



# Latest updates on Pediatrics and Adolescent Treatment







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# **Pediatric HIV**

Children (<15 years) estimated to be living with HIV [Newly Infected] | 2022

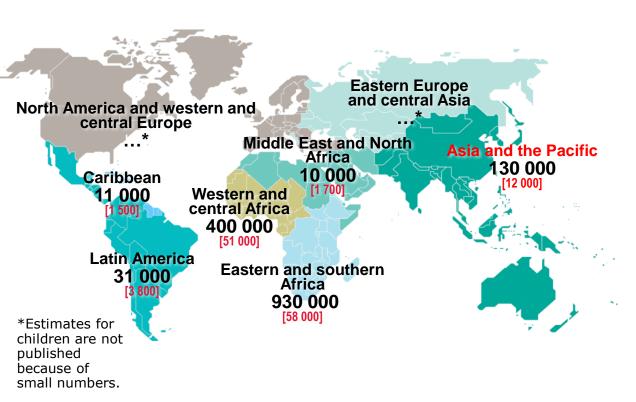
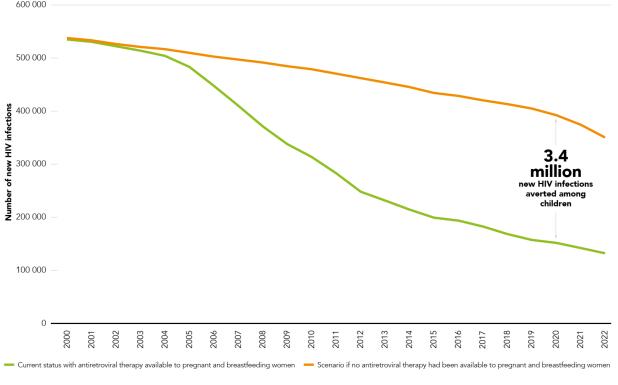








Figure 1.8 Number of new HIV infections among children (aged 0–14 years) versus scenario without antiretroviral therapy available to pregnant and breastfeeding women, global, 2000–2022



Source: UNAIDS special analysis of epidemiological estimates, 2023.

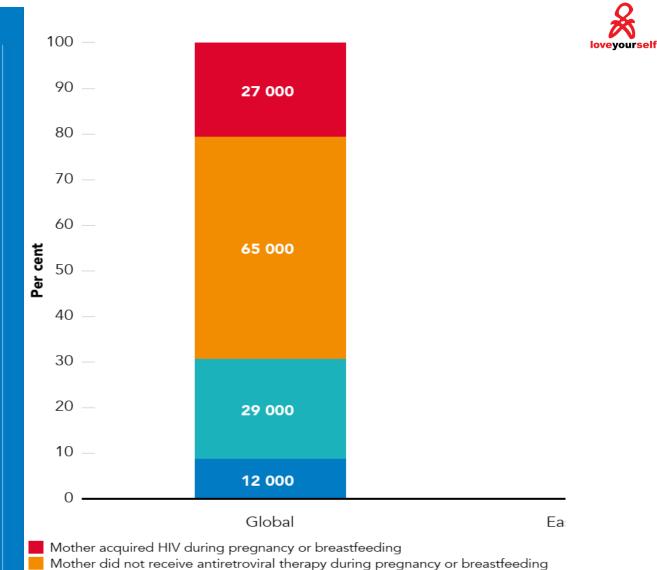
https://thepath.unaids.org/





Over 1.2 million newborns are exposed to HIV each year

Since peaking in the early 2000s, annual numbers of new HIV infections in children (aged 0-14 years) have fallen markedly—but that decline has almost stalled in recent years.



Source: UNAIDS epidemiological estimates, 2023 (https://aidsinfo.unaids.org/).

Mother did not continue antiretroviral therapy during pregnancy or breastfeeding

Mother was on antiretroviral therapy but did not achieve viral suppression

# HIV exposed and HIV diagnosis

### **Women in Antenatal Care**

### **Infant and Children HIV Testing**

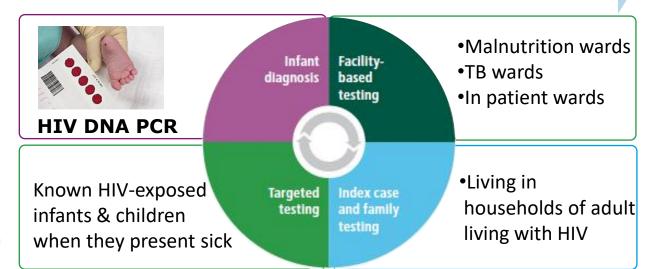




- Test ALL pregnant in ANC
- Provide ART to WLHIV

Dual HIV/Syphilis RDTs
can be offered as the
first test in ANC





Philippines: Health Indicators		
Antenatal care coverage (%) $n = 1.15M$	80.7	
Percent of HIV testing uptake in ANC ( $n = 2.1M$ ) <sup><math>\alpha</math></sup>		
HIV prevalence in reproductive age group <sup>b</sup>		
Percent of Syphilis testing uptake in ANC (n=2.2M) <sup>a</sup>		
Percent of Syphilis positivity rate (n=572,664) <sup>a</sup>	1.2	

### Infants exposed to HIV

Week 4-6- and 4-6-months old HIV DNA PCR

### >18 months of age

Sick children + Maternal hx HIV antibody testing

a: Field Health Services Information Systems, 2022 b: UNAIDS 2022

# **HIV** treatment: **DTG**-based regimens

### Effective and safe ART regimen



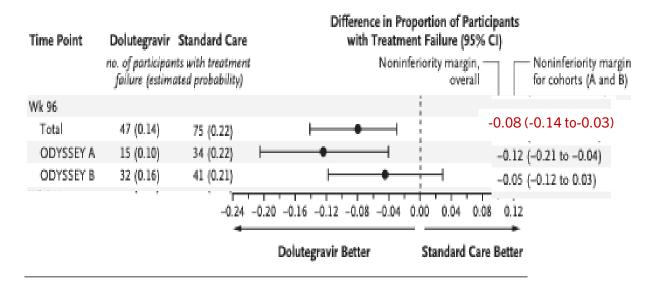
### Table 2. Weight-based Dosing Comparisons Between Various DTG-based Regimens

	Number of Tablets Per Day			
Weight Band	pABC/3TC 120/60 mg + pDTG 10 mg	pALD: ABC/3TC/DTG 60/30/5 mg		
3 to 5.9 kg	1+0.5	N/A – use separate products		
6 to 9.9 kg	1.5 + 1.5	3		
10 to 13.9 kg	2+2	4		
14 to 19.9 kg	2.5 + 2.5	5		
20 to 24.9 kg	3+1 DTG (50 mg) tablet	6		

### ORIGINAL ARTICLE

### Dolutegravir as First- or Second-Line Treatment for HIV-1 Infection in Children

Anna Turkova, M.R.C.P.C.H., Ellen White, Ph.D., Hilda A. Mujuru, M.Med., Adeodata R. Kekitiinwa, M.Med., et al., for the ODYSSEY Trial Team\*



Difference in the Proportion of Participants with Virologic or Clinical Treatment Failure by 96 Weeks.

DTG dose of 50mg FCT is approximately equal to 30mg of DT (i.e. 3 x 10mg DTs).



1 x 50mg DTG FCT









3 x 10mg paediatric DTG DT





### WHO-recommended dosing for ABC/3TC & DTG-based formulations

WHO-Recommended Daily Dosing							
Formulation	3 – 5.9kg	6 – 9.9kg	10 – 13.9kg	14 – 19.9kg	20 – 24.9kg	25 – 29.9kg	≥ 30kg
ABC/3TC 120/60mg scored dispersible tablet	1	1.5	2	2.5	3	-	_
DTG 10mg scored dispersible tablet	0.5	1.5	2	2.5	[3 DTG 10mg or transition to 1 DTG 50mg tablet]		I
ABC/3TC/DTG 60/30/5mg (pALD) dispersible tablet	_	3	4	5	[6 pALD or transition to ABC/3TC + DTG 50mg]	_	_
ABC/3TC 600/300mg tablet	-	_	_	_	_	1	1
DTG 50mg film-coated tablet	ı	ı	_	ı	1	1	[transition to TLD]
TDF/3TC/DTG 300/300/50mg tablet	_	_	_	_	_	_	1

Source: WHO 2021 HIV Guidelines, Link.

# 95-95-95

Infant HIV infection\*

## Prevention of vertical HIV transmission

TAF/FTC/DTG TDF/FTC/EFV

1 (0.50%)

Efficacy and safety of three antiretroviral therapy regimens started in pregnancy up to 50 weeks post partum: a multicentre, open-label, randomised, controlled, phase 3

	, , ,	, ,		
	Dolutegravir, emtricitabine, and tenofovir alafenamide group (n=217)	Dolutegravir, emtricitabine, and tenofovir disoproxil fumarate group (n=215)	Efavirenz, emtricitabine, and tenofovir disoproxil fumarate group (n=211)	Total (n=643)
Maternal adverse events up to 50 weeks post partum				
Any clinical or laboratory adverse event of grade 3 or higher*	53 (25%)	66 (31%)	58 (28%)	177 (28%)
Any clinical adverse event of grade 3 or higher	43 (20%)	41 (19%)	45 (21%)	129 (20%)
Infant adverse events up to 50 weeks after birth				
Number of infants	208	202	207	617
Infant death*††	2 (1%)	4 (2%)	14 (7%)	20 (3%)
Born preterm (<37 weeks of gestation), n	1	1	6	8
Small for gestational age, n	2	2	3	7
Major congenital anomaly	2 (1%)	0	2 (1%)	4 (1%)
Estimated creatinine clearance at week 26 after birth, mL/min¶	134.8 (109.6)	123.6 (40.3)	135.0 (51.1)	131.1 (73.8)

2 (0.98%)

4 (0.67%)

1 (0.55%)

# 95-95-95

# Virological Suppression and Quality of life





### **Treatment as Prevention**

Awareness

To general population

Acceptability

Let s science leads prejudice

ART Uptake and Adherence

Incentive to take ART

Improved well-being of PLHIV

Reduced self-stigma

(Bor, 2021)



# Adolescent friendly health services (Safe space)

WHO- defined characteristics of adolescentfriendly health services

**Equitable:** all adolescents, not just certain groups, are able to obtain the health services they need

Accessible: adolescents are able to obtain the services that are provided.

**Acceptable:** health services are provided in ways that meet the expectations of adolescent clients.

**Appropriate:** the right health services that adolescents need are provided.

**Effective:** the right health services are provided in the right way and make a positive contribution to the health of adolescents.