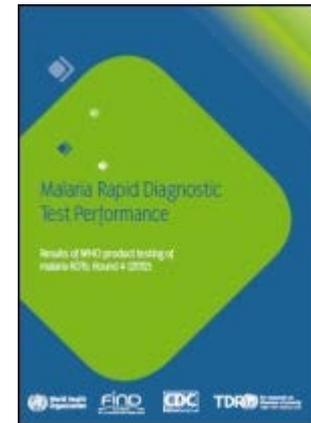
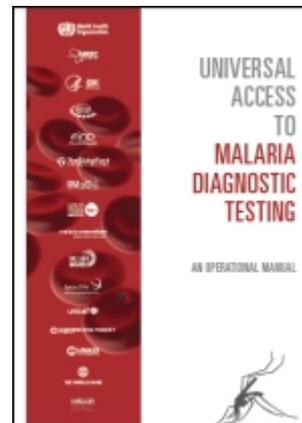


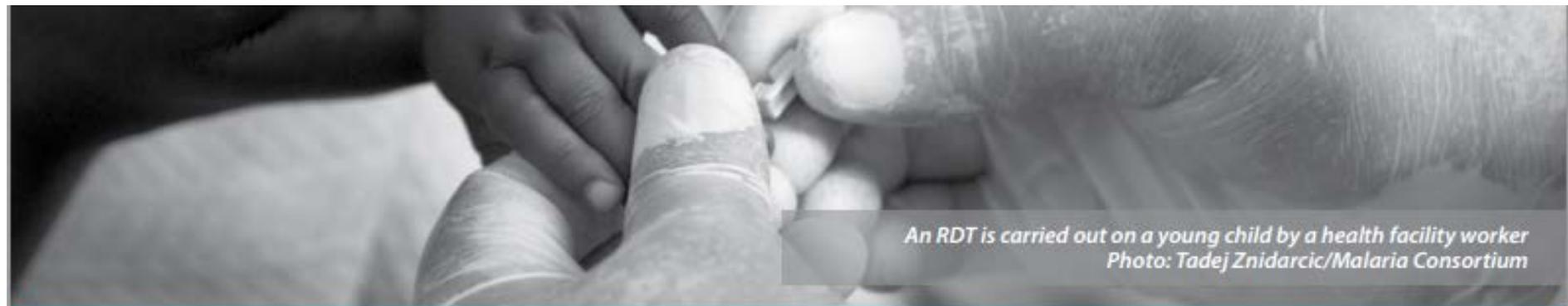
*Clinical Practice Issues
Regarding Introduction of
New Diagnostics*

Dr Francesca Conradie
Southern African HIV Clinician Society

Malaria

- ▶ Rapid Detection tests for Malaria
 - Easy to use
 - Do not require a technician or microscope
 - Approval by WHO





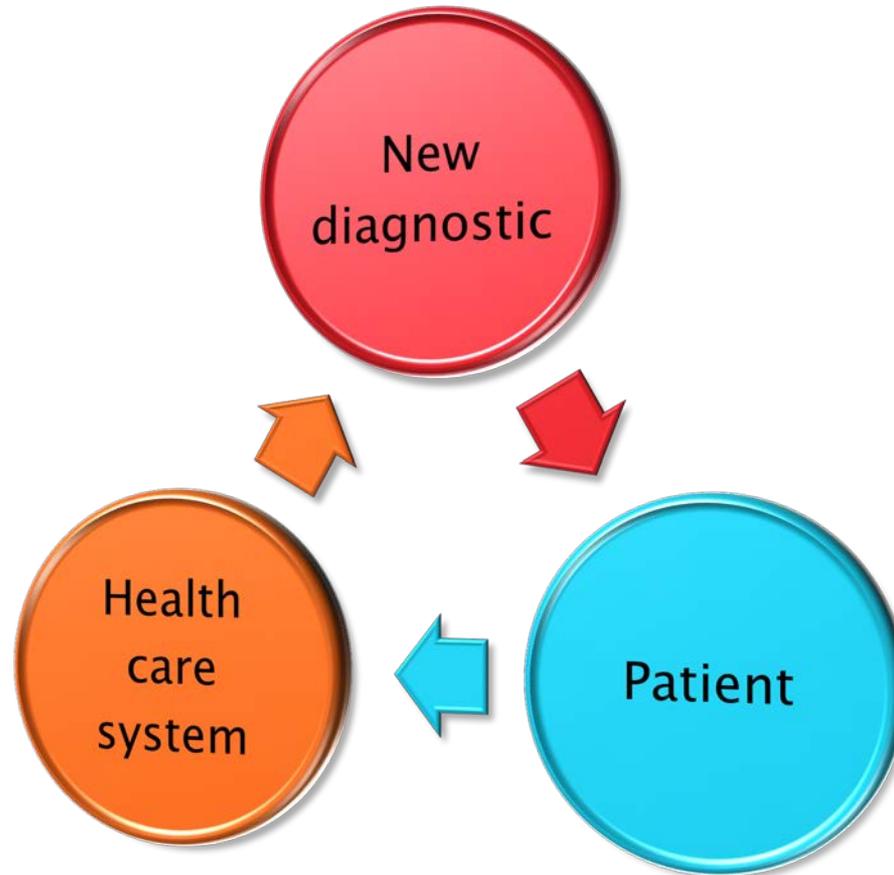
*An RDT is carried out on a young child by a health facility worker
Photo: Tadej Znidarcic/Malaria Consortium*

Learning Brief

Successful roll out of RDTs in Uganda

Rapid diagnostic tests (RDTs) for malaria have the potential to show a significant positive impact on malaria case management. However, the introduction of RDTs into a national health system requires more than commodity provision and distribution, but rather a holistic systems strengthening approach. This brief is based on Malaria Consortium's lessons learned over three years of implementation and research on scaling-up the use of RDTs at community and health facility level. It contains recommendations on critical issues which need to be addressed by all stakeholders to ensure the successful roll-out of RDTs in Uganda.

Introduction of a new diagnostic



New diagnostic for TB and HIV

- ▶ GeneXpert
- ▶ PIMA
- ▶ Rapid POC VL

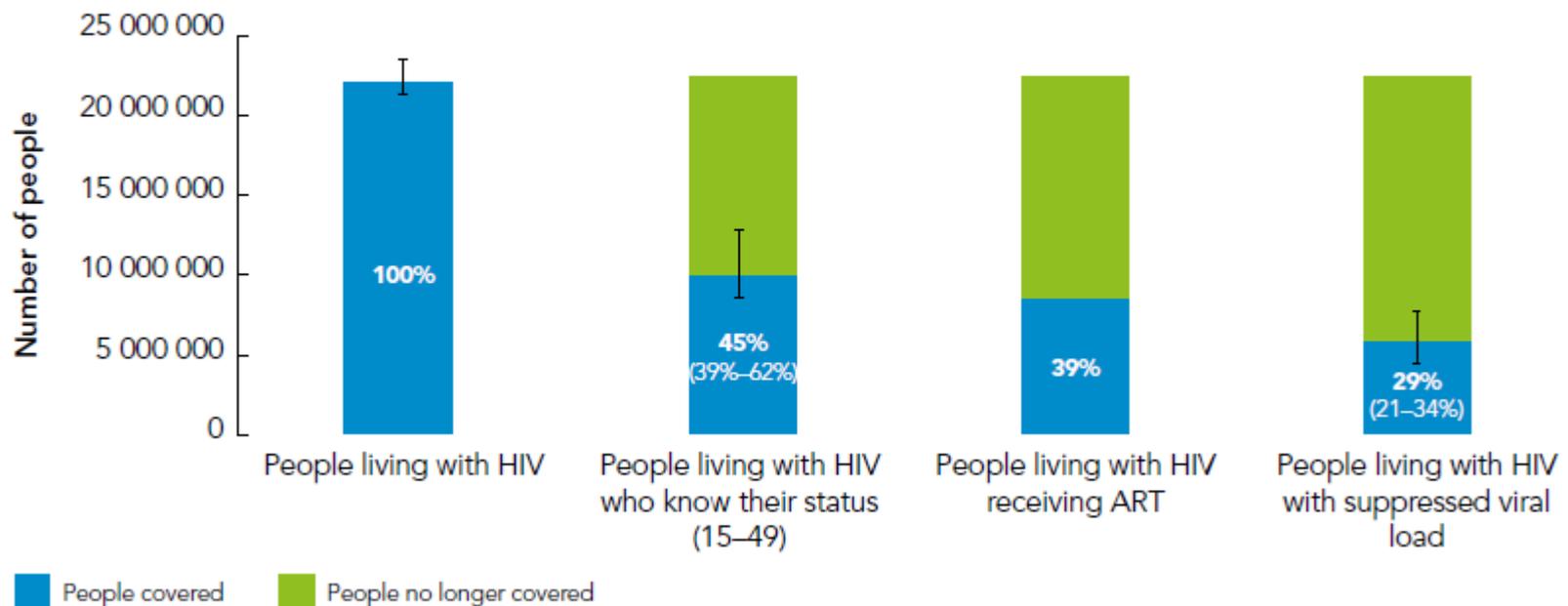


Linkage to care for TB and HIV

- ▶ What do we know about it?
 - ▶ What are risk factors for not linking to care?
 - ▶ Can the problem be solved with new diagnostics introduction?
- 

What do we know about it in HIV ?

Abbreviated HIV treatment cascade for adults in sub-Saharan Africa aged 15 years or more, 2013



Linkage to Care and Treatment for TB and HIV among People Newly Diagnosed with TB or HIV-Associated TB at a Large, Inner City South African Hospital

Yara Voss De Lima¹, Denise Evans², Liesl Page-Shipp³, Antonia Barnard⁴, Ian Sanne¹, Colin N. Menezes⁵, Annelies Van Rie^{6*}

1 Clinical HIV Research Unit, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa, **2** Health Economics and Epidemiology Research Office, University of the Witwatersrand, Johannesburg, South Africa, **3** Right to Care, Johannesburg, South Africa, **4** Gauteng Department of Health and Social Development, Johannesburg, South Africa, **5** Infectious Diseases Unit, Department of Medicine, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa, **6** Department of Epidemiology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, United States of America

What do we know about it in TB ?

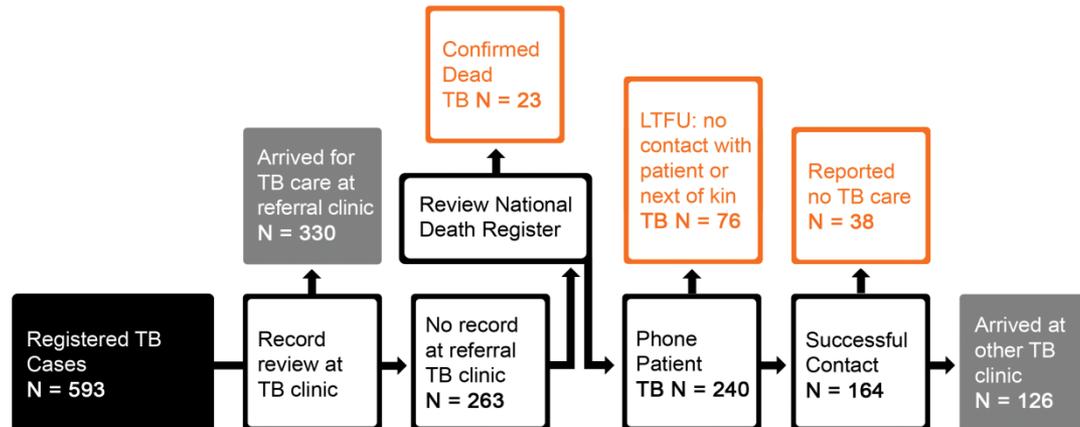


Table 2. Outcome of referral from Helen Joseph hospital TB focal point to City of Johannesburg clinic for continuation of TB treatment (n = 593) and HIV care and treatment (n = 486).

Outcome of referral		N	% or IQR
Linkage to TB care	Arrived at TB clinic	456	77.0
	Arrived at original referral clinic	330	72.4
	Arrived at other clinic within COJ	85	18.6
	Arrival at TB clinic outside COJ	41	9.0
	Failed to link to TB care	137	23
	Patient confirms not attending any TB clinic	38	27.7
	Died within 7 days of discharge	6	4.4
Timing of linkage to TB care*	Loss to follow-up	93	67.9
	Median, IQR (days)	5	2–10
	Arrived on time (≤ 7 days)	277	60.7
	Arrived late (> 7 days)	138	30.3
Referral information at TB clinic**	Arrived (exact date missing)	41	9.0
	Referral letter present in clinic file	375/415	90.3
	Referral letter with HIV status	89/375	23.7
	Among HIV positive, referral letter with CD4 count	68/361	18.8
	No discharge letter received at clinic	40/415	9.6

		Delayed linkage to care (>7 days) (n = 138)			Failed linkage to care (n = 131 [#])		
		N	Crude RR (95% CI)	Adjusted RR (95% CI)	N	Crude RR (95% CI)	Adjusted RR (95% CI)
Sex	Female	73	Reference		63	Reference	
	Male	65	0.94 (0.71–1.23)		68	1.07 (0.81–1.42)	
Age	<36 years	74	Reference		64	Reference	
	≥36 years	64	0.92 (0.70–1.21)		67	1.04 (0.80–1.39)	
Nationality	South African	103	Reference	Reference	97	Reference	Reference
	Other	35	1.38 (1.02–1.86)	1.39 (0.92–2.17)	34	1.42 (1.04–1.92)	1.18 (0.87–1.59)
Education	≥Grade 8	108	Reference	Reference	100	Reference	Reference
	<Grade 8	18	0.97 (0.64–1.46)	0.95 (0.62–1.46)	20	1.09 (0.74–1.63)	1.06 (0.75–1.49)
	No education	11	2.02 (1.38–2.96)	2.12 (1.44–3.13)	10	2.06 (1.36–3.11)	1.85 (1.31–2.61)
Unemployed	No	66	Reference		53	Reference	
	Yes	71	0.96 (0.73–1.26)		75	1.16 (0.87–1.55)	
ART status	On ART	17	Reference	Reference	22	Reference	
	ART-naive	110	1.67 (1.07–2.60)	1.39 (0.92–2.17)	91	1.22 (0.82–1.81)	
CD4 count	>250 cell/mm ³	22	Reference	Reference	10	Reference	Reference
	101–250 cell/mm ³	27	0.72 (0.46–1.15)	0.80 (0.51–1.25)	27	1.27 (0.67–2.40)	1.16 (0.71–1.83)
	51–100 cell/mm ³	26	0.91 (0.36–1.43)	0.98 (0.65–1.49)	15	1.07 (0.53–2.17)	1.07 (0.62–1.83)
	≤50 cell/mm ³	47	1.13 (0.76–1.67)	1.07 (0.75–1.53)	58	2.22 (1.24–3.96)	1.66 (1.07–2.64)
Discharge letter	Yes	115	Reference	Reference	NA	NA	
	No	23	1.82 (1.34–2.49)	1.47 (1.02–2.11)			

RR = relative risk, CI = confidence interval; ART = antiretroviral treatment.

[#]Patients who died within 7 days of referral are not included in delayed or failed linkage to care.

doi:10.1371/journal.pone.0049140.t003

Patient related factors

- ▶ Time spent at congested clinics
 - ▶ Cost of travel and time off work
 - ▶ Health care system staff attitudes
 - ▶ Perceived stigma
- 

Health care system

- ▶ Training and mentorship of new diagnostic method
 - ▶ Receive and act on results
- 

Key solutions

- ▶ Decongest the clinics and thus waiting times
 - Notify patients of their results by SMS
 - Off site pick up of drugs
 - Longer repeats