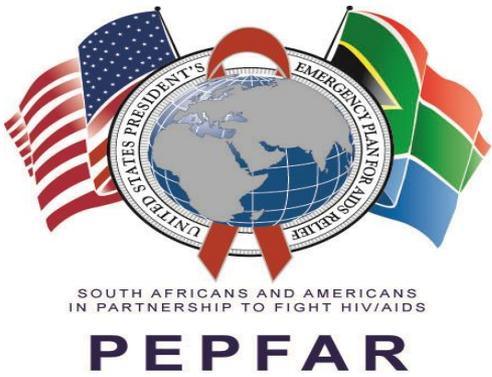


90/90/90 Best Practice Symposium: Improved VL Testing and Suppression – Ekurhuleni District

Bulelani Kuwane - The Aurum Institute
and Sibongile Kekana – Ekurhuleni
Metropolitan Municipality



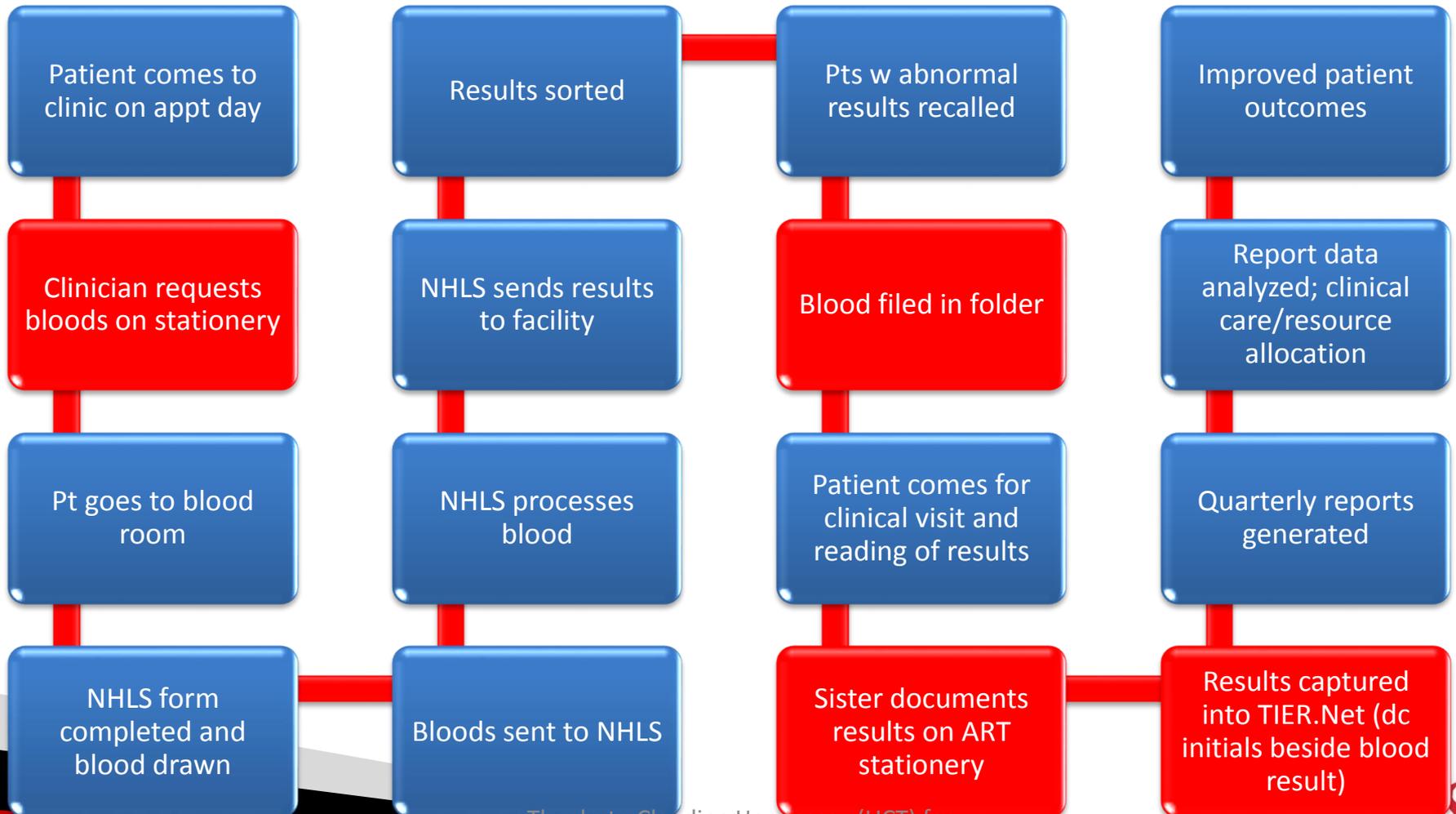


Background

- Ekurhuleni has 96 facilities
- 98% of facilities signed off on Phase 6
 - 3 facilities were part of national TB module in TIER pilot
- 200,016 are on ART – March 2016
- Aurum funded by PEPFAR – CDC has been supporting Ekurhuleni since 2012 with TA and HSS
 - Recently Roving Teams and Direct Service Delivery



Viral load journey: making it to the Quarterly Reports.....



UNAIDS Treatment Targets

90%

of all



living with HIV will
know their HIV
status

90%

of all



living with HIV will
receive sustained
antiretroviral
therapy

90%

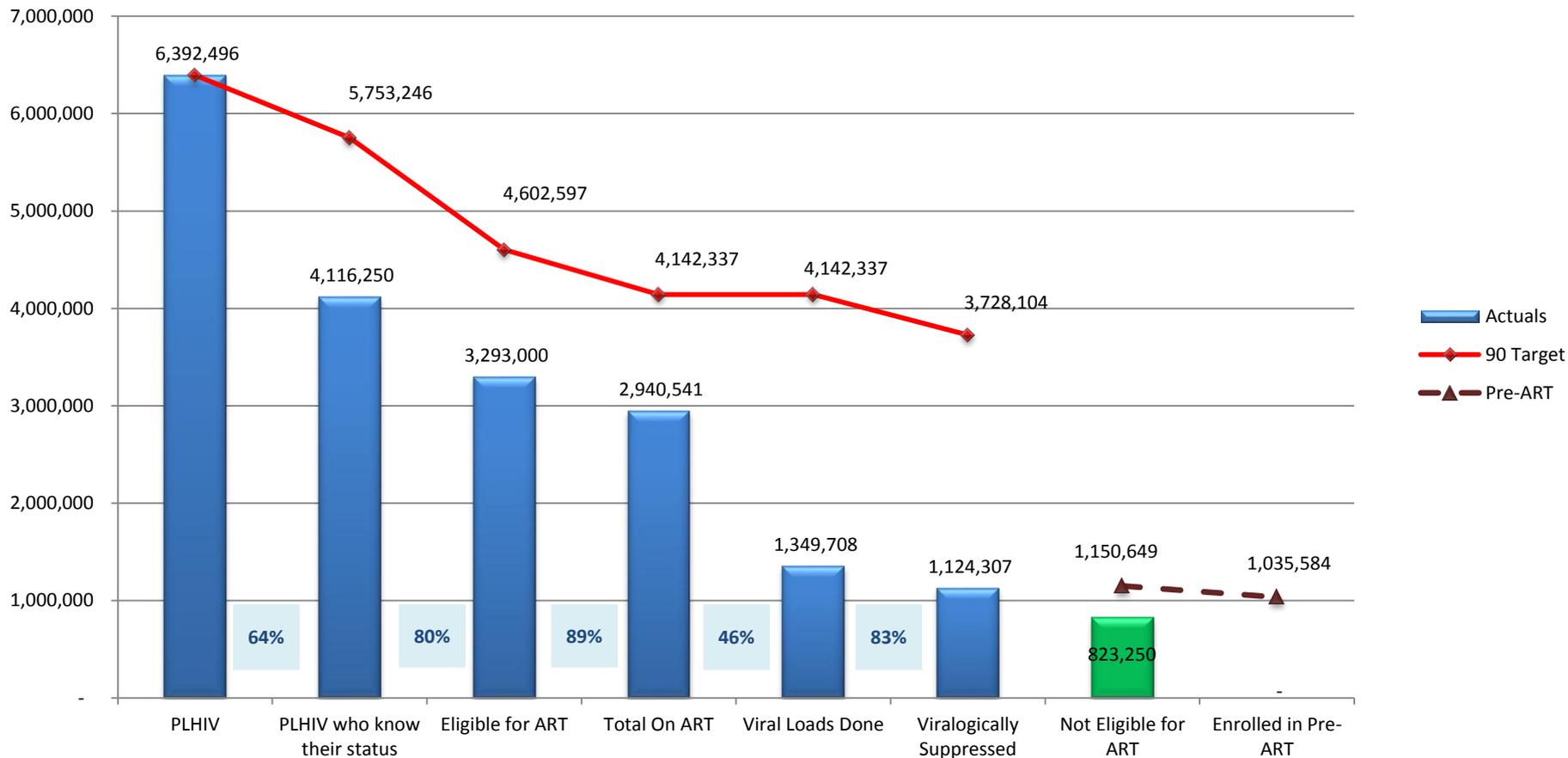
of all



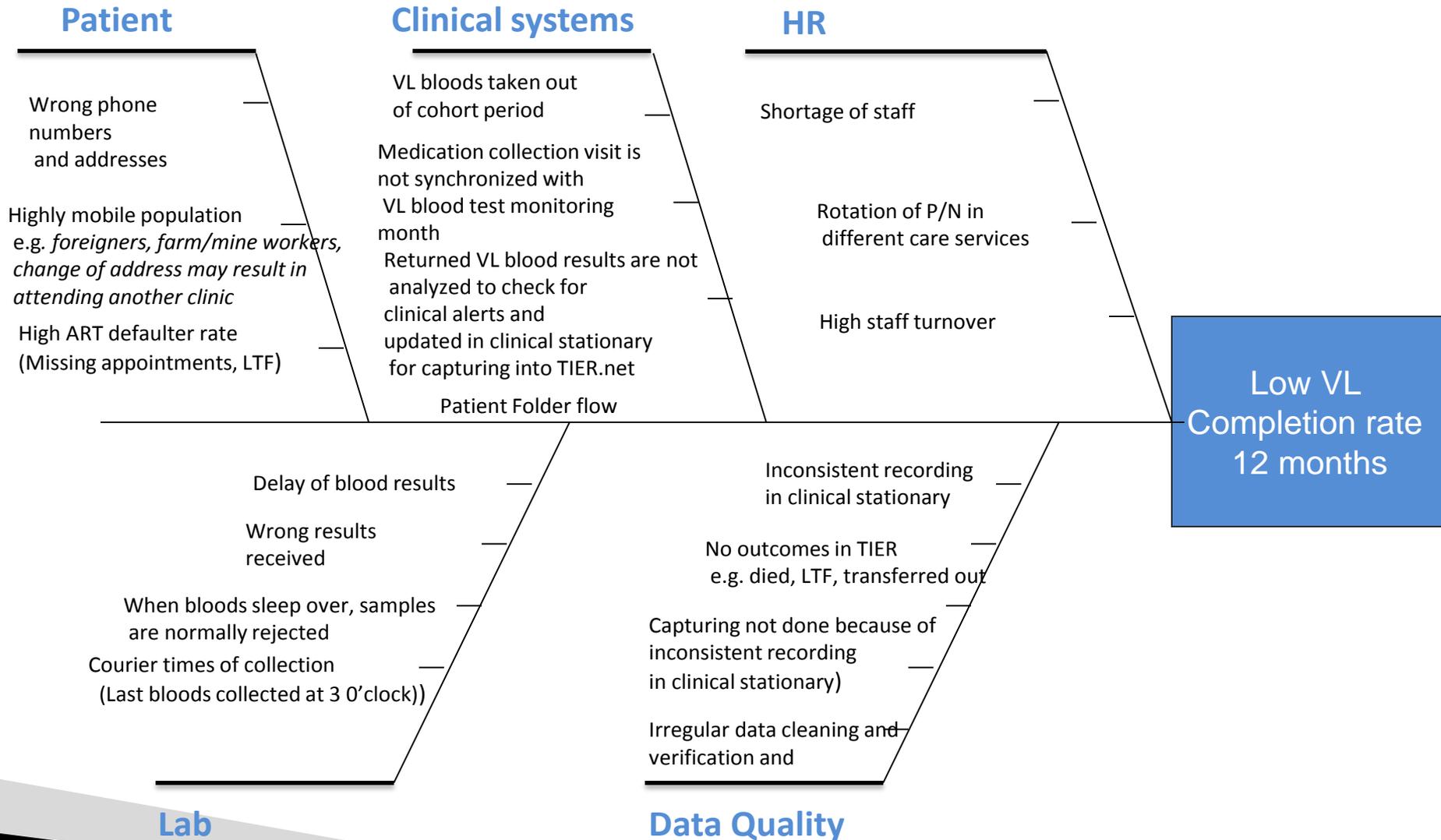
receiving
antiretroviral therapy
will have durable viral
suppression



Adult (15 years and older) HIV Care and Treatment Cascade (March 2015 - National)



Findings in RCA: Fishbone Diagram



Viral Load Report – NHLS

Province	District	Total remaining on ART (TROA) (Oct–Nov 2014) DHIS (1)	Patients with VL in 12 month period % (N) NHLS/DHIS (2)	Proportion known to be suppressed NHLS/ DHIS (3)	VL<400 cp/mL % (N) NHLS (4)	VL400–1000 cp/mL % (N) NHLS (5)	VL>1000 cp/mL % (N) NHLS (6)	VL>10000 cp/mL % (N) NHLS (7)
EC	Buffalo City MM	39,230	86% (33,819)	68%	79% (26,753)	2% (814)	18% (6,252)	13% (4,484)
NW	Bojanala Platinum DM	86,753	63% (54,280)	49%	78% (42,333)	2% (1,291)	20% (10,656)	13% (7,178)
GP	Ekurhuleni MM	172,576	76% (130,649)	59%	78% (101,513)	6% (7,675)	16% (21,461)	10% (13,043)
All	Entire Country	2,951,159	75% (2,199,890)	58%	78% (1,709,867)	4% (80,873)	19% (409,150)	12% (272,836)
EC	A Nzo DM	39,997	67% (26,648)	51%	77% (20,601)	3% (746)	20% (5,301)	15% (3,906)
EC	O Tambo DM	74,052	65% (48,330)	50%	76% (36,668)	2% (1,170)	22% (10,491)	16% (7,501)
KZN	Umzinyathi DM	42,114	73% (30,943)	56%	76% (23,541)	4% (1,192)	20% (6,210)	14% (4,219)
NC	Frances Baard DM	17,810	89% (15,816)	67%	76% (12,006)	2% (383)	22% (3,427)	15% (2,384)
MP	Ehlanzeni DM	151,573	68% (102,338)	51%	75% (77,244)	5% (4,629)	20% (20,465)	13% (13,696)
GP	West Rand DM	58,133	64% (37,232)	48%	75% (28,049)	6% (2,276)	19% (6,907)	11% (4,256)
KZN	Uthungulu DM	88,622	70% (61,790)	52%	74% (45,861)	5% (3,351)	20% (12,578)	13% (7,831)
EC	Amathole DM	38,050	91% (34,487)	67%	74% (25,610)	4% (1,387)	22% (7,490)	14% (4,948)
LP	Sekhukhune DM	39,014	75% (29,112)	55%	74% (21,648)	5% (1,376)	21% (6,088)	14% (4,153)
KZN	Harry Gwala DM	38,882	78% (30,369)	57%	73% (22,248)	7% (2,098)	20% (6,023)	12% (3,592)
MP	Nkangala DM	60,392	68% (41,307)	49%	72% (29,871)	5% (2,234)	22% (9,202)	14% (5,838)
EC	Joe Gqabi DM	17,456	81% (14,052)	58%	72% (10,120)	4% (550)	24% (3,382)	17% (2,432)
LP	Capricorn DM	41,347	86% (35,490)	61%	71% (25,276)	4% (1,397)	25% (8,817)	18% (6,302)
EC	C Hani DM	36,978	95% (35,232)	68%	71% (25,106)	4% (1,393)	25% (8,733)	17% (6,025)
NW	Ngaka Modiri Molema DM	42,692	78% (33,276)	48%	61% (20,428)	7% (2,374)	31% (10,474)	21% (6,859)

TA & HSS Model

Project
Leadership & Strategy
FOCUSING FOR IMPACT

Project Management and Technical Guidance

COMMUNITY

Community Strengthening

Community Service Delivery

Quality
Improvement

HEALTH SERVICES

Health Service Delivery

Clinical Training & Mentoring

Pharmacy Services Management

Laboratory Services Management

Facility Management

Data Management

Monitoring & Evaluation

SUSTAINABLE IMPROVED HEALTH OUTCOMES
90% Tested
90% Treated
90% Suppressed

District Implementation Planning and Support

Project M&E and Reporting

Project Governance and Financial Control

VLS is one of 12 Tracer Indicators

- HIV test clients 15 years and older Incl. (ANC)
- Adults started on ART
- Adults total remaining on ART
- **Viral Load Suppressed**
- Male condom distribution coverage
- Antenatal 1st visit before 20 weeks rate
- HIV re-testing rate in pregnancy
- Infant rapid HIV test around 18m uptake rate
- Child under 15years started on ART during this month
- PHC headcount screened for TB
- HIV positive TB patients started on ART
- TB client treatment success rate



FACILITY IMPROVEMENT PLAN

Tracer Indicator	Facility Target	Current Facility Performance	Bottleneck (3 priority Bottleneck)	Activities	Outputs	Responsible Person	Timeframes				Inputs
							Daily	Weekly	Monthly	Quarterly	
VIRAL LOAD COMPLETION RATE	100%	2.4%	Late capturing of blood results into Tier.net system and the patients files due to late coming of patients Patients given 3 months' supply which runs beyond the Viral load bloods due dates	Allocate a clinician to work with a data capture to receive, sort, record and put lab results in patients folders Provide 1 month supply	Viral Load completion rate to increase to 100%	Coordinator Health promoter Data capture Data monitors Mentors Clinicians CPN		Weekly			Coordinator Health promoter Data capture Data monitors Mentors Clinicians CPN

Data Management & M&E Support

- Data capturers update on Tier.net
 - Using clinical stationery
 - Work closely with clinicians
- Data capturers run list of VL due/outstanding and classify according to time period.
- Conducting monthly data cleaning
- Conducting Tier.net and folder audits
- Monitoring of facility performance – run charts



Data Element/Indicator
N = Numerator, VL Done

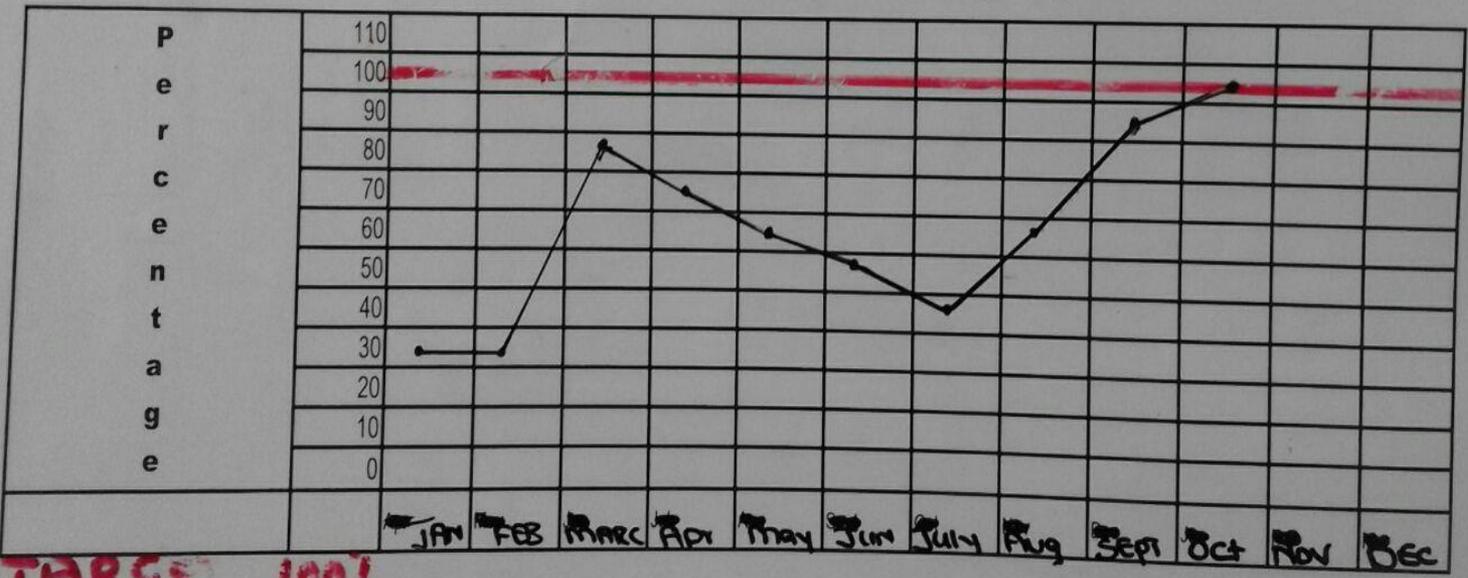
RAMAPHOSA Clinic Run CHART For VIRAL LOAD DONE 2015

D = Denominator VL Due

Year total	Apr JAN	May FEB	Jun MAR	July APRIL	Aug MAY	Sept JUNE	Oct JUN	Nov AUG	Dec SEPT	Jan OCT	Feb NOV	Mar DEC
N = VL DONE	1	2	5	5	8	7	5	10	15	11		
D = VL DUE	3	6	6	7	5	12	11	14	16	11	17	
Rate = N/D x 100 (%)	33%	33%	83%	71%	160%	58%	45%	71%	94%	100%		
Target: D x 100%												
Robot scoring												

Start Fall

67% 67% 17% 29% 40% 42% 52% 29% 6% 0%



TARGET 100%

Interpreted Cohort Reports

Quarterly ART Report - Interpreted

Period: 2013/01/01 To 2015/12/31

Signed-off by:

Date: 2016/05/26

Selected Level: gp Moleleki Clinic
Adult

Designation:

Treatment Cohort	Q1'13	Q2'13	Q3'13	Q4'13	2013	Q1'14	Q2'14	Q3'14	Q4'14	2014	Q1'15	Q2'15	Q3'15	Q4'15	2015
Number of ART-naive patients commenced (TOT)	100	85	57	66	308	102	70	103	89	364	87	116	95	124	422
Number of ART-naive males	40	29	20	17	106	26	24	26	23	99	33	38	26	41	138
Number of ART-naive females	60	56	37	49	202	76	46	77	66	265	54	78	69	83	284
Number of ART-naive children <1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of ART-naive children 1 to <5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of ART-naive children 5 to <15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percentage screened for TB at ART start	5.0%	49.4%	66.7%	92.4%	47.4%	89.2%	98.6%	93.2%	97.8%	94.2%	94.3%	87.1%	89.5%	90.3%	90.0%
Percentage on TB Treatment at ART start	10.0%	11.8%	5.3%	7.6%	9.1%	10.8%	1.4%	3.9%	2.2%	4.9%	5.7%	12.1%	12.6%	10.5%	10.4%
Percentage on IPT at ART start	64.0%	51.8%	24.6%	56.1%	51.6%	54.9%	31.4%	5.8%	3.4%	23.9%	3.4%	0.9%	-	-	0.9%
Percentage on CPT at ART start	66.0%	82.4%	70.2%	43.9%	66.6%	53.9%	41.4%	9.7%	16.9%	29.9%	5.7%	-	-	-	1.2%
Percentage pregnant at ART start (of all adult females)	31.7%	26.8%	29.7%	26.5%	18.8%	46.1%	47.8%	41.6%	51.5%	33.8%	33.3%	24.4%	46.4%	25.3%	21.3%
Percentage of CD4's done	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	95.8%	98.4%	98.6%
Percentage of CD4s <100 (<15% for paeds)	22.0%	35.3%	36.8%	28.8%	29.9%	18.6%	22.9%	20.4%	21.3%	20.6%	16.1%	18.1%	16.5%	19.7%	17.8%
Percentage of CD4s 100 to 199 (15 to <20% for paeds)	33.0%	24.7%	24.6%	27.3%	27.9%	30.4%	24.3%	27.2%	16.9%	25.0%	21.8%	13.8%	18.7%	25.4%	20.0%
Percentage of CD4s 200 to 350 (20 to <25% for paeds)	40.0%	37.6%	33.3%	40.9%	38.3%	30.4%	32.9%	35.0%	29.2%	31.9%	31.0%	31.9%	30.8%	18.9%	27.6%
Adult male proportion (of all adults)	40.0%	34.1%	35.1%	25.8%	34.4%	25.5%	34.3%	25.2%	25.8%	27.2%	37.9%	32.8%	27.4%	33.1%	32.7%
Children <1 proportion (of all children)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proportion of Treatment Experienced	1.0%	1.2%	3.4%	8.3%	3.2%	-	2.8%	5.5%	7.3%	4.1%	7.4%	3.3%	5.0%	3.9%	5.0%

Baseline

Interpreted Cohort Reports

After 12 Months	Initial Total	100	85	57	66	308	102	70	103	89	364
	Continuing first-line regimen (FLR)	62	57	36	42	197	65	35	59	52	211
	On second line regimen (SLR)	-	-	-	-	-	1	-	-	-	1
	Treatment discontinued (STO)	5	2	1	1	9	1	2	1	2	6
	Proportion on second line regimen	-	-	-	-	-	1.5%	-	-	-	0.5%
	Cumulative died	4	3	3	2	12	1	1	1	3	6
	Cumulative lost to follow-up	26	18	11	16	71	31	25	37	31	124
	Cumulative transferred out	3	5	6	5	19	3	7	5	1	16
	Cumulative proportion died	4.1%	3.8%	5.9%	3.3%	4.2%	1.0%	1.6%	1.0%	3.4%	1.7%
	Cumulative proportion lost to follow-up	26.8%	22.5%	21.6%	26.2%	24.6%	31.3%	39.7%	37.8%	35.2%	35.6%
	Cumulative proportion remaining in care	69.1%	73.8%	72.5%	70.5%	71.3%	67.7%	58.7%	61.2%	61.4%	62.6%
	CD4 counts done (CDD)	62	43	32	40	177	57	23	54	45	179
	CD4 counts above 200 cells/ or 20% TLC (CDA)	54	39	25	34	152	43	17	45	37	142
	CD4 completion proportion	100.0%	75.4%	88.9%	95.2%	-	86.4%	65.7%	91.5%	86.5%	-
	Proportion of CD4 counts above 200 cells/ or 20% TLC	87.1%	90.7%	78.1%	85.0%	85.9%	75.4%	73.9%	83.3%	82.2%	79.3%
	VL done (VLD)	61	47	33	41	182	57	33	56	51	197
	VL < 400 copies/mL (VLS)	53	45	29	36	163	51	29	44	29	153
	VL completion proportion	98.4%	82.5%	91.7%	97.6%	92.4%	86.4%	94.3%	94.9%	98.1%	92.9%
	VL suppression proportion	86.9%	95.7%	87.9%	87.8%	-	89.5%	87.9%	78.6%	56.9%	-
	Died between 6 and 12 Months (RIP)	1	-	-	-	1	1	-	1	1	3
	Lost to follow-up between 6 and 12 Months (LTF)	9	4	4	2	19	9	3	6	6	24
	Transferred out between 6 and 12 Months (TFO)	-	3	3	1	7	-	-	-	-	-
	Transferred in between 6 and 12 Months (TFI)	2	3	2	1	8	-	-	1	2	3
Moved out between 6 and 12 Months (MVO)	-	1	-	-	1	-	-	1	-	1	
Moved in between 6 and 12 Months (MVI)	2	-	1	1	4	2	1	1	-	4	

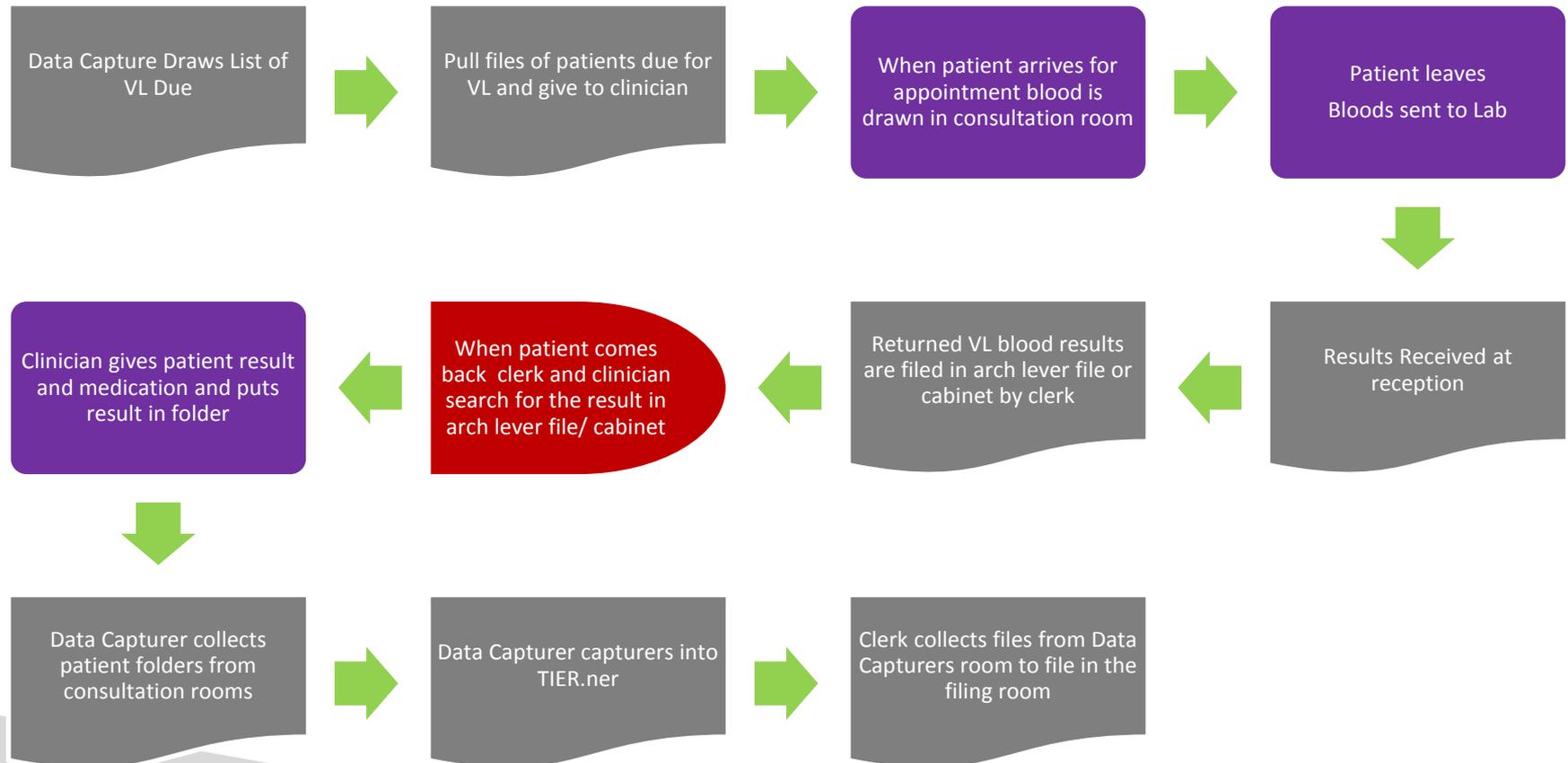


THE AURUM
INSTITUTE

HOW TO Guide to Quality Improvement



QI - Old process



QI - VL High impact change concepts

Prediction	Change idea	Change concept
Planning for patients clinic visits ensures few bottlenecks/delays and creates a system of identifying defaulters for tracing	Printing of Patient list due for VL daily or weekly, pre-retrieve the files and tick list as patients attend	Scheduling and planning
Placing triggers in the patient folders will encourage clinicians to take VL or refer for blood taking.	Reminder systems to identify patients due for VL and blood to be taken in correct cohort Highlight ART start date, Sticker inside clinical stationary, pull out files of patients due by using the patients list due for VL daily or weekly or monthly	Reminder systems for clinicians
Supporting patients to remember their clinic visits for VL monitoring empowers the patient and motivates the patient to attend critical clinic visits.	Calling patients weekly	Reminder system for patients
Due to staff shortages and rotation of staff, centralising blood taking will ensure bloods are taken daily. Furthermore, fast queuing is convenient for patients who need to be at work early.	Allocation of dedicated clinician to take bloods daily /weekly in the morning times	Centralization of blood taken and fast queue.
A system for prompt analysis of VL results will ensure results are acted on, lab results errors are followed up on and clinical stationary is updated by clinician	Allocated clinician to interpret the VL results and update the clinical stationary to ensure results to be captured into Tier.net	Patient management and recording
Prioritize clinic visits for collection of medication. To ensure the clients due for VL bloods when they come for their medication will enable clients to not have many clinic visits.	Amount of medication given to client should be synchronized to the next VL visit e.g. Monthly supply for 6 months. After 6 months 3 months supply.	Synchronization /Integration

VIRAL LOAD COMPLETION INTERVALS FOR PAEDIATRIC & ADULT ART CLIENTS

ART START DATE

- JANUARY
- FEBRUARY
- MARCH
- APRIL
- MAY
- JUNE
- JULY
- AUGUST
- SEPTEMBER
- OCTOBER
- NOVEMBER
- DECEMBER

6 MONTHS VL

- JULY
- AUGUST
- SEPTEMBER
- OCTOBER
- NOVEMBER
- DECEMBER
- JANUARY
- FEBRUARY
- MARCH
- APRIL
- MAY
- JUNE

12 MONTHS VL & CD4

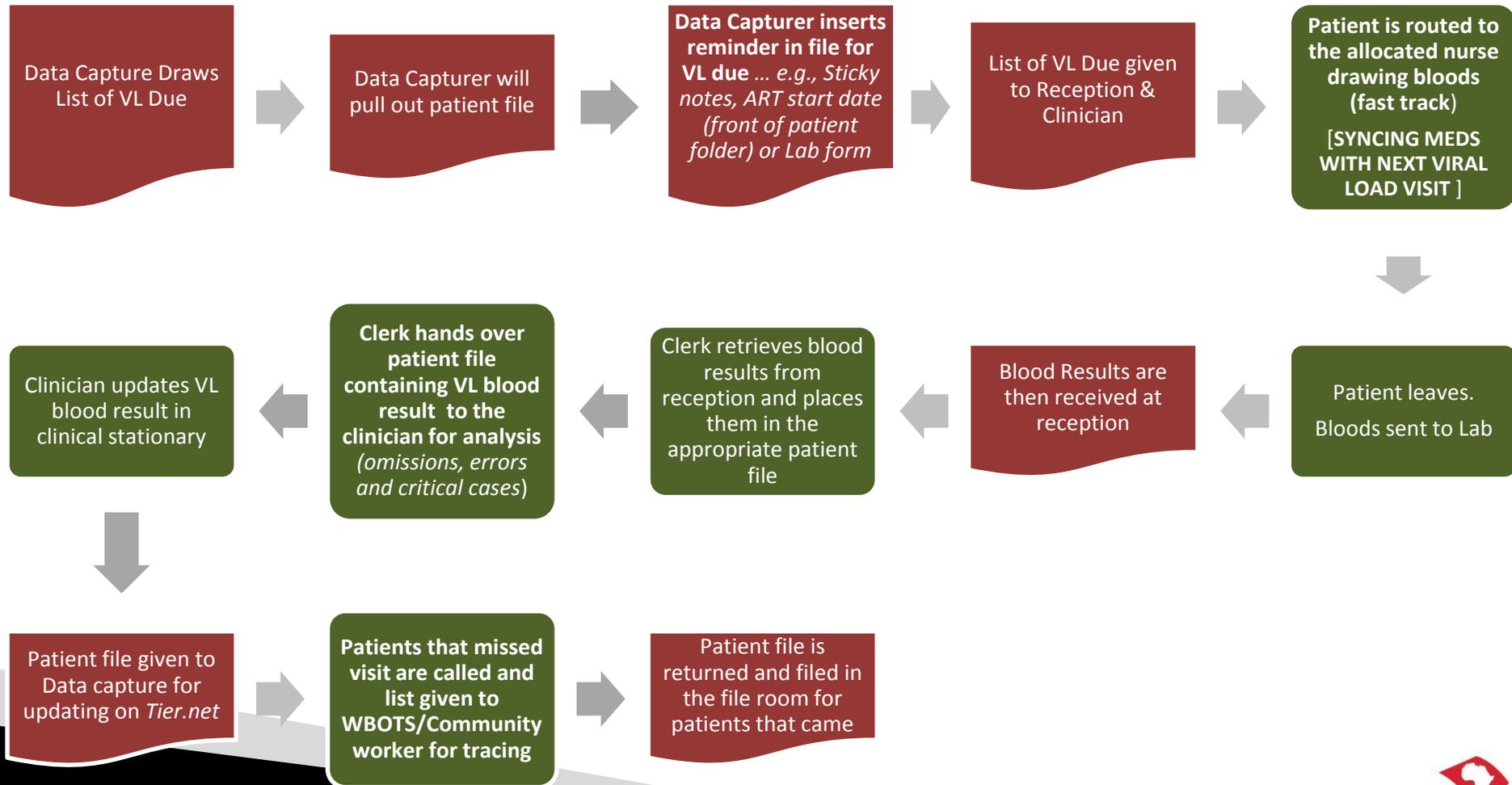
- JANUARY
- FEBRUARY
- MARCH
- APRIL
- MAY
- JUNE
- JULY
- AUGUST
- SEPTEMBER
- OCTOBER
- NOVEMBER
- DECEMBER

ANNUAL VL

- JANUARY
- FEBRUARY
- MARCH
- APRIL
- MAY
- JUNE
- JULY
- AUGUST
- SEPTEMBER
- OCTOBER
- NOVEMBER
- DECEMBER

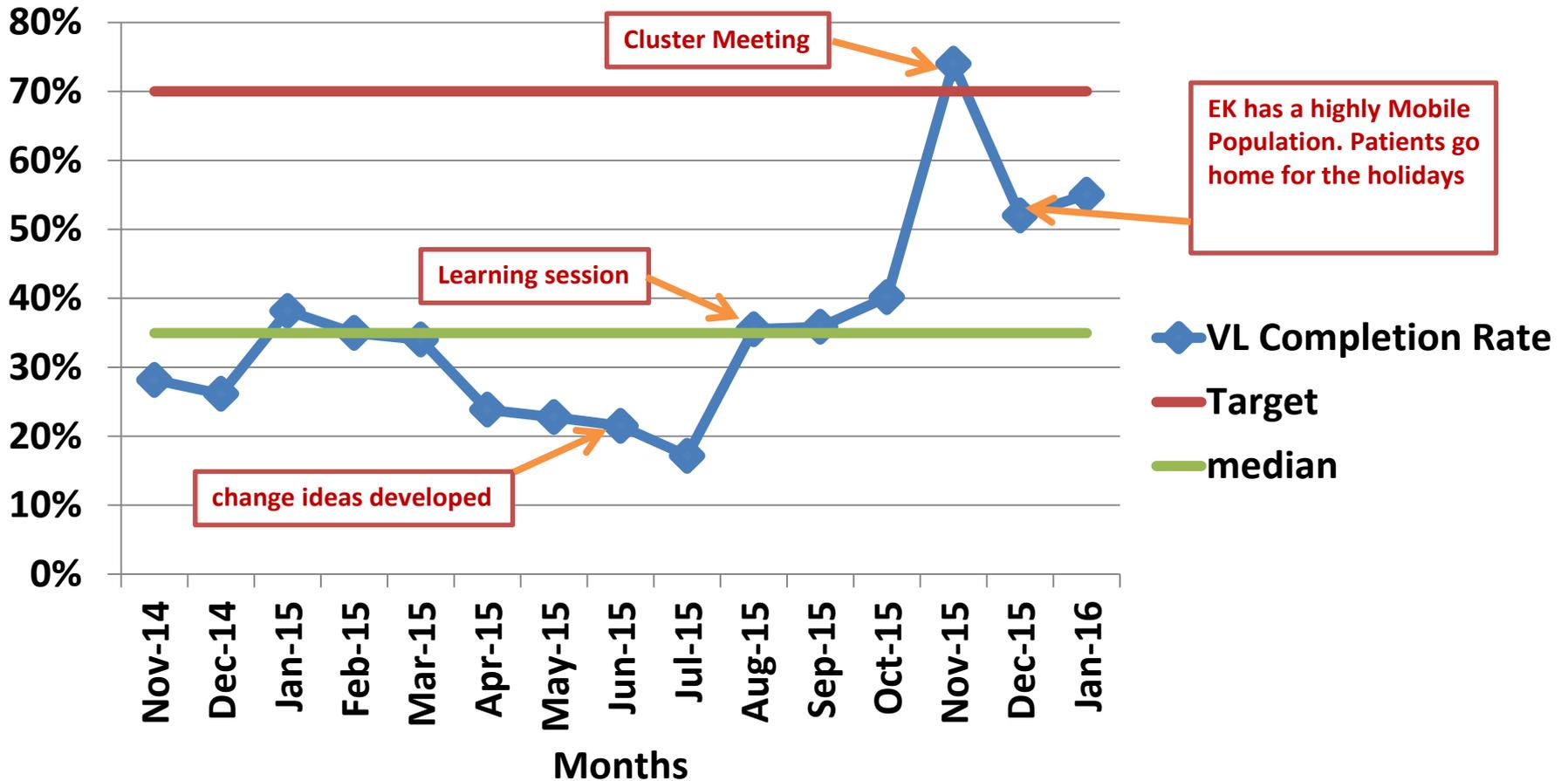
NOTE: ANC patients that have been newly initiated on ART should have a VL done at 3, 6, 12, 18 and 24 months.

QI - New Process



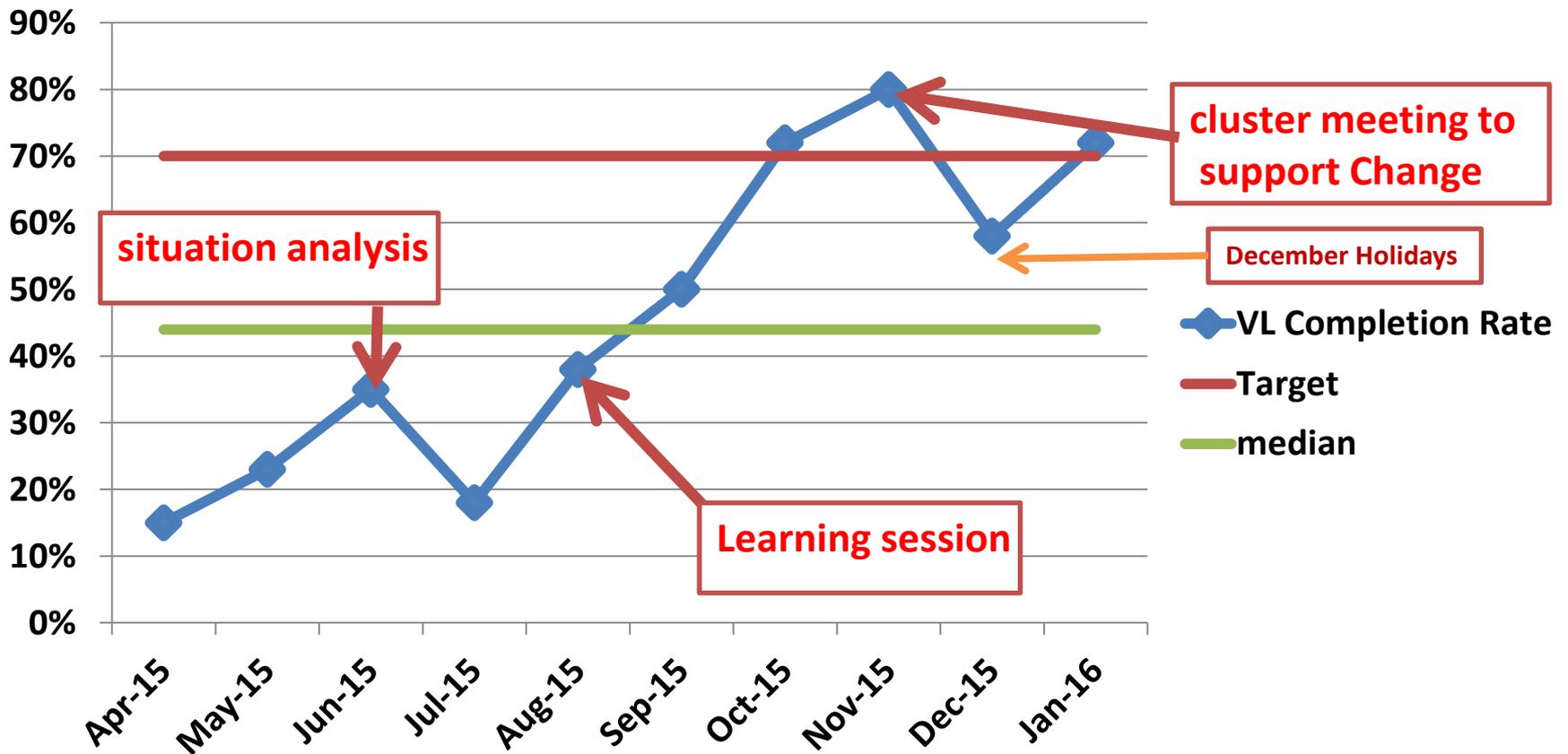
10 testing facilities aggregated performance

10 Facilities Testing Change Idea



Reminder system

Pennyville 12 months viral load completion



Facility performance

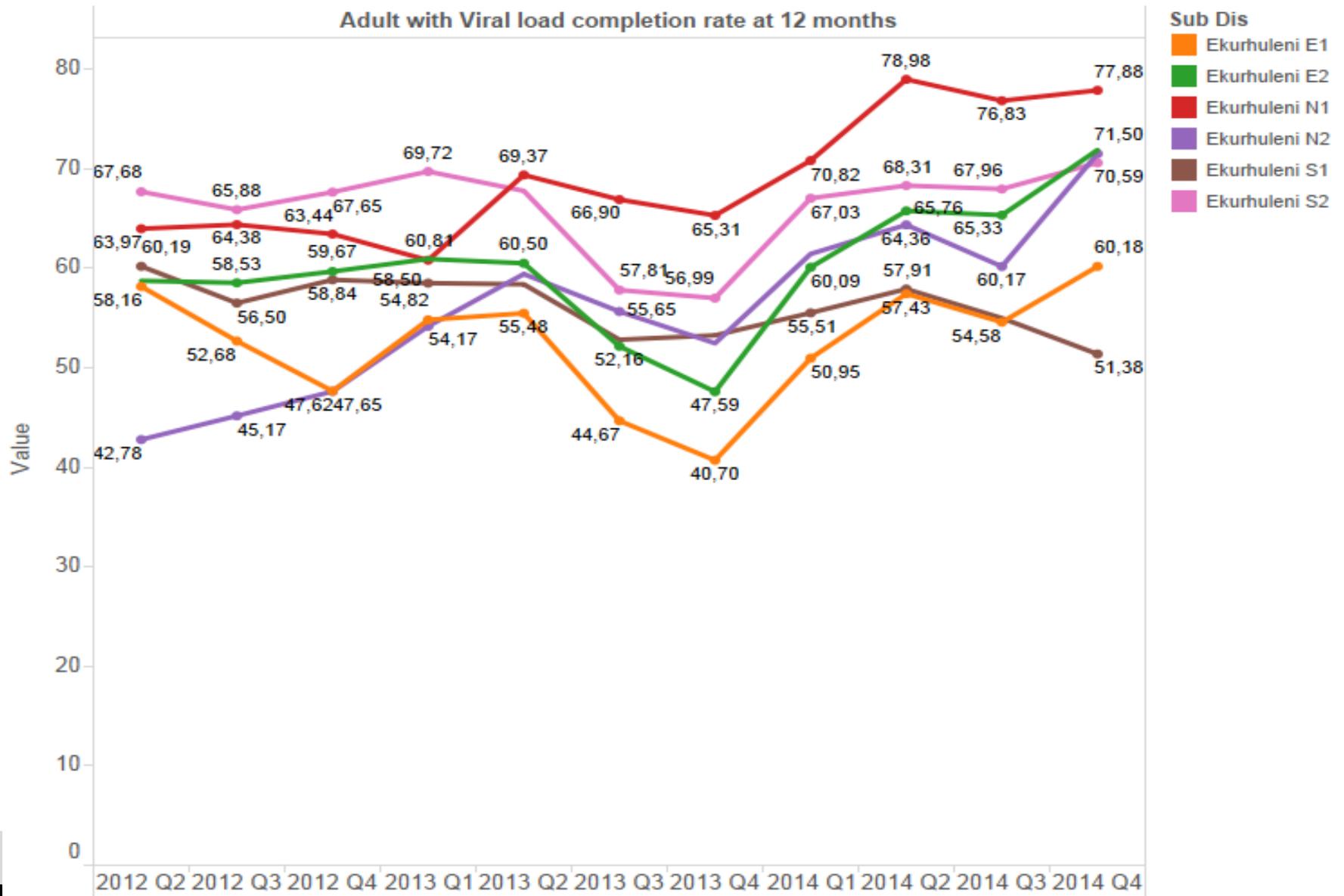
Period	100-80	79-60	59-50	49 and less
Q3 2014	30	28	14	21
%	32	30	15	23
Q4 2014	40	24	12	17
%	43	26	13	18



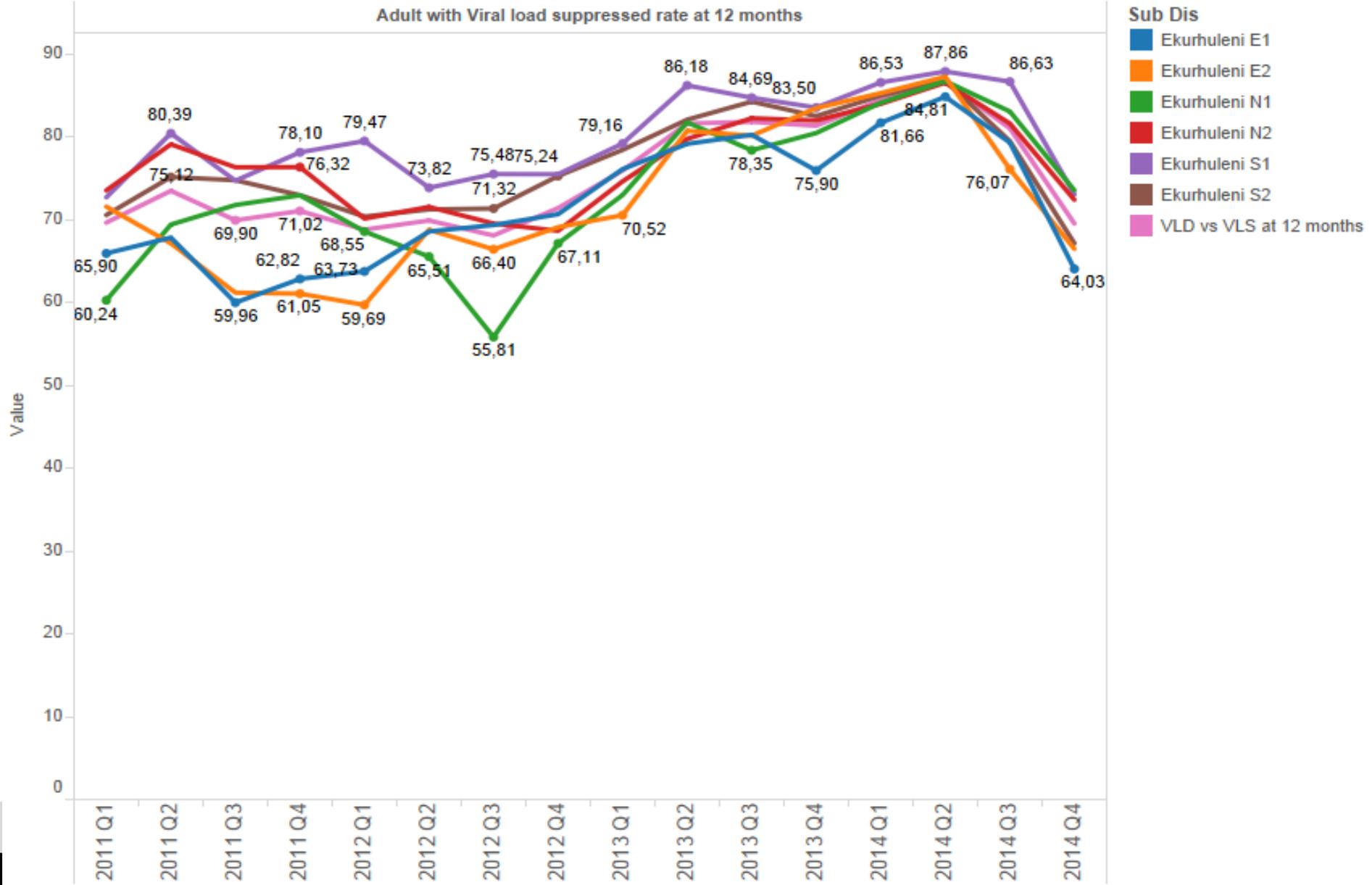
IMPROVED FACILITIES: 2015

Facility	Q3 2014 (Reported Q3 2015)	Q4 2014 (Reported Q4 2015)
Dukathole	34.2 (24)	90 (28)
Phulusong	67.7 (25)	89.8 (53)
Kathlehong	68 (86)	85.7 (66)
Sunrise	71 (26)	89 (26)
Lethabong	79 (48)	93 (81)
Ethafeni	80.9 (80)	91 (109)
Van Dyk	74.4 (34)	87.7 (50)





The trend of sum of Value for Date broken down by Indicator Name. Color shows details about Sub Dis. The view is filtered on Indicator Name, Date and Sub Dis. The Indicator Name filter keeps Adult with Viral load completion rate at 12 months. The Date filter excludes 2011 Q1, 2011 Q2, 2011 Q3, 2011 Q4 and 2012 Q1. The Sub Dis filter excludes District.



The trend of sum of Value for Date broken down by Indicator Name. Color shows details about Sub Dis. The view is filtered on Indicator Name, which keeps Adult with Viral load suppressed rate at 12 months.

Recommendations and Conclusion

- Ekurhuleni is improving viral loads done
 - Increase efforts to reach over 80% VLD in all facilities and sustain improvements
- Combination of interventions – Data Management & M&E, QI
- Use of Data
 - Facility level monitoring
 - Cohort Data Analysis
- Viral Load Road Shows
 - Include patients
- Updating patients contact details every visit is important

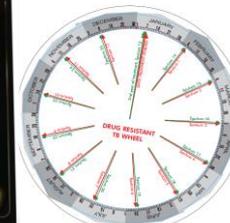
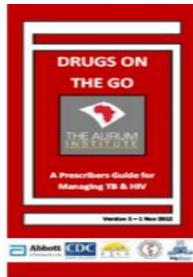
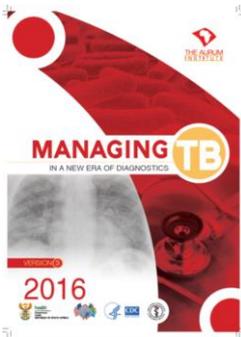
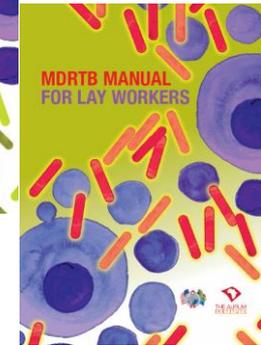
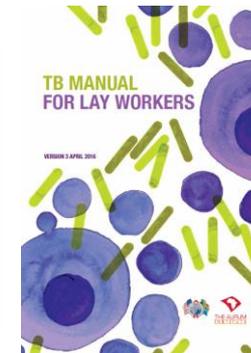
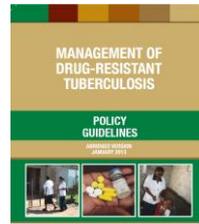
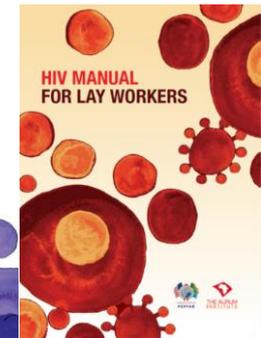


Key Messages

- Use of TIER reports and run charts at facility level important.
- Teamwork at facility level – Clinicians and Data Capturers – Empowering data capturers
- Cohort Data Analysis and feedback at district quarterly reviews – TA support at district and provincial level
- Empowering and education of patients – Tools and Games



Tools for Impact



Acknowledgements

- Gauteng DOH – Ekurhuleni District
- Ekurhuleni Metro Municipality
- GDOH & EMM Facility staff
- Aurum Staff
- SEAD Staff
- Patients
- BroadReach
- PEPFAR and CDC

