
Managing Paediatric Advanced HIV Disease and Optimal Treatment for Children

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PATA 2024 Summit

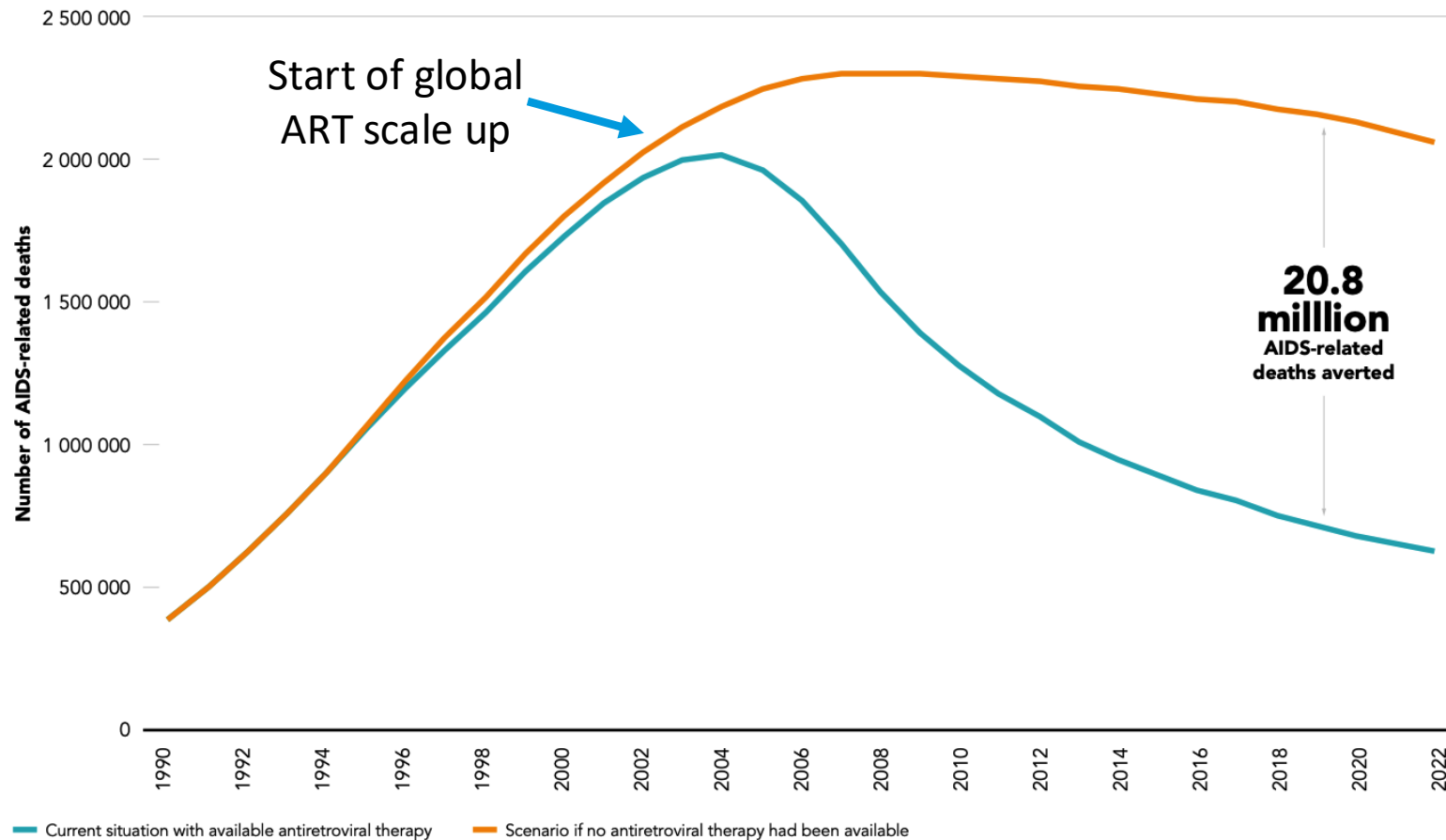
November 5, 2024



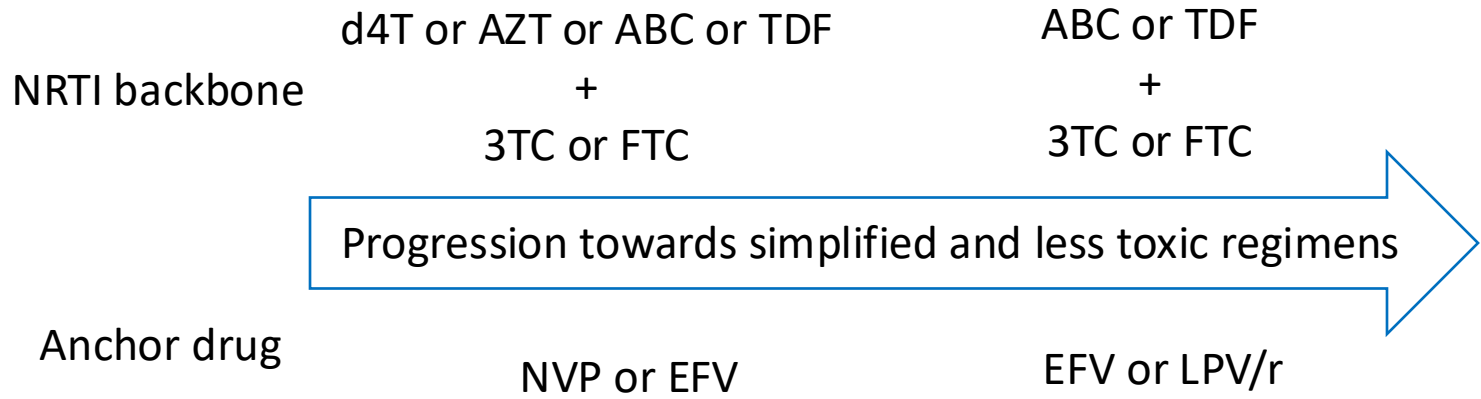
Overview

- Advanced HIV Disease in the context of global ART scale-up
- Defining Paediatric Advanced HIV Disease (pAHD)
- Differentiated packages of care for children and adolescents with AHD
- Optimal Treatment to PREVENT mortality from AHD

Availability of Antiretroviral Treatment (ART) averted almost 21 million AIDS-related deaths between 1996-2022

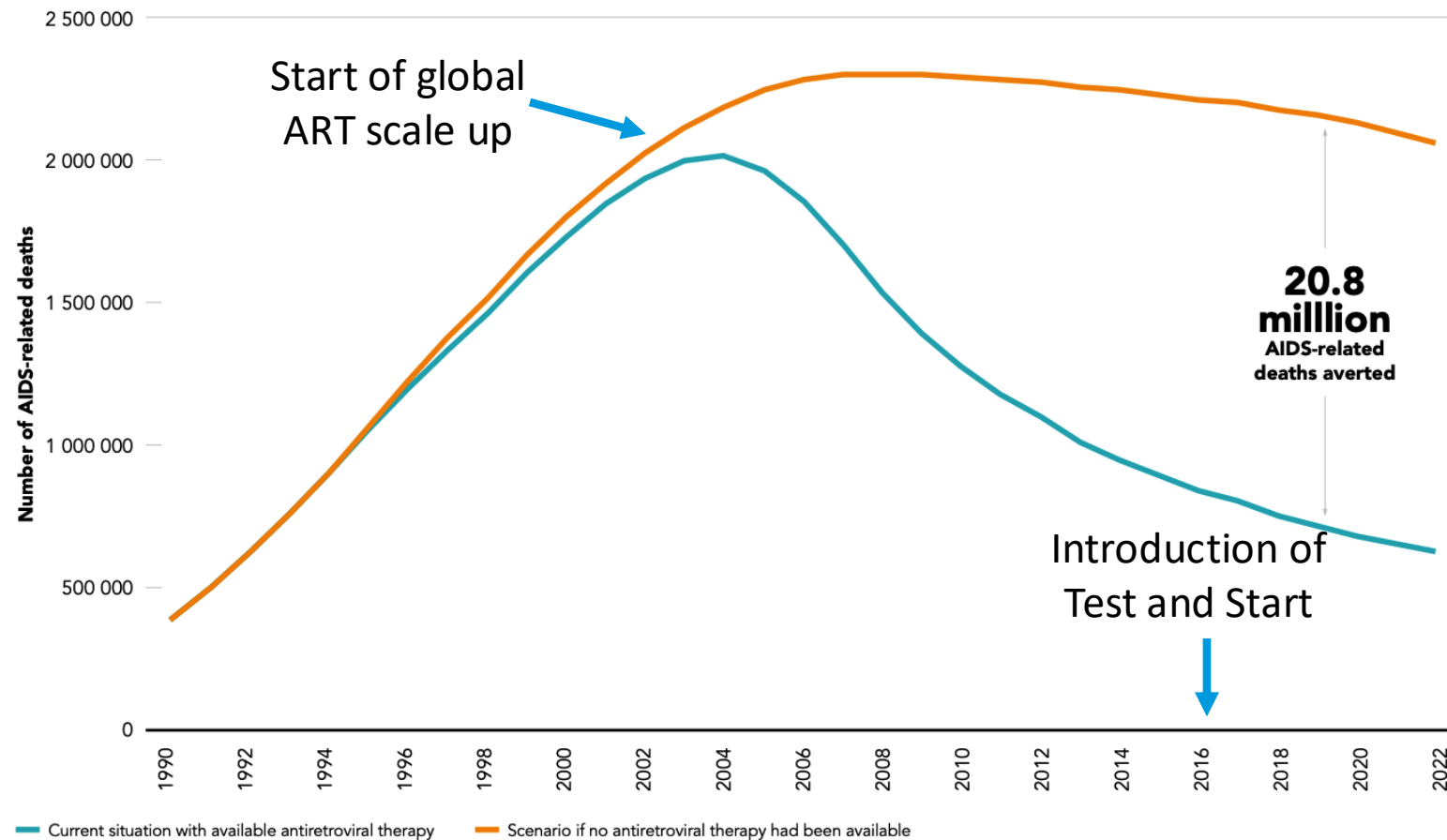


Evolution of the preferred WHO recommendations for 1L ART over the years



DTG-based regimens preferred for all populations ≥ 4 weeks with a non-thymidine analog backbone (ABC or TDF)

Availability of Antiretroviral Treatment (ART) averted almost 21 million AIDS-related deaths between 1996-2022



Source: UNAIDS special analysis of epidemiological estimates, 2023.

Evolution of recommendations on WHEN to start ART



2006



2010





2013



2016



2018

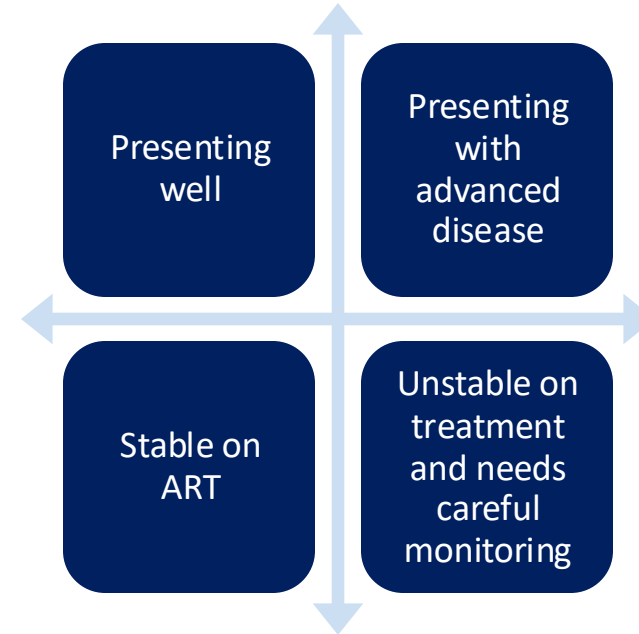
Infants and Children	Treatment if CD4<200cell/mm ³ or CD4%<20% or Clinical Stage 3 or 4	Universal coverage for all <2 years	Universal coverage for all <5 years	 UNIVERSAL ART FOR ALL POPULATIONS 
Pregnant and BF Women	If CD4<200 cell/mm ³ or WHO Clinical Stage 3 or 4	Option A Or Option B	Option B+ (Lifelong ART)	
Adults and Adolescents	3 or 4	If CD4<350 cells/mm ³	If CD4<500 cells/mm ³	

Rationale for Differentiated Service Delivery models of care



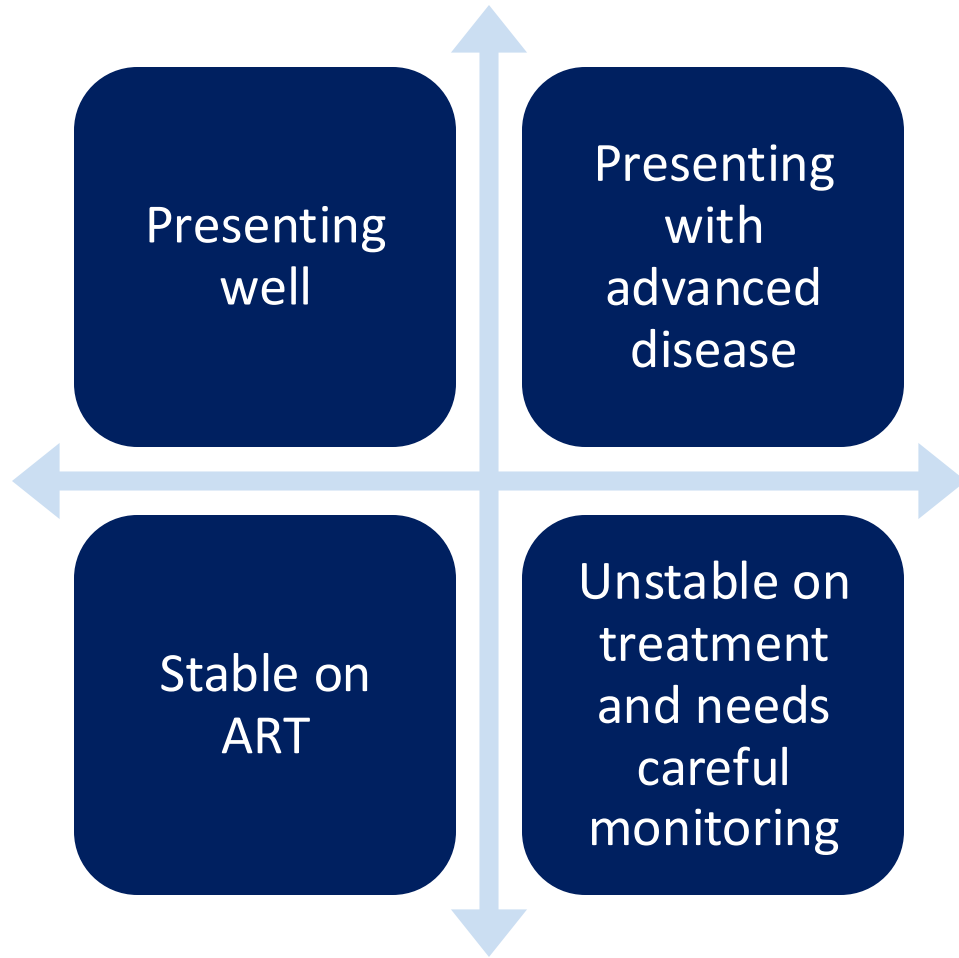
KEY CONSIDERATIONS FOR
DIFFERENTIATED ANTIRETROVIRAL
THERAPY DELIVERY FOR
SPECIFIC POPULATIONS:

CHILDREN, ADOLESCENTS, PREGNANT AND
BREASTFEEDING WOMEN AND KEY POPULATIONS



- Adapts services to better serve the needs of people living with and at risk of acquiring HIV
- Reduces unnecessary burdens on the health system

Advanced HIV Disease



- Advanced HIV Disease defined as:
 - **CD4 count <200 cells/mm³ or WHO stage 3 or 4**
 - This includes adults and adolescents newly diagnosed or returning to care
 - All children <5 years are considered to have AHD
- Rapid ART with same day initiation a strong recommendation
- Additional interventions for those with more severe immunosuppression to prevent opportunistic infections and decrease risk of mortality

Advanced HIV Disease in Infants and Children Living with HIV Infection

- Defining AHD in ≥ 5 years
 - CD4 count ≤ 200 cells/mm³
 - WHO Stage 3 or 4 Disease
- All children younger than five years are considered to have advanced HIV disease (*WHO, 2017*)
 - Majority of children initiating ART found to have severe immunosuppression
 - Infants and children have an increased risk of disease progression and mortality compared to adolescents and adults
 - Challenging to identify immunosuppression using clinical criteria when CD4 % is unknown
- Children ≥ 2 years on ART and stable do NOT have AHD
 - “Stable” patient eligible for multimonth dispensing (MMD)
 - Children ≤ 2 years have more frequent dosing changes due to growth so caution advised if providing MMD



TECHNICAL BRIEF – JULY 2020

PACKAGE OF CARE FOR CHILDREN
AND ADOLESCENTS WITH ADVANCED
HIV DISEASE: **STOP AIDS**



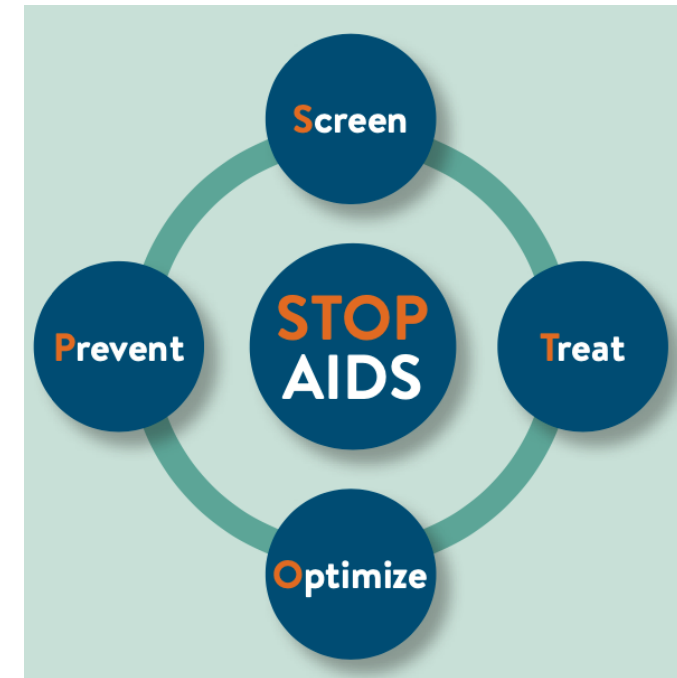
STOP AIDS: Package of care for children and adolescents with Advanced HIV Disease (AHD) to prevent morbidity and mortality

SCREEN for TB and malnutrition (and cryptococcal infection in adolescents)

TREAT active tuberculosis, severe pneumonia, severe bacterial infections, cryptococcal meningitis and severe acute malnutrition

OPTIMIZE antiretroviral treatment and counseling

PREVENT against common infections with Cotrim (*aka* sulfamethoxazole/trimethoprim) prophylaxis (CPT), TB preventative therapy (TPT) and routine vaccination (e.g BCG, MCV, PCV, HPV)



STOP AIDS Package of Care for ALL age groups

Intervention	Component	<5 years	5–9 years	10–19 years
Screening and diagnosis	Systematic screening for TB at each clinic visit using any one of the symptoms of current cough, fever, weight loss, night sweats or close contact with a person with TB for children younger than 10 years	Yes	Yes	Yes
	Use C-reactive protein for screening for TB disease additionally	No	No	Yes ^a
	Use of chest X-ray for screening for TB disease additionally	May be considered	May be considered	Yes
	WHO-recommended rapid diagnostic test, (induced or expectorated) sputum, gastric aspirate, stool or nasopharyngeal aspirate or other Extrapulmonary specimens (induced or expectorated)	Yes	Yes	Yes
	Inpatients in HIV wards in which the TB prevalence is >10% use WHO-recommended rapid diagnostic tests	No	No	Yes
	LF-LAM assay (73,74)	Yes	Yes	Yes
	Cryptococcal antigen screening (specimen: serum, plasma or whole blood) If blood cryptococcal antigen positive or symptomatic, lumbar puncture	No	No	Yes
Prevention, prophylaxis and pre-emptive treatment	Pneumococcal conjugate vaccine (catch-up)	Yes	No	No
	Co-trimoxazole ^b	Yes	Yes	Yes
	TB preventive treatment	Yes	Yes	Yes
	Fluconazole pre-emptive therapy for cryptococcal antigen-positive without evidence of meningitis ^c	Not applicable	Not applicable	Yes

STOP AIDS Package of Care for young children (<5 years)

Intervention	Component	<5 years	5–9 years	10–19 years
Screening and diagnosis	Systematic screening for TB at each clinic visit using any one of the symptoms of current cough, fever, weight loss, night sweats or close contact with a person with TB for children younger than 10 years	Yes	Yes	Yes
	Use C-reactive protein for screening for TB disease additionally	No	No	Yes ^a
	Use of chest X-ray for screening for TB disease additionally	May be considered	May be considered	Yes
	WHO-recommended rapid diagnostic test, (induced or expectorated) sputum, gastric aspirate, stool or nasopharyngeal aspirate or other	Yes	Yes	Yes
	Extrapulmonary specimens (induced or expectorated)			
	Inpatients in HIV wards in which the TB prevalence is >10% use WHO-recommended rapid diagnostic tests	No	No	Yes
	LF-LAM assay (73,74)	Yes	Yes	Yes
	Cryptococcal antigen screening (specimen: serum, plasma or whole blood)	No	No	Yes
Prevention, prophylaxis and pre-emptive treatment	If blood cryptococcal antigen positive or symptomatic, lumbar puncture			
	Pneumococcal conjugate vaccine (catch-up)	Yes	No	No
	Co-trimoxazole ^b	Yes	Yes	Yes
	TB preventive treatment	Yes	Yes	Yes
	Fluconazole pre-emptive therapy for cryptococcal antigen-positive without evidence of meningitis ^c	Not applicable	Not applicable	Yes

STOP AIDS Package of Care for adolescents

Intervention	Component	<5 years	5–9 years	10–19 years
Screening and diagnosis	Systematic screening for TB at each clinic visit using any one of the symptoms of current cough, fever, weight loss, night sweats or close contact with a person with TB for children younger than 10 years	Yes	Yes	Yes
	Use C-reactive protein for screening for TB disease additionally	No	No	Yes ^a
	Use of chest X-ray for screening for TB disease additionally	May be considered	May be considered	Yes
	WHO-recommended rapid diagnostic test, (induced or expectorated) sputum, gastric aspirate, stool or nasopharyngeal aspirate or other	Yes	Yes	Yes
	Extrapulmonary specimens (induced or expectorated)			
	Inpatients in HIV wards in which the TB prevalence is >10% use WHO-recommended rapid diagnostic tests	No	No	Yes
	LF-LAM assay (73,74)	Yes	Yes	Yes
Screening and diagnosis	Cryptococcal antigen screening (specimen: serum, plasma or whole blood)	No	No	Yes
	If blood cryptococcal antigen positive or symptomatic, lumbar puncture			
Prevention, prophylaxis and pre-emptive treatment	Pneumococcal conjugate vaccine (catch-up)	Yes	No	No
	Co-trimoxazole ^b	Yes	Yes	Yes
	TB preventive treatment	Yes	Yes	Yes
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STOP AIDS: Package of care for children and adolescents with Advanced HIV Disease (AHD) to prevent morbidity and mortality



- There are interventions intended to prevent and manage paediatric illness related to HIV infection and severe immunosuppression
- There are also interventions intended to prevent and manage illness in all infants and children

Intervention	Component	<5 years	5–9 years	10–19 years
Screening and diagnosis	Systematic screening for TB at each clinic visit using any one of the symptoms of current cough, fever, weight loss, night sweats or close contact with a person with TB for children younger than 10 years	Yes	Yes	Yes
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Evolution of the preferred WHO recommendations for 1L ART over the years



2006
 d4T or AZT or ABC or TDF
 +
 3TC or FTC

2013
 ABC or TDF
 +
 3TC or FTC

Progression towards simplified and less toxic regimens

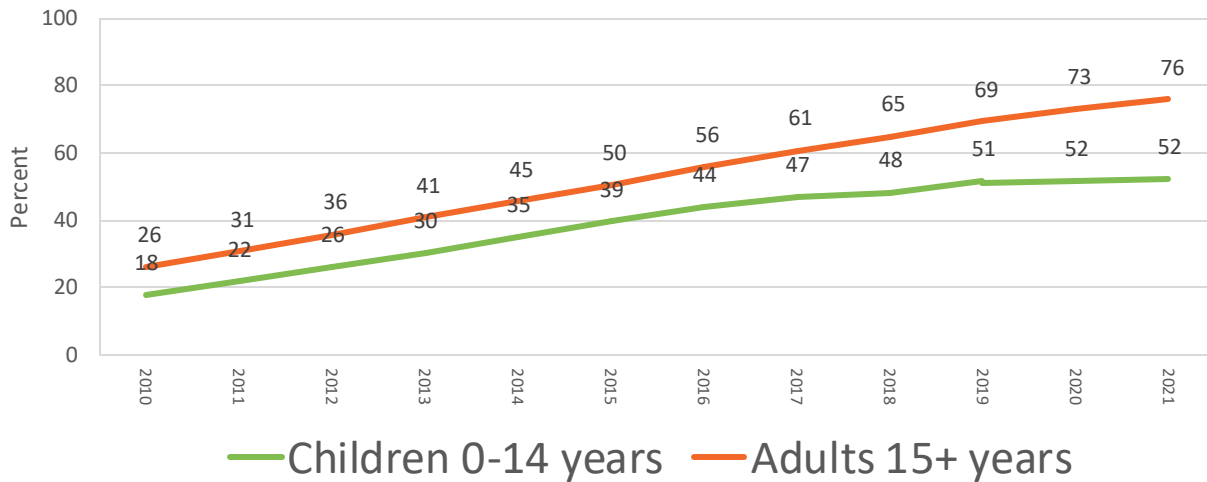
Anchor drug
 NVP or EFV

EFV or LPV/r

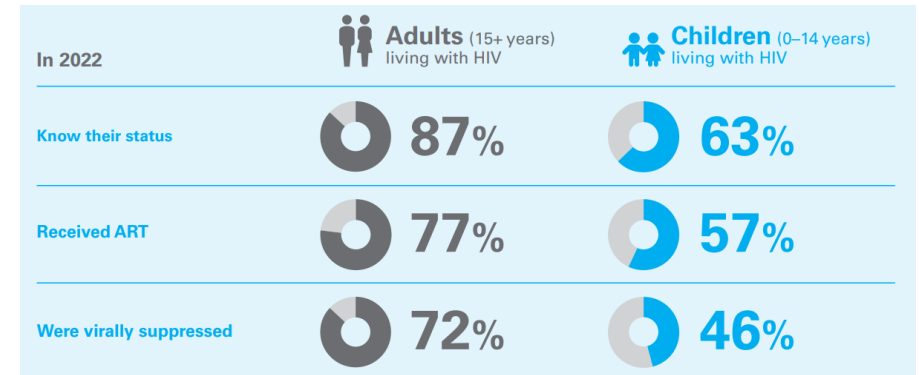
DTG-based regimens preferred for all populations ≥ 4 weeks with a non-thymidine analog backbone (ABC or TDF)

Pediatric treatment for HIV continues to lag behind adults and children account for a disproportionate number of AIDS-related deaths

Treatment among children and adults, Global, 2010-2022



77%
57%



29,800,000
PLHIV on
ART at the
end of
2022

●
Children <15
account for 4%
of PLHIV

**Children <15 account for
13% of AIDS-related
mortality**

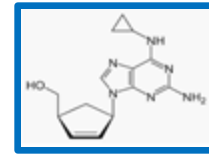
Paediatric ART now harmonized across populations and aligned with adult standards of care

- Tenofovir, lamivudine (or emtricitabine), and dolutegravir approved for adolescents ≥ 30 kg
 - Harmonized with adult treatment
 - Many countries have completed this transition
- Adult 50 mg DTG is a film-coated tablet- are safe and effective in children ≥ 20 kg
 - 20 kg roughly equivalent to a 6-7 year old children
 - Must be combined with ABC/3TC NRTI backbone
- Generic 10 mg scored tablet available for infants and children ≤ 20 kg
 - Many countries now introducing DTG-based regimens for infants and children 3-20 kg
 - Also must be combined with separate ABC/3TC NRTI backbone

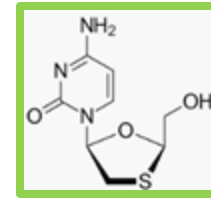
DTG 10 mg dispersible tablet



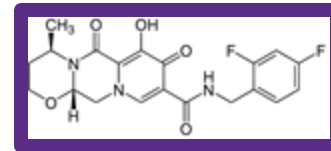
ABC/3TC 120/60/5 mg



ABC = abacavir



3TC = lamivudine



DTG = dolutegravir

pALD *New!*

pALD= ABC 60 mg + 3TC 30 mg + DTG 5 mg

Triple fixed-dose combination dispersible tablet for 6-25 kg

Weight	Number of Tablets Per Day	
	ABC/3TC (120/60mg) + pDTG (10mg)	FDC pALD (ABC/3TC/DTG 60/30/5mg)
3 to < 6kg	1 + 0.5	N/A – use separate products
6 to < 10kg	1.5 + 1.5	3
10 to < 14kg	2 + 2	4
14 to < 20kg	2.5 + 2.5	5
20kg to < 25kg	3 + 1 DTG 50mg tablet	6

Expanding our services for lifelong care and support

- Monitoring **growth, musculoskeletal and neurocognitive** development
- Assessment and management of **psychosocial and mental** status
- Screening for **cardiac, lung, renal, neurocognitive disease**
- Liaison with **disability and rehabilitation** services
- School-based programmes to provide **educational support**
- Leverage existing **early child development and OVC** platforms

Table 6.7 Service Delivery: Potential ways to integrate screening and possible interventions

	Children 0-5	5-10 years school age	Adolescents 10-19 years
Platform	Mother and child services	School based/ HIV clinics	School based services/ HIV services
Screen	Anthropometry, neurodevelopmental screening including hearing and vision, urine for renal disease	Weight, height, urine dipstick, hearing, vision, symptoms of depression, neurocognitive problems	Weight, height, urine dipstick, Blood pressure, glucose, symptoms of depression, neurocognitive problems, substance abuse
Tools	"Ten Questions" ^a , urine dipstick for sugars and protein	"Ten Questions", urine dipstick for sugars and protein	y-IHDS ^b , urine dipstick for sugars and protein
Intervention	Referral for hearing assessment, early detection of renal disease, nutritional interventions, nurturing care framework	Referral for hearing testing, early detection of renal disease, nutritional interventions, mental health interventions	Implement HAT ^c guidelines, provide care for diabetes and hypertension Health education: healthy diet and exercise

^a Ten questions-Ten Questions (TQ) screen, a standardized medical history and physical examination conducted by a medical doctor, with hearing and vision screening, psychological assessment for cognition and language delay, and voluntary HIV testing.

^b y-IHDS (youth international HIV dementia scale)

^c HAT- Helping Adolescents Thrive (Guidelines on promotive and preventive mental health interventions for adolescents)

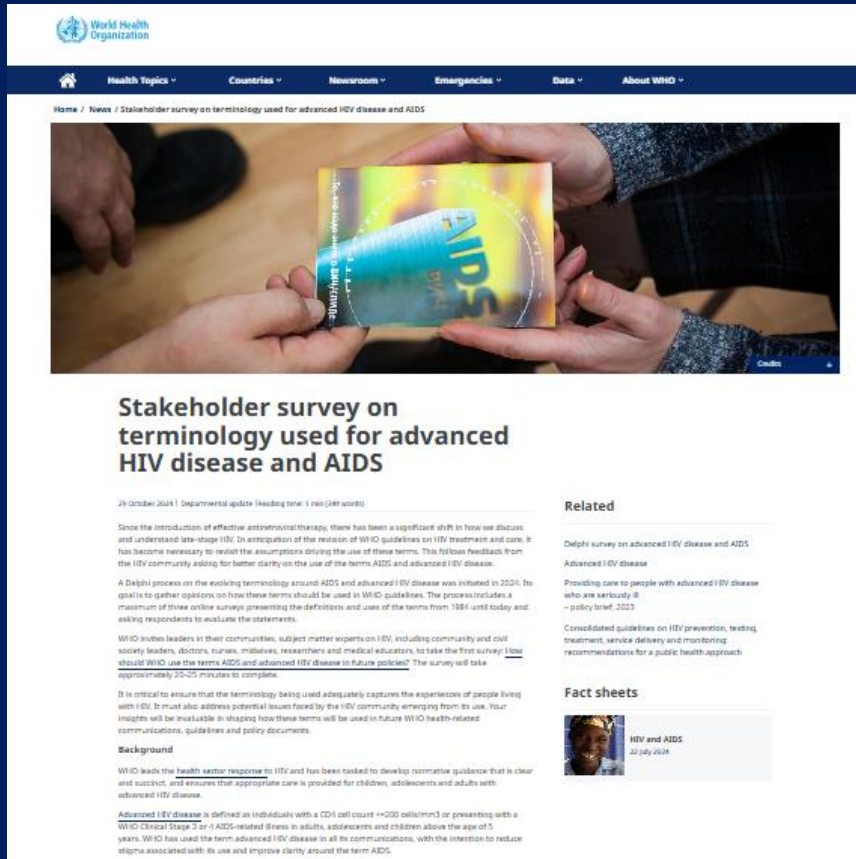
Conclusion

Despite success in scaling up of ART, too many are still getting sick and dying due to HIV-related infections or other childhood illnesses

Defining a package of care for those living with AHD is a reminder to us that there is more to HIV care and treatment than just ART

New screening tools, new strategies for TPT, and new treatment options are now available to support implementation and prevent morbidity and mortality from pAHD

Thank you!



The screenshot shows a WHO news article titled "Stakeholder survey on terminology used for advanced HIV disease and AIDS". The article is dated 29 October 2024 and is categorized as a Departmental update. The main text discusses the WHO's efforts to update its guidelines on HIV terminology, following feedback from the HIV community. It mentions a Delphi process initiated in 2021 to gather opinions on how terms like "AIDS" and "Advanced HIV Disease" should be used. The article also includes a "Background" section and a "Fact sheets" section with a thumbnail image of a person's face.

Round 1: AIDS and Advanced HIV Disease - Delphi

Returning?

AAA



You have been invited as an expert member of the HIV community to complete a Delphi survey on Advanced HIV Disease and AIDS - consultation on evolving terminology.

The goal of this study is to gather opinions on how the term "AIDS" and "Advanced HIV Disease" should be used in WHO guidelines. Since effective HIV treatment became available, the way we talk about living with HIV has changed. The World Health Organization (WHO) has started using "Advanced HIV Disease" instead of "AIDS" to reduce stigma and improve understanding.

WHO is preparing to update its guidelines. They have received feedback from the HIV community asking for clearer use of Advanced HIV Disease and AIDS. WHO has contracted independent researchers to find out what the HIV community prefers: how should we use "AIDS" and "Advanced HIV Disease" in future policies?

The survey will take no more than 20-25 minutes to complete.

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<https://redcap.am.lshtm.ac.uk/redcap/surveys/?s=PWP8LJJ D3XN4AC7J>

<https://www.who.int/news/item/29-10-2024-stakeholder-survey-on-terminology-used-for-advanced-hiv-disease-and-aids>