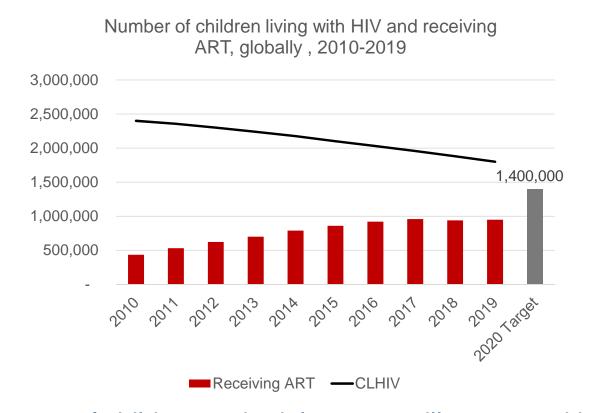


# 53% of children living with HIV are receiving treatment compared to 68% of adults





Only 950,000 children receiving treatment in 2019

Children living with HIV is declining as children age into adulthood

Most recent data suggest lower numbers in mid-2020

30% of children and adolescents still present with severe immunosuppression AIDS 2020 Estimate



## **Comprehensive HIV testing approach for infants and children**



- Infant diagnosis as a multi-step process
- Same day testing and result return
- Confirmatory testing of all positives as ART is initiated
- Final, end of exposure diagnosis with age-appropriate test

infants and children who present to: malnutrition wards, TB wards, inpatient wards

In the absence of the mother, test the infant with age-appropriate test

Determine the exposure status of all

- Test known HIV-exposed infants and children whenever they present sick
- Determine the exposure status of infants and children who present to outpatient, immunization clinics and vulnerable children in OVC programmes

Targeted testing

Infant

diagnosis

Provide

Initiated

testing

Index-

case /

family

testing

 Test infants and children living in households of known HIV-positive parents or siblings



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## Comprehensive HIV testing approach for infants and children



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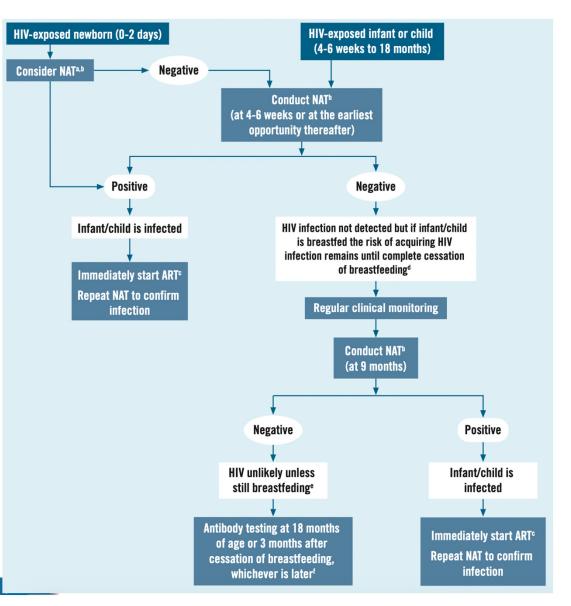
Initiated

testing

 Test infants and children living in households of known HIV-positive parents or siblings



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# Infant testing algorithm: it's a process!

Moving to a multi-HIV NAT algorithm

- Birth (where of value)
- 6 weeks
- 9 months
- Any time HIV exposed infants present sick

Ensuring **confirmatory** testing of a positive NAT result is undertaken

Diagnosis is not completed without "final diagnosis" at the end of the period of risk for transmission



## 2021 Point-of-care infant diagnosis recommendation

Infants are 8 times more likely to start treatment within 60 days with POC testing compared to SOC testing

Time to ART initiation: 0 days for POC vs 39.5 days for SOC

#### Recommendation

Point-of-care nucleic acid testing should be used to diagnose HIV among infants and children younger than 18 months of age.

(strong recommendation; high-certainty evidence)

- **Decentralization of ART** or strengthening of referral systems for ART initiation remain of critical importance to ensure impact on infant outcomes.
- Point-of-care infant diagnosis technologies should be considered and used within the current infant diagnosis algorithm at any point when a NAT is required.
- Access to high-quality diagnostic testing should be continually expanded across HIV and other molecular testing needs.
- Ensure adequate human resources, training, service and maintenance and quality assurance.



## **Comprehensive HIV testing approach for infants and children**

Infant

diagnosis



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Targeted case / testing family testing

Provide

Initiated

testing

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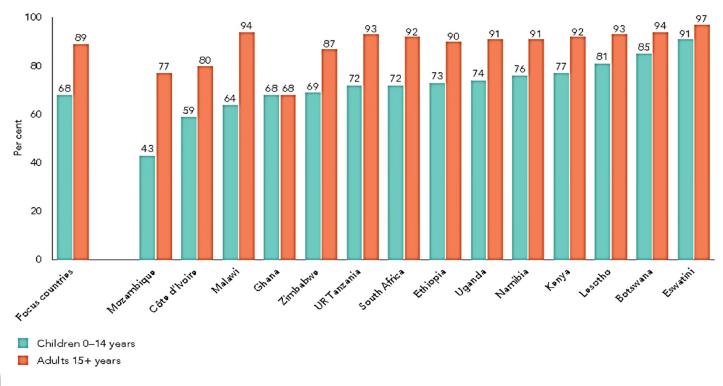


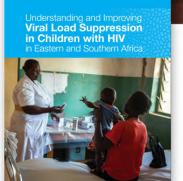
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## Virological suppression in children is consistently lower than in adults



**Figure 14.** Viral load suppression among people aged 0–14 and 15+ years receiving antiretroviral therapy by age group and country in 15 focus countries, 2019







Source: UNAIDS epidemiological estimates, 2020.

Sexually ιταης μπίσα ιπτεστίοη μποσταμμές



## Treatment optimization

### **Starting**

children on preferred regimens in optimal formulations

## Changing

formulations
as children
grown and can
take more
optimal
formulations

## **Transitioning**

to better
regimens and
formulations as
improved
regimens are
available

### **Switching**

to appropriate

2<sup>nd</sup> or 3<sup>rd</sup> line
regimens in
optimal
formulations
when VL
failure

#### Starting

children on preferred regimens in optimal formulations

#### **Switching**

to appropriate

2<sup>nd</sup> or 3<sup>rd</sup> line

regimens in

optimal

formulations
when VL failure

Additional evidence in support of WHO guidelines



Table 1. Summary of preferred and alternative first-line ART for neonates and children

|                                    | Neonates                  | Children  |
|------------------------------------|---------------------------|---|
| Preferred                          | AZT+3TC+RAL <sup>a</sup>  | ABC + 3TC + DTG   |
| Alternatives                       | AZT+3TC+NVP               | ABC + 3TC + LPVr<br>TAF° + 3TC (or FTC) + DTG<br>ABC + 3TC + RAL <sup>d</sup>   |
| Special circumstances <sup>d</sup> | AZT+3TC+LPVr <sup>b</sup> | ABC + 3TC + EFV <sup>e</sup> (or NVP <sup>f</sup> )  AZT + 3TC + EFV <sup>e</sup> (or NVP <sup>f</sup> )  AZT + 3TC + LPVr (or RAL) |

# WHO Guidelines ALREADY recommend DTG for ALL children in need of 1st or 2nd line ART

Table 2. Summary of sequencing options for ART for children

| First-line ART         | Second-line ART <sup>a</sup> | Third-line ART   |
|------------------------|------------------------------|--|
| Two NRTIs + LPVr       | Two NRTIs + DTG              | DRV/r + DTG <sup>b</sup> with or without                         |
| Two NRTIs + EFV or NVP | 1WO NETTS + 1)1(a            | one or two NRTIs. Where possible,<br>consider optimization using |
| Two NRTIs + DTG or RAL | Two NRTIs + LPVr or ATVr     | genotyping   |

<sup>&</sup>lt;sup>a</sup> An optimized NRTI backbone should be used: AZT following TDF or ABC failure and vice versa.

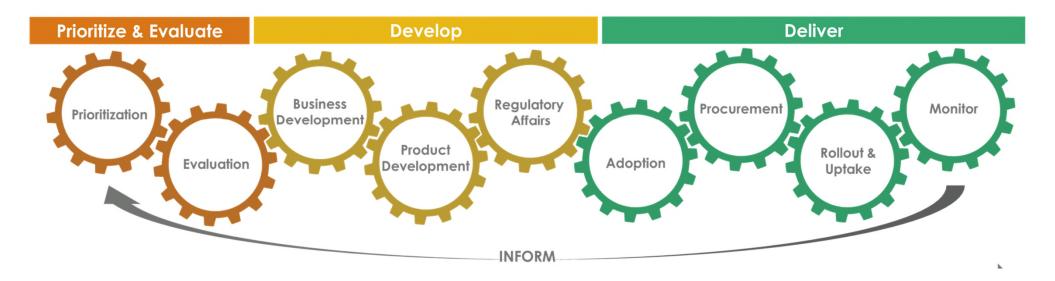


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b DTG-based third-line ART following the use of an integrase inhibitor must be administered with DTG twice daily.

## Accelerated actions to get better ARVs for children



Policy makers, research networks and innovators targeting efforts

Donors, international organizations, suppliers and innovators enabling equitable access to better ARVs

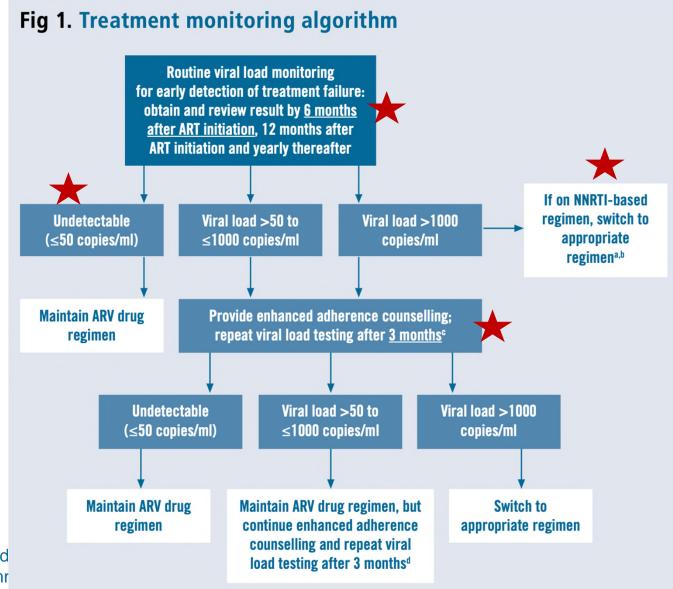
Governments and implementers and procurement agencies collaborating in a coordinated and sustainable manner



https://www.who.int/groups/antiretroviral-drug-optimization https://www.paediatrichivactionplan.org/ https://www.who.int/initiatives/gap-f



# 2021 Updated treatment monitoring algorithm





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### 2021 Point-of-care viral load recommendations



#### Recommendation

Point-of-care viral load may be used to monitor treatment among people living with HIV receiving ART.

(conditional recommendation; moderate-certainty evidence)

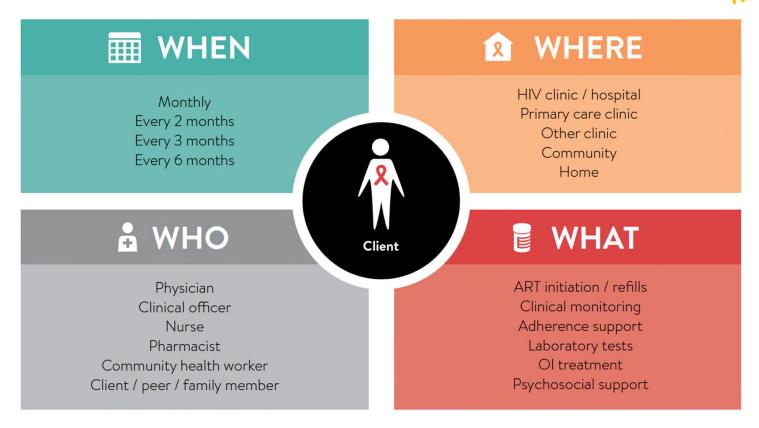
#### Box 2. Priorities for point-of-care viral load testing

Point-of-care viral load testing should be given priority for the following populations:

- Pregnant and breastfeeding women
- Infants, children and adolescents
- People requiring a repeat viral load after a first elevated viral load
- People for whom treatment failure is suspected
- People presenting sick, living with advanced HIV disease or having a known opportunistic infection (TB, cryptococcal infection, etc.)
- First scheduled viral load test for people re-entering care

# \*2021\* Differentiated service delivery for HIV treatment





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# Criteria for determining whether a person is established on ART





To support the implementation of these recommendations, WHO has developed criteria for determining whether a person has been successfully established on ART:

- > 2 years of age
- receiving ART for at least six months;
- no current illness, which does not include well-controlled chronic health conditions;
- good understanding of lifelong adherence: adequate adherence counselling provided; and
- evidence of treatment success: at least one suppressed viral load result within the past six months (if viral load is not available: CD4 count >200 cells/mm³ and >350cells/mm³ in children < 5 years or weight gain, absence of symptoms and concurrent infections).
- Caregiver oriented about age-appropriate disclosure.

### Criteria for determining whether a person is established on ART





To support the implementation of these recommendations, WHO has developed criteria for

"The definition of being established on ART (stability) should be ssfully

receiving

no curren

esta applied to all populations, including those receiving second- and third-line regimens, those with controlled comorbidities, children, adolescents, pregnant and breastfeeding women and key populations."

good understanding of lifelong adherence: adequate adherence counselling provided; and

evidence of treatment success: at least one suppressed viral load result within the past six months (if viral load is not available: CD4 count >200 cells/mm<sup>3</sup> or weight gain, absence of symptoms and concurrent infections).



# Recommendations on frequency of clinical visits and ART pick-up



People established on ART should be offered clinical visits every 3–6 months, preferably every six months if feasible

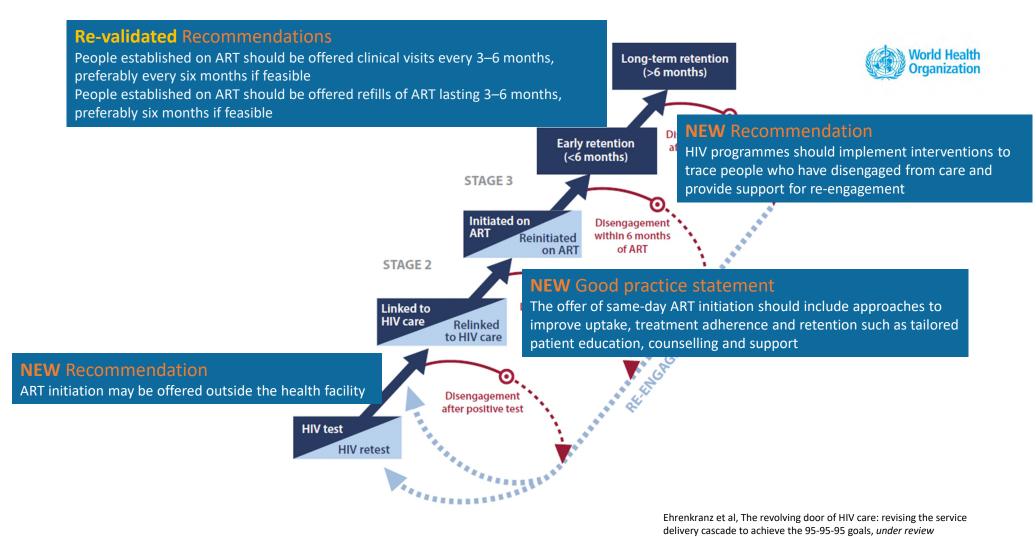
Strong recommendation; moderate-certainty evidence

- 3 RCTs and 3 observational studies found comparable outcomes

People established on ART should be offered refills of ART lasting 3–6 months, preferably six months if feasible

Strong recommendation; moderate- to low-certainty evidence

- 1 RCT and 2 observational studies found comparable outcomes



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## **New recommendation 2021**



# Psychosocial interventions should be provided to all adolescents and young people living with HIV

(Strong recommendation; moderate-certainty evidence)

| Priority            | This issue is a priority for adolescents and young people.  |  |  |
|---------------------|---|--|--|
| Quality of evidence | Overall certainty of evidence is moderate. Clinically relevant (significant) desirable effects identified for adherence to ART and level of viral load. |  |  |
| Values              | Strong acceptance and preference by adolescents and young people living with HIV  |  |  |
| Benefits and harms  | Despite the observation of publication bias, no harmful effects were identified in our work.  |  |  |
| Resources           | While these can be substantial to ensure positive findings, integration into existing services and digital modes of delivery bring costs down.          |  |  |
| Equity              | These interventions have the ability to improve health equity, address stigma and provide both interpersonal and structural support.                    |  |  |
| Acceptability       | Interventions were identified as acceptable, especially when engaging adolescents in design and implementation.   |  |  |
| Feasibility         | Interventions were feasible, with low rates of attrition and adaptations to meet needs across a diversity of settings.                                  |  |  |

# WHO Adolescent Recommendations Across the Cascade of HIV Care

#### **Diagnosis**

HIV testing services, with linkages to prevention, treatment and care, should be offered for adolescents

- From key populations in all settings
- In generalized HIV epidemic
- In low and concentrated HIV epidemics

Adolescents with HIV should be counselled about the potential benefits and risks of disclosure of their HIV status, and empowered and supported to determine if, when, how and to whom to disclose

#### Linkage

Following an HIV diagnosis, a package of support interventions should be offered to ensure timely linkage to prevention, treatment and care for all people living with HIV

The following interventions demonstrate benefit:

- 1. Streamlined interventions
  (i) enhanced linkage with case management, (ii) support for HIV disclosure, (iii) patient tracing, (iv) training staff to provide multiple services
- 2. Peer support and navigation approaches
- 3. Quality improvement approaches using data

#### **Treatment**

ART should be initiated in all adolescents infected with HIV, regardless of WHO clinical stage or CD4 cell count

Adherence support interventions

- Peer counsellors
- Mobile phone text messages
- Reminder devices
- Cognitive-behavioral therapy
- Behavioral skills training and medication adherence training
- FDC and once-daily regimens

#### Retention

Programmes should provide community support for people living with HIV to improve retention in HIV care

The following community-level interventions have demonstrated benefit in improving retention in care:

- Package of community-based interventions
- Adherence clubs
- Extra care for high-risk people



## **Service Delivery Recommendation**

Adolescent friendly health services approaches should be implemented in HIV services to ensure engagement and improved outcomes

(strong recommendation, low quality evidence)







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Countries v

Newsroom v

Emergencies v

Data v

About Us v

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#### **AIDS Free targets**

Provide 1.4 million children (aged 0–14) and 1 million adolescents (aged 15–19) with lifelong HIV treatment by 2020. [Reach 95% of all children and adolescents living with HIV]

WHO and Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) are the co-conveners leading the AIDS Free Working Group of stakeholders working to reach the "super fast-track" targets.

The toolkit consists of the latest normative guidance, technical guidelines, policy briefs, case studies and advocacy resources to support efforts to achieve the AIDS Free targets in high-burden countries.

Materials included in this toolkit represents the work of several members of this group, including Adolescent Treatment Coalition (ATC), Clinton Health Access Initiative (CHAI), Children's Investment Fund Foundation (CIFF), ELMA Philanthropies, United States President's Emergency Plan for AIDS Relief (US PEPFAR), Joint United Nations Programme on HIV and AIDS (UNAIDS), United National Children's Fund (UNICEF), Unitaid,

# Thank you

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Switzerland

www.who.int

www.gap-f.org/

www.who.int/hiv/pub/paediatric/aids-free-toolkit/en/

www.who.int/hiv/pub/research-dev-toolkit-paediatric-arv-drug-formulation/en/

