



# Adherence 2017

JUNE 4-6, 2017 • MIAMI

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Postgraduate Institute  
for Medicine



# ADHERENCE PROMOTION IN SUB-SAHARAN AFRICA

TRACY GLASS

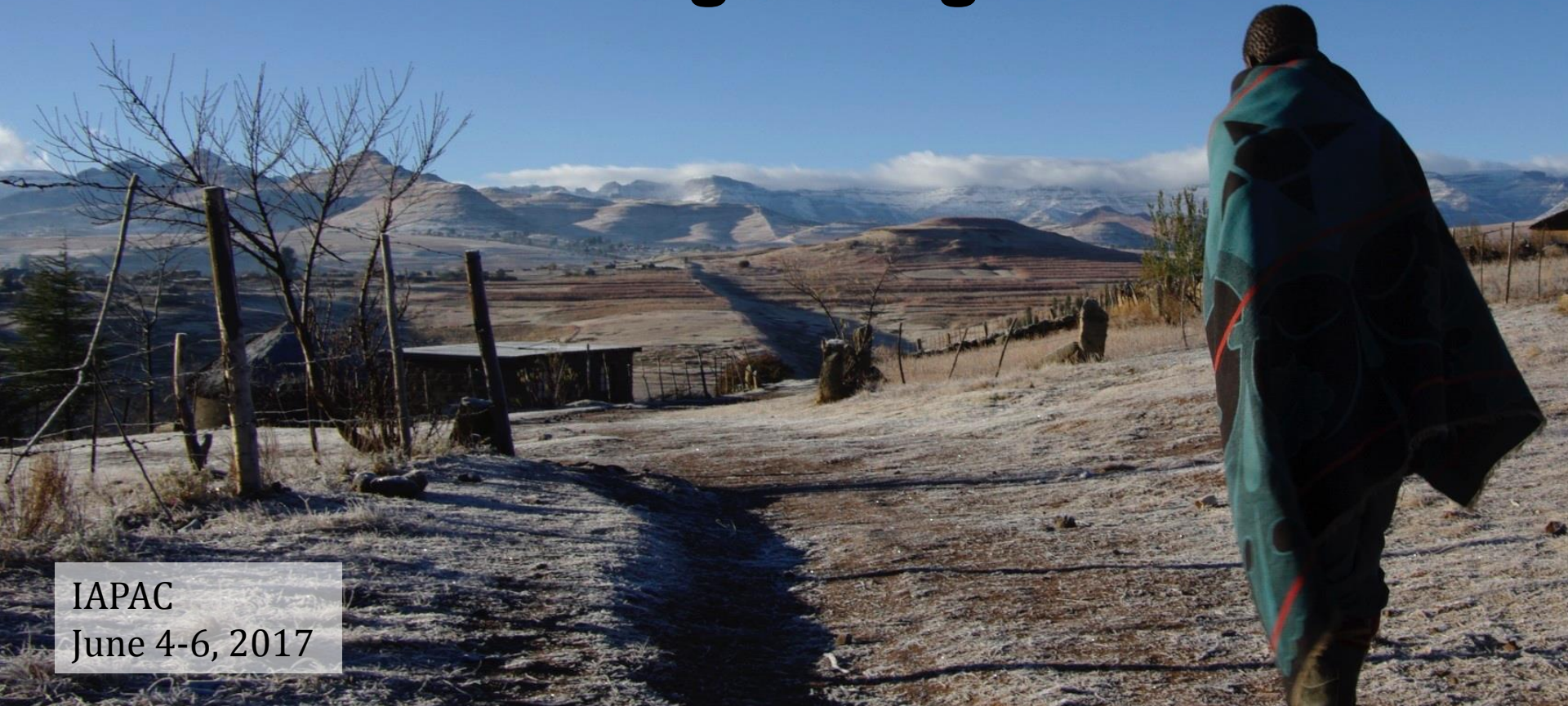


Swiss TPH



Swiss Tropical and Public Health Institute  
Schweizerisches Tropen- und Public Health-Institut  
Institut Tropical et de Santé Publique Suisse

# Continuum of care in patients with unsuppressed viral load: data from rural Southern Africa - are we doing enough for children?



IAPAC  
June 4-6, 2017





# Lesotho – Kingdom in the Sky



ca. 2 mio habitants  
ca. 160'000 AIDS-orphans  
Adult HIV-prevalence 25%  
Per capita income: 836 USD per year

Highest HIV transmission rate & lowest ART coverage  
Average life-expectancy has dropped from 65 years in the  
1990's to 49 years in 2013  
HIV testing coverage of up to 70.5%.  
Only 32% of HIV+ adults were on ART in 2013

# The 3rd 90: Viral Suppression

Swiss TPH



 <b>MINISTRY OF HEALTH LESOTHO</b>		<b>VIRAL LOAD REQUEST FORM</b>	
FOR LABORATORY USE ONLY			
Time Stamp	Lab Barcode	AAAA00063P 	
REQUESTING HOSPITAL NAME		PATIENT SURNAME	
WARD/HEALTH CENTRE NAME HEALTH FACILITY FILE NO.		PATIENT NAME	
DATE SPECIMEN COLLECTED	TIME SPECIMEN COLLECTED	AGE	DOB DD/MM/YYYY
		PATIENT SEX <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE	
SPECIMEN TYPE <input type="checkbox"/> Blood <input type="checkbox"/> DBS <input type="checkbox"/> Other (Please Specify) _____			
TEST REQUEST <input type="checkbox"/> HIV Viral Load <input type="checkbox"/> HIV Resistance Test			
DISTRICT		CURRENTLY PREGNANT <input type="checkbox"/> YES <input type="checkbox"/> NO	
ART NO. □/□□/□□□□		CURRENTLY BREASTFEEDING <input type="checkbox"/> YES <input type="checkbox"/> NO	
DATE OF INITIATION ON CURRENT ART REGIMEN		dd mm yyyy	
REASON FOR VL <input type="checkbox"/> Routine <input type="checkbox"/> Targeted Clinical Failure <input type="checkbox"/> Targeted Immunological Failure <input type="checkbox"/> Repeat after EAC			
Did the patient miss one or more dose(s) of ART in the last 30 days? <input type="checkbox"/> YES <input type="checkbox"/> NO			
CLINICAL INFORMATION			
CLINICAL HISTORY			
CURRENT HIV TREATMENT			
<input type="checkbox"/> 3TC	<input type="checkbox"/> TDF	<input type="checkbox"/> NVP	<input type="checkbox"/> ABC
<input type="checkbox"/> AZT	<input type="checkbox"/> EFV	<input type="checkbox"/> ddi	<input type="checkbox"/> LPVr
<input type="checkbox"/> ATVr	<input type="checkbox"/> RAL	<input type="checkbox"/> DRV/r	<input type="checkbox"/> ETR
PREVIOUS HIV TREATMENT			
<input type="checkbox"/> 3TC	<input type="checkbox"/> TDF	<input type="checkbox"/> NVP	<input type="checkbox"/> ABC
<input type="checkbox"/> AZT	<input type="checkbox"/> EFV	<input type="checkbox"/> ddi	<input type="checkbox"/> LPVr
<input type="checkbox"/> ATVr	<input type="checkbox"/> d4T		







154

2799 Male

8019 1st line

142 2nd line

6138 Female

1 3rd line

2 consecutive VL >100

Patients

Treatments

Dashboard	Import Data	Lab Data	Patients	Treatments	Reports	Forms
Ward		PAB				
Sample date Required		16.12.2015				
Sample Time		08:20				
Date specimen registered in the lab Required		16.12.2015				
VL Test Date		19.12.2015				
HIVVM - Viral load (copies/ml)						
HIVVC - Notes on viral load		Lower Than Detectable Limit				
CD4 count (cells/mL)		254				
WBC count		3.50				

**LBB0146960**

- Overview
- Patient
- Lab Data**
- Clinical Data
- Assigned Treatment
- Review & Confirm

< Lab data list

Go to Patient

[lang:labdata\_editlabdata-info]

## Project Monitoring - Report 5

Note: Only confirmed labdata records with HIVL content are considered. Query period for lines 1,2,3,4,7 is by SpecimenTaken\_TknDate,

From date	1. Jan 2016
To date	31. Dec 2016
Facility	All
VL Reason	All
Treatment Line	All

	All			Age 0-4	
	m+f	m	f	m	f
1 Total # of patients with VLs (VL not NULL)	3557	1188	2368	9	11
2 Total # of patients with VLs $\geq 1000$	332	125	207	1	7
3 Total # of patients with VLs between 20-999	641	238	403	4	2
4 Total # of patients with VLs $< 20$	2584	825	1758	4	2
5 Total # of patients switched from 1st line to 2nd line	23	7	16	0	0
6 Total # of patients switched from 2nd line to 3rd line	0	0	0	0	0
7 Overall # of labdata records (VL not NULL)	4015	1342	2672	9	12



# Viral load testing

N = 8,261 individuals tested

94% are seen in one of the 2 hospitals

On ART median 3.6 years (IQR: 1.5 – 6.4)

69% female

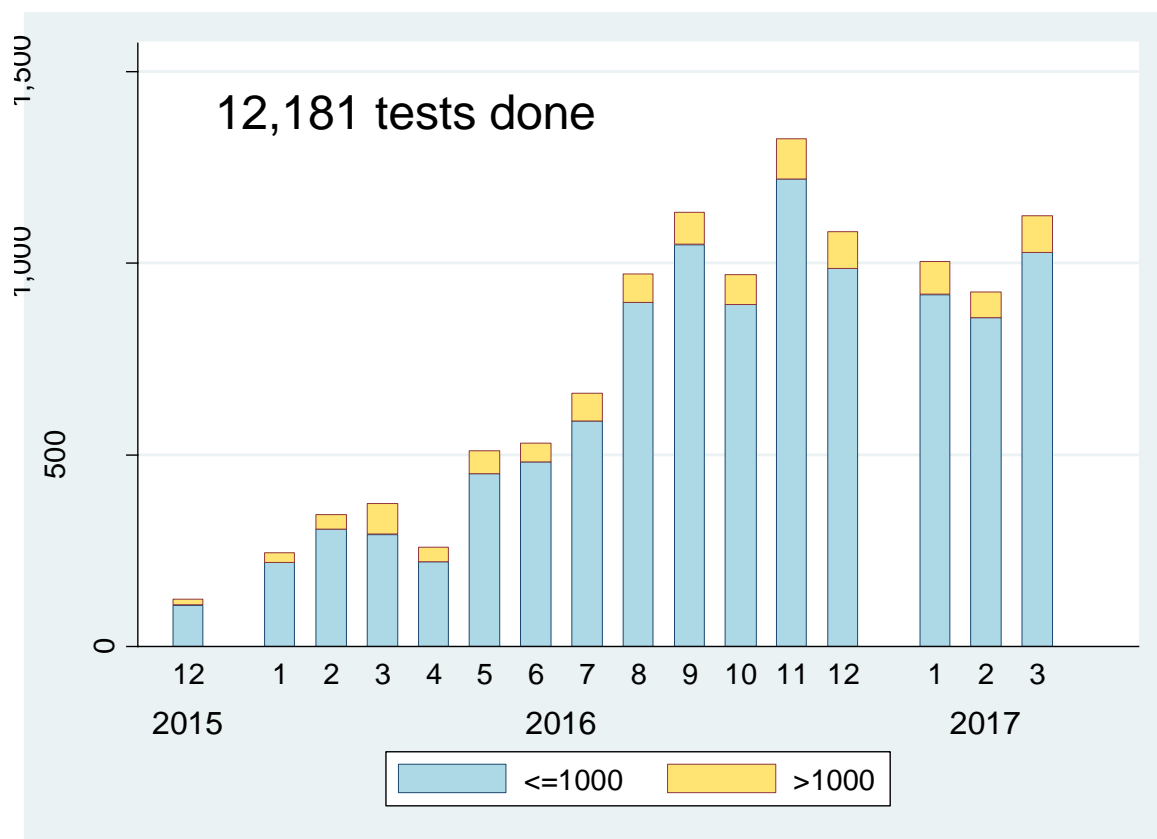
5.6% age < 15 years

98% of tests for routine  
VL monitoring

9.2% of VL > 1000 copies/ml

Range across months  
5 – 20%

41% had > 1 VL done

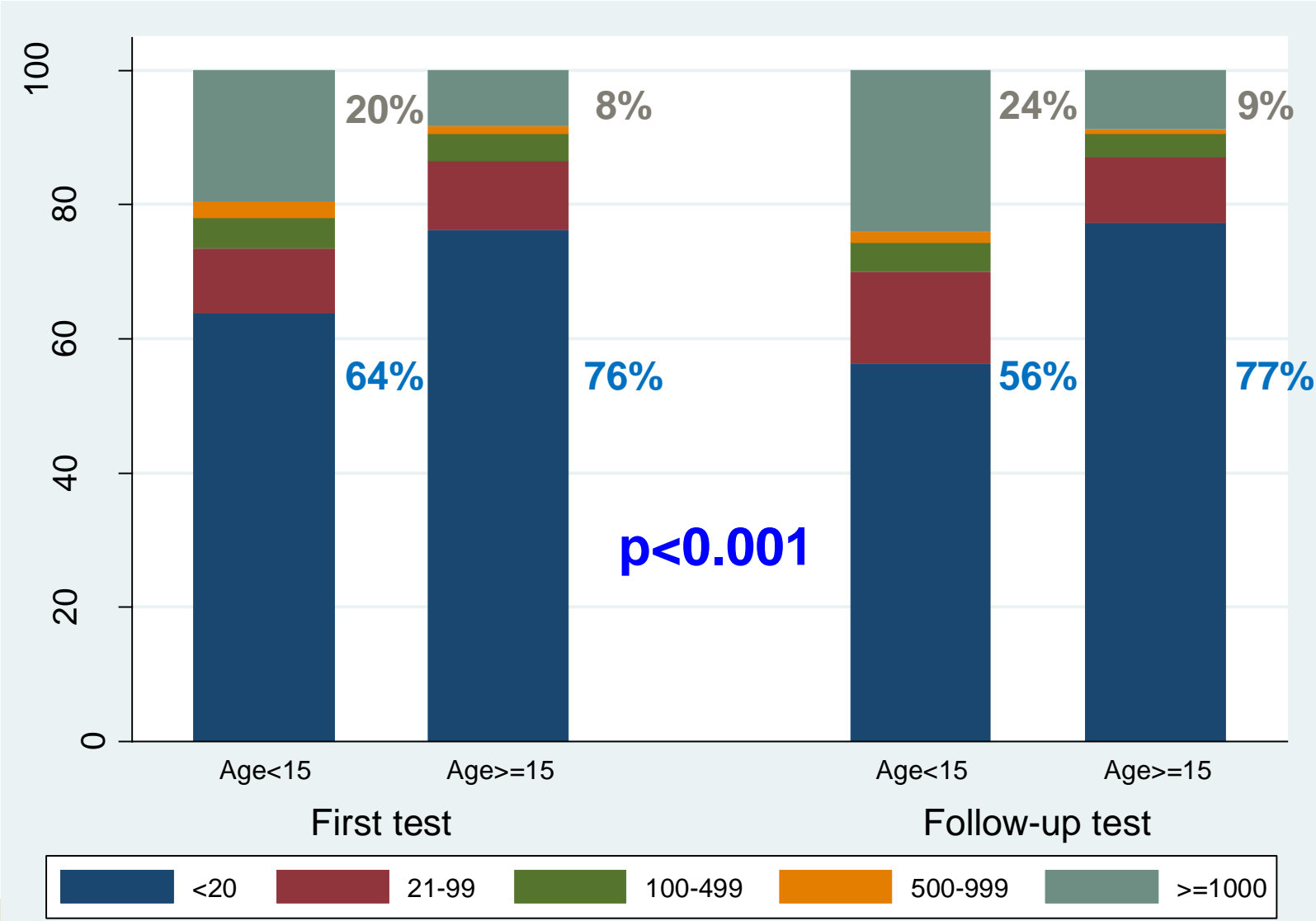




ART regimen	Adult	Children
3TC/EFV/TDF	66%	3%
3TC/EFV/AZT	14%	31%
3TC/NVP/AZT	7%	33%
3TC/NVP/TDF	6%	<1%
3TC/EFV/ABC	4%	13%
3TC/ABC/LPV	<1%	10%
3TC/AZT/LPV	<1%	7%



Elevated VL > 1000 copies/ml ➡ more common in children





Nurses report if patient missed  $\geq 1$  dose of ART in the last 30 days

Only 2.6% reported non-adherence

In those reporting missed doses

VL > 1000 copies/ml was more common

14.3% versus 9%,  $p=0.001$



After having a first VL>1000

53% had a follow-up VL

after a median of 5 months (IQR: 3.6 – 6.4)

16% were done within 3 months

69% were done within 6 months

Children were more likely to have a follow-up

67% versus 51%,  $p=0.004$

For those without a follow-up VL

55% were >6 months ago (no difference in children)



54% had a follow-up VL > 1000 copies (treatment failure)

Failure rates were higher in children

61% versus 53%,  $p=0.3$

If the follow-up VL was done > 3 months after the first VL

Rates slightly higher - 56% overall

But children suffer more

68% versus 54%,  $p=0.04$



# Summary

- Feasible to do 10,000+ viral loads/year
- Follow-up needs improvement, especially in children
- Outlook:
  - Plans to expand VL monitoring outside district
  - Step-wedged randomized trial testing structured adherence counseling + SMS reminders





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