

**Supplementary Digital Content TABLE 2 Summary of studies reviewed**

References	Data collection year	Country	Study Setting	Study design	Study population ( <i>N</i> , definition)	HIV testing	Acceptance of HIV test	Linkage to treatment
<b>EAST AFRICA</b>								
1. Arendt et al, 2007	May-Aug 1998	Kenya	Primary health care facility (urban)	Cross-sectional	<i>N</i> =304 Outpatients	<i>HIV prevalence among those tested:</i> 35%	n/a	n/a
2. Chakaya et al, 2008	July 2005-June 2006	Kenya	TB clinics (urban and rural)	Descriptive report	<i>N</i> =112,835 TB patients	<i>HIV prevalence among those tested:</i> 55%	<i>Testing uptake:</i> 59%	85% positive cases on CTX and 28% on ART
3. Chersich et al, 2008	March-Aug 2006	Kenya	Provincial hospital (urban)	Cross-sectional	<i>N</i> =500 Women at child health clinics	<i>HIV prevalence among those tested:</i> 11%	<i>Testing uptake:</i> 83%	n/a
4. Fetene et al, 2010	Nov-Dec 2008	Ethiopia	2 NGO clinics and 4 public health facilities (urban)	Cross-sectional	<i>N</i> =427 Outpatients	<i>HIV prevalence among those tested:</i> 13%  <i>Offered HIV test:</i> 24%	<i>Agreed to test:</i> 36%	n/a
5. Huerga et al, 2010	Jan 2005-Dec	Kenya	TB clinic at	Retrospective	<i>N</i> =1,293	<i>HIV prevalence</i>	<i>Testing uptake:</i>	86% positive cases on CTX

	2007		district hospital (rural)	evaluation	TB patients	<i>among those tested:</i> 74%	91%	
6. Jerene et al, 2007	Jan-Aug 2005	Ethiopia	One hospital (urban and rural)	Cross-sectional	<i>N=190</i>  TB patients	<i>HIV prevalence</i>  <i>among those tested:</i>  21%  Self perception of risk  not associated with testing	<i>Agreed to test:</i>  73%.  Testing uptake:  58% of those willing	n/a
7. Liambila et al, 2009	2005-2007	Kenya	23 public health facilities (urban and rural)	Prospective evaluation (PITC vs VCT)	<i>N=520</i>  Family Planning clients	<i>Offered HIV test:</i>  74% (PITC) vs 34% (VCT)	<i>Testing uptake:</i>  35% (PITC) vs 20% (VCT)	Minutes added per consultation: 2-3  For patients deciding to test: 7
8. Odhiambo et al, 2008	Dec 2003- 2005	Kenya	8 TB treatment units (urban)	Descriptive report	<i>N=5,457</i>  TB patients and suspects	<i>HIV prevalence</i>  <i>among those tested:</i>  62%	<i>Agreed to test:</i>  89%	81% referred to HIV care, 69% of which started CTX and 41% ART
9. Sitienei et al, 2010	2006-2009	Kenya	2,200 TB clinics (urban and rural)	Longitudinal (population- based)	<i>N=115,234</i> (2006)  <i>N=116,723</i> (2007)  <i>N=110,251</i> (2008)  <i>N=110,015</i>	<i>HIV prevalence</i>  <i>among those tested:</i>  from 52% to 44%	<i>Testing uptake:</i>  from 60% to 88%	92% positive cases on CTX and 34% on ART

					(2009)  TB patients			
10. Waxman et al, 2007	Jan-April 2006	Kenya	Emergency department at referral hospital (urban)	Retrospective evaluation	<i>N</i> =1,371  Emergency unit clients	<i>HIV prevalence among those tested:</i>  23%	<i>Testing uptake:</i>  98%	87% registered at ART clinic.  Median CD4: 73 cells/mm <sup>3</sup>
11. Gasana et al, 2008	July 2005-June 2006	Rwanda	Public hospital (rural)	Descriptive report	<i>N</i> =259  TB patients	<i>HIV prevalence among those tested:</i>  29%	<i>Testing uptake:</i>  87%	72% on CTX and 42% on ART
12. Kiene et al, 2010	Feb-June 2008	Uganda	Public hospital (rural)	Prospective cohort	<i>N</i> =245  Outpatients	<i>HIV prevalence among those tested:</i>  13%  <i>Partners testing:</i> 29%  <i>HIV prevalence amongst partners testing:</i> 6.3%	n/a	>85% enrolled in care <10% CD4 counts below 200 cells/mm <sup>3</sup>
13. Menzies et al, 2009	June 2003-Sept 2005	Uganda	Hospitals and communities (urban and rural)	Retrospective cohort comparing four testing strategies (including	<i>N</i> =84,323  Hospital clients	<i>HIV prevalence among those tested through PITC:</i> 27%  → most effective option to diagnose	n/a	Hospital based testing identified a high proportion of patients in immediate need of treatment (CD4 count below 50 cells/mm <sup>3</sup> )

				hospital based HIV testing)		HIV+ cases		
14. Nakanjako et al, 2007	2004	Uganda	Emergency unit at referral hospital (urban)	Cross-sectional	N=233  Emergency unit clients	<i>HIV prevalence</i>  <i>among those tested:</i> 43%	<i>Agreed to test:</i>  95%	n/a
15. Okot-Chono et al, 2009	July-Sept 2003	Uganda	5 districts (peri-urban and rural)	Qualitative interviews and descriptive report of clinical records	N=333  TB patients	<i>HIV prevalence</i>  <i>among those tested:</i>  77%	<i>Testing uptake:</i>  56%, of which 5%  had no documented results	52% positive cases on CTX and 12% on ART  36% did not receive any subsequent HIV-related service
16. Sendagire et al, 2010	April-Oct 2007	Uganda	3 TB clinics (urban)	Cross-sectional	N=112  TB patients	<i>Offered HIV test:</i>  66%	<i>Agreed to test:</i>  82%  Overall only 29% received test results	n/a
17. Srikantiah et al, 2007	Oct 2004- Oct 2005	Uganda	Referral TB clinic at a hospital (urban)	Descriptive report	N=665  TB suspects	<i>HIV prevalence</i>  <i>among those tested:</i>  42%  35% of HIV+ cases would have been undiagnosed if testing only TB	<i>Testing uptake:</i>  85%	n/a

						cases, and not suspected cases.		
18. Wanyenze et al, 2006	June-July 2003	Uganda	Hospital (urban)	Cross-sectional (face to face interviews)	N=395 Inpatients	<i>HIV prevalence among those tested during hospitalisation: 64%</i> Offered HIV test: 28%	<i>Agreed to test:</i> 70%	n/a
19. Wanyenze et al, 2008	Nov 2004-Feb 2006	Uganda	25 wards and clinics at two hospitals (urban)	Descriptive report	N=51,642 Inpatients and outpatients	<i>HIV prevalence among those tested:</i> 25%	<i>Agreed to test:</i> 98% inpatients and 93% family members	Referrals for HIV clinics given on discharge
20. Wanyenze et al, 2011	Mar 2004-Mar 2005	Uganda	One hospital (urban)	Randomised trial (inpatient HIV counselling and testing vs referral to out-patient testing)	N=590 Inpatients	<i>HIV prevalence among those tested:</i> 57% (inpatient testing) vs 27% (outpatient testing)	<i>Testing uptake:</i> 99% (inpatient testing) vs 69% (outpatient testing)	56% attended HIV clinic (inpatient testing) vs 74% (outpatient testing)
<b>SOUTHERN AFRICA</b>								
21. Cockcroft et al, 2007	2006	Botswana	13 communities (urban and rural)	Cross-sectional (household survey and	N=1,536 General population	<i>Offered HIV test:</i> 50%	<i>Agreed to test:</i> 83%	85% in need of treatment accessed it

				qualitative focus groups).				
22. Gammino et al 2008	Oct 2004-Mar 2005	Botswana	46 health facilities (urban and rural)	Cross-sectional	<i>N</i> =1,242 TB patients	<i>HIV prevalence among those tested:</i> 84%	<i>Agreed to test:</i> 47%	12% of HIV co-infected TB clients receiving ART
23. Kessler et al, 2008	Jan-June 2005	Botswana	Referral hospital (urban)	Prospective cohort	<i>N</i> =283 Inpatients	<i>Offered HIV test:</i> 43%  <i>HIV prevalence among those tested:</i> 43%	<i>Agreed to test:</i> 58%	62% had CD4 T-cell counts performed during hospital admission.  Median CD4: 91 cells/mm <sup>3</sup>
24. Steen et al, 2007	2004-2005	Botswana	31 public hospitals and 608 clinics (urban and rural)	Longitudinal (population based)	<i>N</i> =60,846 (2004) <i>N</i> =157,894 (2005) <i>N</i> =88,218 (first half of 2006)  General population	<i>HIV prevalence among those tested:</i> 41.9% (2004), 31.5% (2005), 28.0% (2006)	<i>Agreed to test:</i> 89%	n/a

25. Weaver et al, 2008	Sept-Oct 2004	Botswana	5 outpatient clinics (urban and rural)	Retrospective evaluation (district where providers were trained in PITC vs district with no training)	<i>N</i> =185 (trained) <i>N</i> =124 (not trained)  STI clients	<i>Offered HIV test:</i> 87% (trained) vs 29% (not trained)	<i>Agreed to test:</i> 38% (trained) vs 50% (not trained)	n/a
26. Weiser et al, 2006	Nov-Dec 2004	Botswana	5 districts (urban and rural)	Cross-sectional (population-based)	<i>N</i> =1,268  General population	<i>Proportion HIV tested:</i> 48% (15% through routine testing)	<i>Agreed to test:</i> 68% felt could not refuse offer to test	93% though routine testing would facilitate access to ART
27. Pfeiffer et al, 2010	2005-2008	Mozambique	Health units in 23 districts (urban and rural)	Case study	<i>N</i> = >80,000  TB clients	n/a	<i>Testing uptake:</i> 90%	65% of eligible TB patients started ART
28. April et al, 2009	2001-2006	South Africa	Primary health care facility and hospital (peri-urban)	Retrospective (population-based)	<i>N</i> =5,006  TB clients and pregnant females	<i>Proportion HIV tested:</i> 4% (2001), 20% (2006)	<i>Testing uptake:</i> 94%	Referral rates increased from 29% to 67%
29. Bassett et al, 2007	Sept 2004-Mar 2005	South Africa	Semi-private hospital (urban)	Prospective evaluation (provider referred)	<i>N</i> =435 (VCT) <i>N</i> =2,912 (PITC)  Outpatients	<i>Cases identified per week:</i> 8 (VCT) vs 39 (PITC)	<i>Testing uptake:</i> 31% (VCT) vs 47% (PITC)	Similar CD4 counts in patients tested through VCT and PITC

				VCT vs PITC)		<i>HIV prevalence among those tested:</i> 74% (VCT) vs 33% (PITC).		
30. Basset et al, 2008	n/a	South Africa	Semi-private hospital (urban)	Cross-sectional	<i>N</i> =1,414 Outpatients	<i>HIV prevalence among those tested:</i> 33%	<i>Testing uptake:</i> 49%	<1/3 of HIV+ cases underwent CD4 testing within 3 months
31. Kharsany et al, 2010	July 2005 - June 2006	South Africa	STI clinic (urban)	Cross-sectional	<i>N</i> = 5,612 Women attending STI clinic	<i>HIV prevalence among women tested:</i> 56.5%	<i>Testing uptake:</i> 43%	n/a
32. Kranzer et al, 2010	Jan 2004- Mar 2009	South Africa	One primary care clinic and one hospital (urban)	Descriptive report	<i>N</i> =885 Individuals attending ANC, TB, STI and VCT services	n/a	n/a	Best linkage to HIV care for those tested at STI services (84%) and worst for those testing at VCT (53%)
33. Leon et al, 2010	2007	South Africa	21 clinics (urban)	Cluster-controlled trial of PITC (intervention) vs VCT (control)	<i>N</i> =334,758 (PITC) <i>N</i> =600,142 (VCT)  STI clients	<i>HIV prevalence among those tested:</i> 19% (PITC) vs 21% (VCT)	<i>Testing uptake:</i> 56% (PITC) vs 43% (VCT)	n/a
34. Pope et al, 2008	Aug–Nov	South Africa	20 TB clinics	Cluster	<i>N</i> =754	<i>HIV prevalence</i>	<i>Testing uptake</i>	<40% prescribed CTX or referred for



	2005		(urban)	randomised trial of PITC (intervention) vs VCT (control)	TB patients	<i>among those tested:</i> 36% (PITC) vs 43% (VCT)  <i>Patients counselled:</i> 21% (PITC) vs 7.7% (VCT)	<i>among those counselled:</i> 97% (PITC) vs 79% (VCT)	HIV care in either study arm
35. Pope et al, 2010	2006	South Africa	20 TB clinics (urban)	Qualitative study ( interviews with key informants and FGD with nurses)	N=23  TB clients	n/a	n/a	n/a
36. Scott et al, 2010	Feb 2006	South Africa	16 clinics (urban and rural)	Assessment of HIV/TB services using a tailored evaluation tool	N=635  TB and STI clients	<i>Offered HIV test:</i>  71% (STI clients) and 94% (TB clients)	n/a	24% HIV+ patients received follow- up medical assessment
<b>CENTRAL AFRICA</b>								
37. Njizing et al, 2010	Jan 2006-Dec 2007	Cameroon	4 TB/HIV treatment centres (urban and rural)	Retrospective cohort	N=2,270  TB patients	<i>HIV prevalence among those tested:</i>  68.5%	<i>Testing uptake:</i>  95%	ART uptake and CTX uptake 50% and 47% with 17% and 24% missing reports respectively
38. Corneli et al,	2005	Congo	3 TB clinics	Qualitative	N=111	n/a	n/a	n/a

2008			(urban)	evaluation of 3 HIV testing models (at TB clinic, health centre and VCT)	TB patients			
39. Van Rie et al, 2008	Aug 2004-June 2005	Congo	3 TB clinics (urban)	Evaluation of 3 HIV testing models (at TB clinic, health centre and VCT) (see above)	N=1,088 TB patients	HIV prevalence among those tested: 21.1% (PITC) vs 15.4% (VCT)	Testing uptake: 95%-98% (PITC) vs 68% (VCT)	n/a
40. Chimzizi et al, 2004a	2001	Malawi	Two districts (rural)	Cohort study	N=2,342 TB patients	HIV prevalence among those tested: 77%	Testing uptake: 91%	98% positive cases start CTX
41. Chimzizi et al, 2004b	July-Sept 2003	Malawi	15 hospitals (urban and rural)	Descriptive report	N= 2,397 TB patients	HIV prevalence among those tested: 68%	Testing uptake: 59%	97% positive cases start CTX
42. Harris et al, 2008	Dec 2005-Mar 2007	Zambia	7 health facilities (urban)	Descriptive report	N=2,053 TB patients	HIV prevalence among those tested: 69%	Testing uptake: 77%	59% positive cases enrolled into care. Median CD4 in co-infected patients: 161 cells/mm3
43. Mwinga et al, 2008	Sep 2004-Dec 2006	Zambia	Two clinics and one hospital (urban)	Descriptive report	N=4,148 TB patients	HIV prevalence among those tested: 72%	Testing uptake: 50%	90% co-infected patients referred and 37% on ART

								Documentation inconsistent and follow-up information often not available
44. Topp et al, 2010	April 2008- July 2009	Zambia	Two clinics (urban)	Feasibility study of ART integration into primary care (clinical data, interviews and "time in motion" study)	N=4,270  Outpatients	HIV prevalence among those tested:  17%	Agreed to test:  55%	50% positive cases enrolled into HIV care

ANC: antenatal care; ART: antiretroviral therapy; CTX: co-trimoxazole; FGD: focus group discussion; FP: family planning; n/a: not available data; NGO: non-governmental organisation; PITC: provider-initiated HIV testing and counselling; STI: sexually transmitted infection; TB: tuberculosis; VCT: voluntary HIV counselling and testing.