

PROGRESS REPORT SUMMARY	GRANT NUMBER R01- NIMH066767-04	
	PERIOD COVERED BY THIS REPORT	
PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR Susan A. Allen, MD MPH	FROM 07/01/2004	THROUGH 06/30/2005
APPLICANT ORGANIZATION Emory University		
TITLE OF PROJECT (Repeat title shown in Item 1 on first page) Couples HIV Testing & Counseling in Two African Capitals		
A. Human Subjects (Complete Item 6 on the Face Page) Involvement of Human Subjects <input checked="" type="checkbox"/> No Change Since Previous <input type="checkbox"/> Change		
B. Vertebrate Animals (Complete Item 7 on the Face Page) Use of Vertebrate Animals <input type="checkbox"/> No Change Since Previous <input type="checkbox"/> Change		

SEE PHS 2590 INSTRUCTIONS.

WOMEN AND MINORITY INCLUSION: See PHS 398 Instructions. Use Inclusion Enrollment Report**A. SPECIFIC AIMS (FROM THE ORIGINAL GRANT):**

Most HIV transmission in African cities now occurs in cohabiting couples. Our experience with >20,000 couples in Rwanda and Zambia confirms that **when husbands and wives are HIV tested and counseled together, HIV/STD rates decrease by >50%**. Although this has been known for more than a decade, access to HIV testing remains limited even in urban centers and existing Voluntary HIV Counseling and Testing (VCT) programs rarely cater to couples. **A number of structural factors affect demand for and supply of couples' VCT.** Demand for couples' VCT is low, because of the belief that monogamy is 'safe', the fear of stigma, gender inequity between husband and wife, and lack of knowledge about where VCT can be obtained. Given the low demand, policymakers and other influential groups have not promoted couples' VCT. In turn, funding agencies have not supported VCT services, further compromising supply and ensuring low utilization. Given what we know about the beneficial impact of couples' VCT, it is critical that this continuing cycle of low demand-low supply be interrupted. **We propose a quasi-experimental 3-armed study with a cross-over design, to compare two interventions designed to overcome demand and supply structural barriers and increase the number of couples receiving VCT in two African capital cities.** Sustainability of successful interventions will be assured through formal partnerships with influence networks, policymakers, and funding agencies.

HIV seroconversion rates in discordant couples (who make up 20% of couples in Lusaka and 10% in Kigali) decrease from an estimated 23% to 8% per year after VCT. Although this is good, the rate could be further decreased if barriers to risk reduction were better understood. **Psychosocial and structural variables associated with keeping appointments, condom use, and biological measures of risk reduction will be assessed through follow-up of HIV discordant couples.** The findings will be used to improve couples' counseling procedures and develop training materials for use in high prevalence areas.

1. Year one: to identify and characterize neighborhoods and stakeholders in Kigali, Rwanda and Lusaka, Zambia.

- Sponsor a two-day conference in each city bringing together 100-125 policymakers, funding agency representatives, and potential influence networks.
- Identify appropriate influence agents, such as church leaders, government and non-governmental medical clinic staff, community health workers, blood bank recruiters, PTA and market association members, and public transport drivers.
- Conduct key informant interviews with government policymakers and international, bilateral, and non-governmental funding agencies, and establish their role as stakeholders.
- Map the location, utilization, service capacity, and level of expertise of facilities that provide VCT.
- Identify three comparable neighborhoods in each city suitable for the proposed intervention trial.

2. Year one: to secure cooperation from influence networks (4 per intervention arm) and their VCT promotion agents (20 per network), and to develop the content and procedures for the interventions described in Aim 3.

- a) Negotiate and finalize a Memorandum of Participation with influence network agents.
- b) Involve agents in the adaptation of existing training curricula and development of procedures specific to each context.
- c) Upgrade the capacities of existing VCT facilities in the neighborhoods selected for the trial, to ensure accessibility of standardized same-day couples' VCT services.
- d) Develop and begin implementation of a plan for future sustainability with influence networks.

3. Years two to four: to assess the impact of two community-oriented interventions that increase couples VCT using a quasi-experimental cross-over study design. Kigali and Lusaka will each have one 'usual practice' control neighborhood with a VCT center but no promotional activities. An average of 25 couples/month will seek VCT in each 'usual practice' neighborhood. In each city, two intervention neighborhoods will have a 'promote demand for VCT' intervention, in which influence agents will distribute written invitations for couples' VCT continuously throughout the 36 months of the trial. In the first 18 months, a mobile VCT team will 'enhance supply' in one of the two 'promote demand' neighborhoods. This unit will move to the other 'promote demand' intervention neighborhood for the second 18 months, in a 'cross-over' design. This will allow us to test three hypotheses:

- a) **H1:** Promoting couples VCT through influence networks will more than double the number of couples who request VCT at existing facilities ('**promote demand alone**' vs. '**usual practice**').
- b) **H2:** Enhancing supply by providing 'mobile' VCT services at accessible neighborhood locations will result in a doubling of the proportion of invited couples that receive VCT ('**promote demand plus enhance supply**' vs. '**promote demand alone**').
- c) **H3:** There will not be appreciable secular trends in the 'usual practice' neighborhood, and the interventions will yield similar results whether they take place during the first 18 months compared with the second 18 months ('**before cross-over vs. after crossover**').

4. Years two to four: to compare the volume of written invitations and the response rate in each influence network, and to examine the structural variables that may influence these outcomes including the city, time and place of the invitation, whether the issuing of the written invitation was preceded by a public endorsement and whether the invitation was given to the husband, wife, or couple. In addition to descriptive analyses, we will test two hypotheses:

- a) **H4:** Certain influence network agents will distribute a larger number of couples VCT invitations than others (ranging from minimum 100 to maximum 200/agent).
- b) **H5:** The response rate per 100 invitations will differ between networks, ranging from 5% to 20% with the 'promote demand' intervention, and from 10% to 40% with the 'promote demand plus enhance supply' intervention.

5. Years one to five, to identify psychosocial and structural determinants of regular follow-up, condom use, and biological markers of the lack of unprotected sex in HIV discordant couples.

- a) Examine gender roles, relationship intimacy and alcohol use as predictors of these outcomes.
- b) Model HIV specific couple communication as a mediator of the above predictors.
- c) Analyze these effects separately for husbands and wives and examine the concordance in partners' responses.
- d) Examine differences specific to couples in Zambia and Rwanda.

6. Years one to five: to ensure that study efforts result in sustainable couples' VCT programs, ongoing work will focus on inclusion of policymakers and funding agencies on a regular basis.

- a) Provide a formal liaison between the research team and influence agents on one hand, and the policymakers and funding agencies on the other: Dr Michel Carael will spend one month each year in each city as senior scientist-ambassador.

- b) Provide annual updates to policymakers and funding agency representatives in the form of progress reports/executive summaries, conference presentations, and invitations to observe work in the field.
- c) In year five, sponsor a conference in each city for influence agents, policymakers and funding agencies with the intended outcome of formalizing the commitment to an action plan for funding and political support to assure continuation and expansion of couples' VCT.

Progress in FY 3 (June 2004-May 2005, PI move from UAB to Emory between FY 2 and FY3):

B. STUDIES AND RESULTS:

Specific aims 1 and 2 have been completed, two pilot studies were conducted in 2003, and the neighborhood RCT in Aim 3 was launched in July 2004. Preliminary analyses for Aim 4 are underway, and results presented in oral presentations and abstracts accepted at the International AIDS Society Conference in July 2005 (List of abstracts included in Section E). Formative research for Aim 5 has led to completion and pilot testing of data collection instruments for Aim 5 in Rwanda, and these are being harmonized with results and quantitative instruments in Zambia in May-July 2005. Substantial progress has been made with Aim 6, with funding and collaboration secured through CDC GAP/PEPFAR, and Bill and Melinda Gates, as detailed below.

Promotion of Couples' VCT: The number of Influence Network Leaders (INL) and Influence Network Agents (INAs) recruited by category (religious, health, private sector, NGO/CBO) and by year and quarter in each city (Kigali and Lusaka) are shown in the table below. INLs were added to the model based on the results of the first pilot study in Jan-June 2003, in which INAs requested that more senior leaders in the community assist them in their work. The role of INLs is to recruit candidate INAs, give public endorsements about CVCT to reduce stigma, and support their INAs through referrals and introductions. When it became clear that there were problems in Zambia with INA monitoring, recruitment of new INAs was halted in the last quarter of 2004. Procedures were modified and recruitment recommenced in 2005.

Lusaka, Zambia

Influence Network Leaders								Influence Network Agents								
CBO/				Total	Females	Males	CBO/				Total	Females	Males			
NGO	Private	Health	Religious				NGO	Private	Health	Religious				Other		
2003																
Q1	NA	NA	NA	NA	NA	NA	6	9	8	10	0	33	13	20		
Q2	NA	NA	NA	NA	NA	NA	0	0	0	0	0	0	0	0		
Q3	5	5	5	5	20	6	12	11	12	14	0	49	25	24		
Q4	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2004																
Q1	0	0	0	0	0	0	1	0	0	0	40	41	20	21		
Q2	5	6	5	8	24	5	12	2	1	9	0	24	11	13		
Q3	9	6	2	6	23	10	39	27	46	40	0	152	78	74		
Q4	0	2	2	2	6	0	41	35	57	42	0	175	101	74		
2005																
Q1	4	1	7	2	14	7	18	15	13	14	0	60	33	27		
Q2	0	0	0	0	0	0	10	9	12	12	0	43	26	17		
TOTAL					87									577		

Kigali, Rwanda

Influence Network Leaders								Influence Network Agents								
CBO/				Total	Females	Males	CBO/				Total	Females	Males			
NGO	Private	Health	Religious				NGO	Private	Health	Religious				Other		
2003																
Q1	NA	NA	NA	NA	0	NA	5	10	8	5	0	28	18	10		
Q2	NA	NA	NA	NA	0	NA	0	0	0	0	0	0	0	0		
Q3	3	3	3	3	12	4	7	6	8	6	0	27	14	13		
Q4	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2004																
Q1	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
Q2	8	6	4	6	24	7	6	5	4	6	0	21	14	7		
Q3	0	0	0	2	2	0	10	7	9	10	0	36	22	14		
Q4	0	0	0	1	1	0	6	6	4	7	0	23	18	5		
2005																
Q1	0	0	2	0	2	1	9	10	5	11	0	35	20	15		
Q2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL					42									170		

Attendance at CVCT centers: These promotional efforts resulted in written invitations being given to men, women, and couples by trained INAs. Couples attending the study Couples' VCT centers are shown below with detail about whether or not they had received an invitation from an INA, and whether or not they elected to be tested. In Zambia in 2002, prior to the initiation of this project, 2210 couples were tested using the peer 'community worker' promotions model. No data were collected related to invitations at that time.

Lusaka, Zambia

	# of invitations distributed	# of couples in the door			Couples tested			Couples not tested		
		Invitation	No Invitation	Total	Invitation	No Invitation	Total	Invitation	No Invitation	Total
2003	29,385	1,459	575	3,271	1,030	474	2,574	518	179	697
Q1	5,074	NA	NA	1,237	NA	NA	1,070	89	78	167
Q2	5,533	488	235	723	387	171	558	101	64	165
Q3	11,611	379	159	538	285	145	430	94	14	108
Q4	7,167	592	181	773	358	158	516	234	23	257
2004	53,158	2,862	869	3,731	1,880	702	2,582	982	167	1,149
Q1	5,010	523	174	697	359	145	504	164	29	193
Q2	3,451	347	159	506	257	122	379	90	37	127
Q3	18,784	937	288	1,225	588	239	827	349	49	398
Q4	25,913	1,055	248	1,303	676	196	872	379	52	431
2005	18,763	1,376	651	2,027	922	549	1,471	454	102	556
Q1	16,867	767	364	1,131	508	320	828	259	44	303
Q2	1,896	609	287	896	414	229	643	195	58	253
TOTAL	101,306	5,697	2,095	9,029	3,832	1,725	6,627	1,954	448	2,402

Kigali, Rwanda

	# of invitations distributed	# of couples in the door			Couples tested			Couples not tested		
		Invitation	No Invitation	Total	Invitation	No Invitation	Total	Invitation	No Invitation	Total
2003	6,640	1,520	1,648	3,168	1,396	1,382	2,778	124	266	390
Q1	2,242	685	379	1,064	670	371	1,041	15	8	23
Q2	1,238	209	484	693	164	324	488	45	160	205
Q3	1,036	84	300	384	63	232	295	21	68	89
Q4	2,124	542	485	1,027	499	455	954	43	30	73
2004	16,665	3,734	7,485	11,219	3,252	6,446	9,698	482	1,039	1,521
Q1	1,546	402	754	1,156	338	618	956	64	136	200
Q2	2,915	923	1,114	2,037	793	946	1,739	130	168	298
Q3	5,852	1,272	2,628	3,900	1,133	2,335	3,468	139	293	432
Q4	6,352	1,137	2,989	4,126	988	2,547	3,535	149	442	591
2005	10,849	1,537	4,192	5,729	1,302	3,594	4,896	235	598	833
Q1	7,450	1,033	2,478	3,511	848	2,045	2,893	185	433	618
Q2	3,399	504	1,714	2,218	454	1,549	2,003	50	165	215
TOTAL	34,154	6,791	13,325	20,116	5,950	11,422	17,372	841	1,903	2,744

The combination of HIV test results of the man and the woman (++: man and woman both HIV positive; --: man and woman both HIV negative; + -: man HIV positive, woman HIV negative; - +: man HIV negative, woman HIV positive). Of those who were eligible for enrollment in prospective study, the number enrolled and the number of seroconvertors identified during follow-up are shown.

Lusaka, Zambia

	HIV test results						Discordant couples eligible for enrollment			# of discordant couples enrolled	SeroConverters		
	# of ++ couples	# of +- couples	# of - + couples	# of - - couples	# of doubtfuls	Total	+-	-+	Total		Women	Men	Total
2002	621	172	259	1,130	28	2,210	147	217	364	241	13	9	22
Q1	90	24	39	40	3	196	24	37	61	17	3	3	6
Q2	126	35	44	234	4	443	35	43	78	41	3	1	4
Q3	186	57	84	379	12	718	48	64	112	65	3	1	4
Q4	219	56	92	477	9	853	40	73	113	118	4	4	8
2003	784	204	258	1,293	36	2,575	176	204	380	304	26	18	44
Q1	295	77	122	565	11	1,070	71	101	172	109	4	6	10
Q2	177	44	50	279	8	558	39	42	81	84	9	2	11
Q3	144	36	32	205	13	430	32	27	59	59	7	7	14
Q4	168	47	54	244	4	517	34	34	68	52	6	3	9
2004	871	199	248	1,116	21	2,455	149	167	316	180	26	12	38
Q1	161	47	56	236	4	504	40	38	78	48	9	5	14
Q2	135	26	43	166	5	375	24	32	56	43	5	1	6
Q3	261	60	86	366	7	780	40	60	100	50	8	2	10
Q4	314	66	63	348	5	796	45	37	82	39	4	4	8
2005	295	66	75	365	2	803	53	61	114	82	4	4	8
Q1	295	66	75	365	2	803	53	61	114	82	4	4	8
TOTAL	2,571	641	840	3,904	87	8,043	525	649	1,174	807	69	43	112

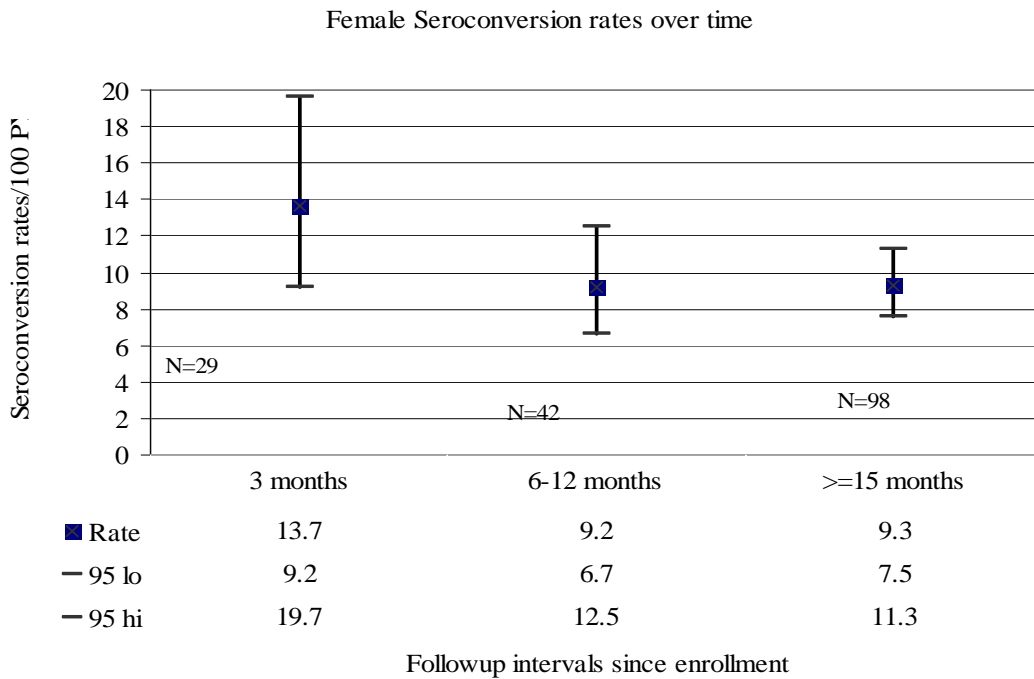
Kigali, Rwanda

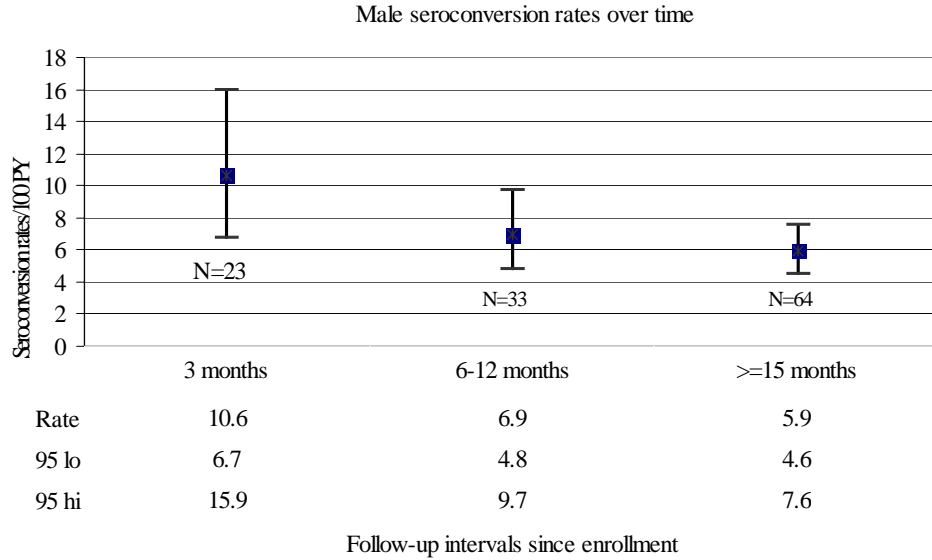
	HIV test results						Discordant couples eligible for enrollment			# of discordant couples enrolled	SeroConverters			
	# of ++ couples	# of +- couples	# of - + couples	# of - - couples	# of doubtfuls	Total	+-	-+	Total		Women	Men	Total	
2003	385	234	274	1,816	58	2,767	0	168	198	366	328	1	3	4
Q1	155	86	105	667	17	1,030	72	89	161	125	0	0	0	
Q2	75	49	59	289	16	488	37	44	81	90	0	0	0	
Q3	43	36	25	182	9	295	24	16	40	40	1	1	2	
Q4	112	63	85	678	16	954	35	49	84	73	0	2	2	
2004	714	507	707	7,583	97	9,608	0	251	261	512	439	8	10	18
Q1	117	62	79	692	6	956	26	40	66	105	2	3	5	
Q2	158	108	118	1,301	43	1,728	62	53	115	110	3	1	4	
Q3	240	172	255	2,726	26	3,419	86	86	172	127	1	2	3	
Q4	199	165	255	2,864	22	3,505	77	82	159	97	2	4	6	
2005	193	122	203	2,312	36	2,866	0	62	97	159	128	5	6	11
Q1	193	122	203	2,312	36	2,866	62	97	159	128	5	6	11	
TOTAL	1,292	863	1,184	11,711	191	15,241	0	481	556	1,037	895	14	19	33

Development of a consensus procedure manual and training manual for Couples' VCT with the CDC and the Liverpool School of Tropical Medicine: This document, 2+ years in the making, is now in use at CDC-sponsored didactic training sessions in Africa. Although it is still in draft form and has not yet received official CDC approval for reproduction and dissemination, we have received many requests for such a manual and we plan to scan the materials used at the most recent CDC training in Botswana (May 2005) and create a pdf file that can be used in the interim. We have a more detailed version for internal use, which includes research specific sections (informed consent, rapid test algorithms and quality control procedures).

Establishing a 'best practices' rapid test algorithm based on comparisons between those given in "National Guidelines" in Rwanda and Zambia. Both countries advise screening with Abbott Determine, confirmation with a second test for any Determine + or indeterminate sample. We also confirm the spouse of any person with Determine + or indeterminate results. A third rapid test (tie-breaker) is used for any sample with different rapid test results with the screening and confirmatory test. Candidate confirmatory and tie-breaker tests include either Capillus, Unigold, or Genie II. The selection of which is used is determined by the donors who provide the test kits in a given country. Results of a 4 way comparison are being analyzed and will be presented at the IAS conference (Section E). Our conclusion is that Capillus and Unigold are comparable in cost, ease of use, and performance as confirmatory and tie breaker tests. Genie II is cumbersome and time consuming in comparison.

Continued research on enrolled discordant couples to identify predictors of non-enrollment and of inconsistent condom use: The number of discordant couples identified and eligible at the time of CVCT, and enrolled in follow-up is shown in the table above, along with seroconversions. Graphs showing seroconversion rates over time in study are included below.





C. SIGNIFICANCE: ENSURING SUSTAINABILITY OF CVCT:

Our advocacy with political leaders in Rwanda and Zambia has been very successful. In addition to the obvious demonstrations of support from the President of Rwanda, the First Lady of Zambia, and Ministers of Health and chairs of National AIDS programs in both countries, we have made important headway in diffusing the importance of CVCT. Notably, Population Services International (PSI) has received PEPFAR funding to implement VCT in 17 countries. A former intern from our CVCT program in Rwanda has joined PSI and recently reported that their VCT centers in Rwanda and Zambia see far more couples than their other countries and that this difference is clearly attributable to the efforts of this NIMH sponsored grant.

We have obtained funding through a Bill and Melinda Gates foundation funded multi-center trial of acyclovir to reduce HIV transmission from HIV+/HSV-2+ individuals in discordant couples (C.Celum, U.Washington, PI). This funding allowed us to establish two new CVCT centers in the Copperbelt cities of Kitwe and Ndola, Zambia. We used a simplified INL/INA model to promote CVCT and have had results that were better than Lusaka but not as good as Kigali. The Copperbelt is similar to Kigali in that one language is spoken (in comparison to 72 dialects from 5 different language groups in Lusaka), the transportation infrastructure is good (roads and vehicles), and the cities are smaller (600,000 each for Kitwe, Ndola, and Kigali, compared with 1.7 million for Lusaka). We are examining these structural factors closely with an eye towards developing an INL/INA model that can be adapted for use in other cities based on certain parameters.

D. PLANS

The randomized control trial will continue as planned, with crossover scheduled for July 2005.

We have obtained preliminary approval for a CDC GAP/PEPFAR grant for Lusaka to contribute to couples' VCT. If this small grant is successful in 2005, the possibility of continued and expanded funding for 2006 is good. Initial PEPFAR decisions are made in-country by the US Embassy with technical input from the USAID and CDC teams. We will approach the PEPFAR team in Kigali this summer and renew our application for funds for CVCT, citing the Zambia award as a precedent.

An instrument for use by the post-test counselor is in the last step of piloting and will be implemented systematically in July 2005. This instrument allows the counselor to note reactions of HIV discordant couples during the post-test counseling session (denial, hostility, blame, etc). Reactions predictive of non-enrollment or non-use of condoms will be incorporated into post-test counseling procedures as a 'flag' to signal the need for specialized, intensive, or repeated counseling. A second instrument administered separately to men and women in enrolled couples examines communication and conflict resolution strategies. The final pilot test for

Principal Investigator/Program Director (Last, First, Middle): Allen, Susan A.

this instrument will be in June and it will also be incorporated systematically in July 2005. A new doctoral student in the Behavioral Science and Health education program at the Rollins School of Public Health will train in the use of 'successes and failures' at a conference this summer 2005. She will then conduct interviews with seroconverting couples and long-term non-seroconverting couples to assess the characteristics of couples who master long term condom use with no seroconversion and compare them with those who have failed to use condoms to successfully prevent transmission.

E. PUBLICATIONS

Abstracts, 3rd IAS Conference, Rio 2005

Author	Title	Abstract Number	Type
Allen S, RZHRG	Early detection of HIV infection in discordant heterosexual couples in Africa	MoOa0107	Oral Presentation
Atkinson J, RZHRG	Prioritising ART Selection in Rwanda	MoPe11.1C37	Poster
Au J, RZHRG	Clinical Efficacy of Generic Antiretroviral Therapy	MoPe11.6C16	Poster
Au J, RZHRG	Knowledge, Attitude, and Behavior of HIV Patients on Antiretroviral Therapy	TuPe11.9C08	Poster
Bekan B, RZHRG	Integrating nutritional care and support and to the standard care of people living with HIV/AIDS: Case of Projet San Francisco, Rwanda	MoPe11.2C34	Poster
Casanova D, RZHRG	Taking it to the Streets: Mobile Units for Couples Voluntary Counseling and Testing	TuPp0201	Poster Presentation
Chomba E, Albertini J, RZHRG	Too Many Jobs, Too Few Doctors: Problems and Possible Solutions for Government Health Institutions Sharing Clinically Trained Officials with HIV/AIDS Research Centres	MoPe11.10C18	Poster
de Clercq F, RZHRG	Knowledge of Couple's VCT, willingness and obstacles to get tested: Results from household survey reflecting the impact of Community based Promotion Program in Kigali/Rwanda	TuPe15.4P13	Poster
Emery S, RZHRG	Establishment of Quality Control Procedures for HIV Rapid Testing in Lusaka, Zambia	MoPe15.2C23	Poster
Fraser-Bell A, RZHRG	Increase in HIV Prevalance and Prior Testing at a Couples' Voluntary Counseling and Testing Center in Lusaka, Zambia	TuPe15.4P15	Poster
Glass S, RZHRG	Differing Results of a Rapid HIV Testing Algorithm in Couples' Testing Centers in Two African Cities with Different Clades of HIV	MoPe15.2C19	Poster
Hageman K, RZHRG	What the better half is thinking: perceptions of risk, beliefs about HIV, and couple communication in Rwandan husbands and wives	MoPe10.7P21	Poster
Henderson F, RZHRG	A Family Planning Intervention to Promote Future Planning in HIV Infected Zambian Couples	MoPe11.10C17	Poster
Ji H, RZHRG	A Quantitative evaluation of the impact of Faith-based leaders in the promotion of Couples Voluntary Counselling and Testing in Lusaka, Zambia	TuPe15.4P14	Poster
Kanweka W, Inambao M, RZHRG	A comparison HIV and syphilis seroprevalence among clients of couples' voluntary counseling and testing centres in two Zambian cities	TuPe15.4P12	Poster
Karita E, RZHRG	Similarities and Differences Between Cohabiting and Non Cohabiting Couples Seeking Voluntary HIV Counseling and Testing Services in Kigali, Rwanda	MoPe10.7P15	Poster
Kayitenkore K, RZHRG	Efficacy and toxicity of generic antiretroviral treatment in HIV-1 infected adults in Kigali/Rwanda	TuPe11.8C09	Poster
Rufagari J, RZHRG	Health Providers' Dilemma and Reproductive Health Needs of African HIV Sero-discordant Couples. Kigali, Rwanda	MoPe10.7P19	Poster
Rufagari J, RZHRG	Unmet need for contraception among HIV discordant couples	TuPe11.9C12	Poster
Sardar G, RZHRG	What Influences Couples To Get Tested At Couples VCT Centers in Kigali, Rwanda and Lusaka, Zambia	TuPp0202	Poster Presentation
Shutes E, RZHRG	Recruitment and retention of an HIV discordant couple cohort in Kigali, Rwanda in preparation for vaccine efficacy trials	WePp0203	Poster Presentation
Vwalika B, RZHRG	Patterns of contraception choice to prevent unplanned pregnancies among HIV infected couples in a Family planning study in Zambia	WeFo0103	Oral Presentation
Vwalika C, RZHRG	Enrollment of HIV discordant couples for HIV prevention trials	WePe13.13P09	Poster

F. RESOURCES: Not Applicable