

15th International Conference on  
**HIV TREATMENT AND  
PREVENTION ADHERENCE**

# Integrating Reproductive Health into the HIV Care Continuum: Why Is It Important?

Dr Lee Fairlie

Wits Reproductive Health  
and HIV Institute



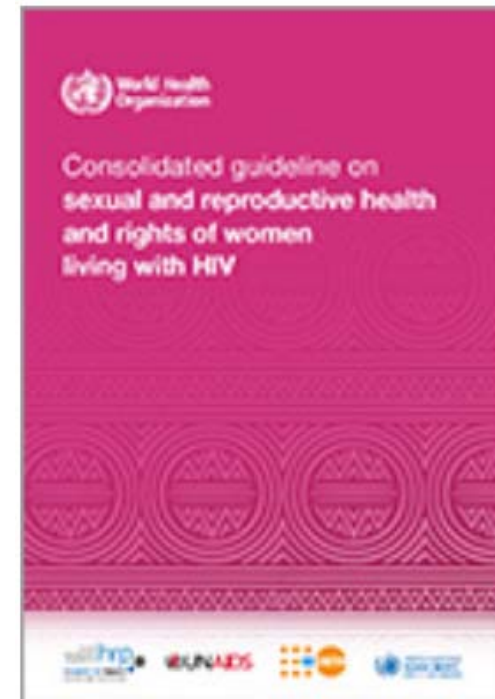
A large number of dark grey origami cranes are floating on a body of water, creating a dense field of cranes. In the foreground, a single bright orange origami crane stands out prominently, reflecting in the water. The background is filled with many more dark grey cranes, some of which are slightly out of focus, emphasizing the one in the foreground.

Women living with HIV face  
many challenges....

- Women generally bear the greatest burden of HIV disease
- Adolescent girls and young women are particularly affected by HIV:
  - 2015 60% of young people aged 15–24 years living with HIV were young women;
  - 58% of newly acquired HIV infections in young people are in young women
- Often the social, sexual and reproductive health needs of women living with HIV are not met despite many improvements in HIV care over the past 2 decades
- Challenges exist around equitable access to health care for women
- Women are disproportionately affected by gender based violence, which includes sexual and reproductive rights violations
- Need to apply a “women-centred” approach which is central to many international and local guidelines

Zachek, AIDS Behav, 2019; WHO 2017

HIV is not only driven by gender inequality, but it also entrenches gender inequality, leaving women more vulnerable to its impact. Providing sexual and reproductive health interventions for women living with HIV that are grounded in principles of gender equality and human rights can have a positive impact on their quality of life; it is also a step towards long-term improved health status and equity.



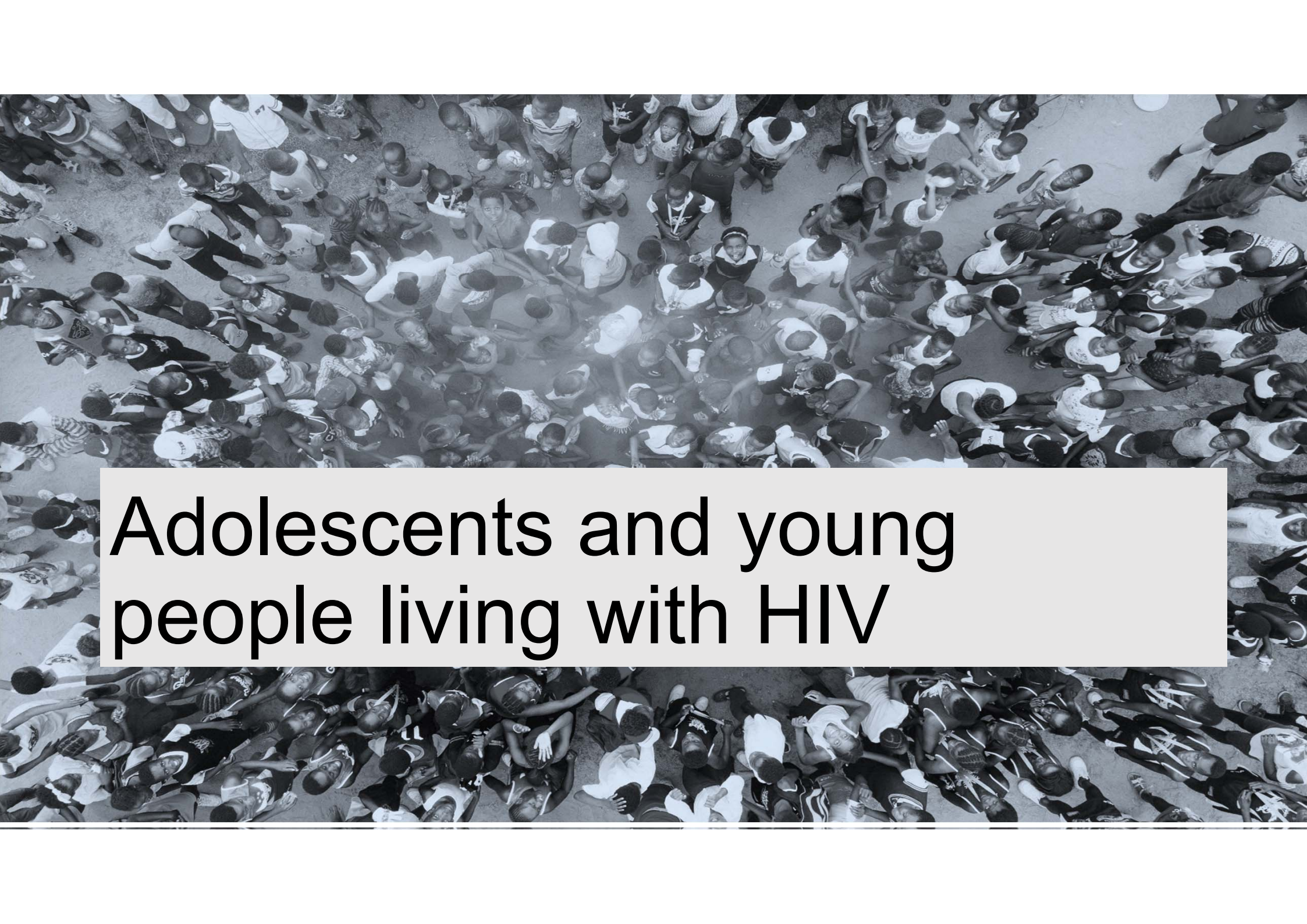


# HIV CARE CONTINUUM:

The series of steps a person with HIV takes from diagnosis through their successful treatment with HIV medication.



At each step of the HIV continuum, there are opportunities to ensure integration of sexual and reproductive health services



# Adolescents and young people living with HIV

# Key issues

- Disclosure to adolescent regarding HIV (Vertical transmission)
- Disclosure to sexual partners, family, friends
- Stigma
- Evolving puberty, sexuality and sexual debut
- Treatment as prevention
- Access to PrEP and PEP
- Identification and treatment of STIs
- Preventing unplanned pregnancies
- Data lacking in vulnerable groups such as transgender adolescents

- Sexual maturity may be delayed in adolescents living with HIV +/- 6 months, related to growth delays
- Sexual debut delayed: Zambia 15 % adolescents between 15 and 19 LWHIV compared to 35% not LWHIV
- Difficulties with access to contraception and condoms compared to HIV-negative in Zambia
- High proportion (half) condomless sex and transactional sex in SSA
- In the UK-higher condom use in those LWHIV
- Poor knowledge of STIs
- High risk behaviours often associated: alcohol and drug abuse, reduced levels of viral suppression and risk-taking sexual behaviour



- **Treatment as prevention**

- Key message but only works if suppressed
- Minimal data aimed at adolescents regarding acceptability and impact of messaging

- **PrEP**

- Important intervention, but access still limited and adherence in adolescents may be suboptimal
- Currently oral PrEP available but other options under study/registration (Injectables, Dapivarine Vaginal Ring)

- **Disclosure**

- Rates low to sexual partners
- Where  $U \neq U$  PrEP should be offered to sexual partners



UNDETECTABLE = UNTRANSMITTABLE



Hamzah, Current Opinion, 2018

# Contraception



- Clear unmet need!
- Over 75% of pregnancies in young women are unintended
- In Spain: Only 25% of adolescent girls living with HIV, sexually active, using contraception
- Need to consider drug-to-drug interactions, especially efavirenz and the subdermal implant
- CoC low dose reduced efficacy with PI and efavirenz....may need to use ATZ/r
- Need to offer emergency contraception in HIV clinic-copper IUD or double dose levonorgestel (3 mg)

Hamzah, Current Opinion, 2018; Echenique, AIDS Care, 2017

# HPV and cervical screening

- Almost a third of adolescent girls and young women living with HIV positive for high-risk oncogenic HPV
- 10% higher than in HIV-negative
- HPV vaccination highly recommended and HIV clinic could provide this platform for women and men especially MSM
- Access still limited to HPV vaccine for various reasons
- The 9-valent vaccine may not cover the 4 most important high-risk HPV types
- Cervical screening therefore essential and should commence early after sexual debut

A full-page background image featuring a woman's silhouette standing on a dark, rocky outcrop. She is facing away from the camera, looking out over a vast, hazy mountain range. The sky is a warm, golden-yellow color, suggesting a sunset or sunrise. The text "Older women" is overlaid in white, centered horizontally and slightly below the vertical center.

Older women



- Treat-all: Full life expectancy in women and men living with HIV; fertility intent and rates similar between women living with HIV and those not
- Requires increased focus on integrating SRH and HIV care
- Difficulties lie within operationalising integrated services
- A “one-stop shop” model or “referral” model within the same facility on the same day are most commonly used
- Implementation in a research setting more successful than in “real-life” settings

# Fertility

- 14-62% of women living with HIV who become pregnant report that pregnancy is unplanned
- The (fairly) recent Tsepamo findings regarding DTG and NTD have introduced some significant complexities
  - WHO recommends DTG for all
  - Some in-country guidelines still cautious peri-conception and first 6 weeks of pregnancy
- Contraception access and uptake is variable particularly in high burden countries
- Global shortages of methods such as injectables highly problematic
- Need ensured safe access to termination of pregnancy

Mantell, AIDS Behav, 2017; Zash, NEJM, 2019, WHO 2019

# Safer conception for discordant couples

Review Joseph Davey 2018:

- Generally access to “basics”.....Treatment as prevention and voluntary male medical circumcision HIV - ♂
- More expensive/advanced interventions much less accessible: Oral PrEP, sperm washing-mainly through research studies

Barriers:



- Lack of awareness
- Limited integration of SRH and HIV care
- Fertility discussions mainly around PMTCT
- Stigma
- Difficulties with disclosure

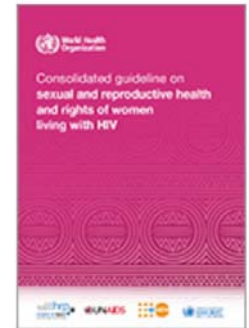


- Lack of training on SCS
- Limited integration of services
- Health workforce capacity
- Guidelines not available

Joseph Davey; AIDS Behav; 2018

# STI screening and management

- Includes: syphilis, chancroid, herpes, ulcer, bacterial vaginosis and trichomoniasis leading to vaginal infection, vaginal candidiasis, human papillomavirus (HPV), cervical cancer, gonorrhoea, chlamydia and pelvic inflammatory disease (PID)
- Most STIs (ulcerating and non-ulcerating) increase the risk of onward vertical and horizontal transmission
- Regular symptomatic screening necessary
- In high risk populations such as female sex workers, consider periodic presumptive therapy
- Cervical screening after initiation of sexual activity in those HIV+ and newly HIV+
- After 12 months if pre-cancerous, otherwise 3 yearly
- In a meta-analysis and systematic review: ART associated with decreased risk of HSIL-CIN2+ incidence (1830 women), SIL progression (6212 women), and increased SIL or CIN regression (5261 women)
- Among 15 846 women, ART associated with reduction in invasive cervical cancer incidence



WHO 2017; Kelly, Lancet HIV, 2018



## Rio de Janeiro:

- ❖ Trends in sociodemographic, clinical, sexual and reproductive characteristics 1996-2017
- ❖ Baseline cross-sectional data at serial points
- ❖ 1361 WLHIV, median age 36 years
- ❖ 30.3% had an induced termination of pregnancy

|                                      | 1996–2000  | 2001–2005  | 2006–2010  | 2011–2016  | Total       | p-value trend        | Linear coefficient (95% CI) |
|--------------------------------------|------------|------------|------------|------------|-------------|----------------------|-----------------------------|
| ≥ 11                                 | 47 (15.6)  | 39 (15.9)  | 75 (17)    | 55 (14.8)  | 216 (15.9)  | 0.908                |                             |
| Missing                              | 3 (1)      | 7 (2.8)    | 39 (8.8)   | 16 (4.3)   | 65 (4.8)    |                      |                             |
| Prior syphilis                       |            |            |            |            |             |                      |                             |
| Yes                                  | 20 (6.6)   | 35 (14.2)  | 48 (10.9)  | 45 (12.1)  | 148 (10.9)  | 0.079                |                             |
| No                                   | 244 (80.8) | 205 (83.3) | 385 (87.1) | 289 (77.9) | 1123 (82.5) | 0.633                |                             |
| Missing                              | 38 (12.6)  | 6 (2.4)    | 9 (2)      | 37 (10)    | 90 (6.6)    |                      |                             |
| Prevalent oncogenic HPV <sup>a</sup> |            |            |            |            |             |                      |                             |
| Yes                                  | 144 (47.7) | 100 (40.7) | 183 (41.4) | 61 (43)    | 488 (43.1)  | 0.208                |                             |
| No                                   | 156 (51.7) | 137 (55.7) | 237 (53.6) | 71 (50)    | 601 (53.1)  | 0.935                |                             |
| Missing                              | 2 (0.7)    | 9 (3.7)    | 22 (5)     | 10 (7)     | 43 (3.8)    |                      |                             |
| Contraceptive method <sup>b</sup>    |            |            |            |            |             |                      |                             |
| Tubal ligation                       | 51 (24.9)  | 51 (31.5)  | 65 (19.9)  | 53 (21.2)  | 220 (23.3)  | 0.079                |                             |
| Hormonal and IUD                     | 27 (13.2)  | 9 (5.6)    | 55 (16.9)  | 47 (18.8)  | 138 (14.6)  | 0.009                |                             |
| Barrier                              | 91 (44.4)  | 67 (41.4)  | 142 (43.6) | 104 (41.6) | 404 (42.8)  | 0.671                |                             |
| Other less effective method          | 5 (2.4)    | 1 (0.6)    | 2 (0.6)    | 2 (0.8)    | 10 (1.1)    |                      |                             |
| No method                            | 29 (14.1)  | 33 (20.4)  | 46 (14.1)  | 43 (17.2)  | 151 (16)    | 0.772                |                             |
| Missing                              | 2 (1)      | 1 (0.6)    | 16 (4.9)   | 1 (0.4)    | 20 (2.1)    |                      |                             |
| Dual contraceptive use <sup>b</sup>  |            |            |            |            |             |                      |                             |
| Yes                                  | 13 (6.3)   | 5 (3.1)    | 32 (9.8)   | 35 (14)    | 85 (9)      | < 0.001 <sup>c</sup> |                             |
| No                                   | 190 (92.7) | 156 (96.3) | 278 (85.3) | 214 (85.6) | 838 (88.9)  |                      |                             |
| Missing                              | 2 (1)      | 1 (0.6)    | 16 (4.9)   | 1 (0.4)    | 20 (2.1)    |                      |                             |
| Gravidity                            |            |            |            |            |             |                      |                             |
| Median (IQR)                         | 3 (2, 4)   | 3 (2, 4)   | 2 (1, 4)   | 2 (1, 4)   | 3 (1, 4)    | 0.034                | – 0.97 (– 0.94 to – 1.00)   |
| 0                                    | 18 (6)     | 25 (10.2)  | 35 (7.9)   | 47 (12.7)  | 125 (9.2)   | 0.010                |                             |
| 1–2                                  | 124 (41.1) | 89 (36.2)  | 189 (42.8) | 139 (37.5) | 541 (39.8)  | 0.728                |                             |
| ≥ 3                                  | 160 (53)   | 132 (53.7) | 218 (49.3) | 185 (49.9) | 695 (51.1)  | 0.290                |                             |
| Parity                               |            |            |            |            |             |                      |                             |
| Median (IQR)                         | 2 (1, 3)   | 2 (1, 3)   | 2 (1, 3)   | 2 (1, 3)   | 2 (1, 3)    | 0.146                | 1.03 (0.99–1.06)            |
| 0                                    | 40 (13.2)  | 39 (15.9)  | 70 (15.8)  | 64 (17.3)  | 213 (15.7)  | 0.172                |                             |
| 1–2                                  | 177 (58.6) | 130 (52.8) | 232 (52.5) | 181 (48.8) | 720 (52.9)  | 0.017                |                             |

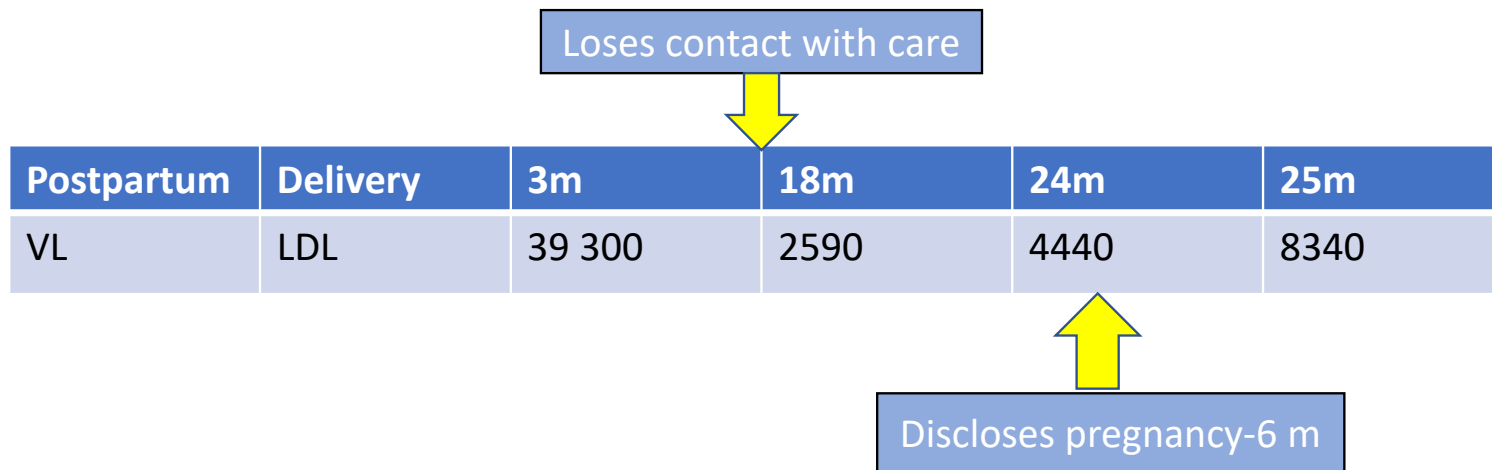
Sexual and reproductive history at baseline by study period, INI-Fiocruz women's cohort, 1996–2016

A photograph of a woman with short, dark, braided hair, seen from the back, carrying a baby on her back. She is wearing a dark, sleeveless top and a colorful, patterned cloth around her waist. The baby is wearing a white long-sleeved shirt. They are standing in a lush, green, tropical environment with many palm trees in the background. The sky is overcast.

# Pregnancy and postpartum

# SL

- 27 year old woman, postpartum
- On FDC-TEE during pregnancy
- Infant DOB 06 OCT 2018



- Switched to FDC-TLD

NNRTI resistance mutations

K103N

P225H

**Nucleoside RTI:**

Lamivudine (3TC)

High-level resistance ✓

Abacavir (ABC)

Low-level resistance ✓

Zidovudine (AZT)

Susceptible

Stavudine (D4T)

Susceptible

Didanosine (DDI)

Potential low-level resistance

Emtricitabine (FTC)

High-level resistance ✓

Tenofovir (TDF)

Susceptible SusC ✓

**Non-Nucleoside RTI:**

Efavirenz (EFV)

High-level resistance ✓

Etravirine (ETR)

Susceptible

Nevirapine (NVP)

High-level resistance ✓

Rilpivirine (RPV)

Susceptible

Drug Resistance Interpretation: INI



### HIV Drug Resistance Genotyping Report:

|                    |                                       |
|--------------------|---------------------------------------|
| Method             | In-house assay                        |
| Reason for testing | Unknown                               |
| Result             | HIV-1 resistance mutation(s) detected |

### Drug Resistance Interpretation: PR

|                               |      |
|-------------------------------|------|
| PI Major resistance mutations | None |
| PI Minor resistance mutations | None |

### Protease Inhibitors:

|                         |             |
|-------------------------|-------------|
| Atazanavir/r (ATV/r)    | Susceptible |
| Darunavir/r (DRV/r)     | Susceptible |
| Fosamprenavir/r (FPV/r) | Susceptible |
| Indinavir/r (IDV/r)     | Susceptible |
| Lopinavir/r (LPV/r)     | Susceptible |

# Period of particular vulnerability

- Pregnancy and postpartum period high risk for HIV acquisition
- New HIV infection, increases VL and risks of potential transmission to infant
- Many issues including difficulties with return to work, juggling multiple roles, gender-based violence
- High risk for VF post-partum, especially in women conceiving on ART
- Viral suppression rates estimate between 30% and 98% peripartum with 50% maintaining suppression through 12 months postpartum
- 50 % of women using contraception postpartum in Nigerian study: male condoms(29%)>CoC(19%)>IUD(3%)
- May enter next (unplanned) pregnancy with elevated VL and increased risk of transmission to infant



COVID.....



**COVID-19 & HIV**  
A TALE OF TWO PANDEMICS

## COVID-19 AND HIV: A TALE OF TWO PANDEMICS

The world faces an unprecedented emergency – the most lethal pandemic since AIDS emerged nearly 40 years ago. In recent months, COVID-19 has swept across the globe, bringing immense challenges, including for the tens of millions of people living with or affected by HIV.



- COVID-19 pandemic threatens to derail successes regarding HIV
- Some evidence suggesting increased vulnerability to COVID-19 in those living with HIV-may be related to immune dysregulation and inflammation
- BUT as important are issues around access to ART, PrEP and supportive services globally (low stock, HCW fear, closure of facilities, police response to “state of emergency” during lockdown
- Increased socio-economic vulnerability
- Calls for further enhanced efforts towards “patient-centred” community approaches



### 1.1 REDUCE THE FREQUENCY AND DURATION OF HEALTH FACILITY VISITS.

Core HIV services should not be disrupted due to COVID-19, but in-person visits to health facilities for people living with HIV should be limited [35]. Where visits are required, time spent in the facility should be reduced and the client should interact with the minimum number of providers.



### 1.2 IMPLEMENT EXTENDED REFILLS OF ANTIRETROVIRAL TREATMENT.

Public health authorities should enable the scaling up of multi-month dispensing of ART and PrEP, including up to six months, as recommended by WHO [36,37], in parallel with operational planning to minimize supply chain disruptions and ensure availability of medicines.



### 1.3 SUPPORT OUT-OF-FACILITY PICKUP POINTS FOR REFILLS.

HIV medication refills should be available through community pickup points, from drop-in centres and via "buddy" refills [38,39,40]. Service locations should be decentralized, including to key populations' preferred community access points.



### 1.4 ADAPT HEALTH FACILITIES TO SUPPORT CORE COVID-19 CONTROL MEASURES.

For essential health facility visits, triaging upon entry for COVID-19 symptomatic clients should be done, with physical distancing and other core COVID-19 control measures, such as hand hygiene, disinfection procedures and personal protective equipment (PPE) for health workers [41].



### 1.5 TRANSITION ADHERENCE SUPPORT TO VIRTUAL PLATFORMS, WHEREVER POSSIBLE.

Providers should optimize consultations over the phone and the use of online platforms to maintain core HIV services and support community engagement during physical distancing [42]. With the increased need for psychosocial support, providers should find digital ways to create referral pathways and deliver support that responds to the evolving



### 1.6 ADJUST HIV PREVENTION AND TESTING.

Prevention messaging should shift to virtual platforms and prevention supplies (condoms, lubricants, syringes) to decentralized service points. Multi-month prescribing and refills should be expanded for PrEP clients. HIV self-testing should be increased and prioritized for people taking PrEP, partners of people living with HIV and pregnant women [43], with appropriate messaging on where to access services.



### 1.7 ASSURE QUALITY LINKAGE AND ART INITIATION FOR THOSE NEWLY DIAGNOSED WITH HIV.

People newly diagnosed with HIV should be offered ART on the day of diagnosis, preferably at the location of testing with follow up and monitoring via digital platforms, where possible [44]. Immediate initiation on ART also provides an opportunity to refer or link people as needed to other services, such as harm reduction [45], prevention of mother-to-child transmission, psychosocial support services, contraceptive options, and sexual and reproductive health services.



### 1.8 CONTINUE TO TEST FOR AND TREAT HIV CO-INFECTIONS AND CO-MORBIDITIES.

Treatment and preventive therapy for HIV co-infections, especially TB [46] and viral hepatitis, must continue, as must diagnosis and treatment of co-morbidities known to increase susceptibility to COVID-19, such as diabetes and other non-communicable diseases [47], with extended supplies of medicines, where possible.



### 1.9 ENSURE SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS (SRHR).

SRHR services have been disrupted alongside increases in sexual and gender-based violence since the start of lockdowns [48]. National efforts must ensure the continuity of SRHR services and continue addressing gender-based and sexual violence during the COVID-19 pandemic.



### 1.10 HARNESS LOW-COST, ACCESSIBLE TECHNOLOGIES TO ENSURE DIGITAL ACCESS BY ALL.

Governments and healthcare providers must forge innovative partnerships with technology providers to enable uptake of digital health services. This should include use of low-cost and accessible technologies in

A microscopic view of plant cells, showing a network of cell walls and large, clear vacuoles. The image is in shades of blue and white, with a soft focus background.

**Moving integrated  
services forward.....**



- The need for integrated services obvious
- However, implementation and operationalisation more challenging

## **Enablers: +**

- Stakeholder engagement
- Capacity building
- Staff enthusiasm
- Non-stigmatizing services
- Involvement of key populations

## **Inhibitors -**

- Lack of funding
- Stakeholders not involved
- Staff capacity (HR and skills)
- Programme management
- Infrastructure

## Client barriers

- Low literacy
  - Lack of male partner involvement
  - Stigma
  - Lack women's empowerment for SRH decision-making
- 
- Not likely to be a “one-size-fits-all” approach
  - Programmes need to respond to local context which may differ remarkably between Geographical areas; clinics, populations
  - Pilot projects with scale up for new interventions
  - Just do it!!!



# In conclusion

- Integration of reproductive services into HIV care essential
- Focus changes for women at different stages of their lives
- Throughout a woman-centred approach essential
- Challenges are often not new, but new ways are required to overcome them
- COVID heightens these challenges and the need for us to address them