Challenges and Triumphs of Pediatric HIV Care and Treatment in West and Central Africa

Didier Koumavi EKOUVEVI, MD PhD
Département de Santé Publique, Université de Lomé, Togo
Centre Inserm U1219, Bordeaux, France
Pediatric HIV care in West and Central Africa (WCA) region

1. Global and regional status and progress

2. Challenges of Pediatric HIV Care and Treatment

3. Why is this situation terrible?

4. Triumphs of Pediatric HIV Care and Treatment

5. Conclusion
West and Central Africa
Snapshot of HIV in 2016

• **24 countries**
• **425 million inhabitants**, with a high proportion of young people (25% of the population is between 10 and 19 years of age)
• **2.2%** adult HIV prevalence
• **6.6 million** people living with HIV
• **21%** of new HIV infections worldwide
• **36%** of AIDS mortality in Sub-Saharan Africa
Global and regional (WCAR) situation and progress
# Global Summary of HIV Epidemic among Children (0-14 years), Western and Central Africa, 2015

<table>
<thead>
<tr>
<th></th>
<th>Global</th>
<th>WCAR</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Estimated number of children (0-14) living with HIV</td>
<td>880 000</td>
<td>920 000</td>
<td>240 000</td>
</tr>
<tr>
<td>Estimated number of children (0-14) newly infected with HIV</td>
<td>71 000</td>
<td>75 000</td>
<td>32 000</td>
</tr>
<tr>
<td>Estimated number of children (0-14) dying of AIDS-related causes</td>
<td>52 000</td>
<td>53 000</td>
<td>21 000</td>
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</tbody>
</table>

Source: UNAIDS 2016 estimates
Progress in PMTCT coverage has been slower in WCAR compared to ESAR. In WCAR, half of pregnant women living with HIV are still not receiving any ARV for PMTCT.

**Percentage of pregnant women living with HIV receiving most effective antiretroviral medicines for PMTCT, by UNICEF Regions, 2005-2015**

- **Eastern and Southern Africa**: 89%
- **West and Central Africa**: 48%
- **Middle East and North Africa**: 15%
- **21 PMTCT countries**: 80%

**GLOBAL PLAN TARGET (90%)**
Maternal ARV coverage for PMTCT remains low in most WCAR countries.

Percentage of pregnant women living with HIV receiving most effective ARVs for PMTCT, Western and Central Africa, 2015

- Cabo Verde: >95%
- Togo: >95%
- Burkina Faso: 89%
- Guinea: 85%
- Sierra Leone: 83%
- Cameroon: 82%
- Côte d'Ivoire: 79%
- Gabon: 78%
- Equatorial Guinea: 75%
- Liberia: 70%
- Democratic Republic of the Congo: 67%
- Gambia: 64%
- Ghana: 63%
- Benin: 57%
- Central African Republic: 56%
- Chad: 46%
- Senegal: 36%
- Mali: 33%
- Nigeria: 30%
- Niger: 28%
- Mauritania: 12%
WCAR: 490,000 Children and adolescents living with HIV < 15 years

Majority aged 5-14 years

Five-year Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th>Male</th>
</tr>
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<tbody>
<tr>
<td>0-4</td>
<td>89,000</td>
<td>95,000</td>
</tr>
<tr>
<td>5-9</td>
<td>81,000</td>
<td>85,000</td>
</tr>
<tr>
<td>10-14</td>
<td>70,000</td>
<td>74,000</td>
</tr>
<tr>
<td>15-19</td>
<td>110,000</td>
<td>74,000</td>
</tr>
</tbody>
</table>
WCAR: 490,000 Children and adolescents living with HIV < 15 years

53% were from Nigeria
Challenges of Pediatric HIV Care and Treatment in West/Central Africa
What are the challenges?

• Diagnosis of pediatric HIV infection?

• Antiretroviral treatment initiation

• Retention in HIV care

• Limited number of health care workers involved in pediatric management

• Monitoring of pediatric HIV infection
What are the challenges?

- Diagnosis of pediatric HIV infection
- Antiretroviral treatment initiation
- Retention in HIV care
Prong 4: Percent of infants born to women living with HIV receiving a virological test within two months of age in 21 Global Plan priority countries, 2014

49% of HEI received virological test within 2 mths of age, up 13% from 2013

EID remains very low for most countries in WCAR: Regional average at 15%
Experience in Togo

- 4773 HIV pregnant women
  - 2338 DBS collected

Coverage: 48% in 2015

Accessibilité au diagnostic précoce de l’infection à VIH chez les enfants à risque de Lomé (Togo)

Accessibility of early infant diagnosis of HIV infection in Lome (Togo)


13% have received their results <6 months
Universal HIV Screening at Postnatal Points of Care: Which Public Health Approach for Early Infant Diagnosis in Côte d’Ivoire?

Camille Ndondoki¹, Hermann Brou², Marguerite Timite-Konan²,³, Maxime Oga², Clarisse Amani-Bosse², Hervé Menan²,⁴, Didier Ekouévi¹,², Valérie Leroy¹*  

- Maternal uptake for EID: 58% (n=2986)  
- Maternal HIV-infection: 4.5% (n=1817)  
- Parental consent: 15% (n=447 tested)  
- HIV exposed: (n=42)  
- Identification of HIV: 5/42 (11%)
What are the challenges?

- **Diagnosis of pediatric HIV infection**
- **Antiretroviral treatment initiation**
- **Retention in HIV care**
WCAR has the lowest coverage for Pediatric ART in the World

Percentage of children (aged 0-14) living with HIV receiving antiretroviral therapy (ART), by UNICEF Regions, 2005-2015
Outcomes of antiretroviral therapy in children in Asia and Africa: a comparative analysis of the IeDEA pediatric multiregional collaboration

Valeriane Leroy¹,², Karen Malaste⁴, Helena Rabie³, Pagakrong Lumbiganon⁴, Samuel Ayaya⁵, Fatoumata Dicko⁶, Mary-Ann Davies⁷, Azar Kariminia⁸, Kara Wools-Kaloustian⁹, Edmond Aka¹⁰, Samuel Phiri¹¹, Linda Aupribul¹², Constantin Yiannoutsos¹³, Haby Signaté-Sy¹⁴, Lynne Mofenson, François Dabis¹,², and for the International IeDEA Pediatric Working Group*
Initiation of ART treatment is late

<table>
<thead>
<tr>
<th>Region</th>
<th>Median age years (IQR)</th>
<th>&lt;2 years (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Africa (N=3114)</td>
<td>6 (3-9)</td>
<td>13.7</td>
</tr>
<tr>
<td>Southern Africa (N=6162)</td>
<td>4 (2-8)</td>
<td>30.7</td>
</tr>
<tr>
<td>West Africa (N=2281)</td>
<td>5 (2-9)</td>
<td>18.1</td>
</tr>
<tr>
<td>Central Africa (n=2058)</td>
<td>6 (3-9)</td>
<td>20.5</td>
</tr>
</tbody>
</table>
What are the challenges?

• Diagnosis of pediatric HIV infection

• Antiretroviral treatment initiation

• Retention in HIV care

Didier K Ekouevi¹,²*, Alain Azondekon³, Fatoumata Dicko⁴, Karen Malaste⁵, Pety Touré⁵,⁶, François T Eboua⁷, Kouakou Kouadio⁸, Lorna Renner⁹, Kevin Peterson¹⁰, François Dabis¹, Haby Signaté Sy¹¹, Valeriane Leroy¹ and for the iDea pediatric West Africa Working Group pWADA
12-month probability of death: 8.3%
12-month probability of lost-to-program: 23.1%

Figure 1: Kaplan-Meier probability of death (A) or loss to program (death or loss to follow-up) (B) in 2170 children on antiretroviral therapy (ART), by CD4 percentage at ART initiation. leDEA pediatric West Africa database (pWADA), 2000-2007.
Nigeria’s Experience

After seven years of ART care

- 64% of the 660 study children were retained in care and on treatment
- 16% were lost-to-follow-up
- 10% were dead
- 9% had discontinued HIV care
What are the challenges?

• Diagnosis of pediatric HIV infection?

• Antiretroviral treatment initiation

• Retention in HIV care

• Cascade of pediatric HIV care
“Cascade” of pediatric HIV care in WCAR

78% viral suppression: 156 children initiated ART at a median age of 13.9 months; LPV/r
“Cascade” of pediatric HIV care in WCAR

78% viral suppression: 156 children initiated ART at a median age of 13.9 months; LPV/r

Target of 90*90*90
Why this situation in the WCA is terrible?
WHY?

WCAR is a region with major crisis

- **Political crisis** in many countries -, the military remains a central political force

- **Islamist terror** raged in Nigeria and began to spill over into neighboring states (Cameroon)

- **Poverty** is widespread and structurally ingrained despite the presence of resource wealth

- Crisis, disease and catastrophe (**Ebola epidemic** 2014-2016), **yellow fever epidemic**
4 countries reached 90% DTP3 coverage

Burkina Faso, Senegal, Cabo Verde, Sao Tome & Principe

20 countries below 90% target

Only 69% of infants vaccinated with 3 doses of DPT containing vaccines

5.3 million unvaccinated children (Nigeria 54% and DRC 11%)

DPT3 coverage (2015)
- Less than 50
- 50 - 79
- 80 - 89
- 90 or greater

Source UNICEF-Ekpini 2017
WHY?

WCAR: HIV is not a first priority

From Médecins sans frontières. 2006 Report
WHY?

WCAR: HIV is not a first priority

- Less attention and Investment: low prevalence
- Centralized health systems
- Weak procurement and supply chain management
- High level of stigma
- Financial barriers, including user fees for patients
Costs of Care of HIV-Infected Children Initiating Lopinavir/Ritonavir-Based Antiretroviral Therapy before the Age of Two in Cote d’Ivoire

Sophie Desmonde¹,²,³,*, Divine Avit⁴, Junie Petit², Madeleine Amorissani Folquet⁴,⁵, François Tanoh Eboua⁴, Clarisse Amani Bosse⁴, Evelyne Dainguy⁵, Véronique Mea⁴, Marguerite Timite-Konan⁴,⁶, Sylvie Ngbeché⁷, Andrea Ciaranello³,⁸, Valeriane Leroy⁹

Table 1. Mean costs of care estimated in Abidjan during the first 12-month on LPV/r based ART and per child-month of follow-up. N = 99. The MONOD ANRS 12206 study.

<table>
<thead>
<tr>
<th></th>
<th>12-month cost (2012 USD)</th>
<th></th>
<th>Cost per child-month (2012 USD)</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>95% CI*</td>
<td>Mean</td>
<td>95% CI*</td>
</tr>
<tr>
<td>Inpatients visits</td>
<td>14.32</td>
<td>[7.00–21.65]</td>
<td>1.26</td>
<td>[1.19–1.32]</td>
</tr>
<tr>
<td>Drugs</td>
<td>87.65</td>
<td>[76.53–98.77]</td>
<td>7.69</td>
<td>[7.53–7.85]</td>
</tr>
<tr>
<td>Medical analyses/examinations</td>
<td>67.78</td>
<td>[49.21–86.36]</td>
<td>5.95</td>
<td>[5.81–6.09]</td>
</tr>
<tr>
<td>Cotrimoxazole</td>
<td>6.91</td>
<td>[5.94–7.87]</td>
<td>0.61</td>
<td>[0.56–0.65]</td>
</tr>
<tr>
<td>Antiretroviral drugs</td>
<td>259.52</td>
<td>[244.26–274.79]</td>
<td>22.76</td>
<td>[22.49–23.04]</td>
</tr>
<tr>
<td>Total</td>
<td>552.68</td>
<td>[500.13–605.23]</td>
<td>42.53</td>
<td>[42.15–42.91]</td>
</tr>
</tbody>
</table>

*CI: confidence interval

20 dollars per months should be paid by parents
Triumphs of Pediatric HIV Care and Treatment in West/Central Africa

Triumphs : Future
What can and should be done ?
What can and should be done? (1)

• **Less** meetings and conferences
  **More** actions

• **Less** declarations and **More** actions

• **Less** expertise and **More** actions
What can and should be done? (2)

Absorption challenges of funds

The Global Fund’s new funding approach should be more flexible with grant management conditions adapted to each country’s context.
What can and should be done? (2)

Simplify laboratory testing

Use of point of care for the HIV pediatric diagnosis

Experience in Côte d’Ivoire with EGPAF

- Started in March 2017
- As of June 30, 2017: 5 machines used by 13 sites
- End of project: 13 machines for 137 sites
Situationnel analysis reports

Declaration de Dakar” with JURTA and Réseau EVA supports (18th November 2015)

AN URGENT CALL FOR A CATCH-UP ACTION PLAN TO CLOSE THE TREATMENT GAP IN THE WCA REGION
Conclusion (1/2)

• Countries in WCA have relatively small numbers of children living with HIV when compared with the Southern Africa region, but 45% of new HIV infection and 40% of death come from this region.

• Conflict and epidemics of other diseases are partly responsible for the ART coverage backlog, but underlying factors such as the lack of national and international political will and interest.
Conclusion (2/2)

• Without national and international mobilization, there is a major risk that PLHIV in this region will remain out of focus and be left out.

• African heads of state met in July 2017 in Addis Ababa to endorse the emergency catch-up plan led by UNAIDS to accelerate HIV treatment in West and Central Africa.
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• Dr Landry Tsague

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Didier Koumavi EKOUEVI
Phone: +228 99 68 67 35
Email: didier.ekouevi@gmail.com

Programme PAC-CI