection in infancy, the use of antiretroviral drugs (ARVs) in children is costly and complex, human resources are lacking, and commitment to the pediatric HIV/AIDS agenda remains marginal.

Ethiopia is a country of more than 77 million people, of whom 44% are under 15 years of age. HIV prevalence in adults is estimated to be 4.8% (12.5% in urban areas and 3.2% in rural areas); prevalence among infants and children is less well-defined.² In 2005, there were an estimated 146,570 pregnancies among women living with HIV/AIDS, resulting in 39,886 HIV-positive births (see map below).³ More than 120,000 children under age 14 are thought to be living with HIV/AIDS and 754,000 children have been orphaned due to the epidemic.⁴

Nearly 63,000 children in Ethiopia need immediate antiretroviral therapy (ART). As of December 2005, however, only 515 children were receiving ART in the public sector, along with a handful of children in the private sector in Addis Ababa.⁵ Without treatment, 50% of HIV-infected children will die before their second birthday and 75% before their fifth birthday, yet less than 1% of Ethiopian children in urgent need of ART have access to these life-saving medications. Prevention and treatment of opportunistic infections is scarce, and the infrastructure to deliver care and treatment to HIV-exposed and HIV-infected children is limited.



Despite the challenges in providing care and treatment to children with HIV/AIDS in resource-limited settings, there are best practices and successes to learn from within Ethiopia and other resource-limited countries. Ethiopia's national, free ART program was initiated in 2005, and the Federal Ministry of Health (FMOH) is strongly supportive of increased access to care and treatment for both adults and children with HIV/AIDS. Additional resources from the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the President's Emergency Plan for AIDS Relief (PEPFAR), and the assistance of implementing partners will enable the dramatic expansion of pediatric HIV/AIDS services. This situational analysis is designed to identify achievable and effective interventions that will promote the health and well being of HIV-exposed and HIV-infected children throughout Ethiopia.

¹ UNAIDS, 2005.

² FMOH, Fifth Report, AIDS in Ethiopia. June 2004.

³ FMOH, Technical Document for the Fifth Report, AIDS in Ethiopia. September 2004.

⁴ FMOH, Technical Document for the Fifth Report, AIDS in Ethiopia. September 2004.

⁵ FMOH/HAPCO, December 2005.

II. OBJECTIVES OF THE SITUATIONAL ANALYSIS

This pediatric HIV/AIDS care and treatment situational analysis was conducted by Ethiopia's FMOH and Columbia University's International Center for AIDS Care and Treatment Programs (ICAP) as part of the initial steps in scaling up access to pediatric HIV/AIDS care and treatment. The information obtained from this analysis was presented at a national conference in January 2006, and will be used to develop concrete steps to improve and expand access to HIV/AIDS care and treatment for children in Ethiopia.

The FMOH and ICAP conducted the pediatric HIV/AIDS situational analysis to:

1. Describe national policies, frameworks, and guidelines on pediatric HIV/AIDS care and treatment.
2. Assess the integration of pediatric HIV/AIDS into the national HIV/AIDS care and treatment training curricula, guidelines, and clinical tools.
3. Assess the availability of pediatric HIV/AIDS diagnosis, care, and treatment services.
4. Examine linkages between pediatric HIV/AIDS care and treatment and other health services.
5. Assess the availability of drugs and diagnostics needed to treat children with HIV/AIDS.
6. Identify opportunities and barriers for pediatric HIV/AIDS scale-up, including mobilizing and sustaining partnerships.
7. Share information obtained with partner organizations to jointly plan the way forward.

III. METHODOLOGY

After an initial planning meeting between the FMOH HIV/AIDS team and ICAP-Ethiopia, an assessment team including members from the FMOH, ICAP-Ethiopia, and ICAP-New York (NY) was formed in December 2005 (see Annex A for a complete list of team members). This assessment team defined the objectives of the study, identified core assessment areas and key informants, and established selection criteria for regions and facilities to be included in the situational analysis.

Core Assessment Areas:

The FMOH and ICAP team agreed upon eight major areas to be addressed in the analysis:

- National policies and frameworks addressing pediatric HIV/AIDS care and treatment;
- National pediatric HIV/AIDS care and treatment guidelines;
- Implementation of pMTCT and family care services;
- Identification of HIV-exposed infants and HIV-infected children;
- Care of the HIV-exposed infant and the HIV-infected child;
- Pediatric ART;
- Procurement of pediatric HIV/AIDS drugs and supplies;
- Existing and potential partnerships in pediatric HIV/AIDS care and treatment.

Site Selection Criteria:

The FMOH and ICAP team agreed that a range of facilities and regions would be included in the analysis, based on:

- Geographic diversity, with a focus on large regions, as well as smaller emerging regions;

- Different stages of the HIV/AIDS epidemic (urban vs. rural);
- Varying levels of health facilities including teaching hospitals, regional referral, and first-level health facilities.

Data Collection:

Nine data collection tools were developed by the assessment team, field tested by ICAP-Ethiopia, and revised before final data collection. These surveys, checklists, and questionnaires were developed for different types of providers and facilities, and included both qualitative and quantitative data.

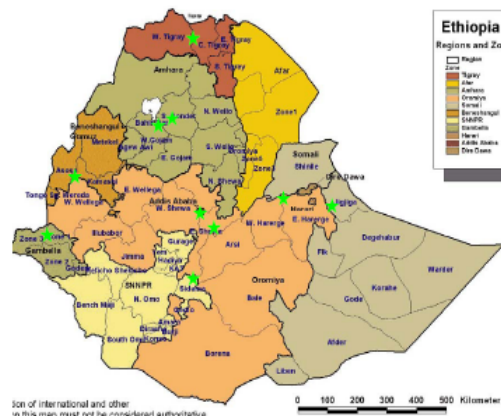
The team collected and analyzed data through various means:

- Desktop review of national HIV/AIDS policies, strategic frameworks, plans for accelerating access to HIV/AIDS care and treatment (e.g. national road maps), clinical guidelines and tools, and in-service training curricula;
- Desktop review of existing studies and reports related to pediatric HIV/AIDS care and treatment in Ethiopia;
- Key stakeholder consultations;
- Field visits to health facilities and Regional Health Bureaus (RHBs);
- Semi-structured interviews with health managers, RHB HIV/AIDS focal persons, child and maternal health care providers, partners, NGOs, and civil society groups.

Verbal consent was obtained from heads of the regional health facilities and from all health care providers. All selected facilities, institutions and organizations responded to the interview. Data were collected from organizations and facilities in 10 regions, including at:

- 11 public hospitals
- 2 public university hospitals
- 6 public health centers
- 6 RHBs
- 5 private hospitals
- 1 orphanage
- 1 organization of people living with HIV/AIDS (PLWHA)
- 6 partner organizations

Sites Visited



- Addis Ababa
- Oromiya
- Amhara
- SNNPR
- Tigray
- Jijiga
- Dire Dawa
- Gambella
- Benishangul
- Somali

Eighty key informants were interviewed individually and three group discussions were conducted. The key informants were facility and department heads, and site level health service providers (pediatricians, general practitioners, nurses, laboratory technicians, pharmacists and pharmacy technicians, and program managers).

The data were analyzed by the assessment team in January 2006, and presented at a national conference co-hosted by FMOH and ICAP. Findings are summarized below; the conference report and presentations are available in full at www.columbia-icap.org/ethiopia.

IV. FINDINGS

A. National Resources

Policies and Plans:

Ethiopia's first comprehensive *National HIV/AIDS Policy* was ratified in 1998 and identifies children as priority targets of HIV/AIDS interventions. It preceded the availability of care and treatment however, necessarily focusing on prevention interventions. The *Ethiopia Strategic Plan for Intensifying the Multi-sectoral HIV/AIDS Response* was published by the HIV/AIDS Prevention and Control Office (HAPCO) in 2004. The document outlines the strategic responses for 2004–2008 and identifies orphans and vulnerable children and children with HIV as “special target groups” for prevention, care, and treatment.

In 2005, the FMOH published *Accelerating Access to HIV/AIDS Care and Treatment: Road Map for 2004–2006*. Specific ART enrollment targets are provided, including the goal of providing ART for 4,000 children by the end of 2006. This would be nearly a 10-fold increase in the number of children receiving ART, but the target still represents only 6% of children in immediate need of ART. The adult target for the same period is 31% of those in immediate need of treatment.

National Pediatric HIV/AIDS Guidelines:

National guidelines on the care and treatment of children with HIV have evolved rapidly. *The Guideline for the Clinical Management of Pediatric Infection in Ethiopia*, published in 2000 by the FMOH and CDC, was the first of its kind in Ethiopia. Preceding public-sector access to diagnostics or ART, it focuses on OI management and symptom-based clinical algorithms. In January 2005, the *Guideline for the Implementation of ART in Ethiopia* provided specific guidance for national ART program implementation and emphasized the need to prioritize children for ART. The *National Guideline on the Use of ARV Drugs*, issued in 2003 and revised in 2005, includes a short section on pediatric care and treatment. Although it has been in circulation for over a year, only two of the 17 sites visited for the situational analysis had the *ART Guidelines* readily available to practicing health workers.

Other guidelines include the *National Strategy on Infant and Young Child Feeding*, published in 2004 by the FMOH, and addressing issues of infant feeding in the context of HIV/AIDS. The national pMTCT and HIV counseling and testing (HCT) guidelines are being revised and a *National Guideline on Nutrition and HIV/AIDS* is under development.

National Leadership:

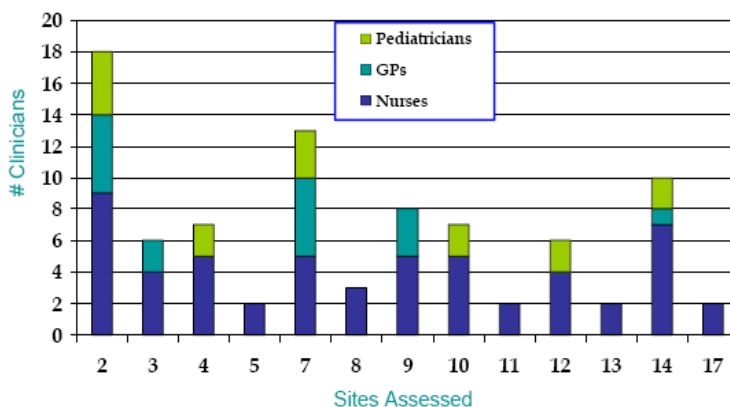
The FMOH is committed to expanding access to HIV/AIDS care and treatment. Regional Health Bureaus, Regional HAPCOs, and HIV focal persons coordinate HIV prevention, care, and treatment activities. There is a National Care and Treatment Technical Working Group that includes a pediatrician. However, there is no national or regional working group dedicated solely to pediatric HIV/AIDS care and treatment. The FMOH lacks a pediatric focal person, and RHBs generally lack expertise in pediatric care and treatment.

Human Resources and Training:

Health care personnel are scarce in Ethiopia, a country of 77 million people, with approximately 2,000 physicians, 700 health officers, 15,500 nurses, 5,200 paramedics, and 200 pediatricians.

Most pediatricians are located in Addis Ababa and tend to concentrate in the private sector. Nurses represent the majority of the child health service workforce in the public sector. The sites surveyed for this situational analysis included academic hospitals and those prioritized for the national ART roll-out. However, pediatricians were available at only seven of the 17 public health facilities visited.

Number and Type of Health Care Workers at Facilities Visited



The severe shortage of health care providers is compounded by the fact that few have been trained to provide care and treatment to children with HIV/AIDS. Recalling the estimate that 63,000 children are in urgent need of ART puts the numbers of trained providers into perspective: informal estimates suggest that fewer than 50 clinicians have received comprehensive in-service training in pediatric HIV/AIDS care and treatment. The topic is not yet integrated into pre-service training curricula and the current seven-day, national in-service ART training curriculum includes only two hours of pediatric HIV/AIDS care and treatment. (FMOH and ICAP-Ethiopia are currently working with CDC training partner, I-TECH, to expand this to two days of pediatric training). Ethiopia plans to decentralize ART services to health center level, as one of the steps towards universal access. However, for access to improve, the capacity of first-level care providers to identify and manage HIV-exposed and HIV-infected children must be enhanced.

B. Preventing Pediatric HIV

Ethiopia’s national pMTCT program was launched in 2003, and currently provides single-dose Nevirapine to women and infants at 136 sites (55 hospitals and 81 health centers) in the public sector. In 2004, FMOH reported that 1,390 and 1,013 infants received single-dose Nevirapine.⁶ Complete 2005 data are not yet available. The two partner organizations thought to represent the bulk of pMTCT programming indicate that in 2005, one provided Nevirapine to 630 women and 373 infants, and the other to 548 women and 571 infants.

Because of concerns that pMTCT services are not widely available, the issue was a focus of the situational analysis. Excluding two hospitals with pMTCT research studies and significant

⁶ FMOH. Accelerating Access to HIV/AIDS Treatment in Ethiopia: Road Map for 2004-2006.

private support for pMTCT programs, the situational analysis found that, on average, 39% of pregnant women were tested for HIV (range of 7-92%) at the facilities visited. In the 15 pMTCT sites visited, on average, single-dose Nevirapine was administered to only 12 women in the past six months (range 0-35). Sites provided single-dose Nevirapine to an average of nine infants (range 0-35) in the past six months. Despite progress, numbers reached by the pMTCT services fall dramatically short of national targets, posing a formidable challenge to the goal of preventing mother-to-child transmission of HIV and to identifying HIV-exposed and HIV-infected infants in the antenatal care (ANC) setting.

The situational analysis indicates that barriers to expanded uptake of pMTCT services in Ethiopia include:

- Very low ANC coverage; only 28% of women made at least one ANC visit.⁷
- Very low rates of institutional deliveries; only 5% of babies are delivered at facilities and only 6% by a trained health professional.⁸
- Opt-in testing is still the norm in pMTCT programs, although opt-out testing is being piloted at some sites.
- pMTCT programs are not routinely linked to care and treatment. Of the 15 facilities that provide pMTCT services visited, only one site routinely assessed mothers for ART eligibility, four sites reported that they refer HIV-positive mothers for assessment, and nine provided no services for the HIV-positive pregnant mothers. This clearly indicates a lost opportunity to further reduce MTCT by putting pregnant women with advanced HIV on highly active ART (HAART) instead of single-dose Nevirapine and also reach other eligible family members.

C. Diagnosis of Pediatric HIV

The diagnosis of infants (less than 18 months) with HIV is severely constrained by the lack of access to virologic testing (PCR). None of the health facilities visited provided routine infant diagnostic testing. Excluding research projects, nine out of the 13 pMTCT sites visited (69%) had no infant follow-up at all. There is no routine documentation of maternal HIV status or enrollment in a pMTCT program in the children's health records, making it difficult for child health care providers to identify exposed and potentially infected children when routine care (e.g. immunizations and growth monitoring) is sought.

HIV antibody testing services are available in all the health facilities visited, except one. However HCT uptake by children is poor and provider-initiated testing rarely implemented. Multiple factors, including stigma, the need for parental consent for testing clients younger than 18 years, and failure to recognize HIV infection in sick children, are thought to play a role in the low uptake of HCT by children.

There is no routine case-finding in pediatric inpatient wards, under-five clinics, pediatric tuberculosis (TB) care sites, or in adult HIV/AIDS care and treatment settings. Few health care providers ask about or discuss possible HIV-infection in children and recommend referral to

⁷ Central Statistical Agency, MEASURE DHS, ORC Macro. Ethiopia Demographic and Health Survey 2005, Preliminary Report. November, 2005.

⁸ Ibid, 2005.

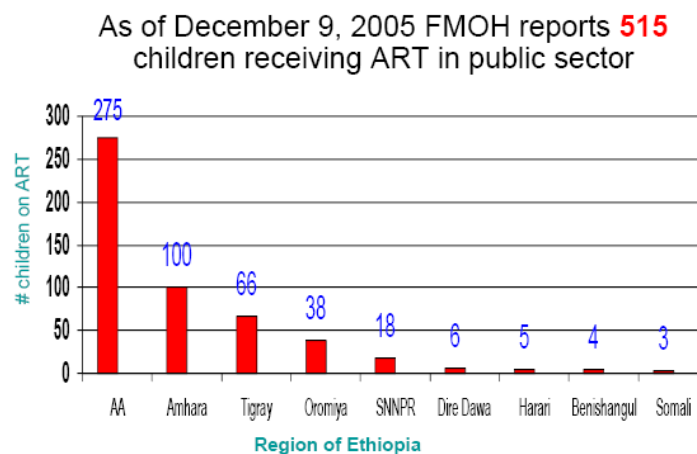
testing, care, and support services. The national voluntary testing and counseling (VCT) guideline, currently under review, emphasizes partner notification, but not testing of children.

D. Pediatric HIV/AIDS Care and Treatment

Ethiopia’s experience in pediatric HIV/AIDS care and treatment, including ART, is very limited. The rapid and successful expansion of access to CD4 testing in Ethiopia, now available at 30 hospitals, has markedly improved to the provision of HIV/AIDS care and treatment for adults. However, these machines use FACSCOUNT and do not provide CD4 percentage, which is required to assess ART eligibility of children below the age of six.

In most of the public facilities assessed, there are frequent stock-outs of cotrimoxazole (CTX) suspension. Only six out of the 15 pMTCT sites (40%) assessed routinely prescribe prophylactic cotrimoxazole (pCTX) to HIV-exposed infants. Health care providers tend to limit the use of pCTX to HIV-infected children, missing a critically important opportunity to provide it to HIV-exposed infants

As noted, less than 1% of children eligible for ART are receiving it. Of these, 50% are in Addis Ababa, with the majority residing in orphanages. Outside Addis Ababa, facilities visited have no more than 40 children on ART. Out of all pediatric patients receiving ART at visited sites, only 12 (3%) were below the age of 18 months and six of these infants were in Addis Ababa. At the end of 2005, only 10 children nationwide were on second-line regimens (all in Addis Ababa). Infrastructure for the delivery of pediatric care and treatment is significantly underdeveloped and linkages among facility-based care and treatment programs and community services and activities are limited. Only three out of the 13 (23%) health facilities reported having functional links to community-based resources.



Private hospitals are an underutilized venue for pediatric care and treatment. For example, two private hospitals in Addis Ababa provide ART for more than 1,000 adults, but just three children are enrolled at these facilities. All the private hospitals visited have full time pediatricians and obstetricians, making them optimal locations for provision of pediatric HIV prevention, care, and treatment services. Unfortunately, private hospitals currently lack access

to national training initiatives, and to the free ART program. Enhancing public-private partnerships could significantly expand access to pediatric HIV/AIDS care and treatment, especially in Addis Ababa.

E. Drugs and Supplies

Funding for the national ART program in Ethiopia comes mainly from PEPFAR and the Global Fund. Currently, there is a Memorandum of Understanding between PEPFAR and the Government of Ethiopia stating that PEPFAR is to procure all pediatric ARVs, largely through CDC-partner RPM+. Nationally, RPM+ has distributed ARVs for 2,500 children and reports the capacity to provide ARVs for as many as 10,000 children. While a “push system” is currently used (calculating 10% of adult targets to forecast and distribute pediatric formulations), experts surveyed strongly recommended switching to a “pull” system to maximize sites’ abilities to enroll children. Drug forecasting, transportation, and storage continue to pose challenges with only seven hospitals reporting functioning refrigeration. Few pharmacists and pharmacy technicians have received training in the use of pediatric ARVs. Only 11 of the health facilities providing ART had pediatric formulations of all three first line ARV agents (AZT, 3TC, and Nevirapine). No alternative first line ARVs are available outside of Addis Ababa, preventing switches for children with toxicity or co-infection with tuberculosis and complete second-line regimens are not available in most facilities, although RPM+ plans to import additional second-line ARVs. Access to CTX suspension and other opportunistic infection drugs outside of Addis Ababa is also significantly limited.

F. Summary of Major Findings

- There is strong national commitment to enhance access to prevention, care, and treatment for HIV-exposed infants and HIV-infected infants and children.
- Human resources are scarce and pediatricians are in particularly short supply.
- The national, hospital-based HIV/AIDS care and treatment training curriculum provides only two hours of training on pediatric HIV/AIDS. ICAP-Ethiopia is working with the FMOH and I-TECH to expand the pediatric training to two days.
- The majority of child health service providers have not been trained in pediatric HIV/AIDS care and treatment. The few clinicians interviewed in this analysis who attended the national training expressed lack of confidence to diagnose HIV and initiate ART in children.
- National ART guidelines are not available at most facilities.
- ANC coverage in Ethiopia is less than 30% and only 6% of pregnant women are attended by health care professionals at the time of delivery.
- For women who do attend ANC, opt-in HIV testing is still the norm and uptake is low.
- Although pMTCT services have expanded within the last few years, utilization is extremely low and the service is not linked to care and treatment for the mother or infant.
- There is no routine staging (clinical or immunologic) of pregnant women and no use of HAART for pregnant women with advanced HIV/AIDS.
- There are no systematic efforts to identify HIV-exposed infants and thus no way to provide them with closer monitoring, pCTX, or routine HIV testing.
- Virologic HIV testing is not available for infants and alternate approaches (use of serologic testing, clinical staging, CD4 assessment, etc.) are not being utilized.

- Diagnosis of children over 18 months is severely limited. Provider-initiated testing is rarely offered, and use of adult HIV/AIDS care and treatment services as an entry point for pediatric diagnosis is not fully utilized.
- There is little or no experience with program implementation to provide pediatric HIV/AIDS care and treatment services. Intake and follow-up formats, registers, and monitoring and evaluation indicators need to be adapted for children.
- Less than one percent of eligible children in 2006 have access to the national ART program.
- There are adequate supplies of pediatric formulations of three first-line ARVs at present. Other first-line agents, second-line agents, and CTX are in short supply, although RPM+ is optimistic that they will soon be consistently available.
- The private sector is minimally involved in the prevention, care, and treatment of children with HIV/AIDS, but could play a larger role with strengthened public-private partnerships.

V. RECOMMENDATIONS

The results of the situation analysis were presented at a national conference hosted by the FMOH and ICAP in January, 2006.⁹ Participants from the FMOH, HAPCO, RHBs, Ethiopian health facilities and universities, CDC, USAID, WHO, and UNICEF were joined by implementing partners, including ICAP, I-TECH, Johns Hopkins University, IntraHealth, PLCU, RPM+, JHPIEGO, the Clinton Foundation, and private and public pediatric providers (see Annex C). The three-day conference included working groups that focused on: entry points to care and treatment; care of HIV-exposed and HIV-infected children; infant diagnosis and laboratory challenges; and site planning and program implementation. A summary of the working group recommendations to expand access to HIV/AIDS prevention, care, and treatment for Ethiopia children follows.

Strengthen national pediatric expertise and advocacy:

- Support pediatric “champions” at the national, regional, district, and facility levels who are trained and supported to promote the pediatric agenda.
- Strengthen the resources available to the new pediatric focal person at the FMOH/HAPCO.
- Create a National Pediatric Technical Working Group.
- Develop a National Pediatric Road Map.
- Develop enhanced (comprehensive), national pediatric care and treatment guidelines.
- Expand national pediatric training resources by incorporating pediatric training into all national HIV/AIDS training curricula and promoting supplementary HIV/AIDS training for all pediatric providers.
- Strengthen nationwide pediatric tools and protocols (pediatric site assessment tools, standard operating procedures, forms, referral tools, and pediatric monitoring and evaluation indicators).

⁹ Expanding Access to Pediatric HIV/AIDS Care and Treatment in Ethiopia: *Challenges and Prospects*; Addis Ababa, Ethiopia, January 25-27, 2006. Presentations and conference report available at www.columbia-icap.org/ethiopia.

Expand and strengthen the national pMTCT program:

- Support information, education, and behavior change campaigns, peer support groups, and community-based interventions to promote uptake of HIV counseling and testing in the ANC setting.
- Promote routine opt-out HIV testing in ANC.
- Support point-of-service testing in ANC.
- Enhance linkages to care and treatment and follow up of HIV-exposed infants.
- Strengthen monitoring and evaluation of pMTCT initiatives.

Strengthen linkages between pMTCT and care and treatment:

- Expand counseling in ANC settings to include benefits of testing and treatment for children.
- Promote the documentation of maternal HIV status on child health cards and immunization records.
- Support routine clinical and immunologic staging of all HIV-infected pregnant women.
- Promote the use of HAART (rather than single-dose Nevirapine) for pregnant HIV-infected women who meet treatment criteria.
- Implement peer educator programs and support groups.

Expand pediatric HIV counseling and testing:

- Support information, education, and behavior change campaigns focusing on the availability of care and treatment for infants and children with HIV/AIDS.
- Expand training and sensitization of health care providers and program managers.
- Support expansion of testing cadres to include lay counselors.
- Support the use of serologic tests to identify high-risk infants in settings where PCR is not available and maternal status is not known. Reinforce use of clinical and immunologic staging (e.g., CD4%).
- Promote provider-initiated HCT at the point of care.
- Promote routine opt-out testing approaches in ANC settings, labor and delivery wards, inpatient pediatric wards, TB clinics, and under-five clinics.
- Promote pediatric case-finding in adult care settings (e.g., routine and ongoing recommendations for HIV testing of all family members).
- Support and promote access to HIV diagnosis (and care and treatment) for children in orphanages and in community-based programs.

Plan for national infant diagnostic initiative using dried blood spots (DBS):

- Conduct a rapid assessment of the Ethiopian Health Nutrition Research Institute (EHNRI) and regional laboratories.
- Initiate laboratory training for DNA PCR and DBS.
- Develop standard operating procedures for sample collection, transport, documentation, forms, and data management.
- Conduct a rapid validation to compare whole blood vs. DBS.
- Initiate a pilot study to evaluate implementation of DBS in urban and rural settings.

Improve clinical care and treatment of HIV-exposed infants:

- Implement systems to identify HIV-exposed infants. Strengthen follow-up of infants enrolled in pMTCT programs, and screen for maternal HIV at routine pediatric visits (e.g., immunizations, under-five clinics).
- As above, promote the documentation of maternal HIV status on child health cards and immunization records.
- Create follow-up systems, protocols, forms, and registers for HIV-exposed infants.
- Develop a national “minimum package” of care for HIV-exposed infants, including the routine use of pCTX, targeted monitoring of growth and development, and standardized HIV testing protocols.

Improve clinical care and treatment of HIV-infected infants and children:

- Develop a national “minimum package” for HIV-infected children, including routine follow-up, monitoring of growth, nutrition, and development, routine WHO clinical staging, routine assessment of CD4%, and periodic assessment of eligibility for pCTX and ART.
- Initiate pediatric “model centers,” that use a family-focused model of care.
- Promote the comprehensive and timely management of common childhood illnesses (IMCI).
- Promote routine screening, prophylaxis, and treatment for TB/HIV.
- Provide access to nutritional counseling, micronutrient supplementation, and of safe water supplies.
- Strengthen referral systems within, and between, health care facilities.
- Implement peer educator programs and support groups to reinforce care and treatment services.

VI. CONCLUSION

Access to pediatric HIV/AIDS care and treatment in Ethiopia remains severely limited. An estimated 63,000 infants and children require ART, but only 515—less than one percent of those in need—were receiving this life-saving therapy as of December, 2005. Without ART, 75% of these HIV-infected children will die before their fifth birthday. Despite numerous challenges related to human resources, the identification of HIV-exposed infants, the absence of pediatric-focused training curricula and clinical guidelines, and other barriers, there is a strong national commitment to moving the pediatric HIV/AIDS care and treatment agenda forward in Ethiopia.

VI. ANNEXES

Annex A: Members of the Situational Analysis Team

Dr. Eyerusalem Kebede, FMOH

Dr. Afework Kassa, FMOH

Dr. Mengistu Tafesse, ICAP-Ethiopia

Dr. Zenebe Melaku, ICAP-Ethiopia

Dr. Ayele Zewdie, ICAP-Ethiopia

Dr. Addis Alemu, ICAP-Ethiopia

Ms. Tsedey Alemseged, ICAP-Ethiopia

Dr. Miriam Rabkin, ICAP-NY

Dr. Elaine Abrams, ICAP-NY

Ms. Tayla Colton, ICAP-NY

Annex B: Facilities and Organizations Visited

Facilities:

Addis Ababa City Administration

- Tikur Anbessa Hospital (University)
- Zewditu Hospital
- Teklehaimanot Health Center
- Hayat General Hospital (private)
- Denberua Maternity Hospital (private)
- Brass Maternity Hospital (private)
- Saint Gebirel General Hospital (private)

Oromiya Regional State

- Adama Hospital
- Adama Health Center

Amhara Regional State

- Gondar Hospital (University)
- Felegehiwot Hospital
- Gondar Health Center

Tigray Regional State

- Mekelle Hospital
- Mekelle Health Center

SNNPR

- Awassa Health Center
- Yirgalem Hospital

Dire Dawa City Administration

- Dil Chora Hospital
- Dire Dawa Health Center
- Bilal General Hospital (private)

Somali Regional State

- Karamara Hospital
- Jijiga Health Center

Gambella Regional State

- Gambella Hospital

Benshangul Regional State

- Assosa Hospital

Regional Health Bureaus (RHBs):

- Amhara
- Somali
- Dire Dawa
- Harari
- Tigray
- Addis Ababa City Administration

Organizations:

- Mekdim Ethiopia
- National Network of PLWHA Associations
- RPM+
- IntraHealth
- JHPIEGO
- FHI
- WWO Foundation
- The Clinton Foundation
- Mother Teresa Orphanage
- DACA
- PASS/FMOH

Annex C: Conference Participants

No.	Name	Organization
1	Eyerusalem Kebede (Dr.)	FMOH/WHO
2	Abubaker Bedri (Dr.)	Addis Ababa University
3	Ellen Cooper (Dr.)	Boston University
4	Mohammed Ali (Dr.)	CDC - Ethiopia
5	Sileshi Lulseged (Prof.)	CDC - Ethiopia
6	Tadesse Wuhib (Dr.)	CDC - Ethiopia
7	Tekeste Kebede (Dr.)	CDC - Ethiopia
8	Amilcar Tanuri (Dr.)	CDC - Atlanta
9	Yohannes Mengistu (Dr.)	CDC - Ethiopia
10	Ayele Zewde (Dr.)	ICAP-Ethiopia
11	Luis Felipe Gonzales (Dr.)	ICAP-Rwanda
12	Mengistu Tafesse (Dr.)	ICAP-Ethiopia
13	Miriam Rabkin (Dr.)	ICAP-NY
14	Ruby Fayorsey (Dr.)	ICAP-NY
15	Tayla Colton	ICAP-NY
16	Tseday Alemseged	ICAP-Ethiopia
17	Zenebe Melaku (Dr.)	ICAP-Ethiopia
18	Hailu Negassa (Dr.)	CDC-Ethiopia
19	Meg Doherty (Dr.)	JHU
20	Markos Teklu	PLCU
21	Yetnayet Asfaw (Dr.)	IntraHealth

22	Achallu Beyene	CDC-Ethiopia
23	Selamawit Mamo	ARC
24	Bereket Hailegiorgis (Dr.)	AAHB-RL
25	Fanna Minwuyelet	ARC
26	Abraham Haileamlak (Dr.)	Jimma University
27	Kiberebeal Melaku (Dr.)	AAU
28	Abraham G/Giorgis	DACA
29	Dawit Wolday (Dr.)	EHNRI
30	Solomon Tessema (Dr.)	EPS
31	Berhanu Gudata (Dr.)	AAU/J H U
32	Elham Hassen	JHU
33	Afewerk Kassa (Dr.)	FMOH
34	Yetimwork Tekle (Sr.)	FMOH
35	Agnes Sendege	Mulago Hospital (Uganda)
36	Israel Kalyesubula (Dr.)	Mulago Hospital (Uganda)
37	Mae Podesta	The Clinton Foundation
36	Shaffiq Essajee (Dr.)	The Clinton Foundation
39	Chipepo Kankasa (Dr.)	University of Zambia
40	Melissa Jones	USAID
41	Omer Ahmed (Dr.)	USAID
42	Tigist Ketsela (Dr.)	WHO: Afro
43	Teshome Desta (Dr.)	WHO-Ethiopia
44	Siraq Hailu	WHO-Ethiopia

45	Sofia Mengistu (Dr.)	WWO Foundation
46	Aberashe Belete	TRHB
47	Taye Tolera (Dr.)	Oromiya RHB
48	Ashbir Kidane	Amhara RHB
49	Endalamaw Aberra (Dr.)	WHO Ethiopia
50	Teklu Belay (Dr.)	FMOH/HAPCO
51	Hussien Faris	FMOH/HAPCO
52	Rik Negelkerke	FMOH
53	Marina Medeo (Dr.)	Italian Cooperation
54	Teshome Desta (Dr.)	FMOH/WHO
55	Abonesh H/Mariam	WHO Ethiopia
56	Tamirat Bekele	PLCU
57	Francesca Stuer	FHI-Ethiopia
58	Neway Gessesse	FHI-Ethiopia
59	Amha Asseffa (Dr.)	PLCU
60	Aragie Kassa	FMOH/HAPCO
61	Sam Muzii (Dr.)	WHO Ethiopia
62	Edward Wood	The Clinton Foundation
63	Hailu Tadeg	MSH/RPM+
64	Shimelis Endailalu	MSH/RPM+
65	Hailu Hagos	HDZBA