

## **SOFTWARE FOR HIV TEST COUNSELOR SUPERVISION AND PROCESS ANALYSIS**

### **A. INTRODUCTION AND SPECIFIC AIMS**

HIV counseling and testing (C&T) services have the potential to offer individualized risk-reduction counseling and serve as a gateway to other preventive services. Over the past ten years, our research has examined the actual process of C&T in order to develop structural interventions at test sites to improve the quality of counseling and prevent HIV infections. We have identified two obstacles to quality C&T services: excessive paperwork and a lack of counselor training and supervision. Our analysis of recorded C&T sessions revealed that the standardized risk assessment form that counselors complete for each client creates an interrogational dynamic that limits counselors' ability to develop rapport with clients.<sup>1</sup> Counselors spend one quarter to half the session completing the form, time that could be better spent eliciting the client's particular concerns. Test site administrators and health department staff spend much of their time collecting and manually entering form data into the state database for reimbursement, rather than providing support and training to counselors.

In collaboration with health departments in San Francisco and Berkeley, we recently piloted a structural intervention to streamline paperwork and enhance counseling at two test sites. Clients complete a self-administered questionnaire using a handheld touch screen computer prior to the session. Counselors do not have access to this data during the session. The new method radically changes the dynamics of the counseling session and streamlines data entry. Unlike the counselor administered form, the survey questions are standardized with skip patterns resulting in more valid data while eliminating missing fields.<sup>2</sup> Data are transmitted electronically into local and state databases without the need for manual data entry by health department staff. Most importantly, the intervention facilitates counseling because counselors no longer have to interview clients about past risks, leaving more time for counseling. Counselors also report that the self-administered survey prepares clients for the session by helping them to articulate their specific concerns, resulting in more focused discussions and realistic plans for risk reduction. Over the next year, we will work with the State Office of AIDS and local health departments to adapt the client self-administered questionnaire for use at other test sites.

The proposed project will address a critical need for individualized training, supervision, and emotional support for test counselors in California. In our prior work evaluating and supervising counselors in research and clinical settings, we developed two innovative methods – “time charts” and Interpersonal Process Recall (IPR) – to help counselors understand how they currently structure the session in order to manage their multiple roles as counselor, health educator, and data collector. Time charts are horizontal bar graphs that provide a visual representation of the sequence and duration of various communication formats such as counseling, data collection, or health education.<sup>3</sup> We currently use two software programs to make time charts, *ATLAS.ti* to segment digital audio recordings of test sessions and *Excel* to make the bar graphs. During follow-up interviews with clients and counselors, we use IPR by having counselors listen to the session recordings, frequently stopping the recording to elicit their feelings about the session process.<sup>4-6</sup> The combination of time charts and IPR has great potential as a tool for counselor supervision and training. However, because of the extensive labor required to make time charts using currently available software, the applicability of these tools has been limited to a small cohort of counselors participating in our research projects. We need to develop an easier to use software interface that would enable test sites to use time charts and IPR to enhance current training and supervision efforts.

The proposed IDEA grant would develop a software interface that would enable counselors to create time charts and use IPR to analyze audio or video recordings of their own sessions. Because creating such software program from scratch would be neither time- nor cost-effective, we are collaborating with the developers of *Transana*, a free, open source program designed for analysis and transcription of digital video and audio files. The specific aims of this project are:

1. To develop software for generating time charts in collaboration with the lead programmer of *Transana*;
2. To test the feasibility of and design protocols for using *Transana* for training and supervision at two sites;
3. To evaluate the effects of *Transana* on counselor practice using counselor focus groups and time charts.

The proposed two-year IDEA grant will test the feasibility of having counselors use *Transana* to analyze their sessions and measure changes in the quality of supervision and counseling. This will enable us to measure the impact of our current intervention on counseling while building the capacity of test site staff to provide individualized training and quality assurance. The software will strengthen our next R-01 proposal by enabling us to measure intervention adherence and provide counselor supervision for a randomized, controlled trial of an enhanced rapid test counseling intervention. By improving counseling practice and supporting counselors, we will be in a better position to help test counselors and other providers to implement evidence-based approaches to risk reduction counseling, and thus avert new HIV infections.

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### **B. BACKGROUND AND SIGNIFICANCE**

**Rapid HIV testing is currently being implemented nationwide as part of an initiative to bring counseling and testing (C&T) services directly to high-risk populations.**<sup>7-8</sup> The OraQuick<sup>®</sup> rapid test represents a revolution in the practice of C&T because it compresses the standard pre- and post-test sessions, normally separated by a week, into a single session, thus ensuring that clients receive their test result within 20 minutes. Although it eliminates the stress of a week-long wait for the client, rapid testing presents new challenges for test counselors. At busy rapid test sites, such as Magnet, a community based health center in San Francisco where upwards of 3% of clients test positive, counselors frequently disclose several preliminary positive results per shift. Counselors learn the clients' result immediately before disclosing it. Previously, counselors had days to prepare or even request that a more experienced counselor deliver the test results. In order to avoid burnout, counselors need support to cope with the more intense work-flow of rapid test.

**Our research has consistently found that less than one third of the session is devoted to counseling, while up to half is spent completing paperwork.** A standardized risk-assessment form is required by the funding agency for each client. With each revision of the form, the number of questions on the risk assessment form has grown to the point that typically half of the session resembles an epidemiological survey interview. The questions on the form produce a judgmental and evaluative dynamic that is antithetical to the principles of client-centered counseling that form the basis of counselor training and CDC guidelines. Anecdotal reports from test clients and counselors at Magnet where we began piloting the structural intervention have been very positive. Counselors report that after completing the questionnaire in the waiting room, clients enter the session ready to talk about their concerns at a deeper level than before. Clients report that they no longer feel the need to lie to the counselor about their risk in order to avoid feeling judged.

**Despite of emphasis of C&T guidelines on a “client-centered” approach where the counselor and client “negotiate a risk reduction plan,” current practice rarely measures up to these goals.**<sup>9</sup> Research based on recordings of C&T sessions, including our recent studies, suggests that counselors spend much of the session providing didactic, “HIV 101” advice in a depersonalized way, often using the formulation, “we tell everyone that it’s best to...”<sup>1,10-12</sup> This strategy allows the counselor to quickly cover a wide range of topics, but also leaves little time to elicit the client’s story and devise a personalized risk-reduction plan. Moreover, many clients tell us that they find this approach highly pedantic because they often know more about HIV than their counselor.<sup>13</sup>

**Counselors report that it is often difficult to engage repeat testing MSM in a conversation about their HIV risk.**<sup>13</sup> Research in San Francisco and London has found repeat testing MSM to be at particularly high risk of seroconversion, suggesting that regular negative test results may actually lead to increased HIV risk.<sup>14-17</sup> To further examine these findings, we will recruit repeat-testing clients for the proposed study. C&T differs from other counseling relationships in that counseling is not requested by the client but imposed unilaterally by state laws regulating publicly-funded HIV testing. Counseling is thus a condition for receiving the test, not something sought by the client. This generates resistance to counseling among repeat clients who simply want a test. Despite the resistance to counseling during the session, our follow-up interviews with clients suggest that repeat testers do not object to counseling per se, so much as the narrow focus on past sex and drug risk brought about by use of the risk assessment form in the session.<sup>13</sup>

**Continuing education and supervision of volunteer test counselors presents a number of human resource challenges for test sites.** Counselors attending a focus group we convened to introduce the new electronic data collection system adamantly requested more supervision and training.<sup>13</sup> There are two types of counselors: (1) experienced regulars at risk of burn out because they do the bulk of the sessions, and (2) occasional volunteers who, because they may work only once a month, never get a chance to develop their counseling skills.<sup>18</sup> These two groups have very different training and supervision needs. Because volunteer test counselors work alone and leave at the end of the shift, they have few opportunities to debrief or have their work observed by their supervisor. Given these workload constraints, flexible and individually tailored training modalities are needed to support counselors with different training needs. The proposed project will address a critical need for individualized counselor training, supervision and emotional support at test sites. In light of the work-load constraints discussed above, the proposed software tools are designed to be used by counselors seeking additional training *on a voluntary basis*, and are not intended to pose additional administrative burdens on busy test site supervisors and counselors. We realize that a software tool may not be right for all counselors. But for those seeking supervision or simply to reflect on and improve their approach, we believe that the software may prove both feasible and effective.

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### **C. PRELIMINARY STUDIES**

**C.1. The Research Team:** The proposed project builds upon an existing collaboration between UCSF, health departments in San Francisco and Berkeley, and two test sites, Magnet, a community based health clinic in San Francisco and Steamworks, an STD/HIV test site at a men's bathhouse in Berkeley. The research team brings a wide array of expertise in research methods combined with extensive experience in counseling practice, training and supervision.

**Nicolas Sheon, Ph.D.** (Principal Investigator), received his doctorate in medical anthropology from UC Berkeley in 2000. Dr. Sheon serves as Co-Director of the Methods Core at the UCSF Center for AIDS Prevention Studies (CAPS) where he provides expertise on qualitative research and software for analyzing digital audio data. Dr. Sheon is principal investigator of the Process Analysis of Rapid Testing (PART) Study, a four-year R-01 (C.5). Prior to his appointment at CAPS, Dr. Sheon coordinated the Berkeley Free Clinic's HIV Prevention section where he was responsible for training and supervising 25 volunteer HIV test counselors.

**Shelley Facente, MPH** (Project Director), works with Dr. Sheon as the project director for the PART study and also serves as the coordinator of HIV rapid testing and counselor training for the San Francisco Department of Public Health. Ms. Facente's multiple skills as researcher, program administrator, and test counselor have been keys to the success of our structural intervention that we are currently piloting at the two test sites. Prior to her roles at DPH and UCSF CAPS, Ms. Facente conducted original research comparing the motivations for testing of MSM in San Francisco and Amsterdam. Ms. Facente will serve as project director for the proposed study and coordinate the implementation and evaluation phases during year two.

**David Woods, Ph.D.** (Software Programmer, Consultant), is the lead programmer of *Transana*, a free open-source software tool for the qualitative analysis of video and audio, as part of his work as an associate researcher for the Center for Education Research at University of Wisconsin, Madison. Dr. Woods received his doctorate in Counseling Psychology from Northwestern University. Prior to his work on education technology, he worked for 12 years providing individual, couples, and group therapy and supervising therapists in community mental health centers in Wisconsin and Missouri. Dr. Woods will be working closely with Dr. Sheon to develop enhancements to the *Transana* software interface that will enable counselors to analyze their own recorded counseling sessions for supervision, evaluation and training.

**Amity Balbutin-Burnham, MPH** (Counselor Supervisor, Consultant) supervises a staff of 25 paid and volunteer HIV test counselors at the Berkeley Department of Public Health. Ms. Balbutin-Burnham helped to design and pilot the rapid test training for the California State Office of AIDS and continues to train test counselors through the UCSF AIDS Health Project. Berkeley's testing program was one of the very first to offer rapid HIV testing in California. Ms. Balbutin-Burnham will supervise test counselors, work closely with Dr. Sheon and Ms. Facente on the implementation of this pilot feasibility study, and the development of protocols for dissemination.

**Dale Gluth, MA** (Counselor Supervisor, Consultant) currently supervises a staff of 25 paid and volunteer counselors at Magnet, a community based health center that provides STD and rapid HIV testing for MSM in San Francisco. He brings to our project over 12 years of experience counseling and supervising HIV test counselors in research and clinical settings. He received his MA in clinical psychology from Loyola University and was Chicago site coordinator and counselor supervisor for the EXPLORE study. Mr. Gluth will supervise test counselors, work closely with Dr. Sheon and Ms. Facente on the implementation of this pilot feasibility study, and the development of protocols for dissemination.

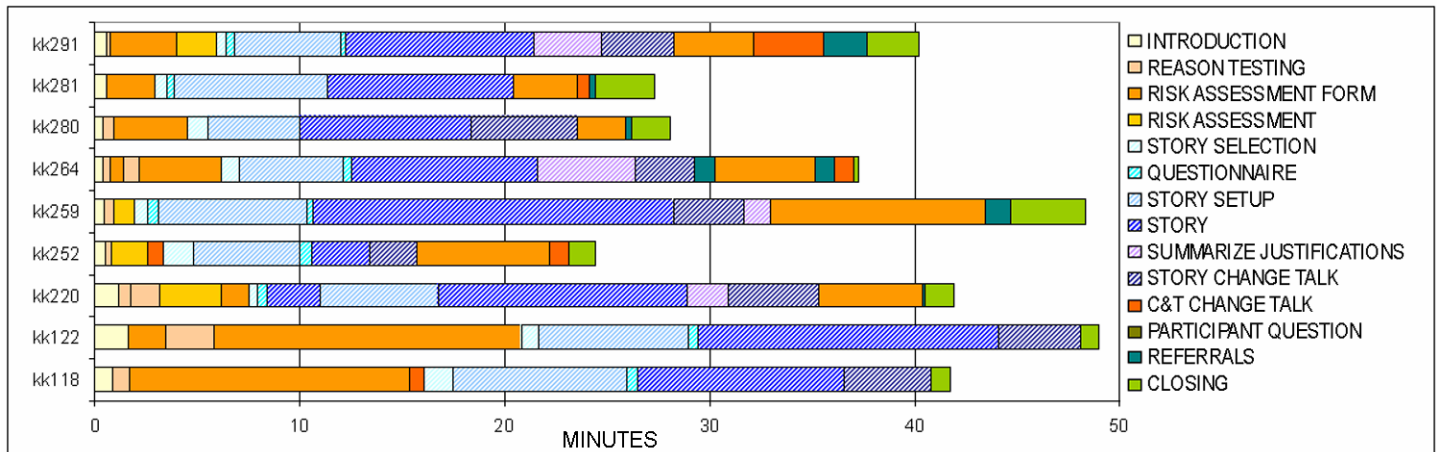
**C.2. The proposed research builds on the innovative methods of process analysis we developed in previous studies.** Time charts were originally developed to measure adherence to an intervention protocol for a research trial (C.3.). Subsequent research (C.4. and C.5.) used time charts to compare recordings of standard and rapid test sessions at four test sites and introduced the technique of follow-up interviews with the counselor and client using IPR. The proposed project will build on this research by developing and testing a software interface that simplifies and refines these methods.

**C.3. Counseling gay male repeat testers: A randomized, controlled trial of a single-session intervention (RED2).** The goal of the RED2 study (PI: Dilley, Co-Investigator: Sheon, NIMH) is to replicate the success of an enhanced counseling intervention for repeat-testing MSM (RED1). The RED1 study was a randomized controlled trial of a brief single-session intervention that occurred between the pre- and post-test sessions in which a professionally trained

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counselor elicited a detailed story of a risk incident and probed about the client's self-talk that helped them justify the risk.<sup>19</sup> Encouraged by the success of RED1, we sought to adapt it for paraprofessional counselors and incorporate it into the pre-test session. Dr. Sheon originally developed time charts as a training tool to help determine the optimal way for counselors to structure the RED2 intervention sessions. By using recorded sessions, this approach built on an understanding of actual counselor practice rather than relying on concepts borrowed from other contexts, such as client-centered therapy that assumes a client-counselor relationship built over many sessions. Dr. Sheon used time charts to monitor intervention protocol adherence and to supervise the intervention counselors. We are currently analyzing the outcomes of the RED2 study. We are using the time charts to compare sessions with successful and less successful outcomes and with the control sessions, thus combining process and outcome research.

**Figure 1: Time Chart Comparing Nine Sessions by a RED2 Intervention Counselor**

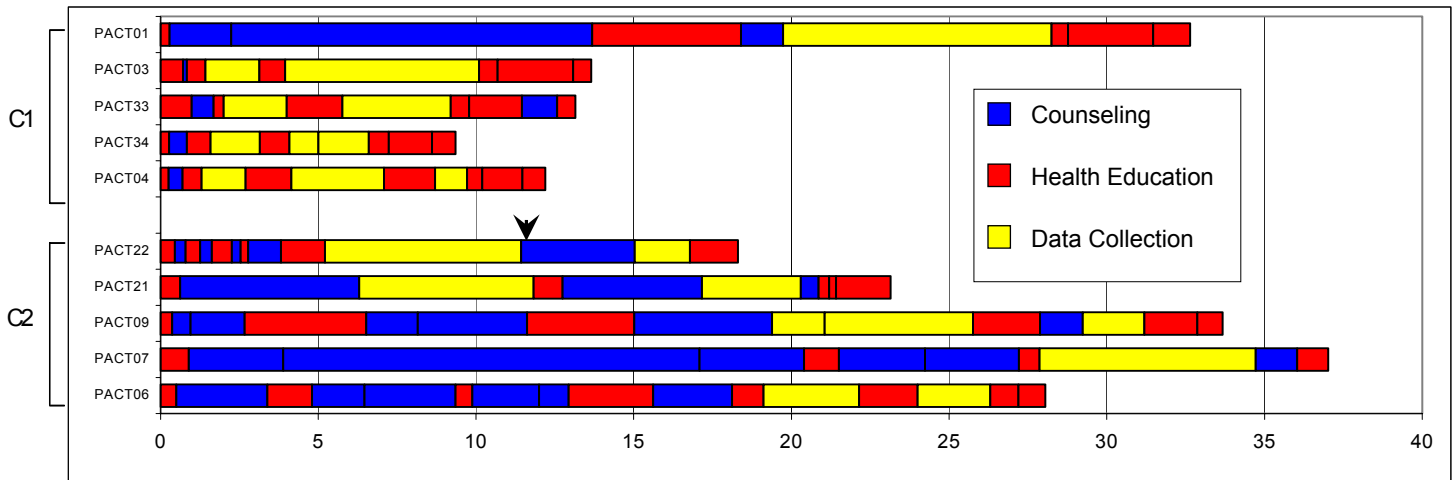


The time chart above shows nine sessions by one of the RED2 intervention counselors. Key elements of the RED2 intervention (striped blue and violet bars) were incorporated into a standard pretest session tasks (solid yellow, orange, and green bars). During the pilot phase (sessions kk118 and kk122 at the bottom of the chart), we see how the counselor devoted much of the first 15-20 minutes of the session completing the risk assessment form thus creating an evaluative, interrogational dynamic from the start. In subsequent sessions (kk220-291), the counselor split the risk assessment form task (orange) into two parts. The chart shows how splitting the form allowed the counselor to allocate more time to the intervention. By illuminating the evolution of a counselor's approach over time, Dr. Sheon was able to provide supervision during the pilot phase that built on existing strengths while pointing out specific areas for improvement. Time charts enabled us to standardize the intervention, measure adherence to the protocol over the course of the trial and compare the "dose" of counseling in the intervention arm against that provided by control counselors. Should the RED2 study prove successful, time charts will help us adapt the this intervention to fit within a single, rapid testing session.

**C.4. Process analysis of counseling and testing (PACT).** The goal of the PACT study (PI: Sheon, Co-PI: Dilley, UCSF CAPS Innovation Grant) was to test the feasibility of recruiting test clients, recording pre-test sessions, and conducting follow up interviews using Interpersonal Process Recall. Data for the PACT study consisted of 30 pre-test sessions with MSM at two UCSF AIDS Health Project test sites in San Francisco in 2003. We simplified the color scheme of the time charts in order analyze patterns in transitions between three communication formats: counseling (blue) in which counselors listen to clients talk about their feelings and concerns; health education (red) in which the counselor provides didactic information and advice about safer sex; and data collection (yellow) in which counselors complete the risk assessment survey. The time chart in Figure 2 depicts the sequence of tasks for 10 sessions recorded by two counselors, C1 and C2. Both of these counselors have similar levels of training and experience, yet the first counselor (C1) employs relatively fixed and shorter sequence of tasks that includes very little counseling (with the exception of the first session, PACT 01) when compared to C2 who manages to get clients to talk for most of the session. Counselors can use time charts to compare their approach with that of other counselors and in light of client-centered guidelines that stress the need to develop a plan for future risk reduction, while minimizing didactic lectures and forms. The use of primary colors in the time charts focuses our attention on the transitions from one communication format to another, for example, PACT22 in the chart below where there was some difficulty establishing a stable communication format in the first few minutes.

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**Figure 2: Time Chart Comparing Ten Sessions by Two PACT Counselors**



During the interviews, we found a wide discrepancy between counselor and client’s expectations and assessments of the session. Of significance to our current study (C.5.) in which we hope to eliminate the data collection task, we found that clients were often annoyed with counselors’ transitions from data collection to counseling formats. For example, at minute 12 of PACT 22 (indicated by an arrow), the counselor completes the series of closed ended questions for the form (yellow) and switches to a counseling format (blue) with a question/compliment: “Is it hard being so responsible?” During the follow-up interview, the client remarked, “I felt he was crossing a boundary and making it very personal. And not that anything he had asked before wasn't personal, but it was almost friendly. But I guess given the context of the previous interview, it was a weird line to cross.” Time charts and IPR revealed that transitions between communication formats can be treacherous, but also helped us identify successful strategies counselors were using to negotiate these passages.

**C.5. Process Analysis of Rapid Testing (PART).** The goal of this ongoing study (PI: Sheon, NICHD R-01) is to improve the quality of rapid HIV test counseling by eliminating the counselor-administered risk assessment form and replacing it with a computer-assisted client questionnaire administered prior to the session. The new system eliminates the need to manually enter client data from paper forms while providing more reliable client data. Counselors were initially apprehensive about not having the form to help structure the session. Contrary to their fears that they “would have nothing to talk about,” counselors report that the new electronic survey has a priming effect that appears to help clients articulate their most pressing concerns during the session, making it much easier for counselors to negotiate an individualized risk-reduction plan. After a second wave of recordings this summer, we will use time charts and follow-up interviews to compare the structure of 16 rapid test sessions recorded before with 16 recorded after the implementation of computerized client administered data collection. At both clinics, we exceeded our goals for recruitment of counselors and clients. The proposed IDEA project is designed to address counselor needs identified during a counselor focus group we convened in preparation for our structural intervention last January. A major upshot of the discussion was that counselors adamantly requested more training, supervision, and opportunities to debrief and support each other after difficult shifts.

**D. EXPERIMENTAL DESIGN AND METHODS**

**D.1. Interpersonal Process Recall (IPR) is a powerful tool for counselor supervision and training.** IPR was originally developed by Kagan as a tool for counselor supervision, but has been adapted for research on the process of therapy and clinical training.<sup>4-6, 20-21</sup> The goal of IPR is to increase awareness of covert feelings of fear and inadequacy that may limit the scope of the counseling discussion. This approach is especially valuable for paraprofessional counselors who lack the training necessary to probe clients about sensitive topics. In the PACT and PART follow-up interviews, we found that IPR had a profound sensitizing effect on counselors’ perceptions of the interpersonal dynamics of the session. The interview challenged them to rethink their approach to the session. The process of IPR involves three elements: an inquirer, who could be either an instructor or a peer, a counselor in training, and a video or audio player that can be stopped by the counselor whenever they felt the need to comment on the interaction. The inquirer probes the trainee about what they felt, what they had wanted to say or do at that point in the session. A key advantage of IPR over more traditional approaches to counselor supervision is the non-hierarchical and non-judgmental role of the inquirer whose role

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is to elicit feelings, not provide expertise or evaluation.<sup>20</sup> Playback of the audio enables counselors to reflect on prosodic details of the interaction such as tone and pacing, thereby sensitizing them to subconscious aspects of language use.

**D.2. *Transana* software will function as both the playback device and the IPR inquirer.** We will develop an IPR worksheet for counselors to complete when listening to their sessions with *Transana*. The worksheet will provide probes for counselors to write about their feelings as they review the session, what they would have wanted to do differently, what they need to work on with their supervisor or role play with another counselor. The multi-user capabilities of *Transana* addresses spatial and human resource constraints on test site supervisors by enabling volunteer counselors to review and reflect on their sessions at home on their own time. Supervisors will be able to monitor changes to the time charts and IPR worksheets in real time via the Internet as a prelude to face-to-face supervision meetings with counselors.

**D.3. Timeline and Phases of the Study**

Aims	Phases	Objectives	Year				Quarter			
			1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4
1	1. Development	Develop time chart enhancements for <i>Transana</i> .								
2	2. Implementation	Recruit and train counselors to record sessions								
		Recruit clients and record 30 sessions								
		Train counselors to use <i>Transana</i> , Time Charts, IPR								
3	3. Evaluation	Focus groups, time chart analysis, develop protocols								
	4. Dissemination	Develop online manual and disseminate findings								

**D.3.a. Phase 1: Software Development and Beta Testing (Aim 1):** Dr. Sheon will work closely with Dr. Woods on enhancements to the *Transana* interface. The proposed enhancements to the *Transana* interface will consist of three main elements: 1) a time chart that will appear under the waveform of the currently selected audio recorded session 2) a separate time chart window that will enable counselors to observe patterns across multiple sessions, and 3) an IPR worksheet that will consist of instructions and prompts for counselors as they listen to and mark key moments in the session. Unlike the time charts we currently make with *Excel*, *Transana* time charts will be fully interactive. Clicking on the colored bars will play the audio segment and highlight the related IPR comments in the text area. These changes are described in detail in Appendix 3. The initial development of the software enhancements will begin April 3, 2006 and will initially be supported by seed money from the CAPS Methods Core and the PART study (C.5). Year one of the proposed budget will cover the final phase of software development and beta testing, however Dr. Woods will continue to refine the software interface with the help of the counselor feedback collected during subsequent phases. Because *Transana* is free and open source software, the new time chart features will be available to all *Transana* users in various fields of research and practice, from education to primary care.

**D.3.b. Phase 2a: Participant Recruitment and Data Collection (Aim 2):** During the implementation phase of the study (year two) we will collaborate with two test sites to develop protocols for counselor supervision using *Transana*. We will recruit ten counselors – five at each site – who will each recruit three of their test clients, resulting in a convenience sample of thirty test clients. Based on our success in recruiting 13 counselors and 26 test clients for the first phase of the PART study, we are confident that our recruitment goals are feasible. Ms. Facente will work with the site supervisors to train counselors to recruit clients and audio record their own sessions using digital mp3 recorders. Clients will first learn about the study while completing the electronic survey prior to the test. Answers to the survey questions will determine if they meet the following eligibility criteria: repeat testing males (five or more tests) who have had unprotected anal sex with another male of unknown status in the last six months. Clients who meet these eligibility criteria will be asked on the survey if they would be interested in allowing their counselor to record their session for quality assurance purposes. Clients who indicate “yes” will be directed to speak with their counselor who will explain the purpose of the recording and have them sign a consent form. The session will proceed as usual, except that it will be audio recorded.

**D.3.c. Phase 2b: Implementation (Aim 2):** Once they have recorded their first sessions, counselors and their supervisors will attend a four-hour workshop led by Dr. Sheon and Ms. Facente that will provide a hands on introduction to using the software to create time charts and do IPR. Counselors will receive \$50 for attending the workshop. After an introduction to the goals and procedures of IPR, counselors will learn how to load the recorded session, navigate it using the

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waveform, and identify transitions between communication formats, and record their observations using the IPR worksheet. Counselors will use *Transana* to mark transition points and key moments in the session with time codes. Counselors will label the resulting segments according to a set of communication formats defined by the research staff. Like a qualitative researcher, the counselor will learn to segment and code the data in meaningful ways, but rather than working with transcripts, the counselor will work with audio files using an innovative, color-coded time chart interface. The process of segmenting and labeling the sessions to construct time charts will stimulate discussions among test site staff about the goals of test counseling practice and ways to address the barriers to attaining these goals. The time charts will provide a shared language to describe test counseling strategies that counselors actually employ. These discussions will facilitate continuing training and time charts will enable test site administrators to provide more focused and individualized counselor supervision. Because *Transana* is free and supports multiple users, counselors will have the choice of using the software at the test site or on their home computer and accessing and analyzing their sessions from a secure computer at the test site, allowing for remote supervision as a supplement to face-to-face meetings at the test site.

Remote supervision will address many of the scheduling challenges of supervising volunteer counselors. Working from their home computer, counselors will access the *Transana* database at the clinic and make changes to the time charts and IPR worksheets. A secondary aim of the study is to foster discussions between test site staff about the challenges of rapid testing, counselors' goals and strategies for attaining them. Supervisors and research team will be able to access the same data simultaneously and provide guidance via *Transana*'s built-in instant messaging engine. We will establish an online email group to field technical questions and foster peer support between counselors. We anticipate that the software will provide a common language and the online email group will provide a means to facilitate these discussions. Counselors will also meet with their test site supervisors in person to review time charts and segments selected for supervision.

**D.3.d. Phases 3: Evaluation (Aim 3):** Focus groups are well suited for evaluating feasibility and capacity building since they provide rich data on norms while helping to build counselor support networks. We will conduct two counselor focus groups. The first will focus on ways to improve the software interface and the second will identify effective protocols for supervision and counselor training using the software as well as feasibility data such as workload constraints. We will use *Transana* to analyze the focus groups by segmenting, coding and selectively transcribing segments that relate to feasibility and the training and supervision needs of HIV test counselors. Counselors will receive \$25 for participating in each focus group. We will examine the time charts generated by counselors and use *Transana* to check the validity of their segmentation and coding work. We will compare these time charts with those generated for the PART study in order to measure differences in the quantity and quality of counseling interaction and how this relates to time spent using the software. We will assess counselors' and supervisors' willingness to use *Transana* outside of a research context.

**D.3.e. Phase 4: Dissemination:** We will produce an online training manual that will be posted on the CAPS and *Transana* websites. We will also disseminate the findings through presentations at test site coordinator meetings, conferences, and through manuscripts in peer reviewed journals related to HIV prevention and qualitative methods, and through *Focus*, a monthly newsletter distributed to all California test sites by the UCSF AIDS Health Project.

## **E. IMPLICATIONS**

The proposed two-year IDEA grant would enhance counseling services by building the capacity of test site staff to provide individually-tailored counselor training and supervision. When given the right tools and the support and encouragement needed, paraprofessional test counselors can intervene in the lives of high-risk repeat-testing men who have sex with men (MSM) by collaboratively setting appropriate goals for risk reduction. In this way, the proposed project will help reduce the number of HIV infections by improving the effectiveness of test counselors. More broadly, the software will provide powerful new research tools to develop innovative HIV prevention interventions and evaluate current interventions at test sites and primary care settings. Finally, the IDEA grant would provide feasibility data for our next R-01 proposal in which we will collaborate with our test sites to develop and conduct a randomized, controlled trial of an enhanced rapid test counseling intervention for repeat-testing MSM. The software enables us to combine the analysis of process and outcome data in new and exciting research designs. For example, the software would enable us to examine the relationship between outcomes and process variables such as the "dose" of counseling, or the sequence of intervention tasks. By making time charts easier to create and interact with, the new software has the potential to revolutionize evaluation research and process analysis of audio and video data.

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## SOFTWARE FOR HIV TEST COUNSELOR SUPERVISION AND PROCESS ANALYSIS

### G. HUMAN SUBJECTS

Human Subjects' Involvement and Characteristics. All procedures for the recruitment and involvement of human participants will be reviewed and approved by the Institutional Review Board (IRB) at the University of California San Francisco (UCSF) prior to the start of the study. Because test counseling involves both the test counselor and the test client, both counselors and clients can be thought of as human subjects in the proposed study. *Test counselors* will be the program staff providing rapid test counseling services at two study sites (n=10). *Test Clients* will be adults recruited from test sites that serve an all male clientele, a Gay men's clinic in the Castro District of San Francisco and a test site in an all-male club where men go to meet other men (n=30). *Test clients* will be recruited from men who are seeking testing.

Test Counselor Eligibility. We will try to sample a mix of more and less experienced counselors but there are no eligibility requirements for counselors other than a willingness to participate in all phases of the study by recording sessions, learning about the software, working with the software, and attending two focus groups.

Test Client Eligibility. Test clients will be screened using the client self-administered questionnaire we designed for the PART study that will be used for all clients at the test sites by year two of the proposed study. Men over 18 years of age who have had unprotected sex with another male of unknown status in the last six months and who have been tested for HIV five or more times will be notified on the device screen that they are eligible to participate in a study to improve counselor training and supervision. The questionnaire will provide the following brief description of the study: "We are collaborating with UCSF on a study to improve counselor training and supervision using recordings of test counseling sessions. Are you interested in participating by allowing the counselor to record today's HIV test session?" Clients will then indicate 'yes' or 'no' if they are interested in participating. Clients who indicate "yes" on the questionnaire will be directed to a participating counselor. The counselor will have the client read and sign a consent form and obtain verbal consent to record at the start of the session recording.

Participant Payment. Clients will not be paid for their participation in the study because we are not requesting them to spend more than a few minutes for consent procedures beyond the time they would have spent at the test site. Since this is a feasibility study, we are interested in whether clients would be willing to have their sessions recorded as normal clinic procedure rather than as a paid research participant. If necessary, for example because of feedback from client participants and low recruitment levels, we will allocate money to pay test clients, but we do not believe this will be necessary. Because of the time commitment involved in study participation, test counselors will be paid a total of \$100 for participating in the study: \$25 dollars for attending each of two focus groups and \$50 for attending a four hour workshop on using *Transana* to create time charts and do IPR.

Sources of Data. The source of data related to individually identifiable living human participants will be the recordings of counseling sessions and counselor focus groups. The test sessions will be recorded using portable mp3 recorders and then transferred after the shift onto a password protected computer at the test site so that counselors can analyze it using *Transana* software. The original copy of the recording will be deleted from the mp3 recorder. An encrypted backup CD of the recordings will be kept in a locked cabinet at the test clinic to ensure against loss of data due to computer malfunction. Secondary data sources will be the time charts and IPR worksheets created by the counselors. These secondary data will be password protected on a secure computer at the test site. We will develop a system of coded identifiers so that individual test counselors are not identifiable on a time chart, much like the codes used in the time charts in Figures 1 and 2 in Section C.

#### Procedures for Data Collection.

*Test session recordings:* Testing at the club will follow current procedures except that we will use a screening question in the client questionnaire that they complete before seeing the counselor. Test clients interested in participating in the study will read and sign a consent form and be assigned a study ID number. This study ID number will consist of the site initials, counselor initials, a 1, 2, or 3, for the three sessions each counselor will record, and the date of the recording. We will not be contacting clients for follow-up procedures so there is not need to collect or link their study ID number with any personal identifying information. At the beginning of the session, the counselor will turn on the recording machine, state the client study ID number, the counselor's first name and the date, obtain verbal consent to record the session and then begin the session as usual. We will train counselors how to turn off the microphone on the

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recording machine should clients request it or appear uncomfortable when discussing certain topics while being recorded. This is preferable to pausing the recording since it enables us to measure how much time elapsed during the blank section when the microphone was turned off, preserving the continuity of the time line that provides the primary metric for our data analysis.

*Counselor focus groups* will be recorded using digital mp3 recorders like the test sessions.

### Potential Risks.

*Test Counselors:* The primary risk for counselors will be the additional scrutiny of their supervisors over their work as test counselors. However, because counselors and supervisors will be participating voluntarily in this study, they will be aware of this concern. Those counselors who have concerns about this can choose not to participate.

*Test Clients* risk possible discomfort with having their counseling sessions recorded and the potential for breach of confidentiality. Test clients can stop participating at any time by asking the counselor to turn off the recording machine and/or delete the recording during the session. There is minimal risk of injury for participants. Secure storage of the audio recordings on a secure, password protected computer will reduce the risk for loss of privacy for the participants. Because counselors will be recording the data, they will be the first to listen to the sessions and can decide whether to include them in the three sessions that will make up the 30 collected for the study. This will provide counselors will the right to delete sessions that they feel are not representative of their work, as sometimes happens. Access to these 30 test sessions will be restricted to their supervisor, either Mr. Gluth or Ms. Balbutin-Burnham and the research staff Dr. Sheon, Ms. Facente, and Dr. Woods. Although the test sessions are confidential, we will anonymize the data by “bleeping” out any identifying information, such as descriptions of employment positions or personal names, etc, recorded during the test counseling session. There will be much less of this identifying information recorded during the sessions because clients will complete this information on the electronic survey prior to the session. This confidential survey data will not be linked to the study data. No identifying information will be included in any discussions of the data with the test site counselors and supervisors, publications, presentations, time charts or transcripts of IPR sessions. Participants may stop the recording or playback of the session, decline to answer any questions and stop participating at any time.

### Potential benefits of the proposed research to the subjects and others.

*Test Counselors* will likely benefit from the additional supervision value they experience through reviewing recorded sessions and time charts. Supervision using recorded sessions is widely used in the graduate training programs for mental health providers. The field will also benefit from the study results, in that much of what happens in the counseling session, including how time is allocated to various tasks, has remained undocumented. The CDC is currently initiating a major shift in prevention strategy across the United States that will provide rapid testing in clinical and non-clinical settings. This study provide data relevant to the training and supervision of test counselors who provide these services to over one million Americans each year.

*Test Clients* will not benefit directly from the study, but may benefit from any improvement the study contributes to test counseling.

### Inclusion of women, children and minorities.

The bathhouse and men’s clinic only offer HIV testing to males, so only men will be approached to participate. The research topic is not relevant to children and no minors will be recruited. Test clients under 18 will be screened out on the survey. Because minority MSM are often at high risk for HIV, we hope to over-sample minority testers. If necessary, we will exclude adequately sampled groups in order to achieve our targeted enrollment goals. Based on our experience with the recruitment of minorities and younger MSM for the PART study (C.5.), we expect that our study will over-sample these populations as indicated in the planned enrollment table.

### Procedures for reporting adverse events.

The rapid testing services provided at the club are not part of the study, but are part of the local health department’s HIV/STD prevention program. Patrons who make use of the testing services do so with some risk, but these are the standard risks of anyone using these services, and the benefits of HIV/STD testing for the individual are known and are not the subject of this study. To address any possible adverse events, the project director will maintain communication with the test site supervisors as well as the managers of the men’s club and the men’s clinic throughout the development and implementation of the study. The project director will report any adverse advents to the Principal Investigator and these will be immediately reported to the UCSF IRB.