Controversies in guidelines: Pediatrician's perspective

8th International Workshop on Women & HIV
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Outline

• ART Guidelines
• Uganda Guidelines
• Key issues for Pediatrics
• Possible solutions
## Evolution of WHO ART Guidelines

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>2002</th>
<th>2003</th>
<th>2006</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When to start ART</strong></td>
<td>CD4 ≤ 200</td>
<td>CD4 ≤ 200</td>
<td>CD4 ≤ 200 - Consider 350</td>
<td>CD4 ≤ 350 - Irrespective CD4 for TB &amp; HBV</td>
</tr>
<tr>
<td><strong>PMTCT</strong></td>
<td>Since 2001 4 weeks AZT; AZT+ 3TC, or single dose NVP</td>
<td>2004 AZT from 28 weeks + single dose NVP +AZT/3TC 7days</td>
<td>Option A (AZT +infant NVP)</td>
<td>Option B (triple ARVs)</td>
</tr>
<tr>
<td><strong>First line ART</strong></td>
<td>8 options - AZT preferred</td>
<td>4 options - AZT preferred</td>
<td>8 options - AZT or TDF preferred - d4T dose reduction</td>
<td>6 options &amp; FDCs - AZT or TDF preferred - d4T phase out</td>
</tr>
<tr>
<td><strong>Second line ART</strong></td>
<td>Boosted PI</td>
<td>Boosted PI</td>
<td>Boosted PI ATV/r, DRV/r, FPV/r LPV/r, SQV/r</td>
<td>Boosted PI Heat stable FDC: LPV/r, ATV/r</td>
</tr>
<tr>
<td><strong>Viral load Testing</strong></td>
<td>No</td>
<td>No (Desirable)</td>
<td>Yes Tertiary centres</td>
<td>Yes Phase in</td>
</tr>
</tbody>
</table>

**Evolution of WHO ART Guidelines**

- **Earlier initiation**
- **Simplified treatment options for pregnant women**
- **Simpler treatment**
- **Safer, more robust regimens**
- **Better monitoring**

*Vitoria M et al. Curr Opin HIV/AIDS 2013*
90-90-90 and beyond 90

90% of people with HIV diagnosed
- Novel point-of-care tools for early infant diagnosis of HIV

90% of diagnosed people treated
- Guidelines for the managing advanced HIV disease and rapid initiation of antiretroviral therapy
- Guidelines for the managing advanced HIV disease and rapid initiation of antiretroviral therapy
- Transition to new antiretrovirals in HIV programmes
- Transition to new antiretrovirals in HIV programmes
- Key considerations for differentiated antiretroviral therapy delivery for specific populations: children, adolescents, pregnant and breastfeeding women and key populations

90% of people on treatment virally suppressed
- Guidelines on the public health response to pretreatment HIV drug resistance
- Tackling HIV drug resistance: trends, guidelines and global action

Beyond 90-90-90
- WHO implementation tool for pre-exposure prophylaxis (PrEP) of HIV infection
- Preventing HIV during pregnancy and breastfeeding in the context of PrEP

WHO 2017 policy briefs
The WHO HIV Guidelines are structured along the continuum of care:

- Prevention
  - PrEP
  - PEP

- Testing
  - HIV Diagnosis in infants and children
  - TB diagnosis

- Link to care
  - Infant prophylaxis

- Treatment
  - Initiation of therapy
    - 1st L, 2nd L, 3rd L
  - Infant prophylaxis
  - CTX prophylaxis
  - Cardiovascular disease
  - Depression

- Chronic care

Service delivery
Children always lag behind despite the changes
PMTCT Guidelines

- Preventing MTCT has long been known as a highly effective intervention with huge potential to stem the tide of new pediatric HIV infections and improve both maternal and child health.

- Uganda’s Ministry of Health (MOH) was an early adopter of this prevention approach, introducing it in 2000 and subsequently scaling it up nationwide in 2005.
Updates from the Uganda 2016 HIV Prevention, Care & Treatment Guidelines
Dramatic changes in the management of pediatric HIV infection

• The aim of ART has shifted from avoiding mortality and morbidity to achieving a normal life expectancy and quality of life, minimizing toxicities and preventing early cancers and age-related illnesses.
Progress, eMTCT, wide spread ART initiation

Proverbial ‘calm before the storm’, Kampala Photo Credit Sabrina Kitaka 2018
Treatment Recommendations

Highlights:

• Adoption of “Test and Treat” for all PLHIV irrespective of CD4 count, clinical staging or age. ART should be initiated within 7 days of testing for children and 30 days for adults.

• Retention of TDF/3TC/EFV 600mg as preferred first line regimen for adults

• Introduction of DTG 50mg for use as an alternative in first line regimens in adults and children aged 10 and above

• Introduction of once daily dosing with ABC/3TC 120/60mg in children

• Introduction of LPV/r pellets for use in first line regimens for children under 3 years

• Elderly caregivers have given 3 pellets instead of 3 caplets
HIV Testing Services

- New HTS guidelines to focus on 5Cs approach (Confidentiality, Consent, Counselling, Correct Test result), improved yield and linkage to prevention and care.

- Targeted HIV Testing: screening tool for adults and children developed to identify eligible ones for testing.

- Increasing access for HTS services for children and adolescents - removing consent barriers, age of consent for testing lowered to 12 years.

- Change in the HIV rapid testing algorithm for individuals greater than 18 months: Tie breaker changed from Unigold to SD-Bioline.

- Re-testing of all positives prior to ART initiation.

- MOH developing guidelines for certification of testers and testing sites-retraining and certification.
HIV Testing Algorithm (>18 months)

**Screening Test**
- **DETERMINE**
  - **Non-Reactive**
    - Report HIV Negative
  - **Reactive**
    - **Confirmatory Test STAT-PAK**
      - **Non-Reactive**
        - Report HIV Negative
      - **Reactive**
        - **Tie-Breaker Test SD BIOLINE**
          - **Non-Reactive**
            - Report HIV Negative
          - **Reactive**
            - Report HIV Positive
        - **Report as INCONCLUSIVE:**
          - Re-test after 14 days
## Recommended 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Line Regimens and alternatives

<table>
<thead>
<tr>
<th>First Line</th>
<th>Second Line</th>
<th>Third Line</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adolescents and Adults</strong></td>
<td>TDF + 3TC + EFV</td>
<td>AZT/3TC+ATVr (or LPV/r)</td>
</tr>
<tr>
<td>Recommended Regimen</td>
<td>TDF + 3TC + DTG</td>
<td>If exposed to INSTIs, DRV+ETV±1-2NRTIs</td>
</tr>
<tr>
<td>If unable to use EFV</td>
<td>ABC + 3TC + DTG</td>
<td>If not exposed to INSTIs, DRV/r+DTG±1-2NRTIs</td>
</tr>
<tr>
<td>If unable to use TDF</td>
<td>ABC + 3TC +ATV/r</td>
<td></td>
</tr>
<tr>
<td><strong>Pregnant &amp; Lactating Women</strong></td>
<td>TDF + 3TC + EFV</td>
<td>AZT/3TC+ATV/r (or LPV/r)</td>
</tr>
<tr>
<td>Recommended Regimen</td>
<td>TDF + 3TC + EFV</td>
<td>If unable to use EFV</td>
</tr>
<tr>
<td>If unable to use TDF and/or EFV</td>
<td>ABC + 3TC +ATV/r</td>
<td>ABC + 3TC + NVP</td>
</tr>
<tr>
<td><strong>Children 3–&lt;10 years old</strong></td>
<td>ABC + 3TC + EFV</td>
<td>AZT/3TC+LPV/r</td>
</tr>
<tr>
<td>Recommended Regimen</td>
<td>ABC + 3TC + NVP</td>
<td>If exposed to INSTIs and &gt;6 Years, DRV/r+ETV±1-2NRTIs</td>
</tr>
<tr>
<td>If unable to use EFV</td>
<td>ABC + 3TC + NVP</td>
<td>If not exposed to INSTIs, DRV/r+RAL±1-2NRTIs</td>
</tr>
<tr>
<td><strong>Children &lt;3 years old</strong></td>
<td>ABC + 3TC + LPV/r&lt;sub&gt;pellets&lt;/sub&gt;</td>
<td>AZT+3TC+RAL</td>
</tr>
<tr>
<td>Recommended Regimen</td>
<td>ABC + 3TC + LPV/r</td>
<td>Optimize regimens using Resistance Profiling</td>
</tr>
<tr>
<td>If unable to use LPV/r</td>
<td>ABC + 3TC + NVP</td>
<td></td>
</tr>
<tr>
<td>If currently on anti-TB treatment</td>
<td>ABC + 3TC + AZT</td>
<td></td>
</tr>
</tbody>
</table>
## Management of HIV/ TB Co-infection

<table>
<thead>
<tr>
<th>Regimen when initiated on TB Rx</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adolescents, Adults and Pregnant Women</strong></td>
<td></td>
</tr>
<tr>
<td>TDF / 3TC / EFV</td>
<td>Maintain regimen</td>
</tr>
<tr>
<td>TDF (or ABC) / 3TC + DTG</td>
<td>Maintain regimen but double dose of DTG</td>
</tr>
<tr>
<td>AZT / 3TC /NVP</td>
<td>Switch to TDF / 3TC /EFV</td>
</tr>
<tr>
<td><strong>2nd Line Regimens</strong></td>
<td>Maintain PI but use Rifabutin instead of Rifampicin</td>
</tr>
<tr>
<td><strong>Children 3 – 9.9 years old</strong></td>
<td></td>
</tr>
<tr>
<td>ABC + 3TC + EFV</td>
<td>Maintain regimen</td>
</tr>
<tr>
<td>ABC + 3TC + NVP</td>
<td>Switch to ABC/3TC+EFV</td>
</tr>
<tr>
<td><strong>Children &lt; 3 years old</strong></td>
<td></td>
</tr>
<tr>
<td>ABC + 3TC + LPV/r pellets</td>
<td>Switch to ABC + 3TC + AZT</td>
</tr>
<tr>
<td>ABC + 3TC + NVP</td>
<td></td>
</tr>
<tr>
<td>ABC + 3TC + AZT</td>
<td></td>
</tr>
</tbody>
</table>
### Monitoring of HIV positive patients

#### Frequency of Viral Load Testing

- **Non-pregnant adults**: 6 months after initiating ART and annually thereafter.

- **Pregnant women**: As for non-pregnant adults. In addition; a VL test at ANC 1, irrespective of last VL.

- **Children and adolescents <19 years**: 6 months after initiating ART and every 6 months thereafter.

#### CD4 Monitoring

- **At baseline when initiating ART**

- **Patients on ART for at least 6 months with demonstrated unsuppressed VL and/or WHO clinical Stage 3 or 4 disease.**

- **Patients on treatment for Cryptococcal infection; to determine when to stop maintenance fluconazole therapy**
Service Delivery: Differentiated Service Delivery Models

**Definition:** Efficient strategies for provision of HIV and TB prevention, care and treatment services that address the needs of different sub-populations of clients. *Shift of service delivery from “one size fits all” to “client centered”*

**Current Practice**
- Over 60% of patients on ART are stable on treatment
- Health workers are overwhelmed by the large patient numbers and the diversity of patient needs
- Current care and treatment models require frequent clinic visits, leading to high travel expenses

**Proposed Service Delivery models depend on the health status of the client i.e.**
- **Stable clients** – adults on ART for more than 12 months, virally suppressed with no concurrent illness or co-morbidity and demonstrated good adherence. These require less frequent clinic visits
- **Complex/Unstable clients** - newly initiated on ART, < 12 months on ART, children, pregnant women, non-virally suppressed adults, clients with co-morbidities. These require critical attention
Summary of Differentiated HIV Care and Treatment models

- **Care & Treatment models**
  - **Facility**
    - Fast drug refills
    - Comprehensive clinical Evaluation
    - FSG/Clubs
      - Newly initiated, stable clients for review, VL, unstable, TB/Commodities children, PMTCT etc.
      - Stable Adolescents, Clients in FSG, & Key Populations
  - **Community**
    - CCLAD
      - 6 member groups of stable clients
    - CDDP Outreach
      - Drug refills for hard to reach Key populations & PPs
Differentiated HIV Care and Treatment

Facility based clients is categorized as follows:

<table>
<thead>
<tr>
<th></th>
<th>Stable patients including KPs</th>
<th>Unstable &amp; newly initiated patients</th>
<th>Children</th>
<th>Pregnant and breastfeeding women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical assessments</td>
<td>Every 6 months</td>
<td>Monthly for the first 3 months, then at 6, 9 and 12 months</td>
<td>Every 3 months</td>
<td>4 ANC visits (Bi-monthly), 8 PNC visits(6, 10 and 14wks, 6, 9, 12, 15, 18months)</td>
</tr>
<tr>
<td>Drug refills</td>
<td>Every 3 months</td>
<td>As above</td>
<td>Every 3 months</td>
<td>At every clinic visit</td>
</tr>
<tr>
<td>Viral Load</td>
<td>Annually</td>
<td>New patients: 6 months after ART initiation, then annually Unstable/unsuppressed viral load: One month after last Intensive Adherence Counseling</td>
<td>Every 6 months</td>
<td>Annually and at ANC 1, irrespective of when last VL was done</td>
</tr>
</tbody>
</table>
## Differentiated HIV Care and Treatment

Community based clients is categorized as follows:

<table>
<thead>
<tr>
<th>Clinical assessments</th>
<th>Stable* Patients, including KPs</th>
<th>Unstable** &amp; newly initiated patients</th>
<th>Children</th>
<th>Stable breastfeeding women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug refills for the Client led approach (CCLAD)</td>
<td>Every 6 months</td>
<td>NA</td>
<td>NA</td>
<td>Every 6 months</td>
</tr>
<tr>
<td>Drug refills CDDP approach</td>
<td>Monthly to allow each of the 6 members to receive clinical assessment X 2 year</td>
<td>As above</td>
<td>NA</td>
<td>Monthly drug refills</td>
</tr>
<tr>
<td></td>
<td>Annual VL</td>
<td></td>
<td></td>
<td>Clinical assessment twice a year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual VL</td>
</tr>
<tr>
<td></td>
<td>Quarterly / every 3 months drug refill outreaches to drug distribution points by HCW</td>
<td>NA</td>
<td>NA</td>
<td>Quarterly / every 3 months</td>
</tr>
<tr>
<td></td>
<td>Annual VL</td>
<td></td>
<td></td>
<td>Annual VL</td>
</tr>
</tbody>
</table>

Each community group will have a maximum of six members. Families and couples will be encouraged to be in the same group.
1. Request for a viral load test every 6 months for clients aged 0-19 years.
2. Request for a viral load test every 12 months for clients aged 20 years and above.
3. If a nurse attends to a client today then the visit after a pharmacy or viral load visit is a clinicians/doctors appointment.
4. If a clinician attends to a client today then the visit after the pharmacy or viral load visit is a nurse visit.
5. Remember to staple a post dated viral load request form in the clients book and remind to come with it at their next visit.
6. A client is stable if all the following apply, on ART for at least 12 months, their last viral load was below 1000 copies/ml, is T-stage 1 or 2, is aged 6 years and above and has no serious medical and psychosocial problems of DAIDS grade 3 or 4.
### Adolescent-Friendly Service Delivery

<table>
<thead>
<tr>
<th>Service</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Delivery:</strong> The services offered should be adolescent friendly so that they can meet the particular needs of this age group.</td>
<td>The HIV service delivery approach for adolescents will mainly be facility based using any of the three delivery approaches recommended for the facility based model: 1. Fast track drug pickup approach for stable* clients picking their drugs quarterly 2. Comprehensive clinical evaluation for all 3. Facility-based treatment clubs/healthcare managed groups for drug refills within their groups/clubs, adherence support, peer support and psychosocial support. To provide AFHS the health facility should:  • Integrate adolescent health services into the already existing delivery systems making it ‘a one stop shopping center.’  • Use a peer-led approach to delivering services  • Provide services for all adolescents regardless of their HIV status.  • Dedicate time and a convenient place with privacy.</td>
</tr>
<tr>
<td><strong>Service location:</strong> Identify a convenient, comfortable, private and accessible place/area with a separate waiting area to offer adolescent services. Have a separate adolescent clinic day or specially designated space.</td>
<td></td>
</tr>
<tr>
<td><strong>Working hours:</strong> Have flexible clinic hours that take care of both in-school and out of school adolescents including clinic runs until late, after 5 pm and/or over weekends.</td>
<td></td>
</tr>
<tr>
<td><strong>Dedicated staff:</strong>  • Designate a health worker to be an adolescent focal person.  • Health workers providing adolescent services need to be trained in adolescent health and HIV management.  • Use job aides developed for adolescent service delivery during service provision.  • Identify, train, and use peers to support the provision of services.  • Ensure the clinic has the following cadre of staff; clinicians, counselors, nurses, and peers</td>
<td></td>
</tr>
<tr>
<td><strong>Service provision:</strong>  • Offer free or affordable services to adolescents.  • Offer services in line with the standard minimum care package for adolescents.  • Use the existing standard MOH referral system for services not provided.  • Track and follow-up adolescents using the standard loss to follow-up protocol.  • Health workers should work with adolescents to set up peer support groups for the different age categories.  • Share available hotlines where the adolescents can access information or counseling off-site.  • Pregnant adolescents should be encouraged to attend ANC with older mothers and come back to the adolescent clinic after birth until they get to age of transition</td>
<td></td>
</tr>
<tr>
<td><strong>Educational activities:</strong> Provide educational/information materials in the form of posters and brochures in a language best understood by the adolescents.</td>
<td></td>
</tr>
</tbody>
</table>
Adolescent-Friendly Service Delivery

<table>
<thead>
<tr>
<th>Service</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIV testing services (HTS) for adolescents:</strong></td>
<td>Access and uptake of HTS among adolescents is low partly due to their poor health seeking behavior as well as the absence of an enabling environment. HTS is an entry point to HIV prevention, care and treatment services</td>
</tr>
<tr>
<td><strong>Guidance</strong></td>
<td><strong>HTS with linkage to prevention, treatment and care is recommended for all adolescents with a focus on those from key populations. Informed consent and HIV testing. Adolescents aged 12 years and above can consent on their own for HTS without the approval of their parent/guardian.</strong></td>
</tr>
<tr>
<td><strong>Strategies for improving uptake of HTS among adolescents:</strong></td>
<td>• Use a peer-led approach where adolescent peers are trained to provide pre and post-test counseling as well as performing HIV tests. • Offer services at the convenience of adolescents through flexible working hours, walk-in services for those without an appointment, weekend or same-day appointments. • Offer services in a place that ensures privacy and confidentiality. • Provide age-appropriate information such as benefits of knowing one's HIV status.</td>
</tr>
<tr>
<td><strong>Generating demand for HTS:</strong></td>
<td>• Take into account where the adolescents live (rural or urban) • A wide range of approaches can be used including: • Peer-to-peer engagement • Multimedia campaigns including TV, radio, billboards and brochures • Social media: Facebook, Twitter, WhatsApp, Instagram, etc. • Phone technology: SMS messages with a platform that allows self-assessment for risk and determining whether to test • Performing artistes and celebrities • Sports gala • Music and drama festivals • School extracurricular activities/clubs • Community events such as promotions, meetings, bazaars • Health education</td>
</tr>
<tr>
<td><strong>Providing opportunities for HIV testing:</strong></td>
<td>• HTS services should be offered using facility or community service delivery approach as integrated or stand-alone services. • For the facility approach, create HIV testing opportunities within existing service points where adolescents routinely receive care including: • OPD/YCC, ANC, maternity, family planning and sexual and reproductive health service delivery points • Youth/adolescent information centers/corners • Community-based/mobile outreach testing sites targeting key populations (examples include moonlight testing for out of school adolescents, bars, and brothels)</td>
</tr>
</tbody>
</table>
PEER LED SUPPORT AT BAYLOR-UGANDA
Adolescent-Friendly Service Delivery

### Prevention services for adolescents:
- Provide adolescent-friendly risk-reduction interventions to prevent HIV, teenage pregnancy, and other STIs.
- Assess the sexual behavior of the adolescent.
- Provide HTS to sexually active adolescents (test every three months for ongoing risk, and once a year if exposed after last HTS). Messages should focus on avoiding cross generation sex, multiple partners, transactional sex and promote abstinence and delayed sexual activity.
- Encourage condom use for those sexually active.
- Screen for STIs and treat as appropriate.
- Identify and link adolescents to other available services at the facility as appropriate (VMMC, ART).
- Offer voluntary contraception options.
- Assess for gender-based violence (GBV) and refer as appropriate.
- Identify, refer and link adolescents to other available community programs.

### Linkage to care and treatment
- A peer-led approach should be used to link adolescents living with HIV (ALHIV) into care and treatment services preferably on the same day.
  - Use community-based structures such as village health teams, and community health extension workers.
  - Use feedback loop mechanism.

### Psychosocial support for adolescents
- All HIV tested adolescents should receive psychosocial assessment and support as part of their routine care. The assessment should be done using the Home, Education/Eating/Employment, Activity, Drugs, Sex, and Sexuality, Suicidal ideation/mental health (HEADSS) tool at each clinical visit). Key elements of psychosocial support include disclosure and ART support.

**Disclosure:** Disclose to an adolescent their HIV status at the time of diagnosis or the earliest opportunity thereafter. Encourage them to disclose their HIV status to their parent/guardian and significant others. The readiness for disclosure to others should be determined by the adolescent in consultation with the caregiver and the healthcare provider. Adolescents and young people need a lot of support from health providers, peers, and the community to disclose safely and confidently and to be able to cope with any negative reactions from family and friends. Counsel about the potential benefits and risks of disclosure of their HIV status to others.

**Benefits of early disclosure include:** Improved adherence to medicines and access to essential services, reduced psychological distress, increased likelihood of appropriate disclosure to others, better engagement in HIV-related care, a better understanding of HIV and related conditions, improved uptake of Positive Health Dignity and Prevention (PHDP) services.

**Risks of disclosing:** physical harm, discrimination, stigma, unwilling onward disclosure and isolation may be experienced as a result of disclosing HIV status to others.

**Reasons for delayed or non-disclosure:** stigma, shame, and fear.

Discuss how to disclose using role play and support them to determine if, when, how and to whom to disclose their HIV status. A health care provider or peer should be available to support with the disclosure. Parents and guardians should also be encouraged and supported to disclose their status to their adolescents.
<table>
<thead>
<tr>
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<th>Guidance</th>
</tr>
</thead>
</table>
| **Psychosocial support for adolescents (con.)** | **Adherence to ART:** In addition to the general guidelines for adherence to ART, use the HEADSS assessment tool to assess factors influencing adherence among adolescents.  
Assess for GBV and refer as appropriate.  
- Offer adolescent friendly services.  
- Form and use peer support groups.  
- Conduct special programs for adolescents including life skills training.  
- Regularly update contact information especially physical address and telephone contacts, use appointment calendars and send messages (SMS reminders for appointments).  
- Conduct activities such as games and sports, music, drama, etc.  
- Identify, refer and link adolescents to other available community programs.  
- Consider providing ART within community settings. |
| **Retention:** Adolescents living with HIV may need additional support to remain engaged in care. Retention in ART care, is critical for continued adherence to ART, monitoring for drug toxicity/resistance and successful viral suppression. | • Offer adolescent friendly services.  
• Form and use peer support groups.  
• Conduct special programs for adolescents including life skills training.  
• Regularly update contact information especially physical address and telephone contacts, use appointment calendars and send messages (SMS reminders for appointments).  
• Conduct activities such as games and sports, music, drama, etc.  
• Identify, refer and link adolescents to other available community programs.  
• Consider providing ART within community settings. |
| **Transition:** Purposeful and planned transition to adult-oriented services is an important factor in the long-term well-being of an adolescent. | The transition should depend on the service delivery approach at each health facility. Transitioning should take into account the neurocognitive condition of the adolescent. In settings where there is an integrated clinic providing services for children, adolescents, and adults at the same facility the process should follow the steps below:  
• Identify and develop a transition team at the adolescent clinic. The team should include: a clinician, counselor, peer supporter, caregiver and adolescent.  
• Develop a transition plan when the adolescent turns 18 years or at the first encounter if older than that.  
• Update the transition plan and assess the adolescent’s readiness at each clinical encounter over at least a two-year period.  
• Once the young adult is 20 years and older and is ready to transition, give them an appointment for the adult clinic.  
• On the same day that they express readiness to transition introduce the adolescent to the adult care team (who may be the same staff).  
However for health facilities with a separate adolescent clinic from the adult one they should also:  
• Invite the adult transition team to meet at the adolescent clinic, the young person who is ready to transition and agree on an appointment date (if feasible).  
• Introduce the adult treatment team to the adolescent at the agreed appointment and hand them over. |
Persistent controversy in scale up and outcomes

• Survival of perinatally HIV-infected children has been transformed with the advent of antiretroviral therapy (ART).

• While access to ART has increased, only 51% of the 1.8 million children under 15 years living with HIV globally were receiving ART at the end of 2015, compared to 72% of HIV-infected pregnant women.

• Whereas AIDS-related deaths have fallen for other age groups, mortality among HIV-infected adolescents rose by 50% from 2005 to 2012.
  • In fact, AIDS is one of the leading causes of death among adolescents worldwide

L.Barlow-Mosha 2017
Retention on ART:
(Adolescent HIV Assessment 2016 Uganda)
Risks of universal ART for children

• There is no doubt that ART is beneficial, but it is also associated with toxicities.

• Preclinical and clinical studies have demonstrated short-and long-term adverse events on ART, including haematological, renal, cardiovascular, bone and metabolic abnormalities

• The short term side effects are frequently observed on initiation of ART, with dizziness and gastrointestinal disorders (diarrhoea, nausea and vomiting) more commonly observed

• Dizziness and other central nervous system disorders (concentration problems, sleep disorder, psychotic reactions and seizures) are particularly observed with efavirenz and potentially result in sub optimal ART adherence and subsequent ART failure

• ‘Do not start me on treatment when I am not in pain’ 14 year old in the non-ART Cohort after the ‘Test and Treat ‘ Guidelines were released in 2016
Risk of resistance development

• The rapid introduction of universal ART without the necessary planning and preparation may increase the burden on busy health facilities and lead to lower quality of the services and potential drug stock outs

• This may overall increase the risk of selecting drug resistance that would further limit future treatment options for the adolescents and babies that may be born to them

• ML was a 19 yr old ALHIV, she self transferred from another ART care center but denied history of ART, she was initiated on 1st line therapy (TDF/3TC/EFV), she c/o severe drowsiness; and requested for her old regimen (brown pills? LPV/R!!), meaning she was on second line already!)
Sustainability challenges

• As the global community strives to achieve global treatment targets by 2020 and aspires to reach the fast-track targets for children and adolescents, more efforts need to be in place to ensure that the quality of HIV services is improved and sustained.

• Measures are needed to enable timely and reliable viral load monitoring for early identification of virological failure.
Resource availability

Doctors at the Baylor Uganda COE

Nurse in rural Uganda running HIV testing activity
More implementation challenges:

• The practicability of birth testing/ identification of HIV infected babies at birth.

• GM, 21 year old perinatally infected ALHIV who stopped taking her ART for 6mo because she was expecting her 1st baby, the doctor started the baby on full ART (AZT, 3TC, NVP) at birth, baby was DNA PCR negative at 6 weeks, but had very low growth parameters, mother had opted for formula feeds.

• The value of an HIV antibody test at 9 months of age
Differentiated service delivery

• Differentiated service delivery in children whose caregivers may be responding differently to ART or are at a different stage in their HIV care.

• Community volunteers support the DSDM, and clients are excited because they don’t have to come to the clinic for their pill refills.

• Unfortunately, sometimes the children and caregivers response to ART doesn’t match, and this creates a quagmire.
Challenge of Sequencing ART regimens

- AZT/3TC/NVP for high risk infants who do not undergo PMTCT
- LPVr syrup for those below 3 months of age – supply chain for LPVr syrup a problem
- DTG dosing for adolescent below 30kg and yet PK data limited for below 35kg
- If DTG is first line, 2\textsuperscript{nd} line and also 3\textsuperscript{rd} line – how will it work in country
- Adolescents are failing on 1\textsuperscript{st} line, and 2\textsuperscript{nd} line, and need 3rd line regimens
## Prevention: Bio-Medical Interventions

### eMTCT
- **Changes in Infant ARV prophylaxis**
- NVP syrup for 6 weeks for infants at low risk of infection
- NVP syrup for 12 weeks for infants at high risk of acquiring infection (Mothers unsuppressed VL at delivery, Presenting for the first time for PNC)

### Safe Male Circumcision (SMC)
- Introduction of 2 doses of TT vaccine before circumcision
  - 1st TT dose on day 0, 2nd TT dose on day 28 after circumcision
  - Close monitoring of adverse events

### Post Exposure Prophylaxis (PEP)
- New recommendation for use of a PI based regimen for PEP:
  - Preferred PEP regimen in Adults: TDF/3TC/ATV/r
  - Preferred PEP regimen in children: ABC/3TC/LPV/r

### Pre Exposure Prophylaxis (PrEP)
- Use of TDF/FTC for prevention of HIV infection in HIV negative people at substantial risk of acquiring infection
We know What works in prevention…

- Critical to focus on content, quality, intensity of prevention inputs
- Delay sexual debut
- Increase consistent condom use
- Increase coverage and utilization of testing & counselling services
- Reducing age disparate sexual partnerships
- Reduce numbers of sexual partners – particularly concurrent partners
- Increasing knowledge of HIV sero status
- Increasing male circumcision (where HIV prevalence is high and MC rates are low
Challenges of prevention

• **Condom use remains low**
  – Among young people aged 15–24 with multiple partners who reported using a condom at last sex was 47 % of young men and 32 % of young women.

• **HIV testing especially low in young men**
  – No entry point comparable to maternal health programmes that provide testing and services for PMTCT for young women.

• **Medical male circumcision in certain countries offers critical platform for prevention support for young men**
  BUT the roll out is slow!
# Behavioral Change and Risk Reduction Interventions:

**Purpose:** To delay sexual debut, reduce unsafe sex and multiple partners, especially concurrent sexual partnership, and discourage cross-generational and transactional sex.

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| **Service delivery**              | - Each health facility/program should have a focal person for HIV prevention  
- All staff offering prevention services need to be trained, including training in GSD  
- Peer-led model for priority and key populations  
- Outreach for key and priority populations  
- Job aides to support standardization for quality assurance  
- Linkage and follow-up between facility and community is important |
| **Risk assessment for client**    | - Offer HTS to sexually active clients who have not tested in the last 12 months or have had unprotected sex in last three months  
- Assess sexual behavior of the client (ask if condoms are used, frequency, the number of partners, transactional sex/sex work) and if the client is involved in transactional sex/sex work encourage correct and consistent condom use  
- Discuss knowledge of partner status about sexual behavior  
- Assess for STIs and link to treatment  
- Discuss sexual and reproductive health services and link to services as appropriate |
| **Provide socio-behavioral change communication (SBCC) and link to services as appropriate** | - Discuss delay of onset of sexual debut in children and adolescents (abstinence)  
- Discuss correct and consistent condom use and offer condoms as appropriate  
- Discourage multiple, concurrent sexual partnerships to promote faithfulness with a partner of known status  
- Discourage cross-generational and transactional sex  
- Discourage risky cultural practices such as widow inheritance, wife replacement and childhood marriages  
- Identify, refer and link clients to other available facility and community programs  
- Assess for violence (physical, emotional, or sexual); if client discloses sexual violence, assess if the client was raped and act immediately |
| **Condom promotion and provision**| - Discuss condom use as an option for risk reduction  
- Discuss barriers to condom use  
- Clarify any questions and dispel myths around condoms  
- Demonstrate how to use condoms  
- Allow the client to role play  
- Practice how to introduce condoms in relationship  
- Provide condoms to client |
Presence of Adolescent Friendly Services (Support Supervision 2015)

HF considered to have Adolescent Friendly Services if it reported having a designated person AND a designated space AND designated day(s) for adolescents health service.
Disclosure problems

• Disclosure to the child; child/adolescent to significant others
• Up to 94% non-disclosure among pregnant adolescents to partners
• Higher percentage of 96% male partners disclosing to their pregnant partners
Training and supportive supervision of health workers is critical to this acceleration.

- This will not only empower them to manage paediatric and adolescent treatment, but also recognize and manage ART toxicity and ART failure while seeking advice via appropriate referral or consultation to higher levels of care when needed.
Focus on 2018

• During 2017, program focus was placed on the roll out of the new consolidated ART guidelines including roll out of LPV/r pellets, improving viral suppression, DSD and implementation of third line ART.

• With the coming in of DTG as a preferred first line ART, the program will be developing an addendum to the 2016 consolidated guidelines.

• Scale up on training and support supervision
Pediatric controversies are surmountable, they just need a more delicate balance!