Reaching the Third 90: Implementing High Quality VL Monitoring at Scale

Viral load monitoring strategies for pregnant & breastfeeding women

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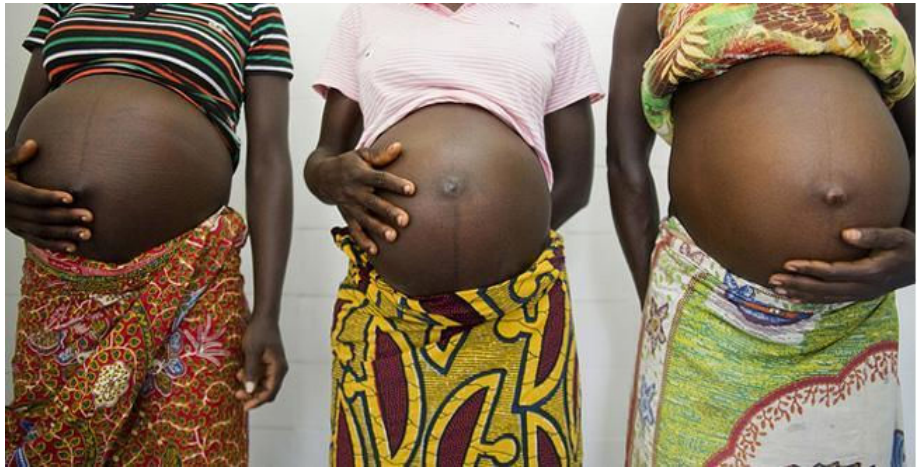
Context

Pregnancy



Postpartum / Breastfeeding

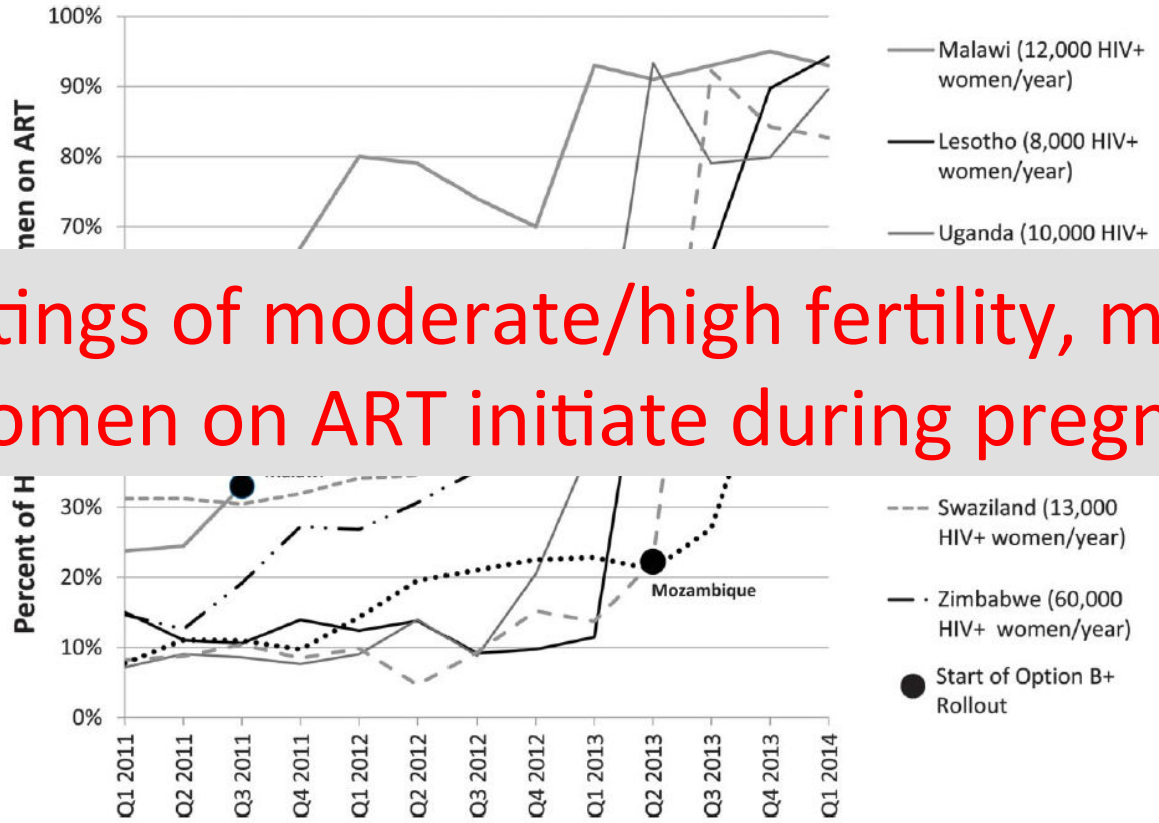
Key messages

1. Pregnant & postpartum women on ART are a critical population for VL monitoring
2. Slightly different approaches required
   - Populations of women receiving ART
   - Urgency of testing
   - Timing of testing
3. South African example: feasible with specific implementation challenges

1. Pregnant & postpartum (P&P) women on ART are a critical population for VL monitoring

Pregnant & postpartum women are a central component of ART programmes

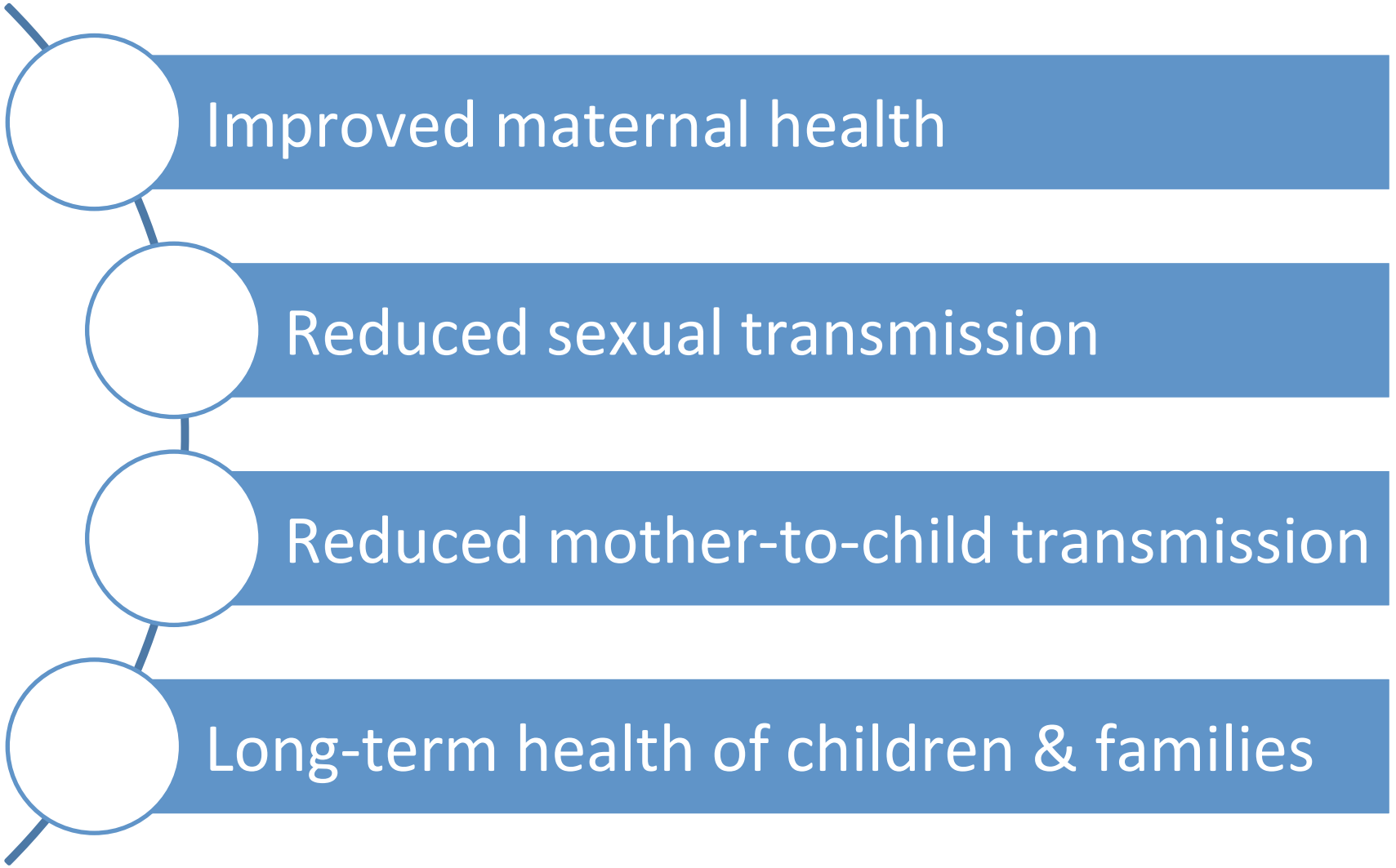
Universal ART initiation in P&P women ("Option B+")
→ rapid increases in ART coverage in women



In settings of moderate/high fertility, most HIV+ women on ART initiate during pregnancy

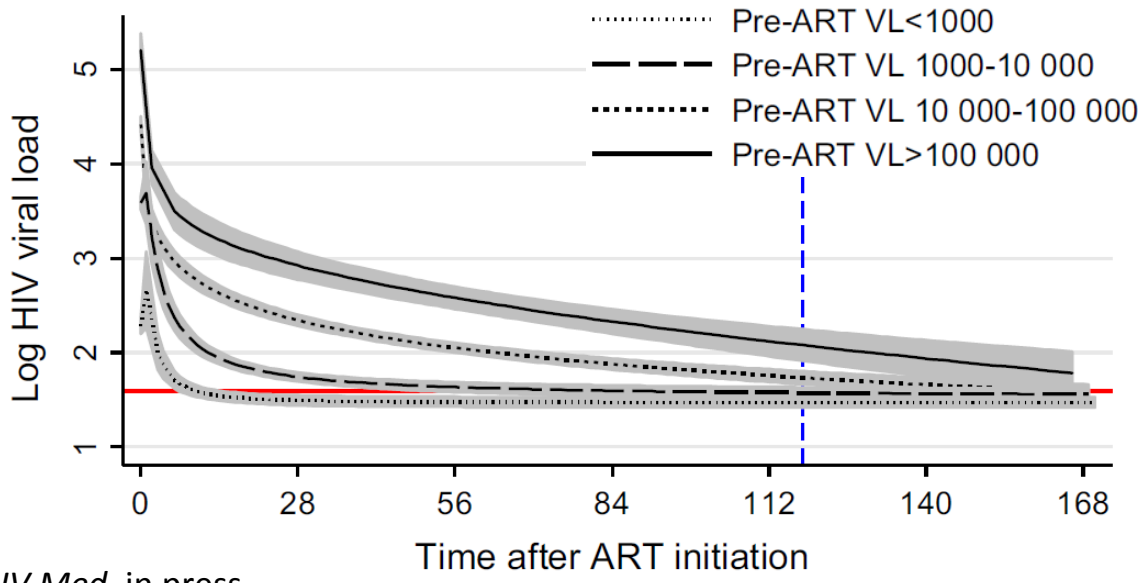
Keiffer *JAIDS* 2014

Four-fold benefit to controlling VL in pregnant & postpartum women



ART adherence & viral suppression may worsen during P&P

- Well-recognised phenomenon across countries
- *Example*: routine care cohort (n=620) initiating ART (median gestation at initiation, 20 weeks)



By delivery:
73% reach VL <50
91% reach VL <1000

HIV Med, in press

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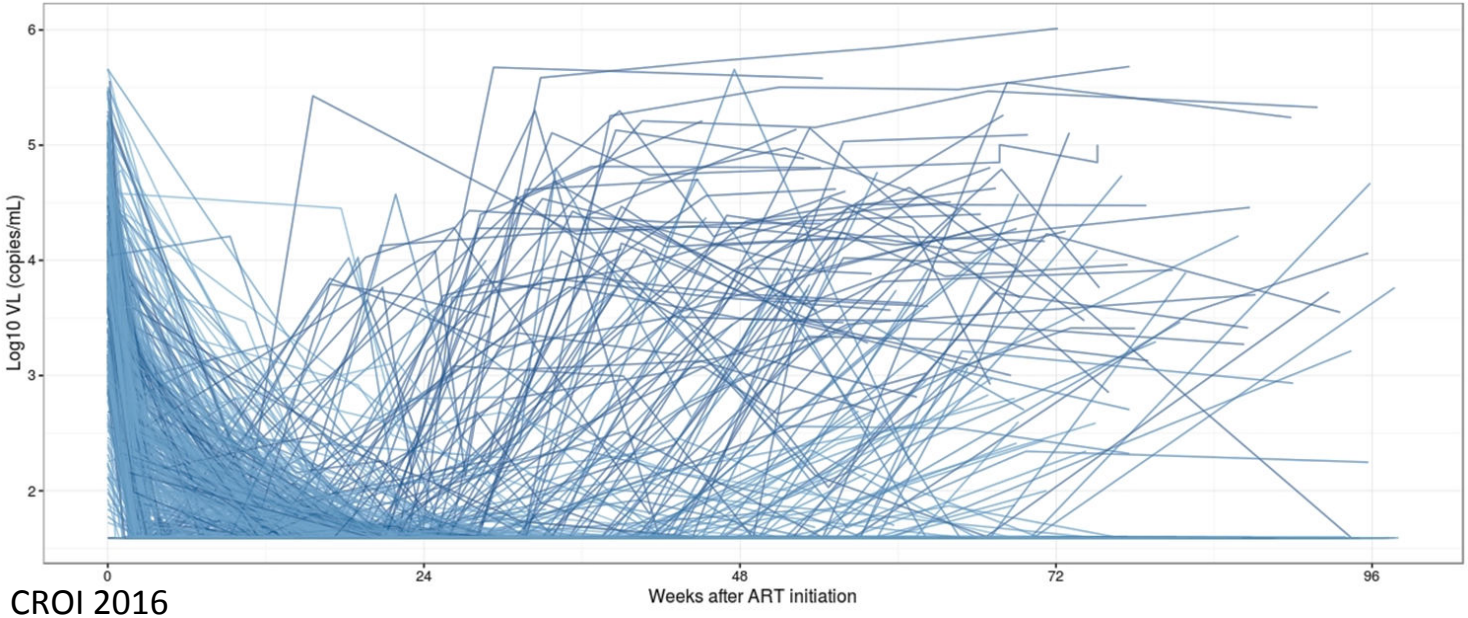


Through 1y postpartum, 30% of women experienced VL >1000

2. VL monitoring for pregnant & postpartum women needs to be (slightly) different

2. VL monitoring for P&P women needs to be slightly different

A. Populations of women receiving ART
B. Urgency of testing
C. Timing of testing

A. **Different populations**

At entry into antenatal care, two distinct populations of HIV+ women:

A. Women not using ART

initiating during pregnancy

B. Women already on ART (prior to conception)

initiated before pregnancy

Both groups require attention

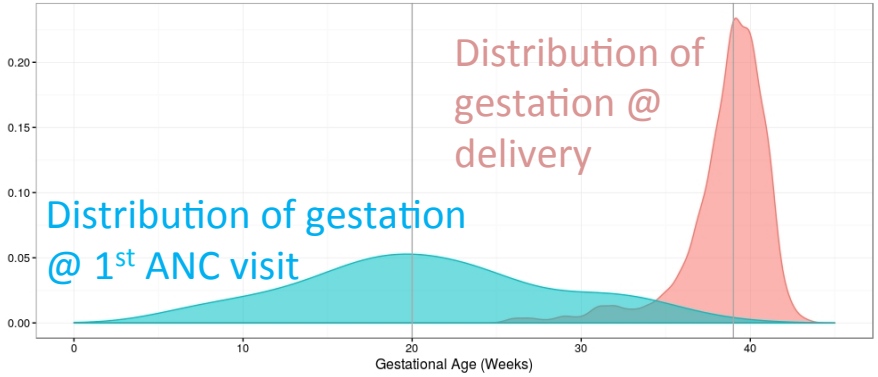
B. **Urgency** of effective VL monitoring

- Gestation & breastfeeding are time-limited
  - High-risk 'windows': delivery & early infancy
  - Daily transmission risk with elevated VL
- Testing, return of results, review & appropriate clinical action needs to be **rapid**
  - *Example*: VL monitoring in a woman at 32 weeks' gestation, with a 8 week delay in results…
- Minimise delays & maximise retention in VL 'cascade'
  - Point-of-Care technologies?

C. **Timing:** When to test in P&P women?

"Perfect" answer depends on:

- Gestational age
- Duration of breastfeeding
- Planned interventions
- Effective turnaround time



One approach:

- First test as soon as VL *should* be suppressed
- Repeat testing at intervals to end of breastfeeding

3. Examples of VL monitoring programmes for pregnant & postpartum women:
South Africa

South Africa is a funny place

Two separate VL testing policies in parallel:

- National Department of Health
- Western Cape Provincial Department of Health

Warning: observations on n=2

2.3.1 Viral Load Monitoring During Pregnancy

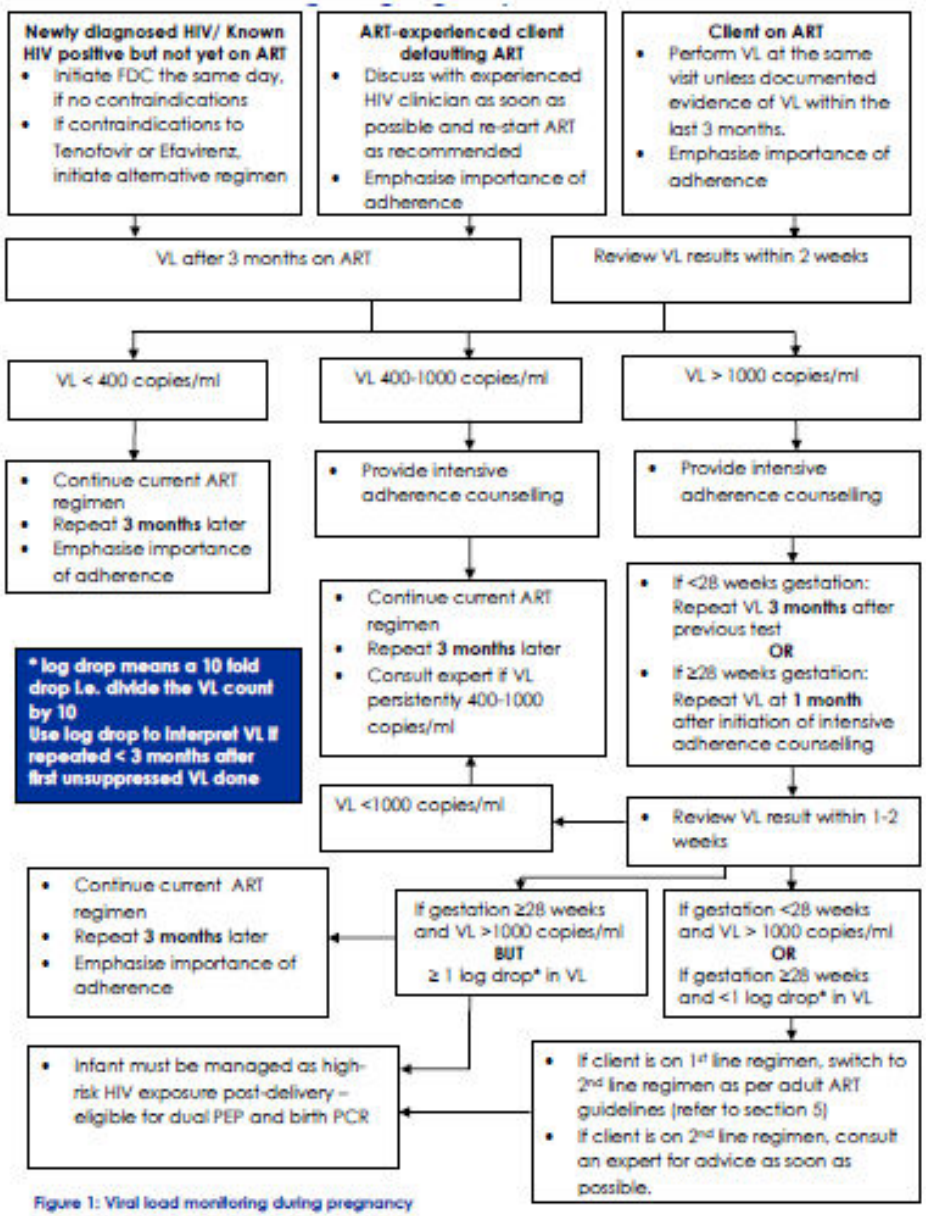


Figure 1: Viral load monitoring during pregnancy

2.3.2 Viral Load Monitoring During Breastfeeding

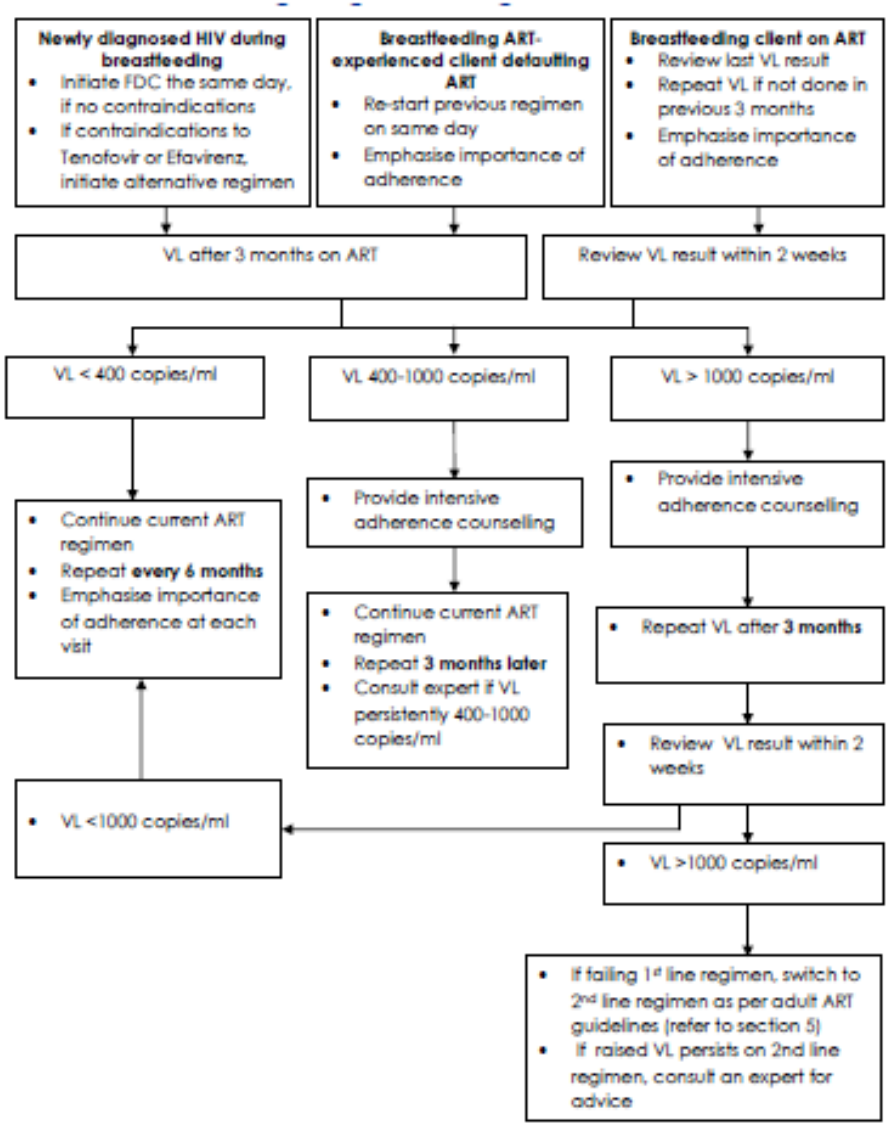
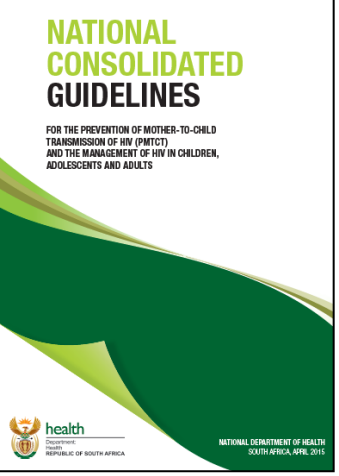


Figure 2: Viral load monitoring during breastfeeding



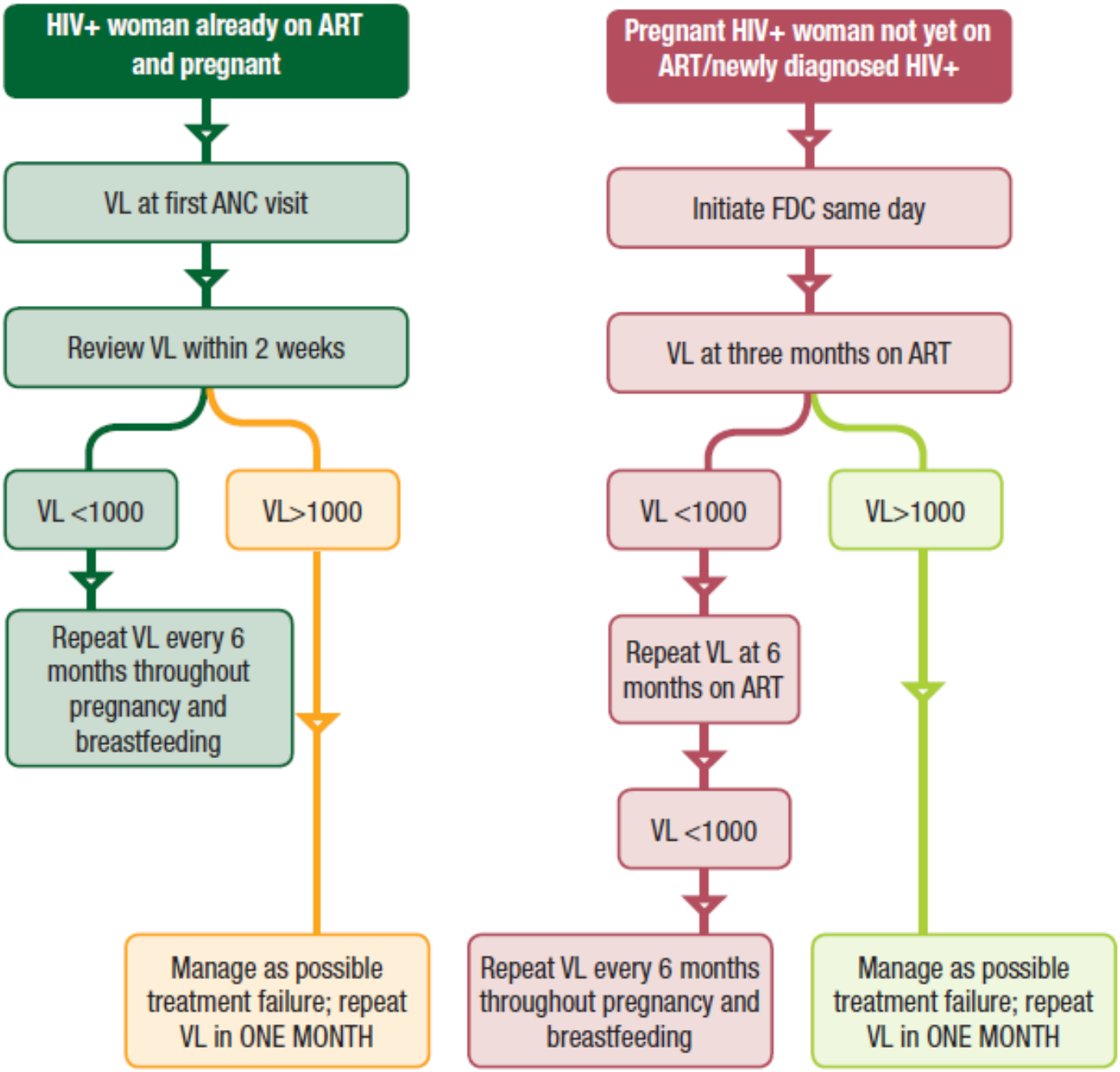


Figure 6: Algorithm for VL monitoring in HIV-positive pregnant women

Shared elements

- *Different populations*: on ART pre-conception vs initiating during pregnancy
- *Early VL testing*: when woman *should* be suppressed
  - For women initiating ART: after 3 months on ART
  - For women on ART already: 1st ANC visit
- *Ongoing monitoring:* 3- or 6-monthly
- Emphasize *rapid* return & review of results
- Make *interventions* explicit

Implementation lessons: *pregnancy*

- ANC provides formalized & frequent visit schedule: facilitates VL 'cascade'
- Entry point for adherence counselling in PMTCT
- Switch to 2nd line in pregnancy not easy
  - Adherence issues compounded by SE, pill burden

Implementation lessons: *postpartum*

- Maintaining VL monitoring during postpartum → challenging
  - Few platforms for postpartum maternal health
  - Adult ART clinics not oriented to postpartum women

- Potential solutions
  - Link maternal VL to routine 6-week EPI visit?
  - "Flag" postpartum women in adult ART services?
  - Others?

Wrap-up

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