

DOCUMENTATION GUIDE #5: HIV TESTING IN TLT1 AND TLT2



TLT implemented HIV testing and counseling (HTC) using an experimental design that varied the intensity of HTC among respondents. This means that researchers can study the impacts of knowledge of one’s status, as well as have data on respondents’ HIV status and HIV incidence over time.

Specifics of experimental design

At sample selection, female and male respondents in the core sample were randomized to one of three HTC groups (Figure 1). Women’s male romantic and sexual partners were assigned the same group as their nominating partner upon their enrolment in the study. The first group was assigned to HTC at every interview (up to 8 HIV tests during TLT1). The second group was assigned to HTC only at waves 4 and 8 during TLT-1. The third group was assigned to HTC only at wave 8. Once a respondent in groups 1 and 2 tested HIV positive they were no longer offered HIV testing during TLT1 as their status was known. All women enrolled as part of the refresher sample (RS) in 2012 were offered HTC during that survey round. In 2015, all respondents were offered HTC at TLT2 regardless of the results of previous HIV tests. At baseline, uptake of HTC among respondents offered testing was 85% for women and 78% for men. In 2015, 93% of women and 91% of men consented to HIV testing.

Figure 1. Experimental design of offer of HIV testing and counseling within TLT1-2

Month/Year wave began	Jun-09	Oct-09	Feb-10	Jun-10	Oct-10	Feb-11	Jun-11	Oct-11	Feb-12	Jul-15
Wave	1	2	3	4	5	6	7	8	RS	TLT2
Group 1	HTC	HTC	HTC	HTC	HTC	HTC	HTC	HTC	HTC	HTC
<i>Making decisions about childbearing with full knowledge of their HIV status</i>										
Group 2				HTC				HTC	HTC	HTC
<i>“Surprises.” Do unexpected results incite changes in fertility intentions? Behaviors?</i>										
Group 3								HTC	HTC	HTC
<i>Making decisions about childbearing based on perceptions; navigating existing testing infrastructure</i>										

Testing and counseling protocol

HIV testing and counselling was conducted by TLT interviewers. All TLT interviewers were fully qualified HTC counsellors who went through the Malawi Ministry of Health training in HTC procedures as part of their TLT training. Interviewers had occasional refresher trainings with Ministry personnel to make sure they were fully complying with Ministry practices and procedures. HTC in TLT used the same rapid HIV tests, procedures, and counselling guidelines that were being used at local clinics.

An initial rapid test was done using Determine HIV/1-2TM (Abbott labs, USA); if the test was positive or inconclusive, a second confirmatory test was done using Uni-Gold TM HIV (Trinity Biotech, Ireland). In rare cases where the two tests were inconsistent, a tiebreaker was performed. The tiebreaking protocol used by the Ministry of Health, and thus TLT, differed in TLT1 and in TLT2. During TLT1, a third test was used: BioLine (Alere, USA). Indeterminate results were rare in TLT1 (n=3). During TLT2 in 2015, the Ministry protocol called for running second, parallel Determine and Uni-Gold tests following an initial reactive Determine result and non-reactive Uni-Gold result. This procedure led to more indeterminate results at TLT2 when the second set of tests again conflicted (n=13).

All three test kits used whole blood (rather than plasma or serum). Completed test kits were disposed of in front of respondents. Counselling about HIV and one's status was done following the Ministry of Health guidelines and respondents with HIV reactive results were referred to local clinics to begin antiretroviral treatment (if met evolving ART eligibility criteria) or pre-ART (if not).

Indeterminate cases and refusals

Analysts can make their own decisions on how to handle the indeterminate results and refusals that are described above. While most analysts will categorize these cases as HIV-status unknown, others may choose to supplement the test results with information from x6a (perceptions of one's status), a15 and a23 (ART use), or htc1 (perceptions measured immediately following the HIV test administered during TLT2).

Variables in the HIV dataset

respid	id variable
wave	wave of test (1-10) <i>Note: 9=RS; 10=TLT2</i>
experiment	experimental group (1-3)
hiv_result	HIV test result and reason for no result (i.e., respondent was not offered a test because of the experimental design or a prior positive result (TLT1 only); refusal; indeterminate result)
	0=negative test
	1=positive test
	.i=indeterminate test
	.p=previous positive test
	.z=no test offered
	.r=refused test

Note that the various missing categories: .i, .p, .z, and .r are specific to Stata and will collapse to a single missing category in other statistical software.

hivstatus_filled Reflects known HIV status based on full database of HIV testing within TLT. It builds upon **hiv_result** by assigning respondents an HIV positive status if they previously tested HIV positive in TLT. Respondents who refused or were not offered a test at a given wave but subsequently test HIV negative in TLT are set to HIV negative at these earlier waves.

Women's sample (all waves)

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tab hiv_result if respid<5000000, m
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hiv_result	Freq.	Percent	Cum.
HIV-	5,265	42.58	42.58
HIV+	353	2.85	45.43
indeterminate	7	0.06	45.49
prior HIV+	286	2.31	47.80
refused	609	4.92	52.73
not offered	5,846	47.27	100.00
Total	12,366	100.00	

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tab hivstatus_filled if respid<5000000, m
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hivstatus_filled	Freq.	Percent	Cum.
HIV-	10,556	85.36	85.36
HIV+	774	6.26	91.62
unknown	1,036	8.38	100.00
Total	12,366	100.00	

Random men's sample (all waves)

tab hiv_result if respid>5000000 & respid<6000000, m

hiv_result	Freq.	Percent	Cum.
HIV-	1,737	39.78	39.78
HIV+	19	0.44	40.21
indeterminate	5	0.11	40.33
prior HIV+	14	0.32	40.65
refused	405	9.27	49.92
not offered	2,187	50.08	100.00
Total	4,367	100.00	

tab hivstatus_filled if respid>5000000 & respid<6000000, m

hivstatus_f illed	Freq.	Percent	Cum.
HIV-	3,838	87.89	87.89
HIV+	34	0.78	88.66
unknown	495	11.34	100.00
Total	4,367	100.00	