



# CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA



CAPRISA is the UNAIDS Collaborating  
Centre for HIV Research and Policy

AWACC 2019

30 /08/19

## LAUNCH OF THE KZN HIV VL AND DR MONITORING PROJECT

INTRODUCING THE VL CHAMP

MAKING VL MONITORING ROUTINE AND MANAGING HIGH VL

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DIRECTOR –MEDICATE AIDS NPC

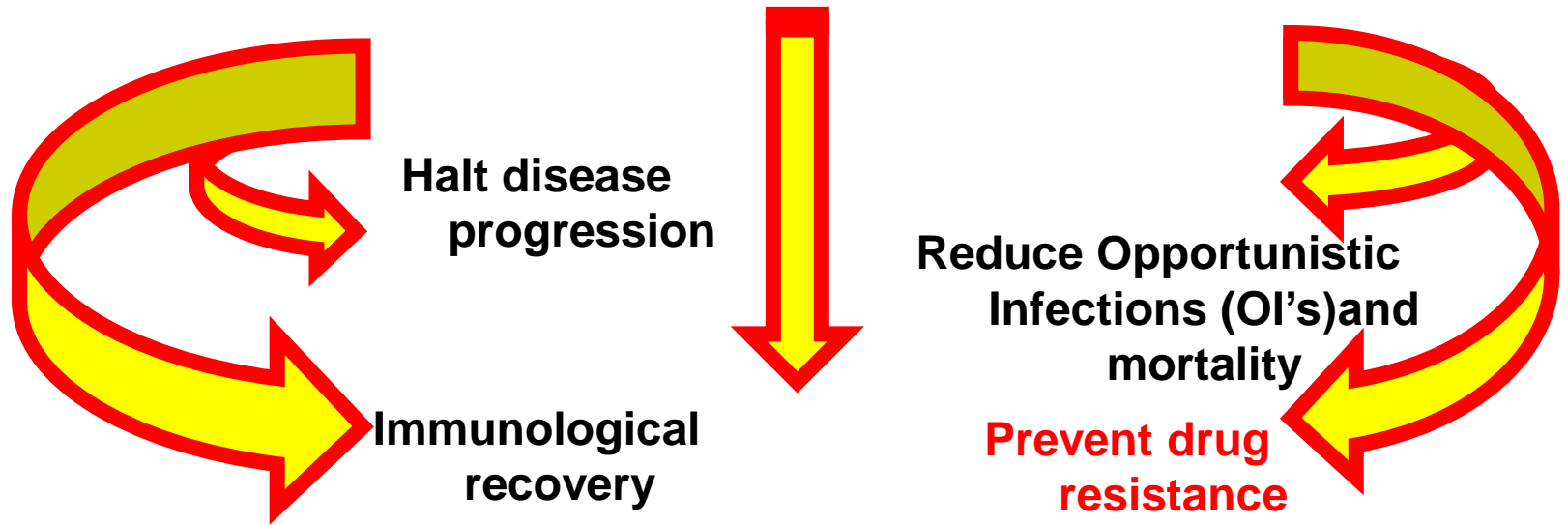


PROVINCE OF KWAZULU-NATAL  
ISIFUNDAZWE SAKWAZULU-NATALI



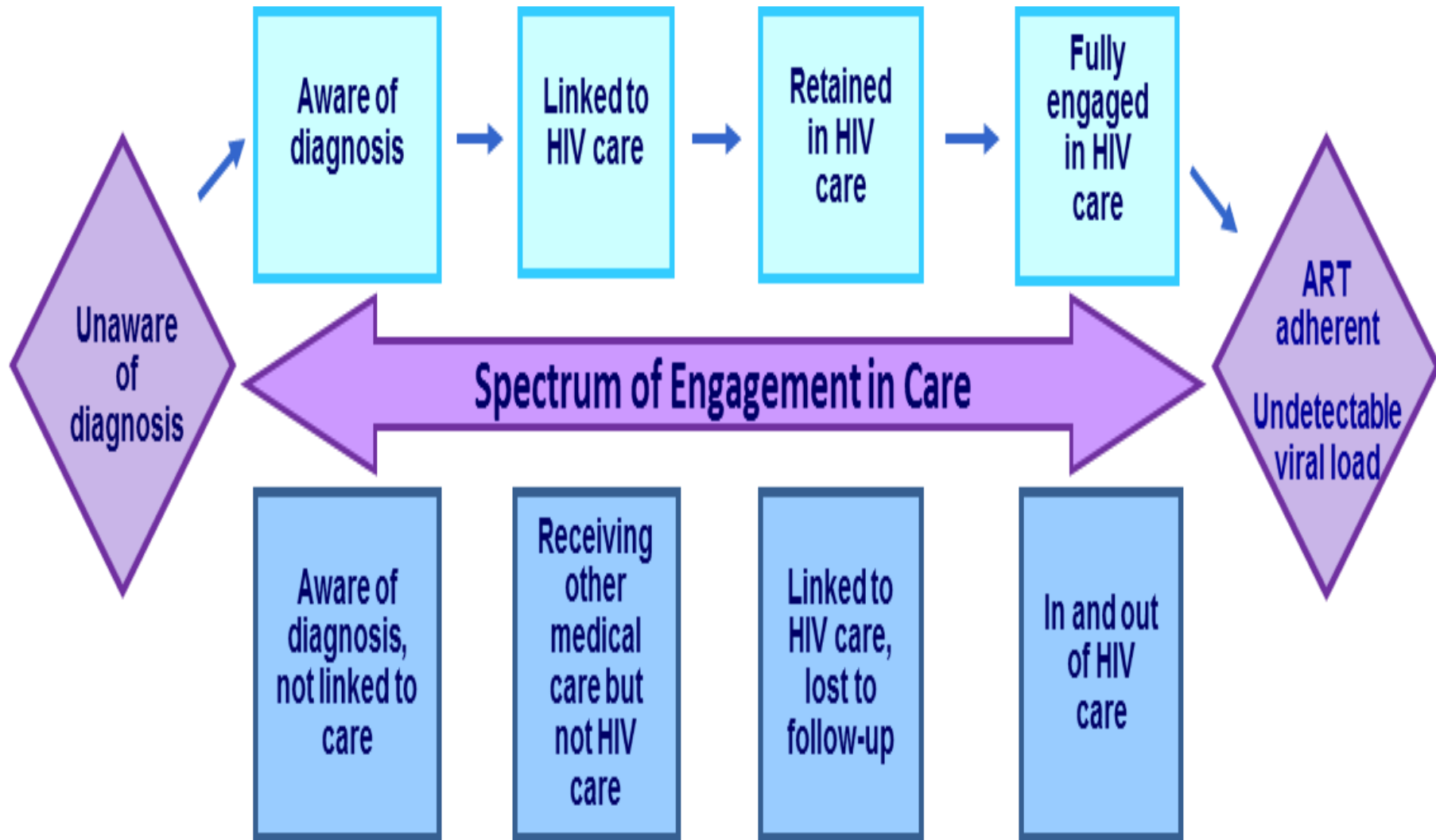
# Goal of HAART

**Durable Viral Suppression  
Undetectable Levels**



**Reduce Viral Transmission**

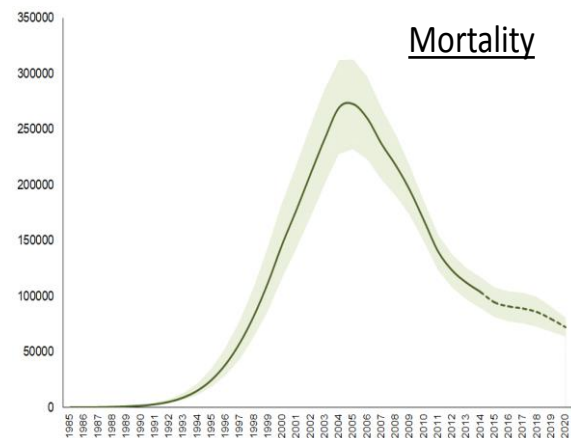
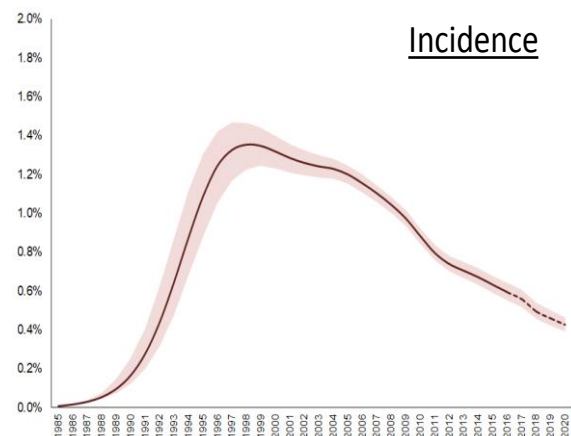
# Ideal vs. Poor Engagement in HIV Care



# Background (slides –courtesy R. Lessels)

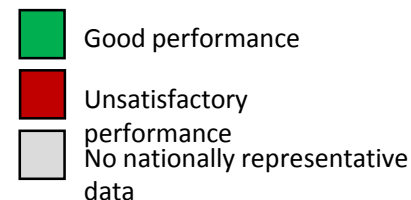
## Incomplete progress

- Despite much progress and expansion of ART coverage, South Africa (like most countries) will not meet UNAIDS targets of reductions in incidence & mortality by 75% between 2010 and 2020
- Whilst continued expansion of ART coverage is critical, we also need to improve quality of care for people receiving ART



# Where are the gaps?

WHO HIV drug resistance report 2019  
 Targets for quality-of-care indicators associated with the emergence of HIV drug resistance 2015-2017, South Africa



Retention on ART at 12 months			VL testing coverage			VL suppression at 12 months			Drug stock-out			Proportion of people on second-line ART		
2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017

↑  
 ≥70% VL testing coverage

↑  
 <80% VL suppression

↑  
 <5% on second-line ART

# Gaps in switching to second-line ART

AIDS RESEARCH AND HUMAN RETROVIRUSES  
Volume 33, Number 12, 2017  
Mary Ann Liebert, Inc.  
DOI: 10.1089/aid.2017.0134

CLINICAL PERSPECTIVE

## Second-Line Antiretroviral Therapy in Sub-Saharan Africa: It Is Time to Mind the Gaps

Richard A. Murphy,<sup>1</sup> Richard Court,<sup>2</sup> Gary Maartens,<sup>2</sup> and Henry Sunpath<sup>3</sup>

### Abstract

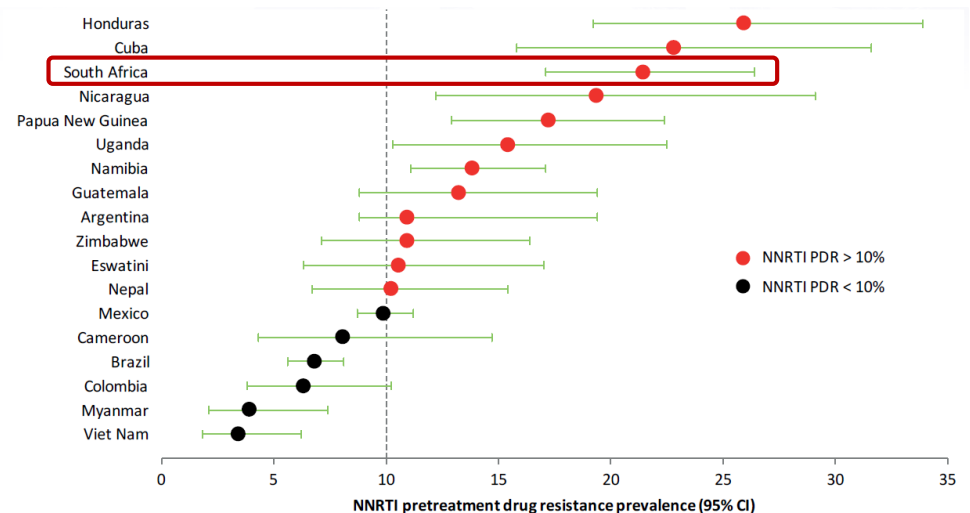
The delay between first-line antiretroviral therapy (ART) failure and initiation of second-line ART in resource-limited settings can be prolonged. Increasing evidence links delayed antiretroviral switch with increased risk for opportunistic infection (OI) and death, particularly in patients with advanced HIV at the time of first-line failure. As access to viral load (VL) monitoring widens beyond a few countries, mechanisms are needed to optimize the use of routine virologic monitoring and assure that first-line regimen failure results in prompt second-line switch. For patients with advanced HIV or OI at the time of first-line failure, a targeted fast track to second-line ART should be considered, involving a switch to second-line ART during a single visit. To derive the maximum benefit from both the current expansion of VL monitoring and the falling costs of second-line ART, clinics and healthcare workers should be given the tools and training to detect and switch patients with regimen failure before HIV disease progression.

Murphy AIDS Res Human Retroviruses 2017  
Hermans Lancet ID 2017  
Bell-Gorrod bioRxiv 2019

- In a multi-site study in SA, only 41% of people with confirmed VF on first-line ART were switched to second-line ART; median time to switch was 59 weeks
- Increasing evidence of the morbidity and mortality associated with delays in switching to second-line ART
- In an IeDEA-SA study of 9 cohorts in SA Africa, immediate switch (<30 days from confirmed virological failure) was associated with **60% lower mortality** compared to no switch

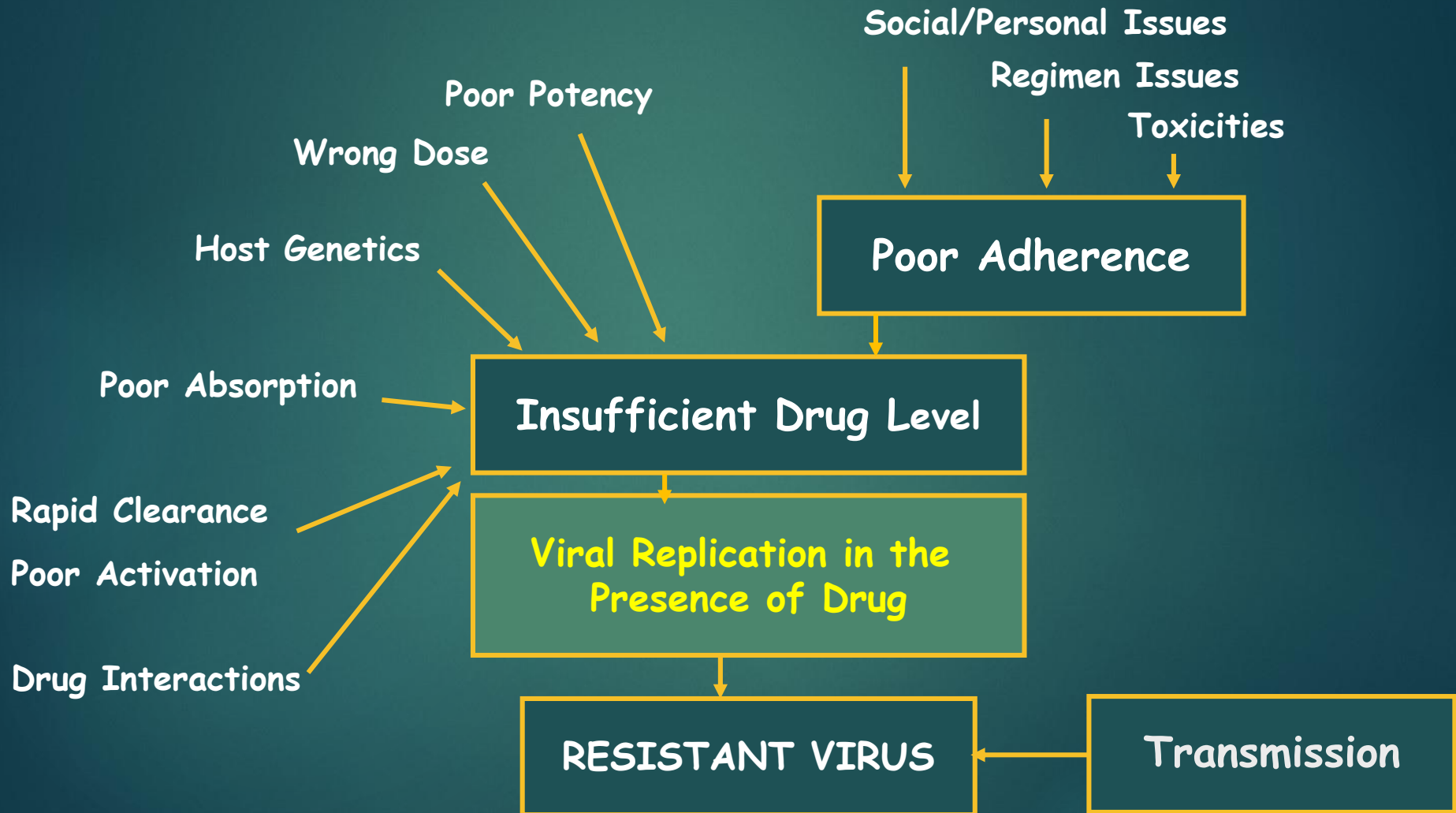
# Consequences – increasing transmission of drug-resistant HIV?

- Clear evidence of increasing pre-treatment HIV drug resistance in South Africa, particularly to NNRTIs (now estimated >20%)
- Some evidence to suggest that a significant contributor to this is increasing transmission of drug-resistant HIV from people on ART



# How Does ART Resistance Develop?

## Selective Pressure





**Overview of Project  
Implementation :  
Background :THE PROBLEM**

# Adult with Viral load completion rate at 6 months



District	NDoH Target FY 2014/15	FY 2011/12	FY 2012/13	FY 2013/14	Progress Q3	VLD at 6m FY 2013/14
Amajuba District Municipality	80	54.0	47.9	48.4		11,678
eThekweni Metropolitan Municipality	80	64.6	64.4	67.4		4,872
Harry Gwala District Municipality	80	65.1	55.3	44.1		1,148
iLembe District Municipality	80	50.2	44.0	42.6		23,041
Ugu District Municipality	80	38.6	36.2	32.4		1,178
uMgungundlovu District Municipality	80	26.5	30.6	29.6		4,888
Umkhanyakude District Municipality	80	41.4	39.4	35.4		1,888
Umzinyathi District Municipality	80	33.0	43.8	0.0		0
Uthukela District Municipality	80	37.7	42.9	53.4		4,318
Uthungulu District Municipality	80	38.6	35.2	28.4		1,083
Zululand District Municipality	80	43.4	37.6	32.0		2,064
<b>KwaZulu-Natal</b>	<b>80</b>	<b>17.4</b>	<b>15.4</b>	<b>19.3</b>		<b>397</b>

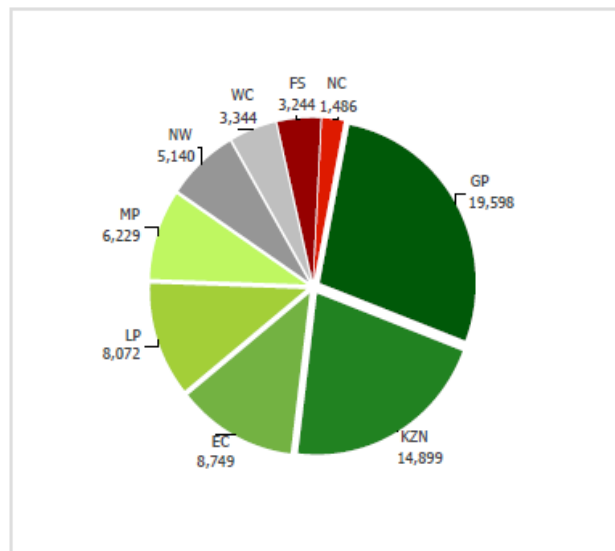


health

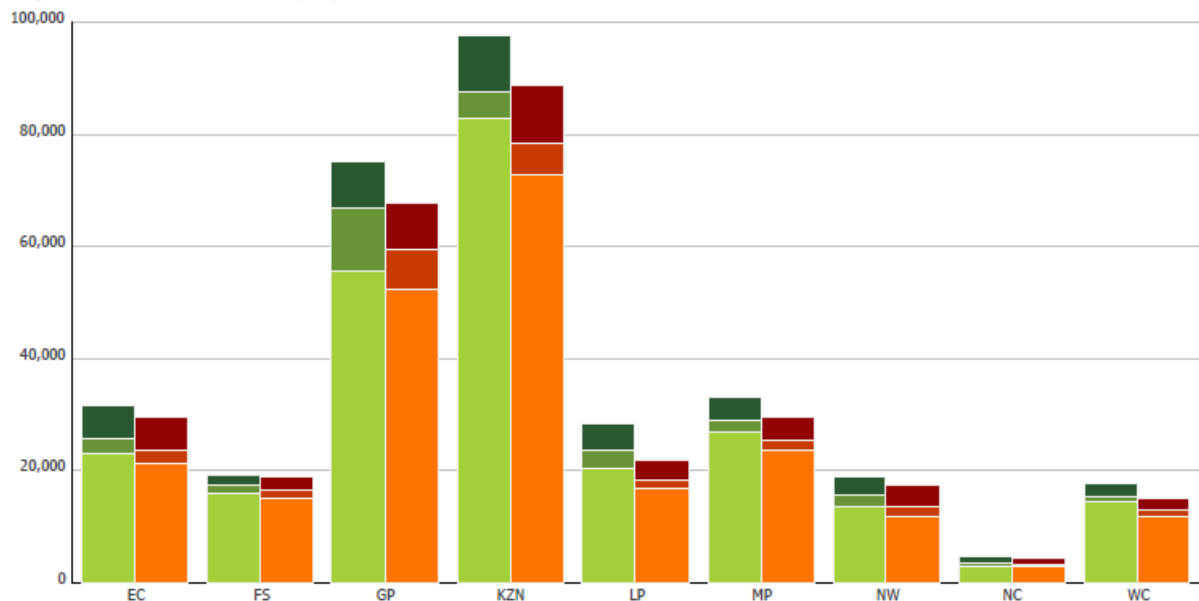
Department:  
Health  
**REPUBLIC OF SOUTH AFRICA**

# Viral Load Testing in SA for the Month of Jan 2017 vs Jan 2016

Total by Province VL > 1,000



By Province vs Last Year (LY)



Results by Range by Province vs Last Year (LY)

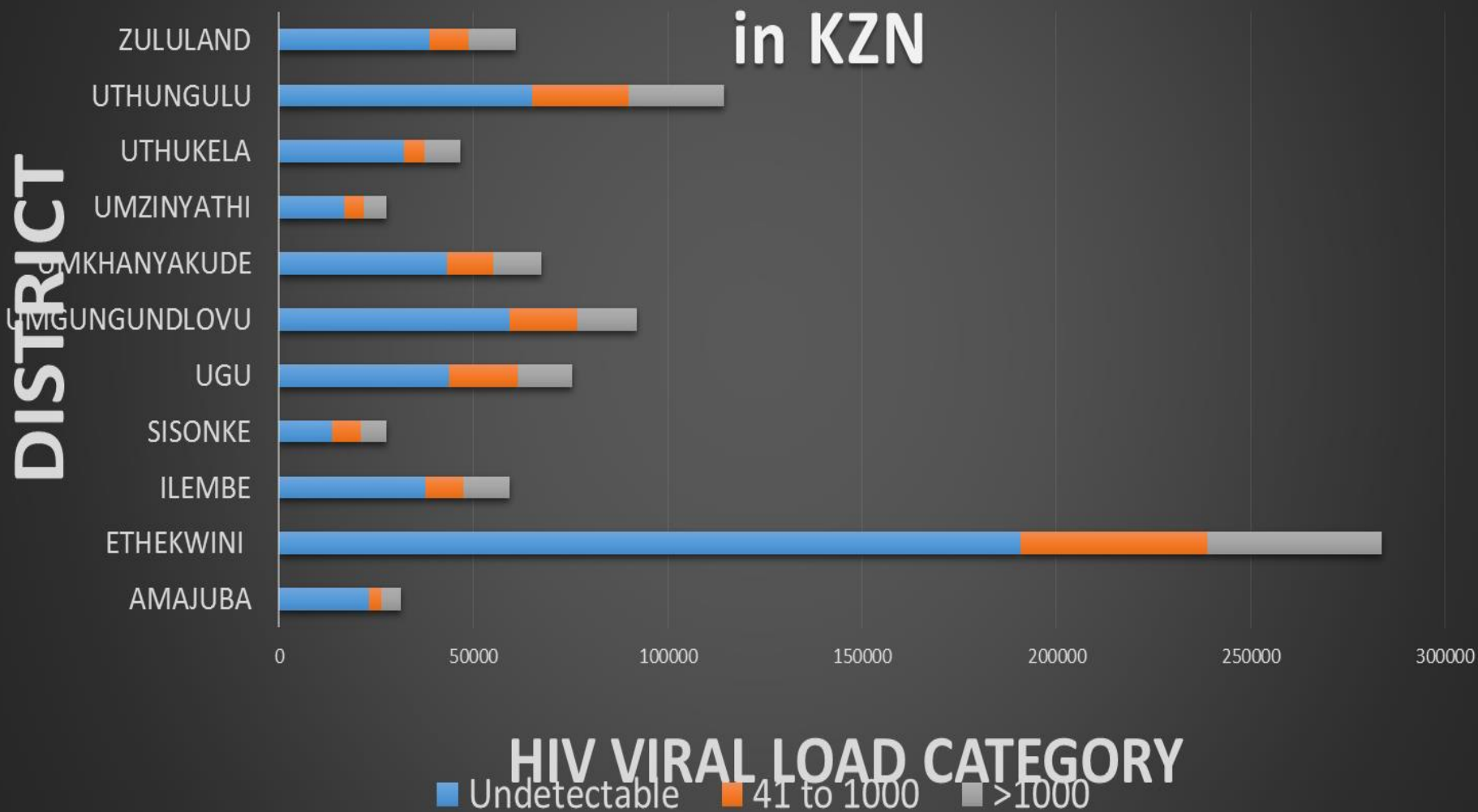
Province	Province Code	Total		<= 1,000 (log 3)			> 1,000 (log 3) <= 10,000 (log 4)				> 10,000 (log 4)				Average (log)		
		Current	LY	Current	%	LY	% LY	Current	%	LY	% LY	Current	%	LY	% LY	Current	LY
Eastern Cape	EC	31,857	29,666	23,108	72.5%	21,236	71.6%	2,828	8.9%	2,519	8.5%	5,921	18.6%	5,911	19.9%	3.25	3.47
Free State	FS	19,294	18,804	16,050	83.2%	15,033	79.9%	1,326	6.9%	1,392	7.4%	1,918	9.9%	2,379	12.7%	3.64	3.73
Gauteng	GP	75,313	67,771	55,715	74.0%	52,093	76.9%	10,988	14.6%	7,449	11.0%	8,610	11.4%	8,229	12.1%	3.10	3.00
KwaZulu-Natal	KZN	97,683	88,674	82,784	84.7%	72,825	82.1%	4,932	5.0%	5,638	6.4%	9,967	10.2%	10,211	11.5%	3.14	3.23
Limpopo	LP	28,334	21,822	20,262	71.5%	16,619	76.2%	3,459	12.2%	1,528	7.0%	4,613	16.3%	3,675	16.8%	3.22	3.30
Mpumalanga	MP	33,116	29,554	26,887	81.2%	23,565	79.7%	1,903	5.7%	1,835	6.2%	4,326	13.1%	4,154	14.1%	3.26	3.13
North West	NW	18,847	17,347	13,707	72.7%	11,930	68.8%	1,872	9.9%	1,744	10.1%	3,268	17.3%	3,673	21.2%	3.62	3.61
Northern Cape	NC	4,501	4,311	3,015	67.0%	2,850	66.1%	457	10.2%	436	10.1%	1,029	22.9%	1,025	23.8%	4.01	4.07
Western Cape	WC	17,637	15,004	14,293	81.0%	11,756	78.4%	1,142	6.5%	1,118	7.5%	2,202	12.5%	2,130	14.2%	3.27	3.27
<b>Total</b>		<b>326,582</b>	<b>292,953</b>	<b>255,821</b>	<b>78.3%</b>	<b>227,907</b>	<b>77.8%</b>	<b>28,907</b>	<b>8.9%</b>	<b>23,659</b>	<b>8.1%</b>	<b>41,854</b>	<b>12.8%</b>	<b>41,387</b>	<b>14.1%</b>	<b>3.39</b>	<b>3.42</b>

NHLS-2016

# Categories of HIV Viral Load per District

in KZN

DISTRICT



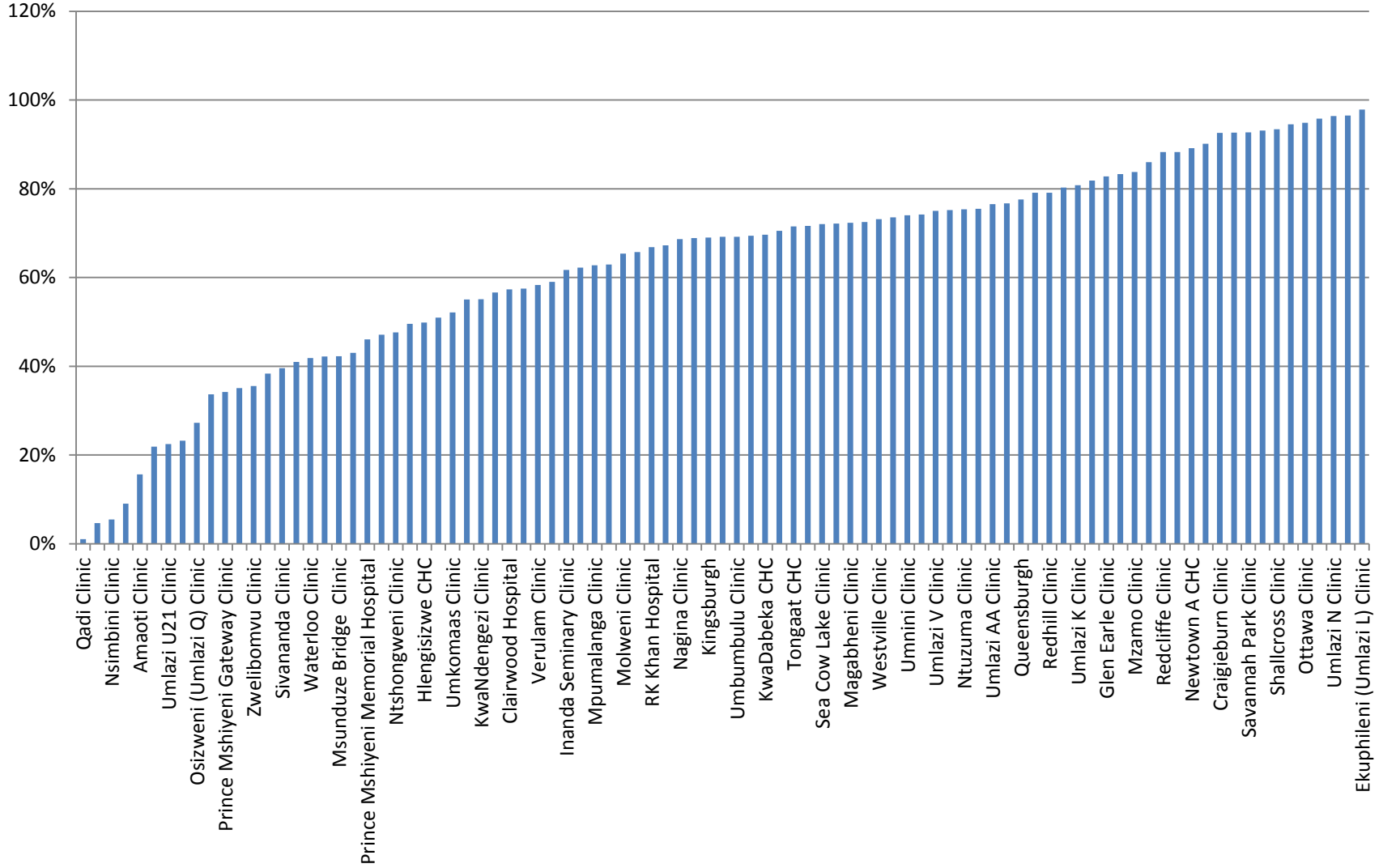
# When Should You Check a Viral Load in an Adult Patient on ART?

	SA Dept. Health	SA HIV Clin. Soc.	DHHS (USA)
<b>At initiation</b>	X	✓	✓
<b>Before 6 months</b>	X	3 months	At 2-8 weeks, then every 4-8 weeks until suppressed
<b>6 months</b>	✓	✓	✓
<b>12 months</b>	✓	✓	✓
<b>Thereafter</b>	Every 12 months	Every 6-12 months	Every 3-6 months

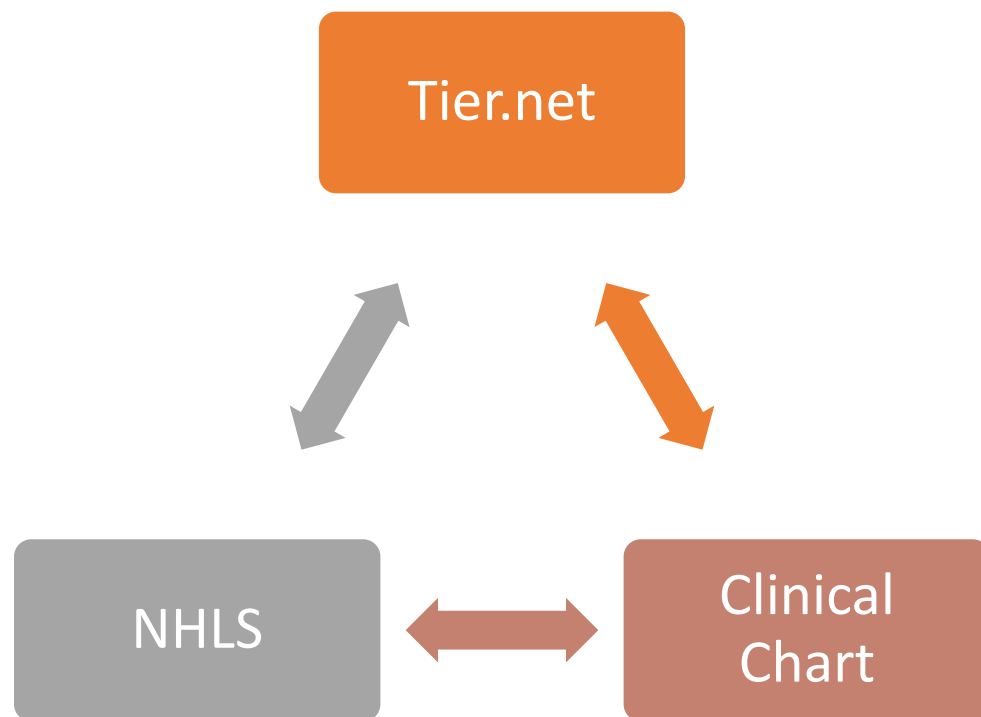
## Why check viral loads before 6 months?

- Enables early detection of virological failure (usually due to poor adherence), before resistance develops, or worsens.
- At 3 months, most patients will be virally suppressed, but a small group of people who started with a very high viral load may still have detectable viraemia - although they will show at least a 2 log<sub>10</sub> drop from their initiation viral loads.

# 6 Month - VLD Proportion by Facility – eThekweni—2016 MatCH

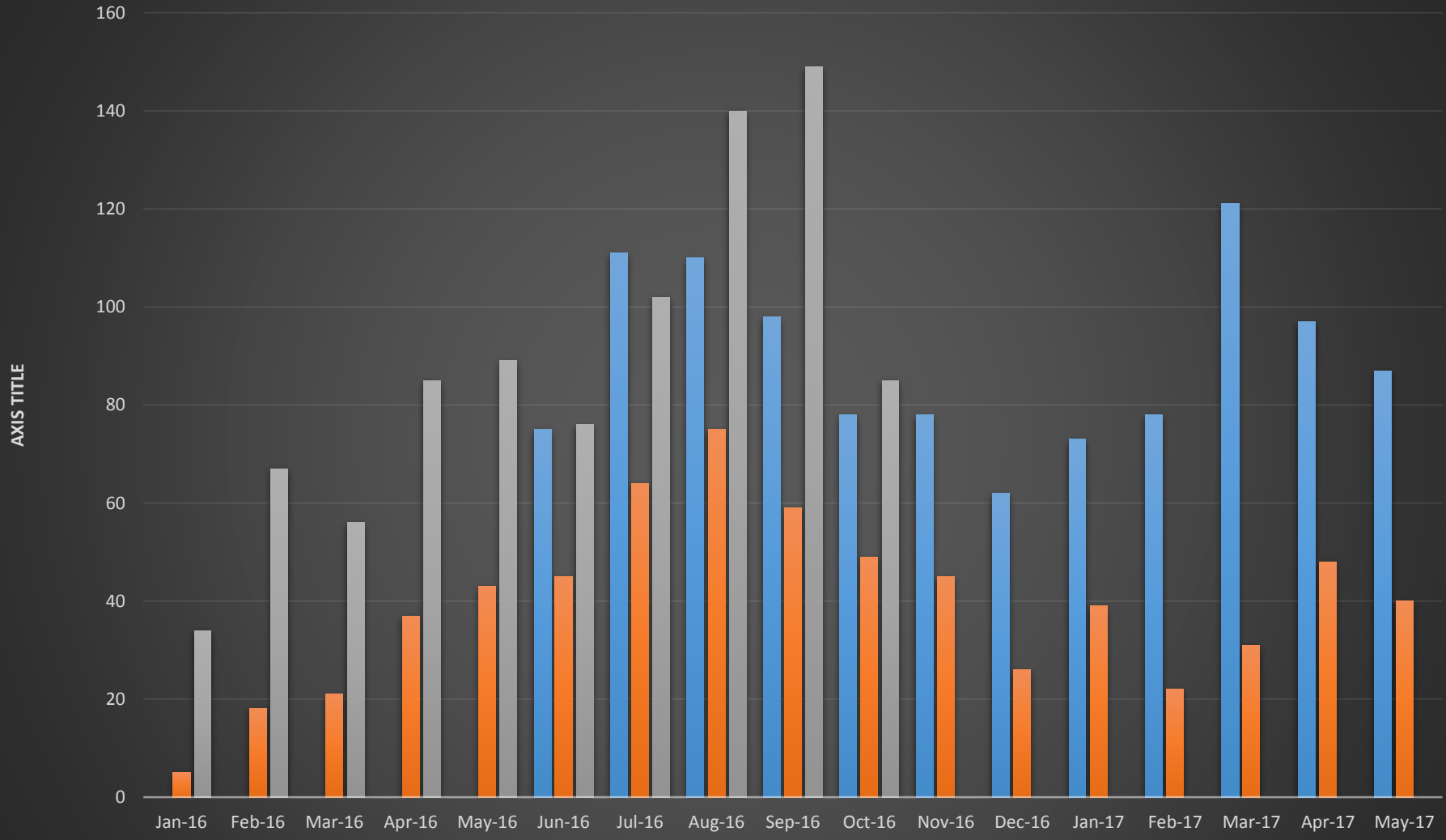


# VL Health Information Systems



• 2016 -

# Number of Paed VLD by Triangulation of routine data – Regional Hospital, eThekwni



	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17
<b>NHLS</b>						75	111	110	98	78	78	62	73	78	121	97	87
<b>Tier.net</b>	5	18	21	37	43	45	64	75	59	49	45	26	39	22	31	48	40
<b>VL Chart Audit</b>	34	67	56	85	89	76	102	140	149	85							



**Overview of Project  
Implementation :  
Baseline assessment -  
eThekwini**

# Baseline Analysis

## Study Design

- Retrospective Chart review
- Patients initiated on ART from January 2013

## Sample Selection

- Random selection of 3 Hospitals, 2 Community Health Clinics and 6 Primary Health Clinics in eThekweni

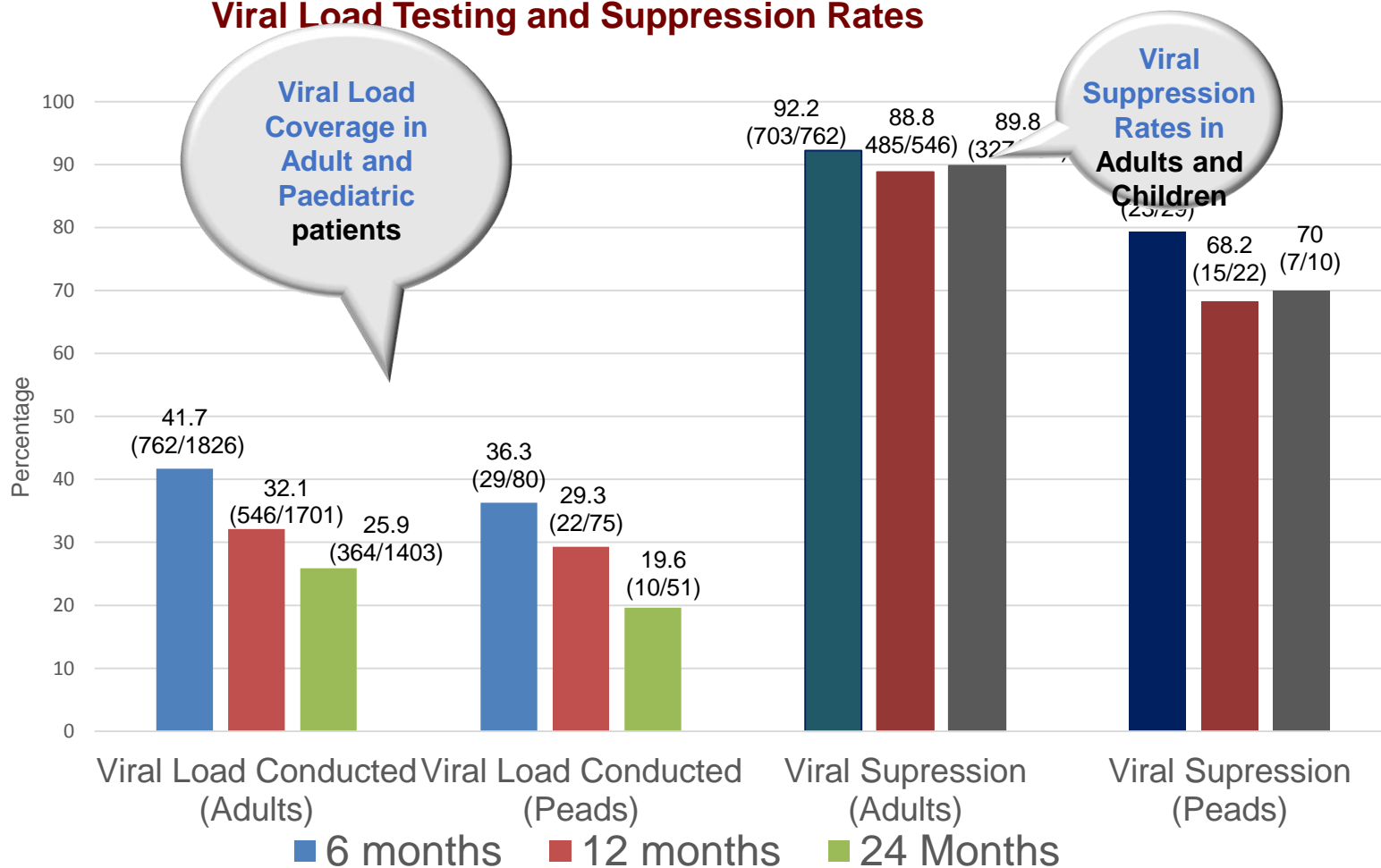
## Selection Criteria

- > 2500 patients on ART
- Facility willing to participate

## File Selection

- Randomly selected from TIER. Net
- In Facilities < 2000 patients: 10% of Patients Selected
- In Facilities > 2000: Capped at 200 Patients Selected
- Missing files were recorded and replaced

## CAPRISA : FILE & FACILITY AUDIT (2015-16) Viral Load Testing and Suppression Rates

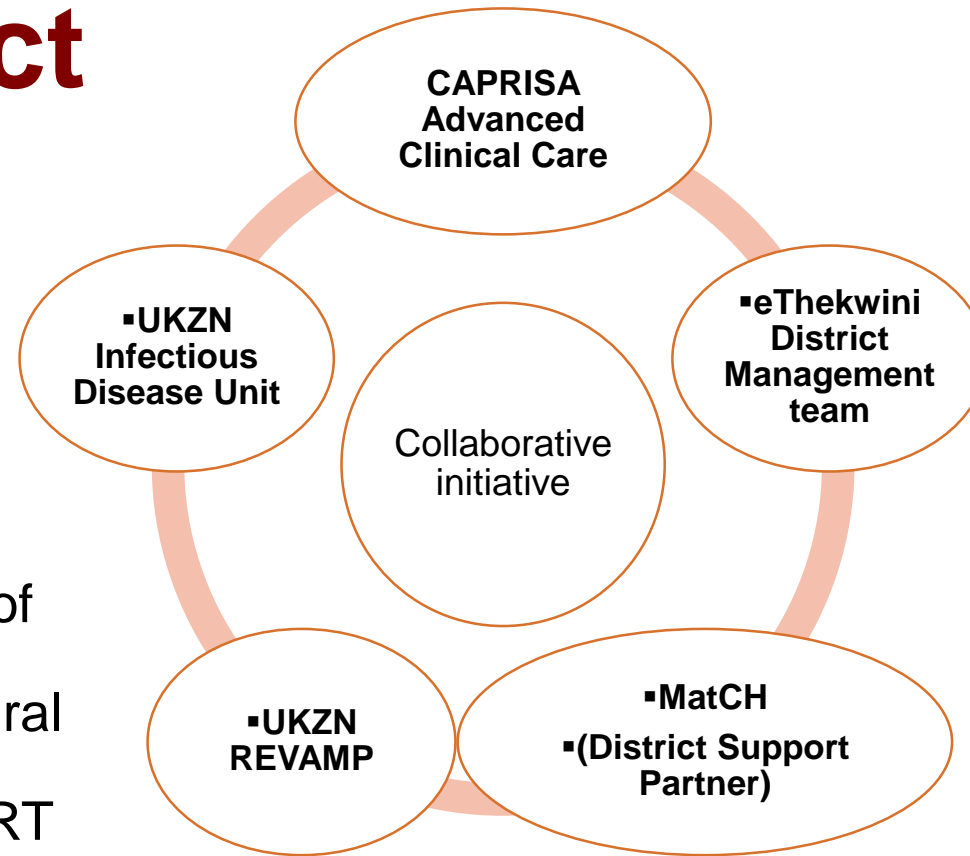


**Overview of Project  
Implementation :  
Pilot site project :  
Introducing the VI champ**

# Pilot site Project

- **Objectives:**

- **Improve VL coverage & suppression rates**
- Improve identification and triage of patients requiring differentiated viral load services (Failing First line ART with co-morbidity, failing Second Line ART)



**Selected 3 medium to high volume; poorly performing Hospital ART sites**

# What Were We Trying to Accomplish? (Aim Statement)

- To improve Adult Viral load completion (VLD) rate (HIV-8) from a baseline of \_\_\_\_% to > 80% at Clairwood, King Dinuzulu and Wentworth Hospital by November 2017

**Definition:** Proportion of adults in the 12 month cohort, still on treatment who had Viral load test done in the last year

**Numerator:** Adult viral load done (VLD) at 12 months

**Denominator:** Adult first line regimen + Adult second line regimen at intervals in 12 month cohort

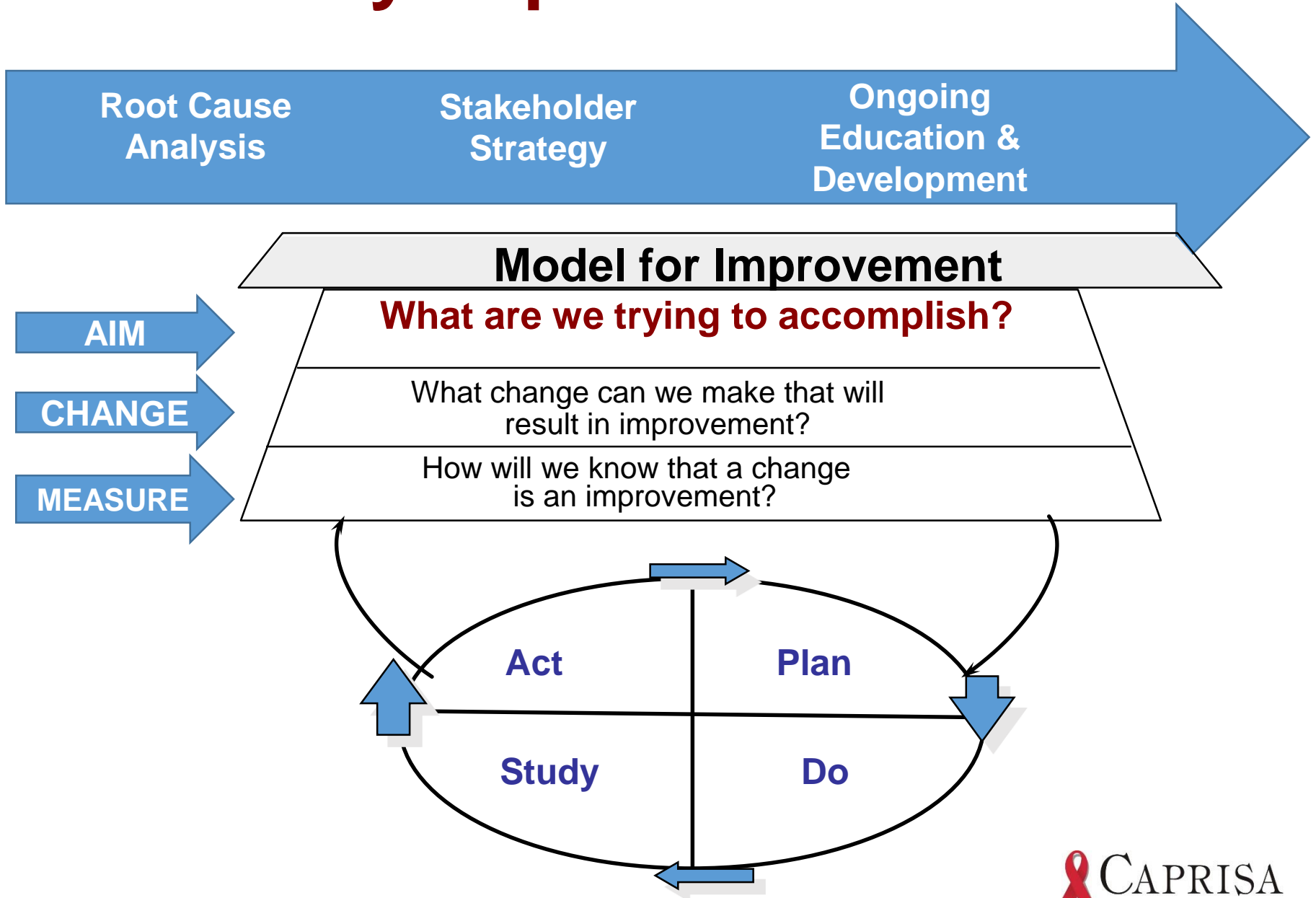
# Baseline Characteristics of Cohorts at 3 Sites

Characteristic	Site 1	Site 2	Site 3
Total active ART patients	1542	2760	7125
Children n (%)	90 (5.8)	176 (6.3)	142 (2)
Female n (%)	794 (51.5)	1287 (46.6)	4234 (59.4)
Average monthly ART initiations over 12 months	16	20	80

# Staffing at 3 Sites

Characteristic	Site 1	Site 2	Site 3
<b>Number of doctors</b>	<ul style="list-style-type: none"> <li>• 1 Medical Officer</li> <li>• 1 Family Medicine Registrar</li> <li>• 1 intern</li> </ul>	<ul style="list-style-type: none"> <li>• 1 HAST Manager</li> <li>• 1 Medical Officer</li> </ul>	<ul style="list-style-type: none"> <li>• 1 Full Time Medical Officer</li> <li>• 1 Part Time Medical Officer</li> </ul>
<b>Number of professional nurses</b>	2	5	10
<b>Number of EN and ENA</b>	4	2	5
<b>Number of lay counsellors</b>	6	3	3
<b>Clinic Data team</b>	1	1	1
<b>Pharmacist</b>	Yes	Yes /PHC	Yes /PHC
<b>MDT team</b>	Yes	Yes	Yes

# Quality Improvement Model



<p><b>1. Know your indicator, track your response, accountability</b></p>	<p><b>2. Target setting and targeting</b></p>	<p><b>3. Data management</b></p>	<p><b>4. Communication (Advocacy Communication Social Mobilization (ACSM), demand creation strategy)</b></p>
<p><b>5. Quality of care</b></p>	<p><b>6. Infrastructure, medicines, equipment, lab services</b></p>	<p><b>7. Human resources (quantity, capacity and skills)</b></p>	<p><b>8. Service delivery platforms (incl Ward Based Out Reach Team's and mobile services)</b></p>
<p><b>9. Demand: Service delivery related</b></p>	<p><b>10. Cascades and pathways (continuum of care)</b></p>	<p><b>11. Demand: Client related</b></p>	<p><b>12. Inter-sectoral coordination (social development, private sector, schools)</b></p>

# Key Questions

1. Before patients enter a facility, what system does the facility have in place to identify those due for a viral load?
2. For a patient, due for a viral load who enters a facility, what system does the facility have to ensure that the viral load is completed?
3. What system is in place to ensure viral load monitoring has occurred?
4. What system is in place to manage viral load results and reporting?
5. What system is in place to manage patients due for viral loads who did not enter the facility?

# 5 Step Plan

## 1. Establishing a VL CHAMP

- Usually a registered NIMART nurse within facility

## 2. Make Viral Load Monitoring Routine

- Increase patient demand for VL testing
- VL Anniversary
- VL Register
- Gatekeeping by pharmacists

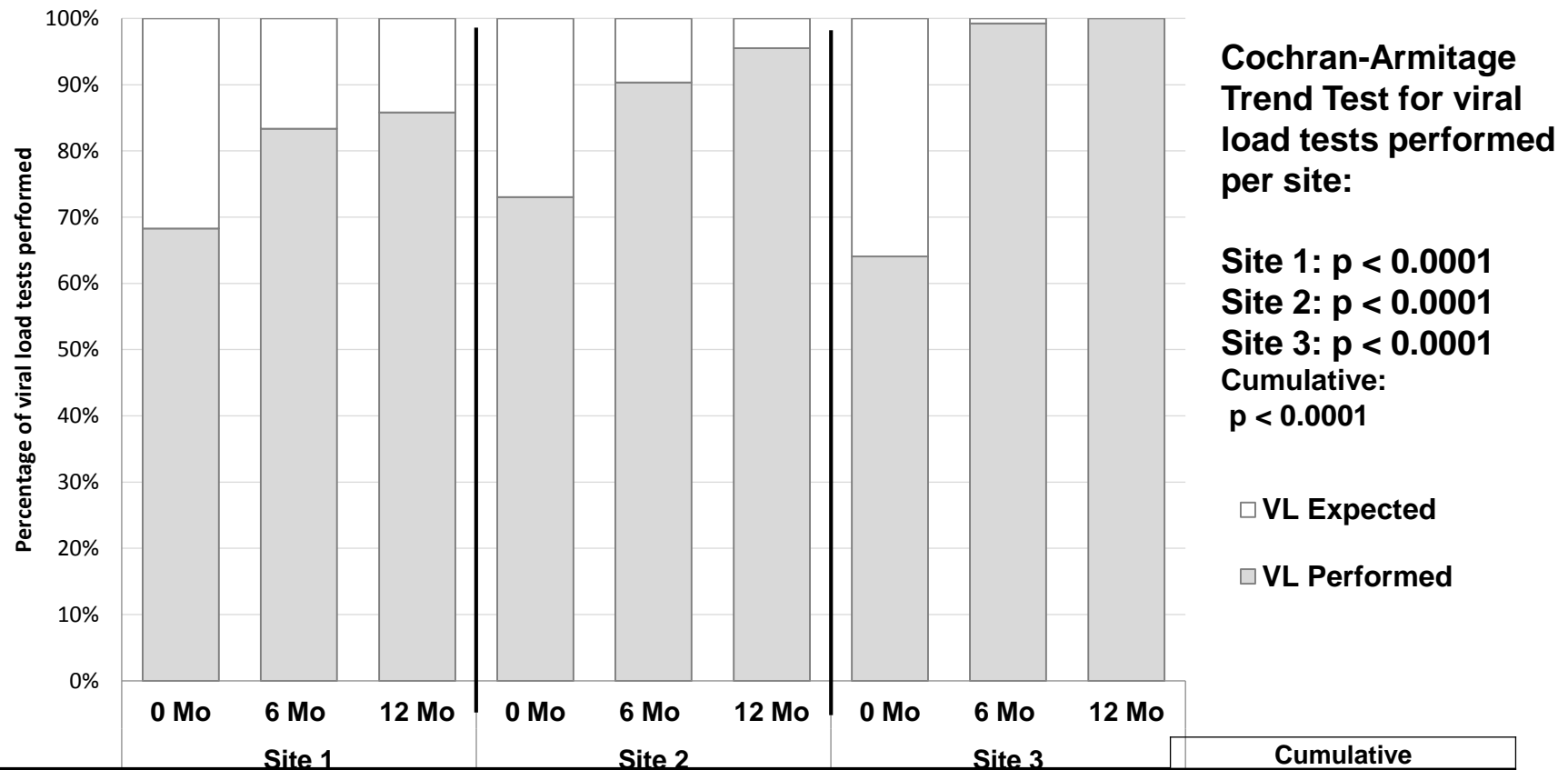
## 3. Optimize use of Data Sources

- Triangulate and optimize all data sources: Chart audit of ART registry, NHLS, TIER
- Creation of high viral load registers

## 4. Dedicated Viral Failure Clinics - using established criteria

## 5. Cascade and Support PHCs to do the same

# Results: Viral Load Tests Performed Among Those eligible for VL Testing



0 Mo									
VLP/VLE	140/205	68%	84/115	73%	323/504	64%	547/864	63%	
VLS/VLP	112/140	80%	78/84	93%	307/323	95%	497/547	91%	
6 Mo									
VLP/VLE	995/1194	83%	793/878	90%	3101/3124	99%	4889/5196	94%	
VLS/VLP	840/995	84%	758/793	96%	2996/3101	97%	4594/4889	94%	
12 Mo									
VLP/VLE	2262/2636	86%	1742/1824	96%	6636/6636	100%	10640/11096	96%	
VLS/VLP	1920/2262	85%	1646/1742	94%	6519/6636	98%	10085/10640	95%	

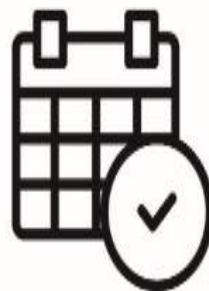
# District upscale of Quick Wins



**Viral Load  
Champion**



**Synchronized  
Data Sources**



**Viral Load  
Anniversary**



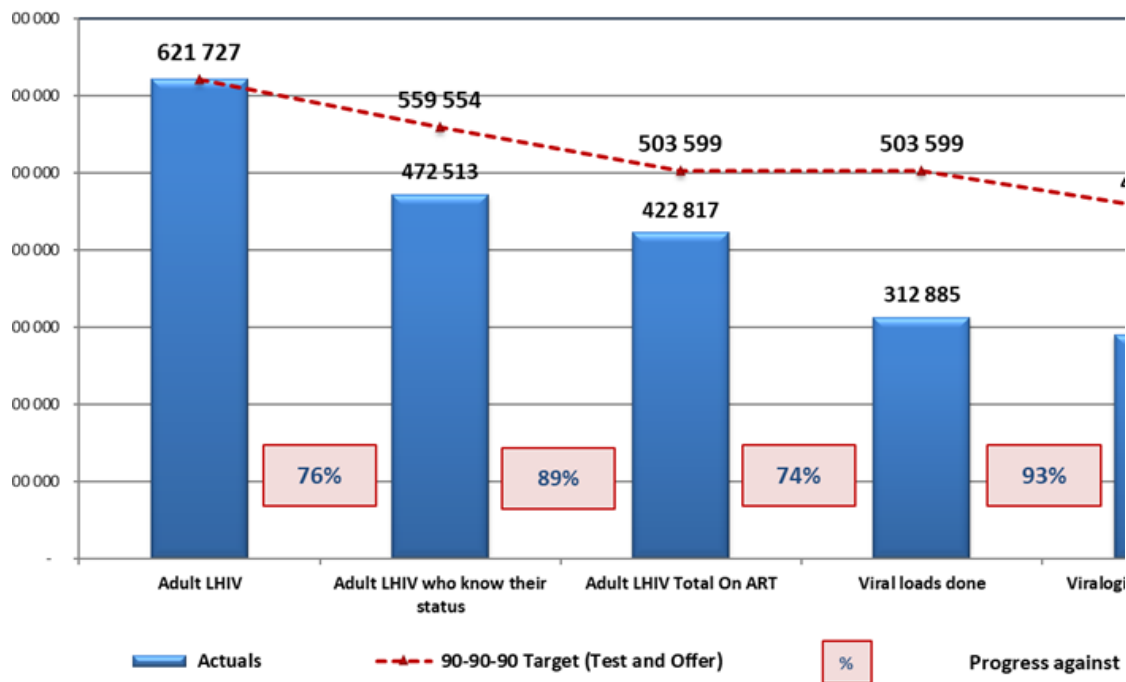
**Viral Load  
Priority  
Clinic**



**Cascade to  
Primary  
Health Care  
Level**

# **Overview of Project Implementation : Upscale to Ethekwini**

## 90-90-90 Cascade - Adults (Mar 2018 - eThekweni)



- Project was expanded to all CHC's and Hospitals in September 2017
- By 1 April 2018 (within 6 months of expansion) the district coverage rate had improved to 74 %

# District Scale Up

# Assembling the Strategic Planning Team

Member	Roles & Responsibilities
<b>District Management</b>	<ul style="list-style-type: none"> <li>• Chief director issues directive, holds staff accountable</li> <li>• Clinical Program Manager monitors implementation and escalates to HAST Manager</li> </ul>
<b>HAST Manager</b>	<ul style="list-style-type: none"> <li>• Drives project at district level</li> <li>• Chairs meetings</li> </ul>
<b>Quality Assurance Managers</b>	<ul style="list-style-type: none"> <li>• Accompanies HAST Manager on initial site visits when speaking with facility staff, especially QA staff</li> </ul>
<b>Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>• Provides permission for data access and assists with data validation and reporting on project (delegated to DSP in eThekweni)</li> <li>• Ensures sustainability</li> </ul>
<b>Medical Consultants</b>	<ul style="list-style-type: none"> <li>• Provides medical expertise for Standard Operating Procedure and Algorithm development</li> <li>• Provides best practices from facilities</li> </ul>
<b>Support Partners</b>	<ul style="list-style-type: none"> <li>• Chaired initial meetings in eThekweni</li> <li>• Provides support staff at site - data capturers, counsellors, nurses, doctors (to assist site staff with implementation)</li> </ul>

# Who are the Key Stakeholders?

Stakeholder	Relevant Person/s
<b>Provincial Stakeholders</b>	<ul style="list-style-type: none"> <li>• HAST/ART Manager</li> <li>• Pharmacy Manager</li> </ul>
<b>District Stakeholders</b>	<ul style="list-style-type: none"> <li>• District Manager</li> <li>• HAST P/M or Clinical Programmes</li> <li>• Monitoring and Evaluation</li> <li>• Quality Assurance</li> <li>• PHC Supervisors</li> </ul>
<b>Primary Health Care Stakeholders</b>	<ul style="list-style-type: none"> <li>• Facility Managers</li> <li>• Dr's &amp; ART nurses</li> <li>• QA representatives &amp; Data capturers</li> <li>• Counsellors</li> </ul>
<b>Community Health Centre/Hospital Stakeholders</b>	<ul style="list-style-type: none"> <li>• CEO</li> <li>• Medical manager/HAST Manager</li> <li>• Dr's and ART nurses</li> <li>• Pharmacist</li> <li>• QA manager &amp; Data capturers</li> <li>• Counsellors/Social workers</li> </ul>
<b>Other Stakeholders</b>	<ul style="list-style-type: none"> <li>• NGO partners</li> <li>• NHLS</li> <li>• Academic partners (Adult &amp; Paeds ID)</li> </ul>

# Facility Team Members

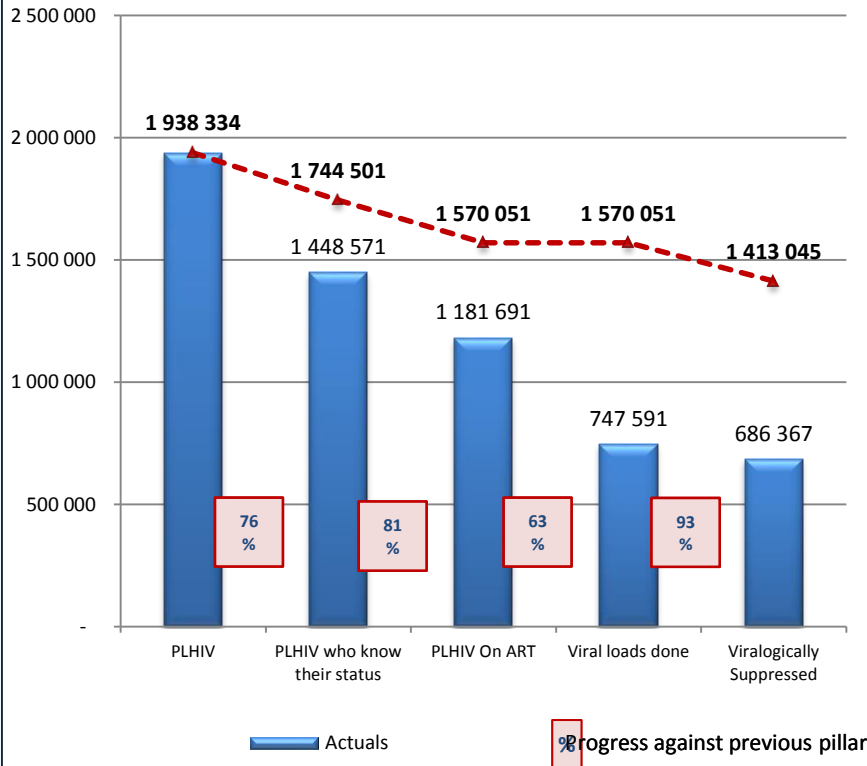
Primary Health Care Teams	Community Health Centre/Hospital Teams
<ul style="list-style-type: none"><li>• ONM / VL CHAMP</li><li>• QA Representative</li><li>• Data Team</li><li>• Local Govt/Municipal PHC staff</li><li>• NGOs</li></ul>	<ul style="list-style-type: none"><li>• Dr – Medical Manager/HAST Clinical Manager</li><li>• VL CHAMP</li><li>• M&amp;E and QA Manager</li><li>• EAC Team – SW/HIV Counsellor</li><li>• Data Capturer</li></ul>

# ART Program in KZN & eThekweni (2016)

**Total remaining on ART (KZN): 1 232 595**  
**One third of ART patients in eThekweni**  
**HIV positivity rate : 17%**  
**TB /HIV co-infected on ART : 88.3%**

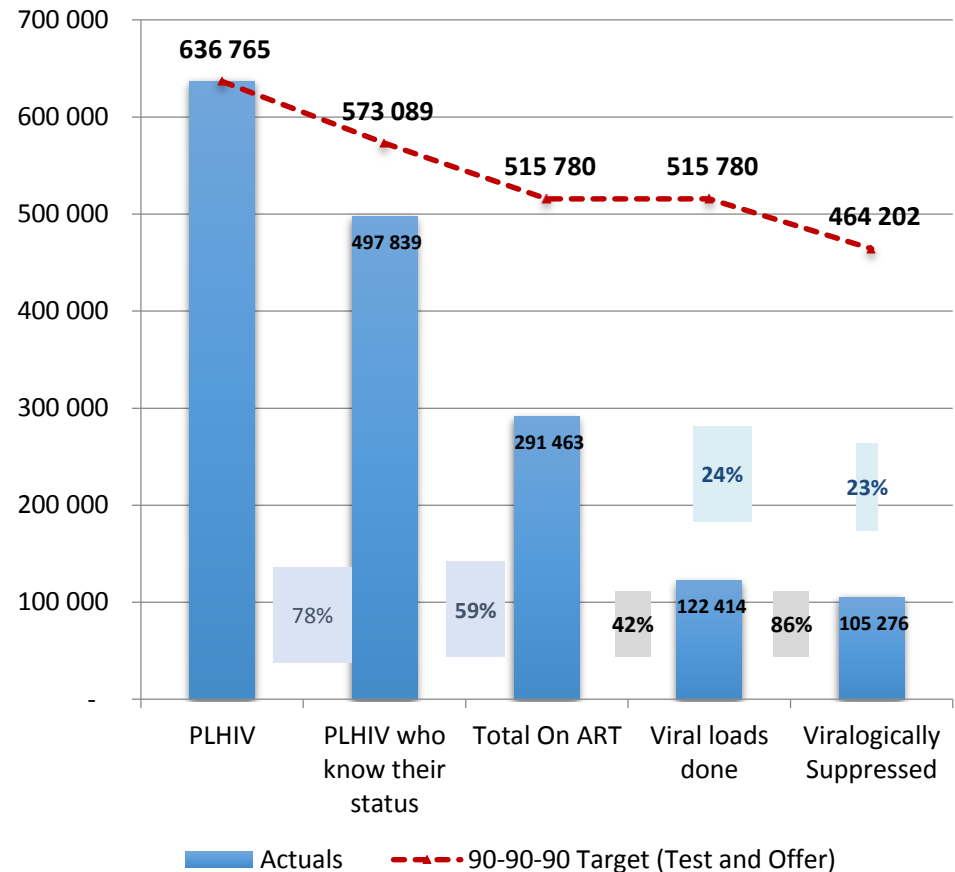
**Poor VL Coverage**  
**Poor identification of Virologic Failure with delayed switching to appropriate regimen**

**90-90-90 Cascade - Total Population (Q4 (2016/17) - KZN Province)**



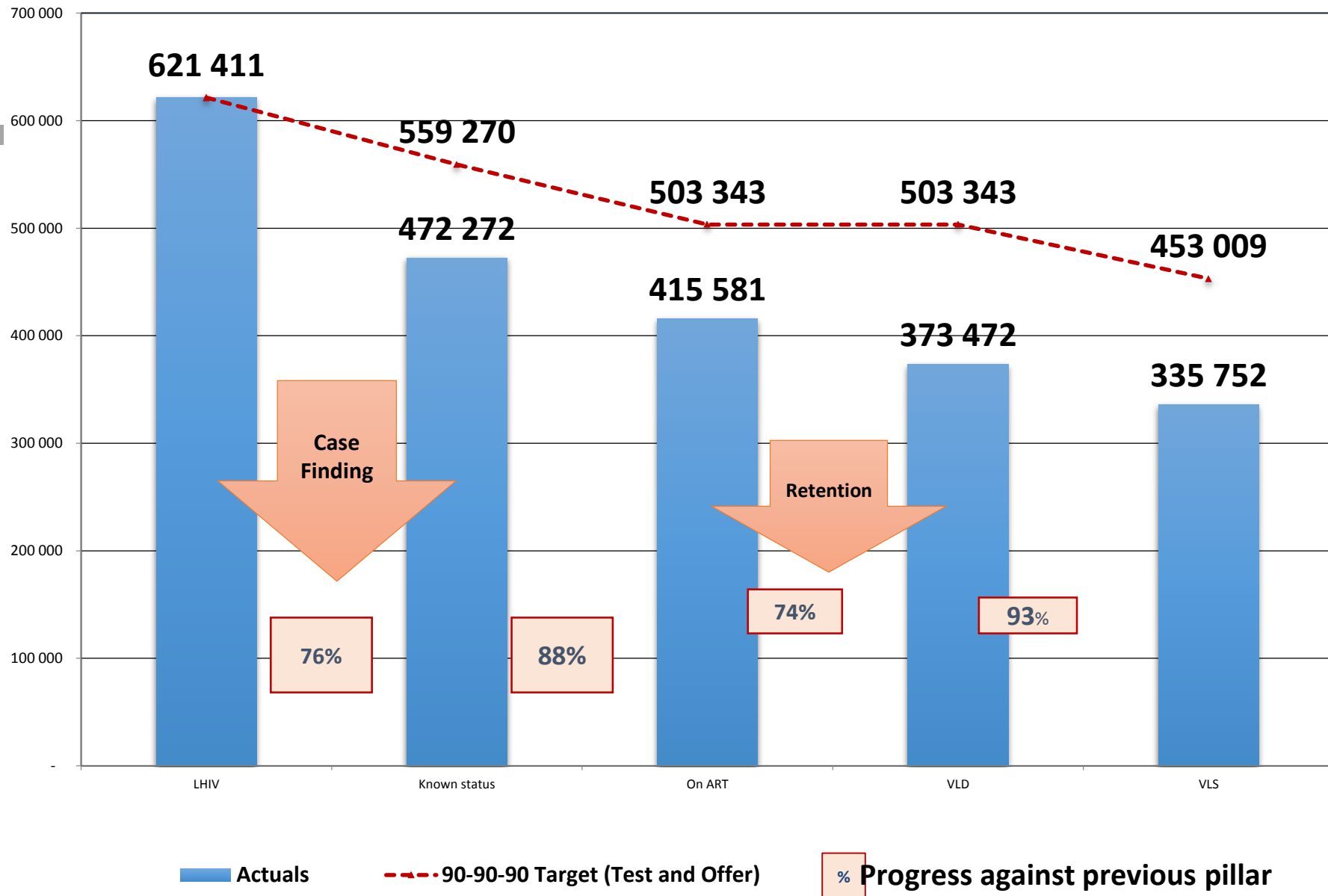
Source: Ms Linda Dlamini , KZN HAST Manager , 28 May 2018

**HIV Care and Treatment Cascade (June 2016 - eThekweni)**



Source: Mr K. Naidu, MATCH Senior Program Manager, February 2017

# HIV Clinical Cascade 30 Jun 2018

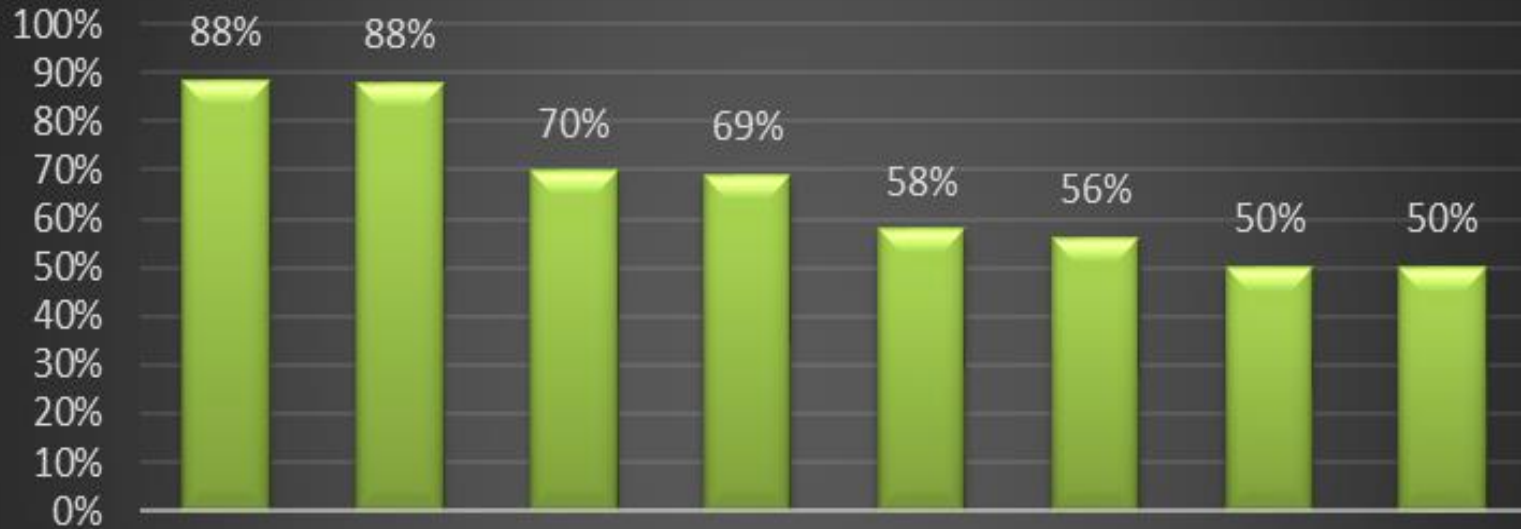


# eThekwini South

	Addington	Charles James	Prince M	RK Khan
Hast Manager or MatCH lead	MatCH lead	Hast manager	MatCH lead	Hast Manager
VL Champion	N	Y	N	Y
VL anniversary	N	Y	N	Y
VL due or failure reports	Y	Y	Y	Y
High VL register	Y	Y	N	Y
Clinician registered for NHLS RFA report	Y	Y	Y	Y
Chart audits	Y ( MatCH SIMS)	Y ( MatCH SIMS)	Y (MatCH SIMS)	Y

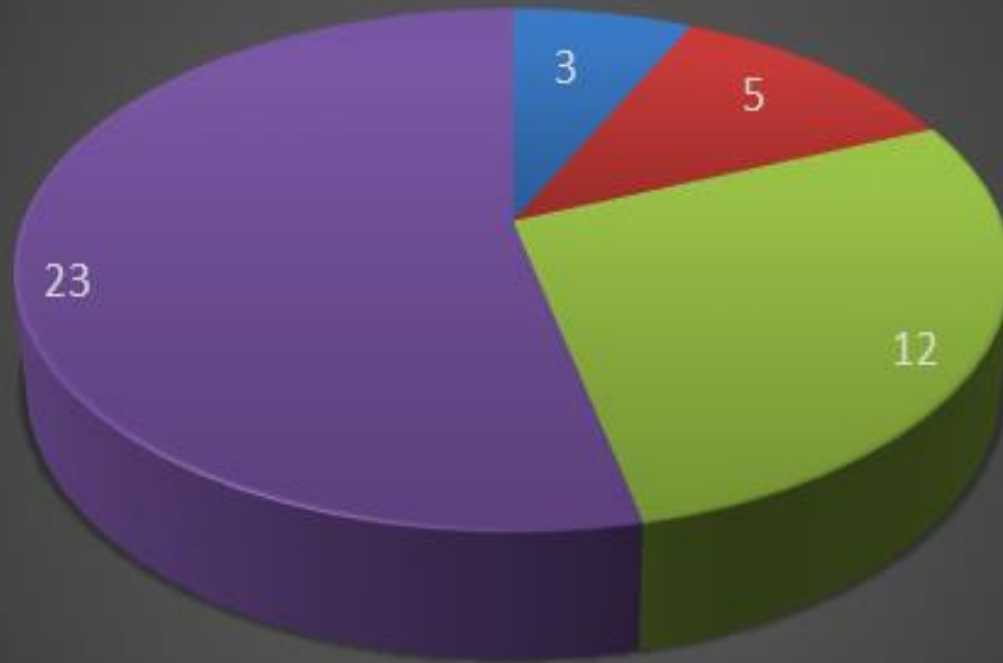
# CHCs

## VLD %



Facilities	TROA	VLD	VLD %	VLS	VLS %
kz Newtown A CHC	5805	5130	88%	4840	94%
kz Tongaat CHC	5358	4718	88%	4461	95%
kz Phoenix CHC	7359	5131	70%	4843	94%
kz Hlengisizwe CHC	7898	5461	69%	5181	95%
kz Cato Manor CHC	8895	5142	58%	4857	94%
kz KwaMashu Poly CHC	15046	8456	56%	7840	93%
kz Inanda C CHC	8572	4284	50%	3981	93%
kz KwaDabeka CHC	9672	4056	50%	3738	93%

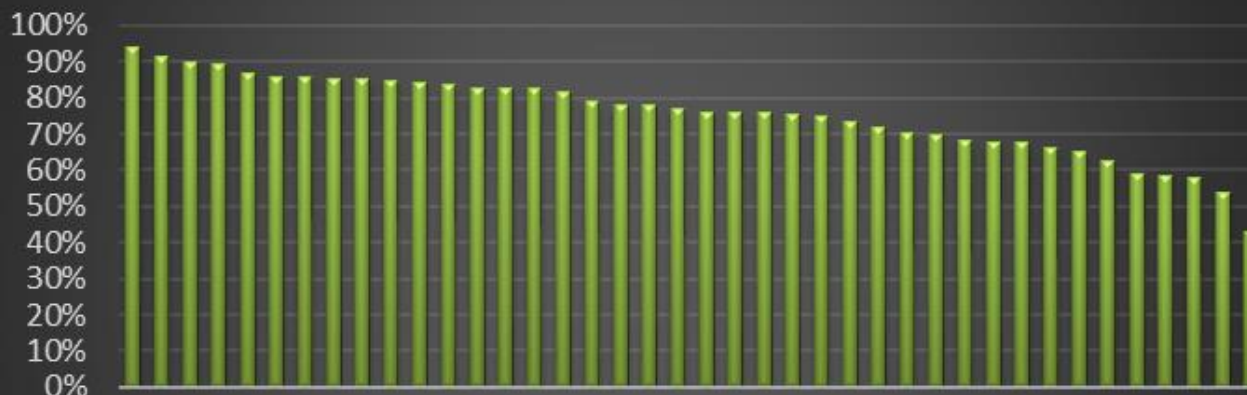
# PHCs - Provincial



▶ >90%   ▶ 80% - 90%   ▶ 63% - 79%   ▶ <63%

# Municipal PHCs -2016

## VLD %



kz Bayview Clinic  
 kz Reservoir Hills Clinic  
 kz Hambanathi Clinic  
 kz Redcliffe Clinic  
 kz Newlands West Clinic  
 kz Merebank Clinic  
 kz Umlazi G Clinic  
 kz Trenance Park Clinic  
 kz Stonebridge Clinic  
 kz Mzamo Clinic  
 kz Sea Cow Lake Clinic  
 kz KwaMashu B Clinic  
 kz Chatsworth Township...  
 kz Umlazi N Clinic  
 kz Grove End Clinic  
 kz Amanzimtoti Clinic  
 kz Waterloo Clinic  
 kz Nagina Clinic  
 kz Glen Earle Clinic  
 kz Lovu Clinic

Facilities	TROA	VLD	VLD %	VLS	VLS %
kz Bayview Clinic	565	530	94%	491	93%
kz Luganda Clinic	1702	1552	91%	1469	95%
kz Reservoir Hills Clinic	2210	1983	90%	1925	97%
kz La Lucia Clinic	1190	1060	89%	1034	98%
kz Hambanathi Clinic	2284	1983	87%	1826	92%
kz Woodhurst Clinic	568	488	86%	458	94%
kz Redcliffe Clinic	1519	1302	86%	1241	95%
kz Queensburgh Clinic	1773	1514	85%	1447	96%
kz Newlands West Clinic	2941	2505	85%	2432	97%
kz Umkomaas Clinic	1168	989	85%	947	96%
kz Merebank Clinic	702	589	84%	550	93%
kz Shallcross Clinic	1264	1055	83%	1009	96%
kz Umlazi G Clinic	1802	1493	83%	1419	95%
kz Westville Clinic	1876	1552	83%	1517	98%
kz Trenance Park Clinic	1341	1107	83%	1038	94%
kz Savannah Park Clinic	2254	1844	82%	1735	94%
kz Stonebridge Clinic	478	377	79%	363	96%
kz Klaarwater Clinic	1894	1479	78%	1397	94%
kz Mzamo Clinic	2294	1788	78%	1744	98%
kz Umlazi AA Clinic	1739	1342	77%	1282	96%
kz Sea Cow Lake Clinic	1324	1008	76%	955	95%
kz Verulam Clinic	4907	3735	76%	3584	96%
kz KwaMashu B Clinic	2736	2077	76%	1985	96%
kz Redhill Clinic	3578	2699	75%	2630	97%
kz Chatsworth Township Centre Clinic	4251	3188	75%	3018	95%
kz Ottawa Clinic	1592	1165	73%	1102	95%
kz Umlazi N Clinic	1971	1415	72%	1354	96%
kz Pinetown Clinic	8247	5802	70%	5630	97%
kz Grove End Clinic	315	219	70%	209	95%
kz Caneside Clinic	1911	1306	68%	1193	91%
kz Amanzimtoti Clinic	2064	1395	68%	1320	95%
kz Inanda Seminary Clinic	2519	1700	67%	1586	93%
kz Waterloo Clinic	1830	1213	66%	1158	95%
kz Kingsburgh Clinic	1542	1002	65%	944	94%
kz Nagina Clinic	1656	1035	63%	976	94%
kz Craigieburn Clinic	1259	739	59%	698	94%
kz Glen Earle Clinic	2196	1285	59%	1214	94%
kz Besters Clinic	2220	1286	58%	1187	92%
kz Lovu Clinic	2391	1288	54%	1195	93%
kz Chesterville Clinic	3278	1412	43%	1292	92%

# **Intervention – Introducing the VL champ**



## What strategies were tried to improve performance

### Step One: Achieving Coverage of VL testing

- VL Clinical Manager and VL Champion
- Making VL monitoring routine (VL Anniversary/ Education of staff and patient and gatekeeping by pharmacist))

### Step two: Acting on results

- TIER VL reports, NHLS RFA reports, triangulation
- Maintain high VL register

### Step three: Switching Regimens

- VL priority clinic (EAC)
- Support PHCs in cluster for advanced clinical care and referral

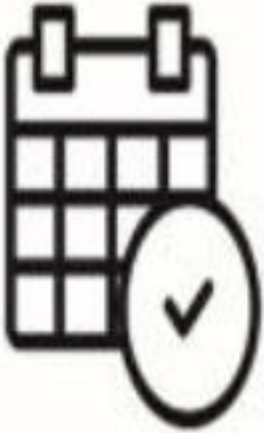
FIGHTING DISEASE. FIGHTING POVERTY. GIVING HOPE.



**Viral Load  
Champion**

**Establishing  
Ownership  
through the  
Viral Load  
Champion  
(VLC)**

**see  
publication**



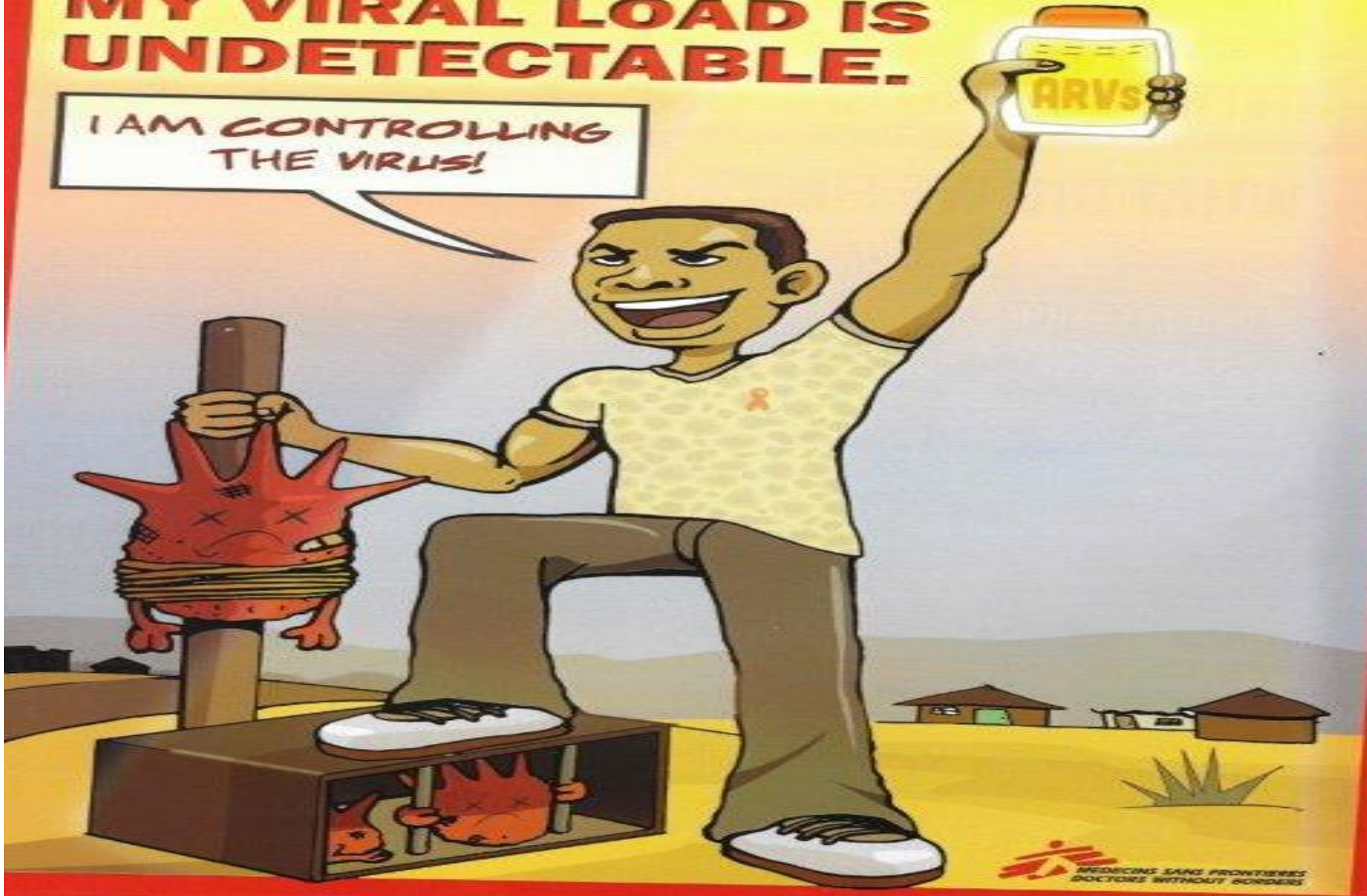
- 1. Viral Load Anniversary**
  - 2. Increase demand – HCW and**
  - 3. Patient education**
- Gatekeeping**

## **Quick Win 2:**

**Promote  
Viral Load  
Monitoring**

# MY VIRAL LOAD IS UNDETECTABLE.

I AM CONTROLLING THE VIRUS!



MEDICINS SANS FRONTIÈRES  
DOCTORS WITHOUT BORDERS



**Synchronized  
Data Sources**

# **Quick Win 3: Optimising Data Sources**

# National Health Laboratory Services

- **NHLS registration for Track Care:**

- Doctor with HPCSA or nurse with SANC registration can gain electronic access
- Results obtained from NHLS updated within clinical chart
- Patients with undetectable VL – triaged for less frequent dispensing repeat prescriptions

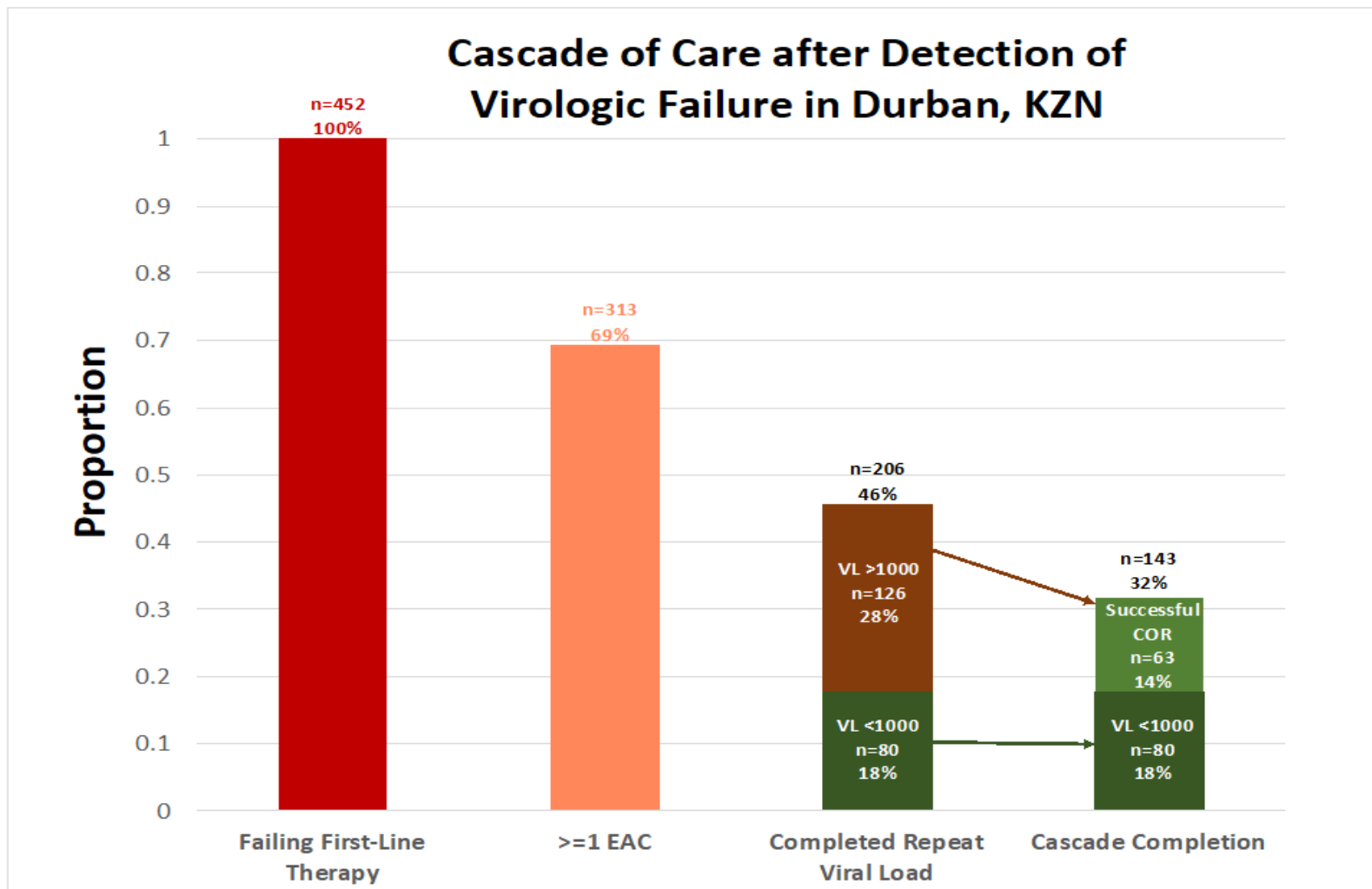
- **Central Data Warehouse (CDW) reports: (NICD/NHLS)**

- Doctor with HPCSA or nurse with SANC registration can gain electronic access
- CDW email weekly high VL reports for action
- High VL laboratory results are merged with high VL register
- List of missed appointments managed by lay counsellors and CCG



**Viral Load  
Priority  
Clinic**

**Quick Win 4:  
  
Dedicated  
Viral Load  
Priority Clinic**



Of 9782 patients accessing first line ART, 452 had first-line VF

Only 32% (143/452) of patients with FLART failure re-suppressed or were changed to SLART

Only 27% (117/452) and 8% (35/452) did so within 180 and 90-days, respectively



**Meeting  
between all  
PHCs with  
nearest CHC  
/Hospital**

**Quick Win 5:**

**Cascade to  
Primary Health  
Care Level**



**AWACC 2019**

**30 /08/19**

## **LAUNCH OF THE KZN HIV VL AND DR MONITORING PROJECT**

**INTRODUCING THE VL CHAMP**

**MAKING VL MONITORING ROUTINE AND MANAGING HIGH VL**

**Dr.Henry Sunpath**

**CAPRISA –ACC CONSULTANT**

**Clinical fellow Infectious Diseases Unit –NRMSM –UKZN**

**DIRECTOR –MEDICATE AIDS NPC**



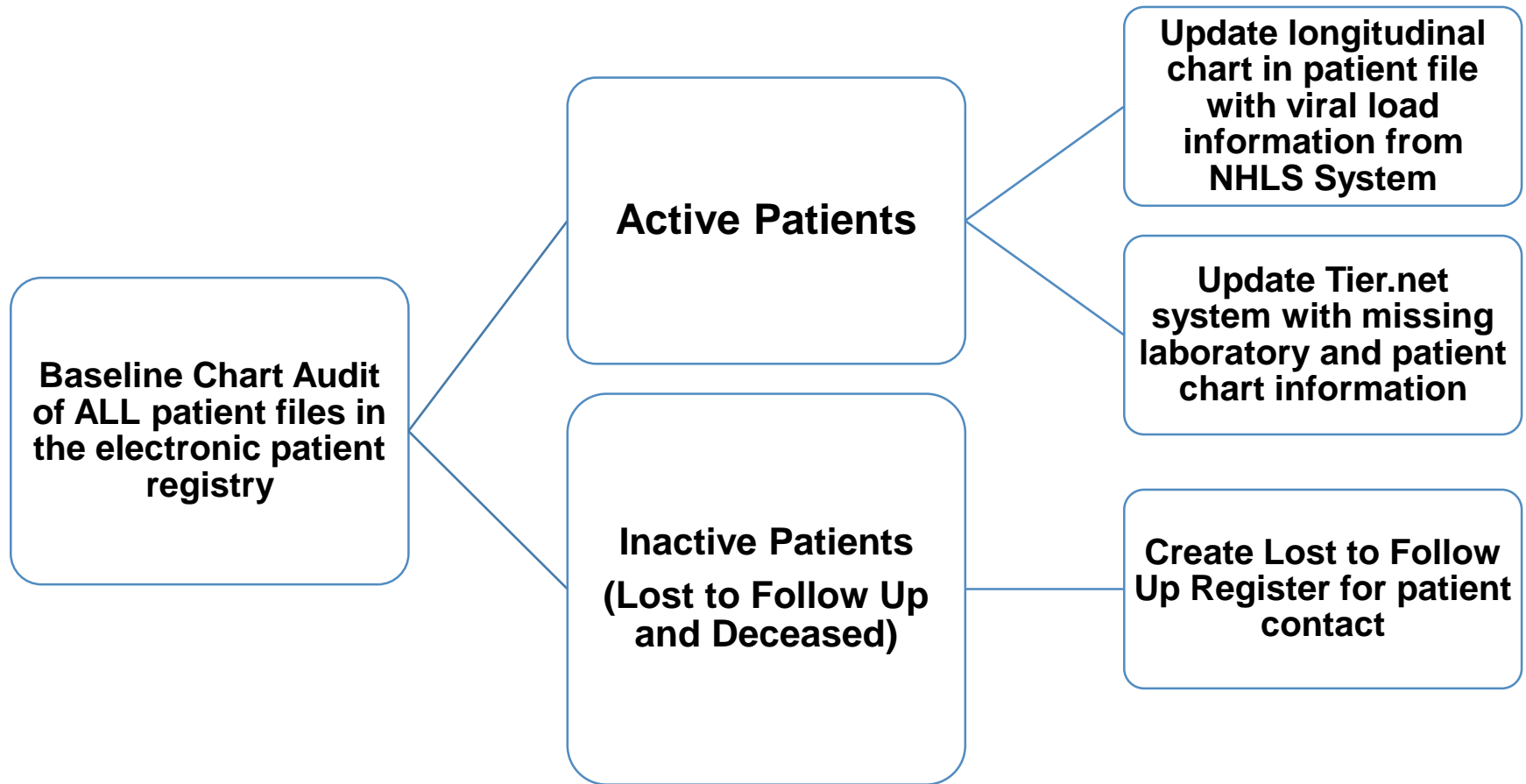
# First step: Develop district task team

- Directive from District Manager to each facility manager
- Incorporate all municipal clinics into project
- Meet at district Office monthly to monitor and discuss scale up:
  - District HAST Manager
  - Support Partners
  - Quality Assurance
  - M+E
  - HAST Clinical Manager (Senior ARV Dr) at CHC's, Hospitals and team from PHCs
  - PHC supervisors

# Implement and track Quick wins for making VL monitoring routine

Quick win	Specific intervention for implementation
Establish ownership for VL Monitoring	Appointment of project leader : HAST Clinical Manager, Senior ARV doctor, Operational Nursing Manager
	Appointment of Viral Load Champion
Optimise Data sources	<b>Baseline Chart audits with TIER cleanup</b>
	<b>Registering on NHLS/NICD Dashboard</b>
Promote VL Monitoring	VL due lists
	VL Sample log
Dedicated VL Priority Clinic	Implement High VL register

# Pre-Implementation Chart Audit Workstreams





## LESSONS LEARNED : MOVING FROM TARGETED TO ROUTINE VIRAL LOAD MONITORING

- There are pros and cons of implementing a 'catchup' phase (testing anyone regardless of time on ART) when VL monitoring is introduced.
- Pros: A catch-up phase provides an opportunity to quickly make staff and patients aware of VL and ensures access for the existing cohort
- Cons: A catch-up approach generates a peak in counsel/ing workload and second-line needs and does not allow the development of clinic systems required to identify patients for ongoing routine monitoring

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- Dr Henry Sunpath- Lead Investigator
- CAPRISA ACC Staff
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- UKZN Department of Infectious Disease
- Maternal and Adolescent Child Health
- REVAMP team
- Epicentre



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The CQUIN Learning Ne



# DISCUSSION

- RTC – ACC mentorship by DSP in KZN (ToT) .
- DSP with HAST co- ordinators :
  1. Identify stakeholders in District office and all facilities - 31/11/19 (Tool to be used ) – Dr. K Naidu
  2. Finalise plan for training of each subdistrict :  
31/10/19
- Train on upscale of quick wins and use of SOPS /APPENDICES /TOOLS – Dr.Adams
- NHLS & ID units at regional hospitals – in reach program to accredit clinical advisors for GRT process and TLART application . –Dr.A Khan

# IMMEDIATE ACTION

- Start baseline file audit –entire registry  
.COMPLETE in 3 -6 months
- Total SLART –last VL and number with >2  
high V;L more than one year – 30/10/19
- Last VL on FLART ->90 VLC rate :  
Complete in 3 months -30/11/19
- Meeting in HAST with all HAST  
coordinators and DSPs to map out KZN VL  
status – 30/10/2019

# Upward referral for ACC and VL/DR management – CHIEF DIRECTOR s Office

- NETWORK FOR REFERRAL – HAST coordinators ,  
Municipal clinics and PHC supervisors ...finalise with  
chief directors 31/12/19

# Thanks

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